



MASSACHUSETTS WATER RESOURCES AUTHORITY

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Frederick A. Laskey
Executive Director

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BOARD OF DIRECTORS' MEETING

To be Held Virtually on January 20, 2021

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

WebEx Meeting Link

<https://mwra.webex.com/mwra/onstage/g.php?MTID=e922a35642fdd33983b5dcf1015b97725>

Meeting ID: 179 957 8333

Password: 0120

Time:

1:00 p.m.

REVISED AGENDA

- I. **APPROVAL OF MINUTES**
- II. **REPORT OF THE CHAIR**
 - A. Annual Meeting of the Board of Directors
- III. **REPORT OF THE EXECUTIVE DIRECTOR**
- IV. **PERSONNEL & COMPENSATION**
 - A. **Approvals**
 1. PCR Amendments – January 2021
 2. Appointment of Director, Internal Audit
 3. Appointment of Manager, Emergency Planning
 4. Manager, Human Resources Operations
- V. **ADMINISTRATION, FINANCE & AUDIT**
 - A. **Information**
 1. Delegated Authority Report – December 2020
 2. FY21 Financial Update and Summary as of December 2020

ADMINISTRATION, FINANCE & AUDIT (Continued)

B. Contract Amendments/Change Orders

1. Task Order Appraisal Services: Colliers International Holdings, Inc., Contract 603TA, Amendment 2 and Foster Appraisal & Consulting Co, Inc., Contract 604TA, Amendment 2

VI. WASTEWATER POLICY & OVERSIGHT

A. Contract Amendments/Change Orders

1. Chelsea Creek Headworks Upgrade: BHD/BEC JV 2015, A Joint Venture, Contract 7161, Change Order 44
2. Nut Island Headworks Odor Control and HVAC System Improvements: Walsh Construction Co. II, LLC, Contract 7548, Change Order 3
3. Gravity Thickener Upgrade, Deer Island Treatment Plant: Walsh Construction Company II, LLC, Contract 7428 Change Order 10
4. Deer Island Treatment Plant Maintenance Coating: Soep Painting Corporation, Contract S583, Change Order 2

VII. WATER POLICY & OVERSIGHT

A. Information

1. Section 22 Rehabilitation Alternatives Analysis and Environmental Permitting, Contract 7155 – Quarterly Update

B. Contract Awards

1. Northern Extra High Pressure Zone Improvements: Vendor TBD, Contract 7404
2. Strategies to Minimize Contaminants of Concern in MWRA's Finished Water: UMass Amherst, Contract W331
3. River Road Rehabilitation in Clinton, E.T. & L. Corp., Contract 7701

VIII. CORRESPONDENCE TO THE BOARD

IX. OTHER BUSINESS

X. EXECUTIVE SESSION

- i. Approval of December 16, 2020 Executive Session Minutes

A. Real Estate

1. Watershed Land Acquisition

EXECUTIVE SESSION (Continued)

A. Real Estate (continued)

1. Extension of Contract Term for Outside Counsel Nelson Mullins Riley & Scarborough LLP

B. Litigation

1. U.S. and Massachusetts Port Authority v. NSTAR Electric Company d/b/a, Eversource, Harbor Electric Energy Co., and Massachusetts Water Resources Authority, USDC No. 16-11470-RGS (Cross-Harbor Cable Litigation), Extension of Contract Term for Outside Counsel: Foley Hoag LLP
2. Authorization to Increase Budget and Extend Term for Outside Counsel in DPU Matters: Foley Hoag LLP
3. CSO Assessment - U.S. v. M.D.C., et al., USDC No. 85-0489-RGS
4. Approval to Pay Additional Contribution In Aid of Construction Cross-Harbor Electric Cable; DPU Final Tariff Addendum Proceeding United States of America and Massachusetts Port Authority v. NSTAR Electric Company d/b/a Eversource Energy, Harbor Electric Energy Company and Massachusetts Water Resources Authority, C.A. NO. 16-11470-RGS
5. Annual Summary of Litigation and Construction Claims

XI. ADJOURNMENT

MASSACHUSETTS WATER RESOURCES AUTHORITY
Meeting of the Board of Directors
December 16, 2020

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law the December 16, 2020 meeting of the Board of Directors of the Massachusetts Water Resources Authority was conducted by remote participation. Vice Chair Carroll presided. Present remotely from the Board, in addition to Vice Chair Carroll, were Ms. Wolowicz and Messrs. Cook, Foti, Pappastergion, Peña, Vitale and Walsh. Secretary Theoharides and Messrs. Cotter and Flanagan were absent. MWRA staff participants included Frederick Laskey, Executive Director, Carolyn Francisco Murphy, General Counsel, David Coppes, Chief Operating Officer, Carolyn Fiore, Deputy Chief Operating Officer, Thomas Durkin, Director of Finance, Michele Gillen, Director of Administration, Kathy Murtagh, Director, Tunnel Redundancy, Bethany Card, Director, Environmental and Regulatory Affairs, Andrea Murphy, Director of Human Resources, Michael Cole, Budget Director, Matthew Horan, Deputy Director, Finance/Treasurer, Paul Whelan, Risk Management Manager, Paula Weadick, Director, MIS, Steven Rhode, Director of Laboratory Services, John Colbert, Chief Engineer, and Assistant Secretaries Ria Convery and Kristin MacDougall. Vandana Rao, EOEEA, Joseph Favaloro, MWRA Advisory Board, Paul F. Sagarino, Jr., Town Administrator, Burlington, and Doug Small, Director of Public Works, Town of Ashland, also participated. The meeting was called to order at 1:00 p.m. All motions were individually made and presented for discussion and deliberation. After any discussion and deliberation, motions for which there were no objections were then consolidated for one omnibus roll call vote.

APPROVAL OF NOVEMBER 18, 2020 MINUTES

A motion was duly made and seconded to approve the minutes of the Board of Directors' meeting of November 18, 2020.

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

REPORT OF THE EXECUTIVE DIRECTOR

Mr. Laskey updated Board Members on MWRA's new on-site COVID-19 testing program for employees and other ongoing efforts to promote staff safety during the pandemic. He then reported on the progress of the Deer Island Fish Pier and Section 19 water main repairs. Mr. Laskey noted that the Authority would pay Brookline's invoice for the cost of its contractor (estimated at \$213,000) to repair the damage caused by the water main leak. Finally, Mr. Laskey noted that future Board of Directors' meeting

discussion topics are planned to include MWRA's long term strategy for Wachusett Watershed Protection and Green Certification for MWRA watersheds.

WATER POLICY AND OVERSIGHT INFORMATION

Metropolitan Tunnel Redundancy Program Update

Staff made a presentation. There were questions and answers. (ref. IV A.1)
(Mr. Foti joined the meeting during the presentation.)

APPROVALS

Admission of the Town of Ashland to the MWRA Water System

A motion was duly made and seconded to approve the Town of Ashland's application to become a member of the MWRA waterworks system to purchase up to 32.8 million gallons annually via an interconnection with the Town of Southborough water system;

Further, to authorize the Executive Director, on behalf of the Authority, to execute a water supply agreement with the Town of Ashland, in the form shown in Attachment E to the staff summary as presented and filed with the records of this meeting, stipulating the terms and conditions of service and assess a twenty-five-year payment schedule for Ashland's Net Entrance Fee of \$388,336.34; and,

Further, to authorize an allocation by the Authority of an additional \$519,400 in interest-free loans to the Town of Ashland under the Local Pipeline Assistance Program.

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

Admission of the Town of Burlington to the MWRA Water System

A motion was duly made and seconded to approve the Town of Burlington's application to become a member of the MWRA waterworks system to purchase up to 6.5 million gallons per day via a connection to the Town of Lexington water system, to be completed in two phases;

Further, to authorize the Executive Director, on behalf of the Authority, to execute a water supply agreement with the Town of Burlington, in the form shown in Attachment E to the staff summary as presented and filed with the records of this meeting, stipulating the terms and conditions of service and assessing a twenty-five year payment schedule for Burlington's Phase 1 Net Entrance Fee of \$4,407,986; and,

Further, to authorize an allocation by the Authority of an additional \$827,400 in interest-free loans to the Town of Burlington under the Local Pipeline Assistance Program.

There was discussion and questions and answers. Doug Small, Ashland Director of Public Works, and Paul F. Sagarino, Jr., Town Administrator, Burlington, each offered remarks.

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

Mr. Laskey noted that MWRA's Wachusett Aqueduct Pumping Station received the Boston Society of Civil Engineers Section (BSCES) 2020 Sustainability in Civil Engineering Award.

PERSONNEL AND COMPENSATION

APPROVALS

Appointment of Program Manager, Energy, Operations Division

A motion was duly made and seconded to approve the appointment of Mr. Nicholas Zechello to the position of Program Manager, Energy (Unit 9, Grade 29) at an annual salary of \$128,958.93, commencing on a date to be determined by the Executive Director.

Staff provided a verbal summary.

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

CONTRACT AMENDMENTS/CHANGE ORDERS

Extension of Employment Contract: Copy and Supply Clerk, Administration Division

A motion was duly made and seconded to approve the extension of an employment contract for Mr. Ward Merithew, Copy and Supply Clerk, Facilities Management Department, for a period of 12 months from January 1, 2021 to December 31, 2021, at the current hourly rate of \$15.76 per hour for an annual compensation not to exceed \$12,300.00.

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

ADMINISTRATION, FINANCE AND AUDIT

INFORMATION

Delegated Authority Report – November 2020

Committee Chair Vitale called for questions or discussion.

Hearing none, Mr. Vitale proceeded to the next agenda item. (ref. VI A.1)

FY21 Financial Update and Summary through November 2020

Staff made provided a verbal summary.

Vice Chair Carroll called for any question or objections. Hearing none, Committee Chair Vitale proceeded to the next agenda item. (ref. VI A.2)

APPROVALS

Transmittal of the FY22 Proposed Capital Improvement Program to the MWRA Advisory Board

A motion was duly made and seconded to approve the transmittal of the FY22 Proposed Capital Improvement Program to the Advisory Board for its 60-day review and comment period.

Staff made a presentation. There was discussion and questions and answers.

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

CONTRACT AWARDS

Insurance Consultant Services - Task Order Contract: Kevin F. Donoghue Insurance Advisor (d/b/a KFDA), Contract F260

A motion was duly made and seconded to approve the recommendation of the Selection Committee to award Contract F-260, Insurance Consultant Services, to Kevin F. Donoghue Insurance Advisor and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$200,000, for a contract term of three years from the Notice to Proceed.

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

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

(Mr. Carrol temporarily left the meeting and appointed Mr. Pappastergion, Board Secretary, as Acting Chair in his absence.)

Enterprise Content Management System Purchase and Implementation: Cadence Solutions Inc., Contract 7438

A motion was duly made and seconded to approve the recommendation of the Consultant Selection Committee to award Contract 7438, Enterprise Content Management System, to Cadence Solutions Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$2,148,635.00, for a contract term of 18 months from the Notice to Proceed.

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

Acting Chair Pappastergion called for any further discussion or objections. Hearing none, the Acting Chair referred the motion to an omnibus roll call vote. (ref. VI C.2)

CONTRACT AMENDMENTS/CHANGE ORDERS

Assignment and Assumption of Contracts S590 and S594, Deer Island Demand Response Services from Direct Energy Business Marketing, LLC to Centrica Business Solutions, Optimize, LLC

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to approve the assignment and assumption of Contract S590 and Contract S594, Deer Island Demand Response Services, from Direct Energy Business Marketing, LLC to Centrica Business Solutions, Optimize, LLC, and to further authorize the Executive Director, on behalf of the Authority, to execute two separate Assignment and Assumption Agreements to effectuate those assignments.

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

Acting Chair Pappastergion called for any further discussion or objections. Hearing none, the Acting Chair referred the motion to an omnibus roll call vote. (ref. VI D.1)

(Vice Chair Carroll returned to the meeting.)

WASTEWATER POLICY AND OVERSIGHT

CONTRACT AWARDS

Wastewater Monitoring for COVID-19, Biobot Analytics, Inc., Contract OP-420

A motion was duly made and seconded to approve the recommendation of the Selection Committee to award Contract OP-420, Wastewater Monitoring for COVID-19, to Biobot Analytics, Inc., and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$206,200.00, for a contract term of one year from the Notice to Proceed.

Staff made a presentation. There was discussion and questions and answers.

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

Ward Street and Columbus Park Headworks Upgrade Design and Engineering Services During Construction, CDM Smith Inc., Contract 7429

A motion was duly made and seconded to approve the recommendation of the Consultant Selection Committee to award Contract 7429, Ward Street and Columbus Park Headworks Upgrade Design and Engineering Services During Construction, 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 \$28,896,530, for a contract term of 3,287 calendar days from the Notice to Proceed.

Staff made a presentation.

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

Instrumentation Services – Metropolitan Boston Safety, Inc., Contract OP-418

A motion was duly made and seconded to approve the award of Contract OP-418, Instrumentation Services – Metropolitan Boston, to the lowest responsive bidder, Safety, Inc., and authorize the Executive Director, on behalf of the Authority, to execute

said contract in the bid amount of \$270,600, for a contract term of 730 calendar days from the Notice to Proceed.

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

CONTRACT AMENDMENTS/CHANGE ORDERS

Agency-Wide Technical Assistance Consulting Services: Kleinfelder Northeast, Inc., Contract 7604, Amendment 2

A motion was duly made and seconded to approve Amendment 2 to Contract 7604, Agency-Wide Technical Assistance Consulting Services, with Kleinfelder Northeast, Inc., extending the contract term by twelve months from December 29, 2020 to December 29, 2021 with no increase in the contract amount.

Staff provided a verbal summary.

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

OMNIBUS ROLL CALL VOTE

Vice Chair Carroll called for an omnibus roll call vote on the motions made and seconded.

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

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

Voted: to approve the minutes of the Board of Directors' meeting of November 18, 2020 as presented and filed with the records of the meeting (ref. I);

Further, voted: to approve the Town of Ashland's application to become a member of the MWRA waterworks system to purchase up to 32.8 million gallons annually via an interconnection with the Town of Southborough water system; Further, voted: to authorize the Executive Director, on behalf of the Authority, to execute a water supply agreement with the Town of Ashland, in the form shown in Attachment E to the staff summary as presented and filed with the records of this meeting, stipulating the terms and conditions of service and assess a twenty-five-year payment schedule for Ashland's Net Entrance Fee of \$388,336.34; and, Further, voted: to authorize an

allocation by the Authority of an additional \$519,400 in interest-free loans to the Town of Ashland under the Local Pipeline Assistance Program (ref. IV B.1);

Further, voted: to approve the Town of Burlington's application to become a member of the MWRA waterworks system to purchase up to 6.5 million gallons per day via a connection to the Town of Lexington water system, to be completed in two phases; Further, voted: to authorize the Executive Director, on behalf of the Authority, to execute a water supply agreement with the Town of Burlington, in the form shown in Attachment E to the staff summary as presented and filed with the records of this meeting, stipulating the terms and conditions of service and assessing a twenty-five year payment schedule for Burlington's Phase 1 Net Entrance Fee of \$4,407,986; and, Further, voted: to authorize an allocation by the Authority of an additional \$827,400 in interest-free loans to the Town of Burlington under the Local Pipeline Assistance Program (ref. IV B.2);

Further, voted: to approve the appointment of Mr. Nicholas Zechello to the position of Program Manager, Energy (Unit 9, Grade 29) at an annual salary of \$128,958.93, commencing on a date to be determined by the Executive Director (ref. V A.1);

Further, voted: to approve the extension of an employment contract for Mr. Ward Merithew, Copy and Supply Clerk, Facilities Management Department, for a period of 12 months from January 1, 2021 to December 31, 2021, at the current hourly rate of \$15.76 per hour for an annual compensation not to exceed \$12,300.00 (ref. V B.1);

Further, voted: to approve the transmittal of the FY22 Proposed Capital Improvement Program to the Advisory Board for its 60-day review and comment period (ref. VI B.1);

Further, voted: to approve the recommendation of the Consultant Selection Committee to award Contract F-260, Insurance Consultant Services, to Kevin F. Donoghue Insurance Advisor and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$200,000, for a contract term of three years from the Notice to Proceed (ref. VI C.1);

Further, voted: to approve the recommendation of the Selection Committee to award Contract 7438, Enterprise Content Management System, to Cadence Solutions Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the amount of \$2,148,635.00 for a contract term of 18 months from the Notice to Proceed (ref. VI C.2);

Further, voted: to authorize the Executive Director, on behalf of the Authority, to approve the assignment and assumption of Contract S590 and Contract S594, Deer Island Demand Response Services, from Direct Energy Business Marketing, LLC to Centrica Business Solutions, Optimize, LLC, and to further authorize the Executive Director, on behalf of the Authority, to execute two separate Assignment and Assumption Agreements to effectuate those assignments (ref. VI D.1);

Further, voted: to approve the recommendation of the Selection Committee to award Contract OP-420, Wastewater Monitoring for COVID-19, to Biobot Analytics, Inc., and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$206,200.00, for a contract term of one year from the Notice to Proceed (ref. VII A.1);

Further, voted: to approve the recommendation of the Consultant Selection Committee to award Contract 7429, Ward Street and Columbus Park Headworks Upgrade Design and Engineering Services During Construction, 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 \$28,896,530, for a contract term of 3,287 calendar days from the Notice to Proceed (ref. VII A.2);

Further, voted: to approve the award of Contract OP-418, Instrumentation Services – Metropolitan Boston, to the lowest responsive bidder, Safety, Inc., and authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$270,600, for a contract term of 730 calendar days from the Notice to Proceed (ref. VII A.3); and,

Further, voted: to authorize the Executive Director, on behalf of the Authority, to approve Amendment 2 to Contract 7604, Agency-Wide Technical Assistance Consulting Services, with Kleinfelder Northeast, Inc., extending the contract term by twelve months from December 29, 2020 to December 29, 2021 with no increase in the contract amount (ref. VII B.1).

(Mr. Foti temporarily left the meeting after the Omnibus Roll Call Vote.)

EXECUTIVE SESSION

Vice Chair Carroll moved that Board enter Executive Session to discuss litigation and real estate since discussion in Open Session may have a detrimental effect upon the negotiating and litigating position of the Authority, and then return to Open Session solely for the purpose of adjournment.

MWRA General Counsel Francisco Murphy announced that under the Open Meeting Law, at the start of an Executive Session, members who are participating remotely must state that no other person is present or able to hear the discussion at their remote locations, and that a response of “yes” to the Roll Call to enter Executive Session when their names are called would be deemed their statements that no other person is present or able to hear the Executive Session discussion at their remote locations.

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Carroll		
Cook		
Foti		

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

Voted: to enter Executive Session to discuss litigation and real estate and to return to Open Session solely for the purpose of adjournment.

*** EXECUTIVE SESSION ***

ADJOURNMENT

The meeting returned to open session and adjourned at 3:22 p.m.

Approved: January 20, 2021

Attest:

Andrew M. Pappastergion, Secretary

STAFF SUMMARY

TO: Board of Directors

FROM: Kathleen A. Theoharides, Chairperson *K. Theoharides*

DATE: January 20, 2021

SUBJECT: Annual Meeting: Election and Appointment of MWRA Officers, Retirement Board Member and Committee Assignments

RECOMMENDATION:

That the Board of Directors (1) designate this January 20, 2021 meeting as the Annual Meeting which, as provided in the Authority's by-laws, will be deemed a special meeting of the Board for the purpose of election of officers; (2) elect a Vice-Chairman of the Board; and (3) appoint a Secretary of the Board, an MWRA Treasurer, an MWRA member of the Retirement Board, and such Assistant Secretaries and Assistant Treasurers of the Board as the Board deems appropriate. New Committee Chairs may be appointed approximately every two years

To ratify the following appointments of Board members to standing Committees:

Administration, Finance and Audit	Wastewater Policy and Oversight	Water Policy and Oversight	Personnel and Compensation
Chair: H. Vitale Vice Chair: J. Foti	Chair: P. Flanagan Vice Chair: J. Walsh	Chair: B. Pena Vice Chair: C. Cook	Chair: J. Wolowicz Vice Chair: K. Cotter
C. Cook J. Carroll K. Cotter A. Pappastergion B. Pena J. Walsh	C. Cook J. Carroll J. Foti A. Pappastergion B. Pena H. Vitale	J. Carroll J. Foti A. Pappastergion H. Vitale J. Walsh J. Wolowicz	J. Carroll P. Flanagan J. Foti A. Pappastergion H. Vitale J. Walsh

DISCUSSION:

Article IV, Section 1, of the by-laws, which specifies the officers to be elected, provides that:

“The Board of Directors shall annually elect one of its members as Vice-Chairman and shall annually appoint a Secretary and a Treasurer, who need not be members of the Board of Directors.”

The by-laws also provide that:

“Upon the recommendation of the Executive Director, the Board of Directors may also elect one or more Assistant Secretaries and Assistant Treasurers.”

Retirement Board Appointments

The provisions of G.L. c. 32 § 20 (4 7/8 D) regarding the MWRA Retirement Board, provide that:

“ . . . the secretary of the Authority shall be a member *ex officio*. . . .”

That same section of that statute further provides that a second member of the Retirement Board “ . . . shall be appointed by the board of directors of the authority for a term of 3 years . . .” Thomas J. Durkin was appointed as a member of the Retirement Board for a three-year term beginning on July 1, 2018 and will be re-appointed on July 1, 2021.

Nomination of Officers

Currently, the following individuals serve as the MWRA’s officers:

Vice-Chairman:	John J. Carroll
Secretary:	Andrew M. Pappastergion
Treasurer:	Matthew Horan
Retirement Board Member:	Thomas J. Durkin
Assistant Secretaries:	Kristin MacDougall Rose Marie Convery
Assistant Treasurer:	Robert Belkin Michael Cole

The Chairman wishes to request that a motion be made to nominate the following as officers, inclusive of appointments of certain MWRA staff as Treasurer, Retirement Board Member, Assistant Secretaries and Assistant Treasurers, as follows:

Vice-Chairman:	John J. Carroll
Secretary:	Andrew M. Pappastergion
Treasurer:	Matthew Horan
Retirement Board Member:	Thomas J. Durkin
Assistant Secretaries:	Kristin MacDougall Rose Marie Convery
Assistant Treasurers:	Robert Belkin Michael Cole

There are no special procedures for election of officers, except as governed by Robert’s Rules of Order. Thus, any Board member may make a nomination to elect an officer, and the nomination will carry upon a majority vote of the quorum.

STAFF SUMMARY


TO: Board of Director
FROM: Frederick A Laskey, Executive Director
DATE: January 20, 2021
SUBJECT: PCR Amendments - January 2021



COMMITTEE: Personnel and Compensation

 INFORMATION
 X VOTE

Andrea Murphy, Director of Human Resources
Preparer/Title


Michele S. Gillen
Director, Administration

RECOMMENDATION:

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

DISCUSSION:

The Position Control Register lists all positions of the Authority, filled and vacant. It is updated as changes occur and it is published at the end of each month. Any changes to positions during the year are proposed as amendments to the PCR. All amendments to the PCR must be approved by the Personnel Committee of the Board of Directors. All amendments resulting in an upgrade of a position by more than one grade level, and/or an amendment which creates a position increasing annual cost by \$10,000 or more, must be approved by the Board of Directors after review by the Personnel and Compensation Committee.

January PCR Amendments

There are three PCR Amendments this month.

Proposed Organizational Changes to the Human Resources Department:

Staff have evaluated MWRA’s current and future Human Resources Department staffing needs in light of the pandemic, MWRA’s ongoing efforts on diversity, equity and inclusion, and anticipated workplace changes. As a result of this evaluation, staff are recommending the creation of a new position, Manager, Human Resources Operations as well as the re-assignment of certain functions.

Organizational Changes:

1. Title change to one filled position in the Administration Division, Human Resources department from Manager, Labor Relations and Workers’ Compensation Non-Union Grade 14 to Manager, Labor Relations Non-Union Grade 14 to reflect responsibilities.
2. Creation of one new position in the Administration Division, Human Resources department of Manager, Human Resources Operations Non-Union Grade 14 to manage workers’ compensation as well as plan and implement major initiatives, projects, and programs.

3. Title change to one vacant position in the Administration Division, MIS department from Systems Analyst/Programmer II Unit 6 Grade 10 to .Net Developer/Programmer II Unit 6 Grade 10 to reflect terminology used in the information technology field.

BUDGET/FISCAL IMPACT:

The annualized budget impact of these PCR amendments will be a maximum cost of \$122,500. Staff will ensure that the cost increase associated with these PCR amendments will not result in spending over the approved FY21 Wages and Salaries budget.

ATTACHMENTS:

New Job Descriptions
Old Job Descriptions

MASSACHUSETTS WATER RESOURCES AUTHORITY
 POSITION CONTROL REGISTER AMENDMENTS
 FISCAL YEAR 2021

PCR AMENDMENTS REQUIRING BOARD APPROVAL - January 20, 2021																	
Number	Current PCR #	V/F	Type	Current Title	UN	GR	Amended Title	UN	GR	Current/Budget Salary	Estimated New Salary		Estimated Annual		Reason		
													\$ Impact		For Amendment		
B25	Human Resources Administration Division 8520002	F	T	Manager, Labor Relations and Workers' Compensation	NU	14	Manager, Labor Relations	NU	14	\$123,098	\$123,098	-	\$123,098	\$0	-	\$0	Title change to reflect responsibilities.
B26	Human Resources Administration Division TBD	N/A	N/A	N/A New position	N/A	N/A	Manager, Human Resources Operations	NU	14	\$0	\$122,500	-	\$122,500	\$122,500	-	\$122,500	New position to manage workers' compensation as well as plan and implement major initiatives, projects, and programs.
B27	MIS Department Administration Division 8610011	V	T	Systems Analyst/Programmer II	U6	10	.Net Developer/Programmer II	U6	10	\$96,898	\$63,324	-	\$96,898	-\$33,574	-	\$0	Title change to reflect terminology used in information technology field.
BOARD TOTAL=					3		TOTAL:					\$88,926		-		\$122,500	

**MWRA
POSITION DESCRIPTION**



POSITION: Manager, Labor Relations and Workers' Compensation

DIVISION: Administration and Finance

DEPARTMENT: Human Resources/Labor Relations Unit

BASIC PURPOSE:

Manages the Authority's grievance procedures and serves as daily contact with MWRA's employee bargaining units; communicates pertinent information to Division Directors, managers and supervisors. Acts as liaison with union officials. Oversees the workers' compensation program including supervision of staff, management of the third party administrator and budget development and tracking.

SUPERVISION RECEIVED:

Works under the general supervision of the Deputy Director of Human Resources.

SUPERVISION EXERCISED:

Supervises the Assistant Manager, Workers' Compensation and Labor Relations.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Serves as chief spokesperson for successor collective bargaining negotiations.
- Conduct mid-term and impact bargaining as necessary.
- Administrates the MWRA grievance process including providing guidance and direction to supervisors and managers in Steps 1 and 2 of the grievance procedure and overseeing the grievance procedure at Step 3.
- Conducts workplace investigations relative to claims of harassment, misconduct, workplace violence and discrimination and prepares appropriate reports and recommendations for action.
- Gathers pertinent data and analyzes impact of collective bargaining proposals and tentative contractual agreements such as authority costs, wage comparisons, budget data and position titles.

- Provides support to legal counsel in arbitration cases and other external matters.
- Provides direction and advice to managers and supervisors in disciplinary matters including serving as hearing officer in pre-disciplinary hearings, preparing and reviewing hearing reports and making appropriate recommendations for proposed disciplinary actions.
- Manages the workers' compensation program to include supervision of staff and third party administrators; budget development and monitoring and reviewing settlement proposals for appropriate recommendations. Develops and implements procedures to improve program performance.
- Advises managers and supervisors on labor relations matters, including contract interpretation, employee performance issues and disciplinary matters.
- Implements management training sessions for management and supervisory staff regarding managing in a unionized environment, disciplinary procedures, grievance administration and interpretation of negotiated union contracts.
- Coordinates human resources initiatives resulting from collective bargaining agreements and management directives.
- Assists Deputy Director of Human Resources in implementation of special projects.

SECONDARY DUTIES:

Serves as member of the Labor Management Committees and representative on other relevant committees impacting labor relations.

Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year college program in labor relations, human resources, public administration or related field; and
- (B) A general understanding of labor relations and personnel administration, grievance resolution, discipline procedures and workers' compensation as acquired through seven (7) to nine (9) years experience, some of which is preferable in the public sector, or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Demonstrated analytical and writing skills.
- (B) Excellent interpersonal, communication and negotiation skills.
- (C) Demonstrated supervisory skills.

SPECIAL REQUIREMENTS:

Valid Class D Massachusetts Motor Vehicle Operator's License or equivalent.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

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

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

May 2010

**MWRA
POSITION DESCRIPTION**



POSITION: Manager, Labor Relations

DIVISION: Administration

DEPARTMENT: Human Resources

BASIC PURPOSE:

Manages the Authority's grievance procedures and serves as daily contact with MWRA's employee bargaining units; communicates pertinent information to Division Directors, managers and supervisors. Acts as liaison with union officials. Manages employee drug testing program and debit card for employee clothing allowances.

SUPERVISION RECEIVED:

Works under the general supervision of the Director, Human Resources.

SUPERVISION EXERCISED:

Supervises the Assistant Manager, Labor Relations and functionally supervises the Assistant Manager, Workers' Compensation and Labor Relations on labor relations responsibilities.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Serves as chief spokesperson for successor collective bargaining negotiations.
- Conduct mid-term and impact bargaining as necessary.
- Administrates the MWRA grievance process including providing guidance and direction to supervisors and managers in Steps 1 and 2 of the grievance procedure and overseeing the grievance procedure at Step 3.
- Conducts workplace investigations relative to claims of harassment, misconduct, workplace violence and discrimination and prepares appropriate reports and recommendations for action.
- Gathers pertinent data and analyzes impact of collective bargaining proposals and tentative contractual agreements such as authority costs, wage comparisons, budget data and position titles.
- Provides support to legal counsel in arbitration cases and other external matters.

- Provides direction and advice to managers and supervisors in disciplinary matters including serving as hearing officer in pre-disciplinary hearings, preparing and reviewing hearing reports and making appropriate recommendations for proposed disciplinary actions.
- Manages employee drug testing program and debit card program for employee clothing allowance.
- Advises managers and supervisors on labor relations matters, including contract interpretation, employee performance issues and disciplinary matters.
- Implements management training sessions for management and supervisory staff regarding managing in a unionized environment, disciplinary procedures, grievance administration and interpretation of negotiated union contracts.
- Coordinates human resources initiatives resulting from collective bargaining agreements and management directives.
- Assists Director, Human Resources in implementation of special projects.

SECONDARY DUTIES:

Serves as member of the Labor Management Committees and representative on other relevant committees impacting labor relations.

Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in labor relations, human resources, public administration or related field; and
- (B) A general understanding of labor relations and personnel administration, grievance resolution, and discipline procedures as acquired through seven (7) to nine (9) years experience, some of which is preferable in the public sector including three (3) years supervisory experience, or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Demonstrated analytical and writing skills.
- (B) Excellent interpersonal, communication and negotiation skills.
- (C) Demonstrated supervisory skills.

SPECIAL REQUIREMENTS:

Valid Class D Massachusetts Motor Vehicle Operator's License.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

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

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

January 2021

**MWRA
POSITION DESCRIPTION**

POSITION: Manager, Human Resources Operations

DIVISION: Administration

DEPARTMENT: Human Resources



BASIC PURPOSE:

Manages planning and implementation of major Human Resources' initiatives, projects and programs including those related to new statutes and regulations, policy and procedure initiatives, and operational efficiencies. Manages the workers' compensation program and works in conjunction with the Manager of Occupational Health & Safety to ensure the health and safety of employees.

SUPERVISION RECEIVED:

Works under the general supervision of the Director of Human Resources.

SUPERVISION EXERCISED:

Supervises the Assistant Manager, Workers' Compensation and Labor Relations on workers' compensation issues and may supervise other staff as required for projects or initiatives.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Under the direction of the Director, Human Resources, develops and implements HR goals, objectives and long-term strategies.
- Manages the workers' compensation program.
- Manages Human Resources' response to cultural, health and political climate changes.
- Works with Law Division and Human Resources staff to interpret new federal and state statutes, rules, regulations and guidance.
- Manages the communication and implementation of the new rules, regulations and guidance with HR staff as assigned.
- Identifies the need for improved efficiency in HR systems and processes in conjunction with HR managers.
- Develops HR requirements for new systems and processes with HR managers.

- Manages the implementation of new systems and processes.
- Oversees the department budget, contracts, and financial transactions.
- Assists in labor relations, employment, and benefits matters as needed.
- Assists with the development and writing of Staff Summaries as needed.
- Assists Law with preparation for arbitration cases and unemployment hearings as needed.

SECONDARY DUTIES:

Performs other duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in public/business administration or a related field; and
- (B) Understanding of labor relations, workers' compensation, personnel administration and grievance administration as acquired through seven (7) to nine (9) years of related experience, a minimum of which 3 years are supervisory; or
- (C) Any equivalent combination of education or experience.

SPECIAL REQUIREMENTS:

Ability to provide evening or weekend coverage as needed.

A valid Massachusetts Class D Motor Vehicle Operators' License.

NECESARY KNOWLEDGE, SKILLS AND ABILITIES:

- (A) Demonstrated ability to work effectively as part of a project team and to function independently with minimal supervision.
- (B) Knowledge of state and federal laws relating to HR functions.
- (C) Familiarity with computer software, such as MS Office Suite.
- (D) Excellent interpersonal, managerial, oral and written communication skills.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

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

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

January 2021

**MWRA
POSITION DESCRIPTION**



POSITION: Systems Analyst/Programmer II
DIVISION: Administration
DEPARTMENT: Management Information System (MIS)

BASIC PURPOSE:

This position is responsible for analyzing, designing, developing, testing, implementing and maintaining software applications. This includes Graphic User Interfaces, complex business logic and data access layer code, specifically for the analysis, development, and deployment of reports, dashboards, and queries from multiple complex data sources to provide analytical reporting solutions to the business community. This position is also responsible for post-implementation support including incident, performance, capacity, continuity, and problem management activities.

SUPERVISION RECEIVED:

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

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

Application Development

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

- Develops and maintains technical documentation for applications as follows:
 - Design Model - Description of the system design. Comprised of a variety of work products, potentially including a deployment model, an object model, a physical data model (PDM), a security threat model, a system overview document, and a user interface model.
 - Source Code – The program code for the system.
 - Regression Test Suite - Collection of test cases, and the code to run them in the appropriate order. The regression test suite will include a wide range of tests, including acceptance tests, unit tests, system tests, etc.
 - Installation Scripts - Code for installing the system into pre- and post-production environments.
 - Release Notes - Summarize the things to know pertaining to the current release of the system.
 - Operations Procedure - Procedures and supporting information to operate the system once it is in production including continuity and disaster recovery procedures.
 - Support Reference- Used by support staff, such as trouble shooting guides, contact information for the development team, which enables them to support end users

- Develops a release package for all systems changes when transitioning to the production environments.

Post-Implementation Support

- Supports the resolution of incidents and problems with software application functionality.
- Researches and corrects problems with the system applications code during production processing in an efficient and timely manner ensuring system recovery and integrity.
- Is available to execute and carry out IT Continuity and Disaster Recovery Plans.

Mentoring & Professionalism

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

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in management science, engineering management, computer science or related field; and
- (B) Three (3) years to five (5) years experience supporting enterprise-wide applications with an N-tier architecture; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of programming languages, troubleshooting techniques, database structures, triggers and procedures, application server platforms, middleware and operating systems.
- (B) Expertise in the following is highly desirable: MS, .Net, J2EE, ORACLE, SQL Server, Stored Procedures, Tomcat, Eclipse IDE, and SAP Business Intelligence Administration.
- (C) Ability to write complex SQL statements including multi-table joins, outer joins, pivot result sets, and hierarchical queries.
- (C) Analytical and interpersonal skills.
- (D) Written and oral communication skills.

SPECIAL REQUIREMENTS:

- Information Technology Infrastructure Library (ITIL) Foundation Certification is required or the ability to obtain within 12 months.
- Formal training or certification in programming methodologies and System Development Life Cycle methodologies is required or 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.

February 2020

**MWRA
POSITION DESCRIPTION**



POSITION: .Net Developer / Programmer II

DIVISION: Administration

DEPARTMENT: Management Information System (MIS)

BASIC PURPOSE:

This position is responsible for analyzing, designing, developing, testing, implementing and maintaining software applications. This includes Graphic User Interfaces, complex business logic and data access layer code, specifically for the analysis, development, and deployment of reports, dashboards, and queries from multiple complex data sources to provide analytical reporting solutions to the business community. This position is also responsible for post-implementation support including incident, performance, capacity, continuity, and problem management activities.

SUPERVISION RECEIVED:

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

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

Application Development

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

- Develops and maintains technical documentation for applications as follows:
 - Design Model - Description of the system design. Comprised of a variety of work products, potentially including a deployment model, an object model, a physical data model (PDM), a security threat model, a system overview document, and a user interface model.
 - Source Code – The program code for the system.
 - Regression Test Suite - Collection of test cases, and the code to run them in the appropriate order. The regression test suite will include a wide range of tests, including acceptance tests, unit tests, system tests, etc.
 - Installation Scripts - Code for installing the system into pre- and post-production environments.
 - Release Notes - Summarize the things to know pertaining to the current release of the system.
 - Operations Procedure - Procedures and supporting information to operate the system once it is in production including continuity and disaster recovery procedures.
 - Support Reference- Used by support staff, such as trouble shooting guides, contact information for the development team, which enables them to support end users

- Develops a release package for all systems changes when transitioning to the production environments.

Post-Implementation Support

- Supports the resolution of incidents and problems with software application functionality.
- Researches and corrects problems with the system applications code during production processing in an efficient and timely manner ensuring system recovery and integrity.
- Is available to execute and carry out IT Continuity and Disaster Recovery Plans.

Mentoring & Professionalism

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

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in management science, engineering management, computer science or related field; and
- (B) Three (3) years to five (5) years experience supporting enterprise-wide applications with an N-tier architecture; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of programming languages, troubleshooting techniques, database structures, triggers and procedures, application server platforms, middleware and operating systems.
- (B) Expertise in the following is highly desirable: MS, .Net, .Net Core 3.1, Javascript, J2EE, ORACLE, SQL Server, Stored Procedures, Tomcat, Eclipse IDE.
- (C) Ability to write complex SQL statements including multi-table joins, outer joins, pivot result sets, and hierarchical queries.
- (C) Analytical and interpersonal skills.
- (D) Written and oral communication skills.

SPECIAL REQUIREMENTS:

- Information Technology Infrastructure Library (ITIL) Foundation Certification is required or the ability to obtain within 12 months.
- Formal training or certification in programming methodologies and System Development Life Cycle methodologies is required or 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.

January 2021

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: January 20, 2021
SUBJECT: Appointment of Director, Internal Audit



COMMITTEE: Personnel and Compensation

 X VOTE
 INFORMATION

Andrea Murphy, Director, Human Resources
Preparer/Title

RECOMMENDATION:

To approve the appointment of Claude Cormier to the position of Director, Internal Audit (Non-Union, Grade 16) at an annual salary of \$141,000 commencing on a date to be determined by the Executive Director.

DISCUSSION:

The position of Director of Internal Audit will become vacant upon the retirement of the incumbent in February. The Internal Audit Department is responsible for directing independent reviews of MWRA's operations and capital programs to provide reasonable assurance that internal management controls are functioning as intended, and that only allowable and allocable costs are paid to consultants, contractors and vendors. Performance audits are also conducted to analyze and evaluate MWRA programs and activities to determine if they are being carried out effectively and efficiently. In addition, compliance audits are performed that focus on adherence to MWRA policies and procedures, contractual requirements, rules and regulations and management advisory services. The Director of Internal Audit reports to the Executive Director and supervises a staff of six.

Selection Process

MWRA posted the position of Director, Internal Audit both internally and externally. A total of eight candidates applied for the position, including one internal applicant. Four external candidates and one internal candidate were determined to be qualified and were referred for an interview. The Director of Finance, the Special Assistant for Affirmative Action and the Director of Internal Audit participated in the interviews. Upon completion of the interviews, Claude Cormier was determined to be the best candidate based on his experience, knowledge, skills and education.

During Mr. Cormier's career in internal audit, he has served in positions as the Senior Director and Vice President and Director of internal audit departments for 16 years with large corporations, as well as a Senior Director, Finance for two of those years.

He has led audit teams, performed risk assessments and has managed Sarbanes-Oxley compliance programs. He has provided executive leadership for procurement and insurance departments, and managed procurement functions, including creating policies and negotiating contracts. He regularly reported to boards of directors and senior management. Mr. Cormier identified and saved monies through operational audits and provided expertise over internal controls, including information technology controls. He has led and managed financial planning and analysis processes, performed due diligence work and has optimized numerous business processes and procedures.

Prior to that, he worked for the public accounting firms of Coopers & Lybrand and Arthur Anderson as an Accountant.

Mr. Cormier has a Bachelor of Science Degree in Business Administration – Accounting from Merrimack College and a Master of Business Administration from Rochester Institute of Technology. Mr. Cormier is also a Certified Public Accountant.

BUDGET/FISCAL IMPACT:

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

ATTACHMENTS:

Resume of Claude Cormier
Position Description
Internal Audit Department Organization Chart

CLAUDE CORMIER, CPA, MBA

Senior leader with an Executive MBA and extensive business experience in various disciplines to drive strategic decisions and results. Unique combination of technical accounting, strategic thinking, analytical insights, and persuasive leadership delivering actionable change to influence desirable results. Skilled at challenging status quo and identifying continuous improvement opportunities from evolving business models and strategic pivots, while maintaining an obsession to delight the customer at all times. Driven to ask "WHY?", maintains focus on the purpose of why things are done and eliminates waste (time and resources). Recognized ability to hold self-accountable, takes ownership to get things, and presents information to stakeholders in a concise and actionable manner.

AREAS of EXPERTISE

- Risk Management
- GAAP/COSO/COBIT
- FP&A (Budget/Forecast)
- SCRUM Master / JIRA
- SaaS
- SAP
- Project Management
- Process Improvement
- Financial Reporting/SEC
- Lean Six Sigma
- Salesforce.com/Xactly
- Oracle
- Internal controls/SOX compliance
- Financial Statements/Controllership
- Procurement
- Insurance management
- Workday
- Great Plains

PROFESSIONAL EXPERIENCE

CIRCOR INTERNATIONAL

SENIOR DIRECTOR, INTERNAL AUDIT

Feb 2020 – Sep 2020

- Led Internal Audit team and consultants; drove Internal Audit plan.
- Managed SOX compliance program. Performed risk assessment, IT control and business control testing and evaluation.
- Co-managed RFP process to select and hire new external audit firm- anticipated savings over \$2M annually.
- Optimized and configured 2020Control, (cloud based SOX platform) - document risk assessment, key controls (procedures, evidence, flowcharts), internal control testing, dashboard reporting and monitor control deficiency status.
- Completed risk assessment; led 30% reduction in key controls (key control rationalization project).
- Supported SEC reporting requirements due to employee turnover.
- Supported technical accounting processes related to discontinued operations resulting in sale and closure of businesses.
- Recommended and implemented financial closing process checklist; identified ways to streamline and shorten the financial close process by 2-3 days.
- Authored account reconciliation policy - initiated remediation plan for material weaknesses.

MONOTYPE

VICE PRESIDENT, INTERNAL AUDIT AND GLOBAL PROCUREMENT

2018 – Nov 2019

- Provided executive leadership for internal audit, risk management, procurement and insurance departments.
- Partnered with finance and led adoption of accounting standards (ASC 606 Revenue Recognition and ASC 842 Leases) and provided valuable consultation on the design of transaction process and controls.
- Managed and led new procurement function - created policies, negotiated contracts and drove \$2M in annual cost savings.
- Co-managed external audit RFP process - identified \$1M annual cost savings through leveraging Internal Audit work, data analytics and use of technology.
- Partnered with finance to restructure credit facility with lenders. Identified and implemented treasury process to generate interest income (\$200K through over-night sweeps).
- Redesigned commission process - realigned sales compensation and commission plans, streamlined calculation, led Xactly implementation (automated sales commission system integrated with Salesforce.com and SAP).
- Deployed and managed principles of SCRUM methodology and project management. Successful projects include Payroll process (Workday implementation), accounts payable (virtual credit card payment, \$250K income through rebates and payment incentives and sales order process (Sales Order Cloud 2.0).
- Led license management user optimization through Cleanshelf (SaaS management tool) deployment. - \$100K annual cost savings.
- Initiated unified enterprise contract negotiation with Salesforce.com - \$300K annual cost savings.

MONOTYPE

SENIOR DIRECTOR, INTERNAL AUDIT

2016 – 2017

- Managed and led SOX compliance program.
- Provided expertise and support over financial statements, financial reporting, and internal controls.
- Key member of the risk management committee, drove regulatory (GDPR) compliance, SEC reporting (risk factor disclosure and reporting compliance), chaired disclosure controls committee and drove the Internal Audit plan.

- Built cross functional relationships and served as a valued advisor to Human Resources, Legal, IT, Corporate Strategy and Finance teams through several projects and audits. Identified and drove numerous process improvement opportunities utilizing Six Sigma methodology.
- Monitored business risk - drove processes designed to mitigate and reduce risk of fraud and ensuring compliance with employment laws and regulations.
- Identified and saved thousands of dollars through operational audits – technical revenue accounting, revenue operations, travel and expense reimbursement, royalty operations, financial statement close and consolidation, accounts payable, contract review, payroll and equity accounting and human resource operations, digital commerce, compensation and commission plans, ITGC, cybersecurity, segregation of duties, and policy compliance investigations. Principles of Lean Six Sigma served to drive out waste (time and resources) while improving business processes.
- Managed global insurance program – end to end.

MONOTYPE

SENIOR DIRECTOR, FINANCE

2016 - 2017

- Responsible for Americas and APAC business oversight, led financial operations in a Divisional Controller/CFO capacity. Prepared proforma financial statements, managed financial close process, prepared business performance reviews, total addressable market analysis, strategic analysis, and designed and implemented management reports (Salesforce and Microsoft Power BI).
- Led financial processes relative to newly acquired SAAS business – financial statement analysis, reporting, developing new business metrics, KPI's including MRR and ARR.
- Led and managed financial planning and analysis processes (Americas and APAC) - led budget process, managed sales and spending forecast, prepared financial statements, created financial models, and performed sensitivity analysis. Managed investment and spending within budgetary constraints.
- Performed due diligence (M&A activity), supported and managed integration of acquired tech company and UGC SaaS company. Supported and assisted with various market research studies and projects.
- Provided insights and analysis on business trends, customer retention, new wins, new logos, sales pipeline and monitored expenses related to sales commission, marketing campaigns and S&M operating expenses.
- Identified under-reported royalty revenue (inbound) from large auto manufacturer. Supported and monitored recovery of \$500K over a 3 year reporting window.

MONOTYPE

DIRECTOR, INTERNAL AUDIT

2009 – 2016

- Managed and led SOX compliance program.
- Provided expertise and support over financial statements, financial reporting, and internal controls.
- Key member of the risk management committee, drove regulatory (FCPA, PCI) compliance, SEC reporting (risk factor disclosure and reporting compliance), chaired disclosure controls committee and drove the Internal Audit plan.
- Drove business risk mitigation processes - designed to mitigate and reduce risk of fraud and ensure compliance with employment laws and regulations.
- Managed and led successful ERP implementation. Co-authored RFP, drove vendor selection process and led contract negotiation for new financial system. Key member of implementation team, including steering committee chair and project management oversight.
- Identified and saved thousands of dollars through operational audits – technical revenue accounting, revenue operations, travel and expense reimbursement, royalty operations, financial statement close and consolidation, accounts payable, contract review, payroll and equity accounting and human resource operations, digital commerce, compensation and commission plans, ITGC, cybersecurity, segregation of duties, and policy compliance investigations.
- Managed risk management program (global insurance) – end to end.

MERCURY SYSTEMS

DIRECTOR, INTERNAL AUDIT

2005 – 2009

- Led SOX compliance program – internal audit team, co-sourced with consultants.
- Managed enterprise risk assessment process, optimized design and effectiveness of key controls resulting in 25% reduction key controls, drove \$600K annual SOX compliance cost savings.
- Optimized IT controls. Identified and recommended several IT controls – segregation of duties, logical access, security access, network access, password change control and change management control documentation.
- Member of NetSuite implementation for German subsidiary – subsequently divested.
- Optimized numerous business process and procedures – revenue, inventory control (cycle count procedures), financial close procedures, treasury, tax, equity, human resource operations, order management, accounts payable, payroll, and sales commission, COBRA and benefits administration.
- Identified and recovered \$450K of medical premium over payments.

PUBLIC ACCOUNTING EXPERIENCE

COOPERS & LYBRAND – Boston, MA

Financial Services, Manufacturing, Retail
(*Fidelity, Shearson Lehman Bros, Shields Healthcare, New England Shrimp Co., Lids.*)

ARTHUR ANDERSEN – Boston, MA

Manufacturing, Technology, Software, Biotech, Retail industries
(*Clare, Anika Therapeutics, Avici Systems, Medica, Nevada Bob's*)

EDUCATION

Master of Business Administration (EMBA) – Rochester Institute of Technology, Rochester, NY [GPA 3.86]

Bachelor of Science, Business Administration – Accounting – Merrimack College, North Andover, MA

PROFESSIONAL CERTIFICATION and AFFILIATIONS

Certified Public Accountant (Massachusetts License #21103)

Member – Institute of Internal Audit (IIA)

Lean Six Sigma – Villanova University

Certified SCRUM Master – Scrum Alliance

SYSTEMS AND APPLICATIONS

- | | | | | |
|--------------------|-----------|----------------|------------|------------------|
| • SAP | • Oracle | • Great Plains | • Workday | • Salesforce.com |
| • Microsoft Office | • Visio | • Jira | • Concur | • Exactly |
| • Power BI | • Tableau | • ACL | • Hyperion | • SAS |
-
-

**MWRA
POSITION DESCRIPTION**

POSITION: Director, Internal Audit

DIVISION: Executive

DEPARTMENT: Internal Audit

BASIC PURPOSE:

Directs independent reviews of the Authority's operations and capital programs and supervises the audit of related management systems and outside contracts which encompass these operations and programs, as defined in Section 7(h) of the Authority's enabling legislation. Provides written reports to the Board of Directors and the senior management team.

SUPERVISION RECEIVED:

Reports to the Executive Director.

SUPERVISION EXERCISED:

Supervises the Department's staff of professionals and administrative staff and oversees all audit activities conducted within the Authority's operating budget and capital program.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Develops an annual audit plan, which includes the specific operating and capital studies that will be conducted.
- Develops audit policies and procedures.
- Directs, recruits, trains and evaluates Department staff.
- Manages the development and implementation of comprehensive and effective audit programs.
- Directs each audit.
- Ensures proper reporting of audit findings, reviews management's response to the audit observations and recommendations and conducts follow-up to obtain management's corrective action.
- Evaluates the Authority's policies and procedures.
- Counsels all levels of management on appropriate management systems and control matters and responds appropriately to requests for advisory services.

- Services as primary liaison to outside investigative and audit agencies involved with the Authority's activities.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four- (4) year college program in business or public administration, or a related field. Advanced degree preferred; and
- (B) Ten (10) to twelve (12) years of experience in auditing, program evaluation, and management analysis, of which at least five (5) years must be in a supervisory or managerial capacity; and
- (C) Certification in one of the following categories is required: Certified Public Accountant (CPA), Certified Internal Auditor (CIA), or Certified Information Systems Auditor (CISA); or
- (D) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) General knowledge of construction, engineering and procurement practices preferred.
- (B) Excellent verbal and written communication skills and interpersonal skills are required.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License.

CPA, CIA or CISA designation based on a written examination.

TOOLS AND EQUIPMENT USED:

Office machines as normally associated with the use of multiple-line 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 and talk or hear, to use hands to feel, finger, handle or operate objects, including office equipment or controls and reach with hands and arms. The employee is frequently required to stand and walk; an occasionally climb or balance; stoop, kneel, crouch, crawl, or smell.

The employee must frequently lift and/or move up to 10 pounds, occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, peripheral vision, distance vision, depth perception and the ability to adjust focus.

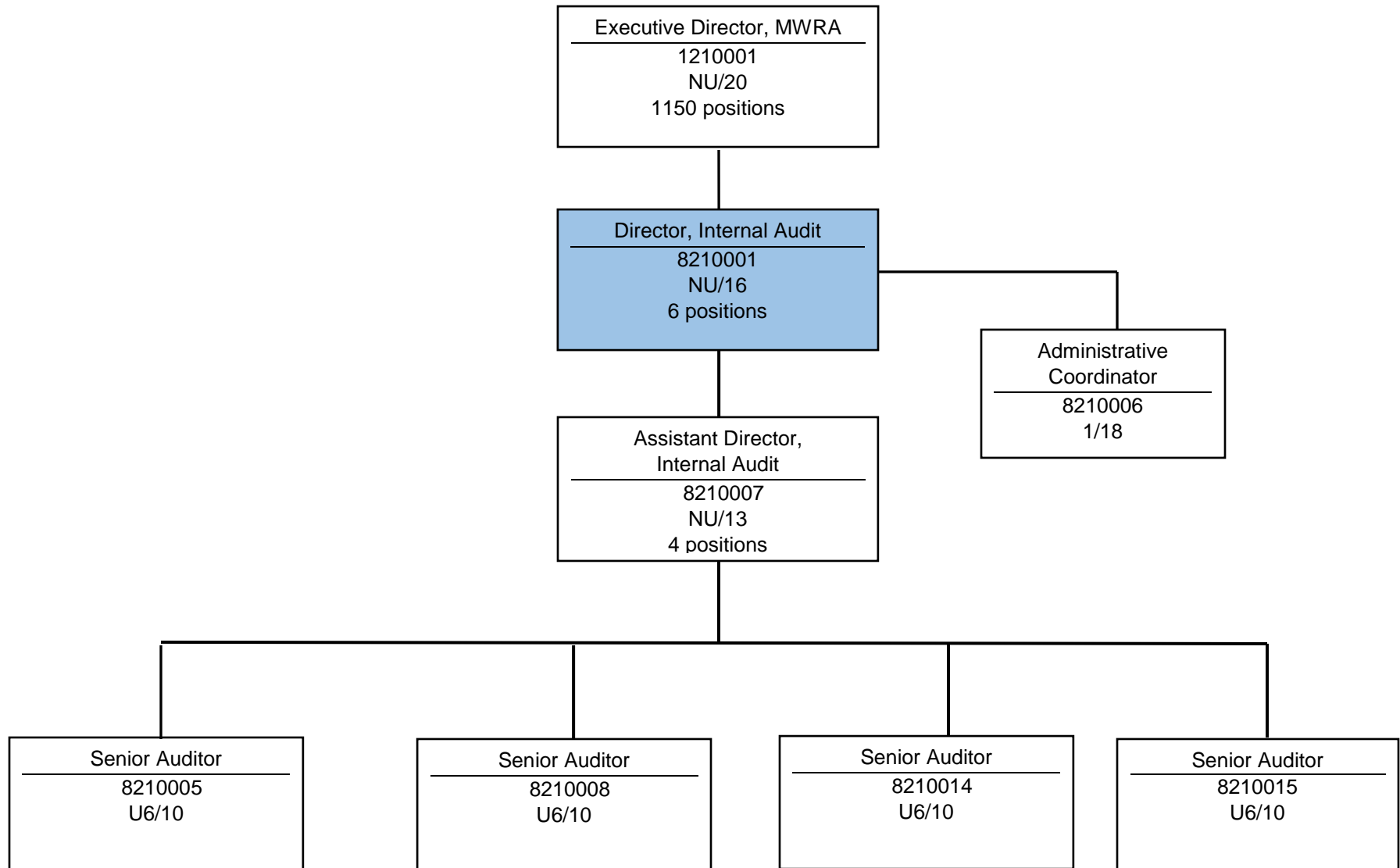
WORK ENVIRONMENT:

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


While performing the duties of this job, the employee regularly works in an office environment. The employee occasionally makes visits to operating facilities and construction sites. In these situations the employee is occasionally exposed to outdoor weather conditions, extreme heat or cold and wet, humid conditions (non-weather) and vibration. The employee occasionally works near moving mechanical parts, and in high precarious places. The employee is occasionally exposed to fumes, toxic or caustic chemicals and airborne particles. The employee occasionally exposed to risk of electrical shock and radiation.

The noise level in the normal work environment is moderately quiet. Visits made to operating facilities and construction sites include noise levels at the site that could range from loud to very loud.

**Internal Audit Division
January 2021**




STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: January 20, 2021
SUBJECT: Appointment of Manager, Emergency Planning, Planning and Sustainability

COMMITTEE: Personnel & Compensation

INFORMATION
 VOTE

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


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

RECOMMENDATION:

To approve the appointment of Christophe Beurpere to the position of Manager, Emergency Planning (Unit 6, Grade 13) in the Planning and Sustainability Department at an annual salary of \$124,984.10 commencing on a date to be determined by the Executive Director.

DISCUSSION:

The Manager of Emergency Planning position became vacant upon the resignation of the previous incumbent. Organizationally, this position reports to the Senior Program Manager, Planning within the Planning and Sustainability Department. This position is responsible for managing MWRA’s Emergency Response Program including the development, implementation, review and updating of comprehensive emergency action plans for all MWRA facilities, as well as emergency response plans and other agency-wide plans for severe weather, continuity of operations, extended power outages and other emergency scenarios. The Manager of Emergency Planning also coordinates training, drills and exercises to ensure staff familiarity with MWRA emergency plans and coordinates emergency plan training for customer communities. This position will also coordinate MWRA’s compliance with the certifications that are required every five years by the American Water Infrastructure Act, and is responsible for assuring MWRA compliance with all federal and state statutory and regulatory emergency response requirements.

Selection Process

MWRA posted the position of Manager, Emergency Planning both internally and externally. A total of 22 candidates applied for the position, including two internal applicants. Five external candidates were determined to be qualified and were referred for an interview. The Director of Planning and Sustainability, the Senior Program Manager for Planning, and the Manager, Operations Support conducted the interviews. Upon completion of the interviews, Christophe Beurpere was determined to be the best candidate based on his experience, knowledge, skills and education.

Christophe Beurpere has 16 years of professional experience in emergency preparedness, incident management and business continuity, working in both higher education and governmental positions. He is currently the Director of Emergency Management for Emerson College, where he oversees all aspects of emergency preparedness including management and business continuity of all Emerson college campuses. He has worked across all levels of the college to develop institution-wide mitigation, preparedness, response, recovery and business continuity plans, procedures and policies. Mr. Beurpere also has developed and led institution-wide drills and exercises as well as training focused on incident management and business continuity. Prior to Emerson College, Mr. Beurpere worked for Harvard University for six years as the Business Continuity Program Manager, where he designed and implemented a program focused on the restoration of mission critical functions by working with the various schools, departments, risk committees and emergency management teams to conduct risk and impact assessments. He developed emergency and crisis management programs plans and procedures. Prior to his work at Harvard, Mr. Beurpere worked at the DelValle Institute for Emergency Preparedness and Security at Boston EMS where he designed and managed a Homeland Security funded exercise geared towards enhancing emergency preparedness, response and recovery capabilities of public safety agencies in the Metro Boston region. He also spent four years working for the Massachusetts Office of Public Safety managing \$5 million in DHS grant funded programs and activities where he worked closely with Massachusetts Emergency Management Agency and other state, local and regional parties.

Mr. Beurpere has a Bachelor of Arts in Sociology from St. Bonaventure University and a master's degree in Public Administration from Suffolk University. He holds required certifications in Incident Command System and National Incident Management System as well as being a certified instructor in Violence Identification, Prevention Reporting and Alert, Lockdown, Informed, Counter, Evacuate. He is also a Defense Research Institute International Associate Business Continuity Professional.

BUDGET/FISCAL IMPACT:

There are sufficient funds for this position in the FY21 current expense budget.

ATTACHMENTS:

Resume of Christophe Beurpere
Position Description
Organization Chart

CHRISTOPHE BEAURPERE

JOB OBJECTIVE: Manager, Emergency Planning

EDUCATION

Suffolk University, Boston MA

Masters in Public Administration May 2006

ST. Bonaventure University, ST. Bonaventure NY

Bachelor of Arts in Sociology May 1998

CERTIFICATIONS/COURSES

DRI Associate Business Continuity Professional (ABCP):

April 12-Present

Violence Identification, Prevention Reporting (VIPR) Certified Instructor

July 19

NFPA 3000, Active Shooter/Hostile Event Response Program Specialist

December 18

Alert, Lockdown, Informed, Counter, Evacuate (ALICE) Certified Instructor

January 18

Harvard Kennedy School, Crisis Leadership in Higher Education Course

March 13

WORK EXPERIENCE

Director of Emergency Management

January 2017- Present

Emerson College

- Oversee all aspects of emergency preparedness, incident management and business continuity across all Emerson College campuses and facilities in Boston, Los Angeles and the Netherlands
- Work with individuals at all levels of the institution to develop and initiate institution-wide mitigation, preparedness, response, recovery and business continuity plans, procedures and policies
- Responsible for building and maintaining an institution-wide business continuity program focused on the restoration of critical functions and operations
- Developed an impact analysis process to identify and evaluate mission critical functions and operations in order to inform department and institution-wide risk and business continuity planning
- Project lead on the development and implementation of business continuity/emergency management planning application
- Manage the College emergency notification system
- Coordinate with Emerson College Police Department on development and delivery of hostile intruder/work place violence training
- Developed and maintain international incident response procedures and coordinate response activities of the International Incident Response Team
- Monitor international events/incidents that may impact Emerson affiliates and manage international emergency notifications
- Provide international emergency preparedness briefings to Emerson affiliates travelling abroad
- Develop and conduct risk assessments and vulnerability analysis to inform comprehensive prevention and mitigation plans, policies and procedures
- Emergency Operations Center (EOC) manager during incidents and liaison between emergency response operations and executive leadership of the institution
- Chair on various emergency preparedness, business continuity, risk and safety committees and workgroups
- Provide programmatic updates and policy recommendations to the institution's executive leadership
- Coordinate and lead department and institution-wide drills and exercises focused on incident management and business continuity operations
- Develop and maintain building specific emergency action plans which outline procedures and responsibilities during building evacuations, lockdowns and shelter-in-place notifications
- Develop and coordinate incident management and business continuity related trainings for individuals at all levels of the institution
- Develop and implement fire safety and prevention trainings, drills and exercises
- Responsible for developing annual operating budget to support emergency preparedness and business continuity activities and perform cost benefit analysis for any recommended capital investment in support of the program

- Build local and regional partnerships and mutual aid agreements with public and private agencies to enhance response and recovery capabilities of the institution

Business Continuity Program Manager
Harvard University, Emergency Management

October 2011- January 2017

- Responsible for enhancing emergency management at Harvard University through the creation, implementation and management of a business continuity and recovery program
- Oversaw the University's schools and departments development and maintenance of impact assessments and business continuity plans for the restoration of mission-critical operations and systems following both minor and major incidents
- Led committees and workgroups charged with developing plans, policies and procedures to enhance the University's ability to respond and recover from major incidents
- Coordinated with the University's risk management committee in order inform management controls for ensuring the restoration of mission critical operations
- Lead project manager for procuring new continuity and emergency planning application along with configuration, design and University-wide implementation
- Worked closely with the University's schools and departments to develop emergency and crisis management / business continuity programs, plans and procedures tailored to the specific needs of each school and department
- Developed a business impact assessment process to evaluate the criticality and risk rating of business functions and inform continuity planning process
- Created educational materials and instructed key personnel on emergency/crisis planning, response and business continuity responsibilities
- Designed and facilitated emergency/crisis simulations and exercises to test and improve response and recovery plans and procedures

Senior Program Manager
DelValle Institute for Emergency Preparedness, Boston EMS

May 2009 - September 2011

- Designed and managed Department Homeland Security funded exercise program focused on enhancing local and regional public safety, emergency management, and medical/healthcare capabilities
- Planned and implemented exercise projects focused on enhancing performance and collaboration in incident command, emergency planning, information sharing, medical surge management, triage, patient distribution and tracking, resource management and allocation, emergency operations center management, family reunification, and sheltering
- Ensured that project goals and objectives were consistent with federal, state, and local grant guidance and that deliverables were achieved
- Conducted needs and gap analysis with regional public safety and medical committees, work-groups, and planning teams in order to identify suitable exercise projects
- Developed after action reports and improvement plan matrixes on critical emergency preparedness, response, and recovery capabilities
- Led jurisdictional planning conferences, debriefings, after action reviews
- Developed exercise project budgets and made recommendations for revisions when necessary
- Managed contracted consultants to ensure project implementation

Manager of Special Projects:
Harvard School of Public Health, Center for Public Health Preparedness

May 2008 - April 2009

- Project manager for planning, development, and implementation of public health, medical, and health care emergency preparedness exercises, trainings and research programs
- Built and maintained partnerships with local and state health agencies as well as hospitals
- Worked with community partners to identify potential needs and develop exercise project objectives
- Developed after action reports and improvement plans for all Center led exercises
- Identified and pursued new opportunities for funding and collaborations
- Created preparedness related curricula and training materials for the public health workforce

Senior Program Manager IV:
Commonwealth of Massachusetts, Executive Office of Public Safety and Security

**November 2004 - May
2008**

- Managed over five million dollars in Department of Homeland Security grant funded programs and activities
- Managed and provided guidance to regional councils on homeland security planning, program, and policy initiatives
- Managed a team charged with coordinating programmatic and fiscal activities of grant recipients
- Supervised grantees progress in achieving goals and objectives relating to the Massachusetts State Homeland Security Strategy and federal Homeland Security initiatives
- Representative on state committee charged with writing the State Homeland Security Program grant application to the Department of Homeland Security
- Executive Office of Public Safety representative to the State Interoperability Committee charged with devising a five year state wide interoperability strategy and review of all interoperability projects
- Reviewed and made determinations on programmatic procurements and projects including request for budget revisions and extensions
- Developed programmatic guidance, policy, deliverables, and reporting documentation for grantees

**MWRA
POSITION DESCRIPTION**

POSITION: Manager, Emergency Planning

DIVISION: Operations

DEPARTMENT: Planning and Sustainability

BASIC PURPOSE:

Develops and manages the MWRA's Emergency Response Program including but not limited to the development, implementation, review and updating of comprehensive Emergency Action Plans (EAPs) for all MWRA facilities; Emergency Response Plans (ERPs), and agency-wide plans for Severe Weather, Pandemics, the Continuity of Operations Plan and others. Works with the Director of Planning and Sustainability to ensure staff are trained on and familiar with existing emergency response plans by developing and executing drills and exercises. Coordinates with federal, state and local emergency entities as necessary.

SUPERVISION RECEIVED:

Works under the general supervision of the Senior Program Manager, Planning.

SUPERVISION EXERCISED:

Supervises the production and scheduled updating of the MWRA's emergency plans. This involves editorial oversight of updates completed by agency-wide staff assisting with the technical details involved in each individual plan.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Responsible for the overall administration, direction and coordination of MWRA's overall emergency response programs, plans, policies and procedures.
- Be knowledgeable in and assure compliance with all federal and state statutory, regulatory and other applicable emergency response guidelines
- Coordinates MWRA's compliance with the certifications required every five (5) years by the American Water Infrastructure Act.
- Creates a schedule by which emergency plans will be drafted and updated annually for all wastewater and water facilities.
- Coordinates meeting schedules, notices, minutes and presentations for MWRA's monthly Security Task Force meetings. Report regularly on trainings that have occurred.

- Develops, coordinates, and provides emergency plan training for relevant MWRA staff and customer communities.
- Creates an annual schedule of emergency exercises that includes at least one large-scale exercise and two smaller exercises. The large one should include outside agencies.
- Implements program goals and objectives, and operating policies and procedures for the MWRA facility emergency plans, and prepare reports and communications necessary to carry out the activities of the program.
- Updates and administers operating/maintenance standards, policies and standard operating procedures (SOPs) for emergency response.
- Prepares state and federal emergency preparedness and homeland security grant applications.
- Tracks the implementation and training progress for emergency plans.
- Serves as the Authority's liaison with the Massachusetts Emergency Management Agency, Office of Public Safety and Inspections, the Department of Fire Services, Department of Conservation, and Recreation and the Department of Environmental Protection and other entities as necessary on issues pertaining to emergency planning and operations.
- Prepares and presents briefings to MWRA's senior management, including the Board of Directors.
- Represents the Director of Planning at appropriate meetings.
- Serves as one of the rotational on-call staff as needed

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in Emergency Management; a Master's degree in Emergency Management preferred; and
- (B) Six (6) to eight (8) years experience in emergency management, preferably in a public water/wastewater environment or other large critical infrastructure organization; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Demonstrated knowledge and skills in structuring, analyzing and presenting data.
- (B) Strong organizational skills, previous experience with manual and automated document tracking is preferred.
- (D) Demonstrated excellent written, interpersonal, verbal and presentation communication skills.

SPECIAL REQUIREMENTS:

Certified in National Incident Management System (NIMS) 700 and 800, and Incident Command System (ICS) 100, 200, 300, and 400 courses, or has the ability to obtain certification in twelve months.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

The physical demands described are representative of those that must be met by an employee to successfully perform the essential functions of the 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 required to sit, talk or hear. The employee is frequently required to use hands to finger, handle or operate objects including office equipment, controls and reach with hands and arms. The employee is occasionally required to stand and walk.

The employee may frequently be required to lift and/or move up to 5 pounds and occasionally lift and/or move up to 10 pounds. Specific vision abilities required by this job include close vision and the ability to focus.

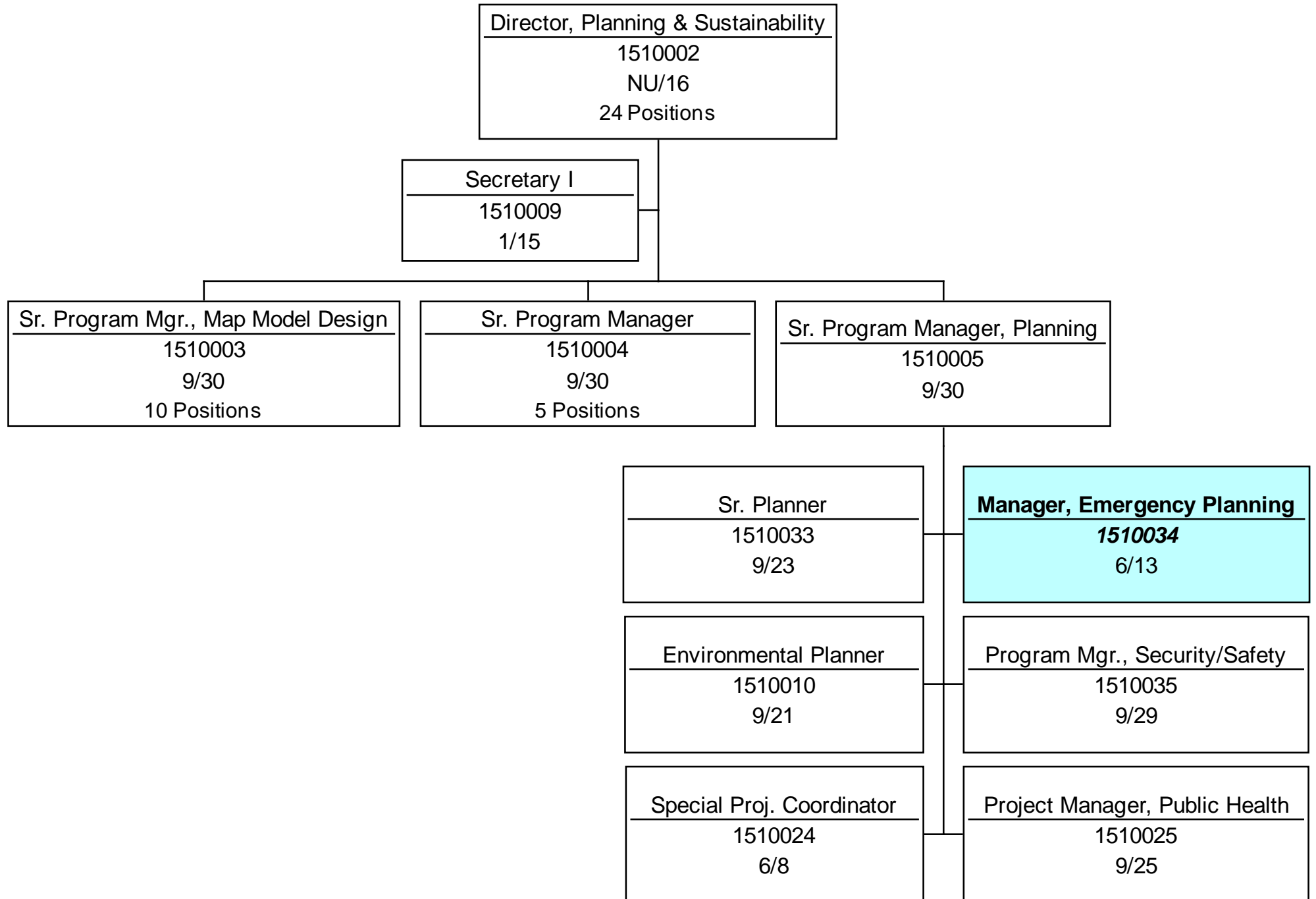
WORK ENVIRONMENT:

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 employees regularly works in an office environment.

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

November 2019

Programs, Policy & Planning
Planning & Sustainability
January, 2021



STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: January 20, 2021
SUBJECT: Appointment of Manager, Human Resources Operations



COMMITTEE: Personnel & Compensation

 INFORMATION
 X VOTE

Andrea Murphy, Director, Human Resources
Preparer/Title


Michele S. Gillen
Director of Administration

Staff are recommending organizational changes to the Human Resources Department in the PCR amendment Staff Summary. If the Board approves the creation of the new position (Manager, Human Resources Operations), staff recommend that it be filled with an internal, highly qualified candidate. That recommendation is the subject of this Staff Summary.

RECOMMENDATION:

To approve the appointment of Ms. Ivana McGrail as Manager, Human Resources Operations (Grade 14, Non-Union) in the Administration Division at an annual salary of \$122,500.00 commencing on a date to be determined by the Executive Director.

DISCUSSION:

The new position of Manager, Human Resources Operations will provide the additional resources needed to effectively and successfully respond to the rapidly changing legal, cultural, health and safety workplace environment. Ms. Ivana McGrail, the current Assistant Manager of Workers Compensation and Labor Relations, is recommended to fill this new position if approved by the Board. Ms. McGrail has played a critical role in MWRA’s response to the pandemic demonstrating her superior skills and leadership abilities, and performing at a level not reflected in her current position. Staff believe Ms. McGrail is ideally situated to fill the newly created position.

The position reports to the Director of Human Resources and will be responsible for managing, planning and implementing major Human Resources’ initiatives, projects and programs including those related to new statutes and regulations, policy and procedure initiatives, and operational efficiencies. This position will also manage the workers’ compensation program and work in conjunction with the Manager of Occupational Health & Safety to ensure the health and safety of employees.

Ms. McGrail is recommended for this position based on her knowledge, education, experience, skills, abilities and outstanding performance. Ms. McGrail was hired as the Assistant Manager, Workers’ Compensation and Labor Relations in 2019 to oversee the workers’ compensation program and to assist with investigations of misconduct and participate in grievances, disciplinary hearings and arbitrations as well as other Labor Relations matters. As the COVID-19 pandemic

hit, Ms. McGrail has managed the monitoring of employees who became ill, those who had been exposed to someone with COVID-19 and those who needed to test negative after out-of-state travel. She has worked with the Director of Laboratory Services to understand the science of the virus and implement CDC and DPH guidance. She also identified for the Manager of Occupational Health & Safety the workplace and work practices that required a safety review based on information gathered from employees who became ill or exposed.

Prior to her work at the MWRA, she worked for 11 years at the Commonwealth of Massachusetts and served as the Deputy Director of Workers' Compensation where she was responsible for workers' compensation claims management and litigation strategy for all agencies. Ms. McGrail supervised 18 employees including 10 claims adjusters, a medical case manager and a medical director. She has experience with the public procurement process and implementation of new contracts.

Ms. McGrail has 7 years of workers' compensation experience working for private insurance companies. She worked for 5 years with ALM Mutual Insurance and 2 years with Utica National Insurance where she represented clients at the Division of Industrial Accidents. Ms. McGrail previously worked as an Attorney for 3 years at Daniels Law Office and American Student Assistance in Boston.

Ms. McGrail has a Bachelor's degree in Psychology/English from UMass Boston and a Juris Doctorate from the New England School of Law.

BUDGET/FISCAL IMPACT:

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

ATTACHMENTS:

Resume of Ivana McGrail
Position Description
Organization Chart

IVANA MCGRAIL

EDUCATION:

New England School of Law, Boston
Graduation Date: June 1999
Class Ranking: Top fifty percent of the class
G.P.A: 3.4

Activities: President and Auction Co-Chair of PILA, Participant in the Rwandan War Crime Project, Mock Trial Competitor

University of Massachusetts, Boston
Bachelor of Arts in Psychology/English, May, 1994
G.P.A. 3.25

WORK EXPERIENCE:

Massachusetts Water Resources Authority, 9/2019-present

Assistant Manager of Workers' Compensation and Labor Relations

Manage the internal Workers' Compensation Program including filing the claims, partnering with our Third Party Administrator and Litigation provider, communicating with our injured workers in an effort to assist in getting treatment, return to work in a safe and timely manner and resolution through settlement any cases where return to work is not possible. Work with the Manager of Workers' Compensation and Labor Relations to investigate employee and reports of employee misconduct. Prepare pre-disciplinary reports and management presentation and participate in pre-disciplinary hearings. Participate in personnel meetings to decide appropriate discipline when required. Since March have also managed the COVID-19 contact tracing program; including contacting employees who have been out ill and interviewing them to determine whether there are any close contacts, following up for test results and later clearance to return to work. Assist in the decision making regarding clearance as well as the need for quarantine. Provide daily updates and reporting to management.

Commonwealth of Massachusetts, Boston 1/08-2019

Deputy Director of Workers' Compensation

Supervised 10 adjusters, 1 medical case manager, 1 medical directors and 6 operations/clerical employees. Position included preparing EPRS, addressing personnel issues, monitoring work, providing training and guidance, and assisting in claims handling/strategy. Point of contact for the transfer of UR nurses to MCM status: arranged training opportunities; prepared new job descriptions and assisted with a Best Practices Manual. Worked with outside vendors for the new UR Outsourcing and assisted in a new RFR for full UR outsourcing with one provider. Worked with the Medical Director to propose new rates and "Center of Excellence in Health Care" planning as well as reduction in opioid use plans for our Injured employees. Managed prescription program with ExpressScripts. Claims adjustment and litigation strategy for all of our agencies. Communicated with a variety of agency contacts, medical providers, internal and plaintiff legal representatives and injured state employees. Reviewed files in conjunction with the appropriate statutes and regulations to make determinations on case files. Assisted defense counsel in preparing claims for litigation purposes. Organized and followed potential third party claims to maximize our recovery potential of expenses paid out on said claims. Presented at all

Agency meetings and provided Workers' Compensation training to agency contacts and representatives.

A.I.M Mutual Insurance, Burlington 4/03-1/08

Workers' Compensation Claims Adjuster

Investigate and evaluate workers' compensation claims, review files for compensation, setting reserves, termination of benefits and negotiation of settlements. Communicate with claimants, legal representatives and medical professionals via phone and written correspondence. Negotiate surgery fees. Prepare files for litigation and/or settlement, negotiate appropriate settlements and correspond with defense counsel on legal strategies on a variety of different levels of claims. Provide customer service, claims reviews and training for our customer companies.

Utica National Insurance, Wakefield 4/01-4/03

Hearing Representative/WC Claims Adjuster

Research State and Federal Regulations regarding Workers' Compensation. Investigate claims and compensate claimants for lost work time and medical bills. Provide strong Customer service, negotiate settlements and surgical prices, arrange medical procedures and handle complaint calls. Attend Department of Industrial Accident hearings and training courses. Lead all subrogation investigation and recovery attempts. As the Hearing Officer, represent Utica Mutual clients at the DIA in both Conciliation and Conference proceedings.

Daniels Law Offices, Boston 1/01-4/01

Litigation Attorney

Draft pleadings, discovery, motions and memorandum and research a variety of collections and bankruptcy issues. Attend Small Claims Hearings, Supplementary Process Session and Motion Hearings three to four times per week on behalf of creditors. Perform coverage work for other attorneys involved in the coverage group. Perform extensive file and document review in order to bring cases current. Work with collections and paralegal staff to ensure compliance with court as well as client regulations and specifications. Negotiate settlement and payment arrangements with debtors and their counsel.

American Student Assistance, Boston 1993-2001

Legal Department Supervisor/Attorney

Supervise a staff of collections representatives/wage garnishment processors, clerical and paralegal. Total of 15 employees. Also attended small claims hearings on issues of defaulted Student Loans. Responded to any complaint calls, 93A and Attorney General Complaints. Assist in Reorganization of the Collections, clerical, and Skip Tracing Units

SPECIAL SKILLS: Member of the Massachusetts Bar Association, Graduate of the Commonwealth Supervisor Certificate Program, Participant in the Worcester County Bar Association Opioid Diversion Task Force

**MWRA
POSITION DESCRIPTION**

POSITION: Manager, Human Resources Operations

DIVISION: Administration

DEPARTMENT: Human Resources

BASIC PURPOSE:

Manages planning and implementation of major Human Resources' initiatives, projects and programs including those related to new statutes and regulations, policy and procedure initiatives, and operational efficiencies. Manages the workers' compensation program and works in conjunction with the Manager of Occupational Health & Safety to ensure the health and safety of employees.

SUPERVISION RECEIVED:

Works under the general supervision of the Director of Human Resources.

SUPERVISION EXERCISED:

Supervises the Assistant Manager, Workers' Compensation and Labor Relations on workers' compensation issues and may supervise other staff as required for projects or initiatives.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Under the direction of the Director, Human Resources, develops and implements HR goals, objectives and long-term strategies.
- Manages the workers' compensation program.
- Manages Human Resources' response to cultural, health and political climate changes.
- Works with Law Division and Human Resources staff to interpret new federal and state statutes, rules, regulations and guidance.
- Manages the communication and implementation of the new rules, regulations and guidance with HR staff as assigned.
- Identifies the need for improved efficiency in HR systems and processes in conjunction with HR managers.
- Develops HR requirements for new systems and processes with HR managers.

- Manages the implementation of new systems and processes.
- Oversees the department budget, contracts, and financial transactions.
- Assists in labor relations, employment, and benefits matters as needed.
- Assists with the development and writing of Staff Summaries as needed.
- Assists Law with preparation for arbitration cases and unemployment hearings as needed.

SECONDARY DUTIES:

Performs other duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in public/business administration or a related field; and
- (B) Understanding of labor relations, workers' compensation, personnel administration and grievance administration as acquired through seven (7) to nine (9) years of related experience, a minimum of which 3 years are supervisory; or
- (C) Any equivalent combination of education or experience.

SPECIAL REQUIREMENTS:

Ability to provide evening or weekend coverage as needed.

A valid Massachusetts Class D Motor Vehicle Operators' License.

NECESSARY KNOWLEDGE, SKILLS AND ABILITIES:

- (A) Demonstrated ability to work effectively as part of a project team and to function independently with minimal supervision.
- (B) Knowledge of state and federal laws relating to HR functions.
- (C) Familiarity with computer software, such as MS Office Suite.
- (D) Excellent interpersonal, managerial, oral and written communication skills.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

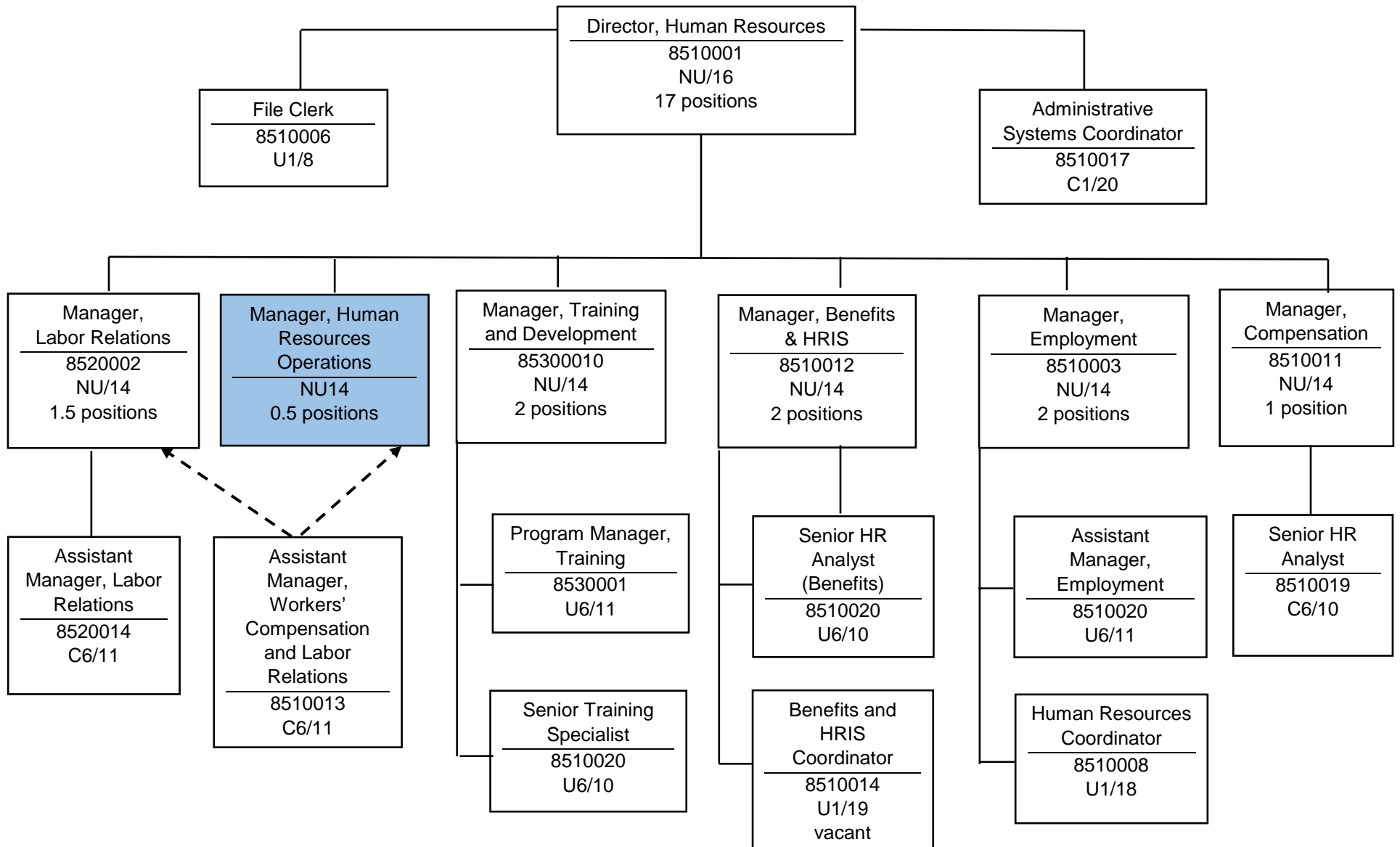
WORK ENVIRONMENT:

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


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

January 2021

**Administration
Human Resources
January 2021**



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: January 20, 2021
SUBJECT: Delegated Authority Report – December 2020

COMMITTEE: Administration, Finance & Audit

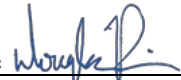
INFORMATION
 VOTE



Michele S. Gillen

Director, Administration

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


Douglas J. Rice
Director of Procurement

RECOMMENDATION:

For information only. Attached is a listing of actions taken by the Executive Director under delegated authority for the period December 1 – 31, 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 DECEMBER 1 - 31, 2020

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMEND/CO	COMPANY	FINANCIAL IMPACT
C-1.	12/02/20	GRAVITY THICKENER UPGRADE DEER ISLAND TREATMENT PLANT DELETE THE REQUIREMENT TO REMOVE TWO INCHES OF EXISTING BONDED CONCRETE GROUT FROM THE BASE SLAB OF GRAVITY THICKENER NO. 3 AND THE REQUIREMENT TO INSTALL A NEW CONCRETE GROUT LAYER; DELETE THE REQUIREMENT TO REMOVE TWO INCHES OF EXISTING BONDED CONCRETE GROUT FROM THE BASE SLAB OF GRAVITY THICKENER NO. 6 AND THE REQUIREMENT TO INSTALL A NEW TWO INCH GROUT CONCRETE GROUT LAYER; FURNISH AND INSTALL SEVENTY 3/4-INCH SWIVEL JOINTS AND 3/4-INCH MALE NATIONAL PIPE THREAD (NPT) X 3/8-INCH FEMALE NPT REDUCING BUSHINGS.	7428	8	WALSH CONSTRUCTION COMPANY II, LLC	(\$115,278.55)
C-2.	12/02/20	MAINTENANCE PAINTING, CLINTON WASTEWATER TREATMENT PLANT DELETE THE REQUIREMENT FOR SURFACE PREPARATION AND PROTECTIVE COATING INSTALLATION TO FINAL CLARIFLOCCULATOR NO. 3; DELETE THE REQUIREMENT TO PREPARE, RESURFACE, FURNISH AND INSTALL LINING IN THE GRIT TANK NO. 1 EFFLUENT CHANNEL.	5569	2	THE AULSON COMPANY, LLC	(\$128,023.72)
C-3.	12/09/20	GRAVITY THICKENER UPGRADE DEER ISLAND TREATMENT PLANT FURNISH AND INSTALL A NEW 4-INCH HIGH PRESSURE PLANT WATER PIPING AT GRAVITY THICKENER NO. 4; FURNISH AND INSTALL NEW DUCTILE IRON PIPE AND FITTINGS AT GRAVITY THICKENER NO. 4; GRAVITY THICKENER NO. 4 GROUT FLOOR DEMOLITION AND STRUCTURAL SLAB REPAIRS; PROVIDE EIGHT BLADE EXTENDERS TO THE RAKE ARMS AT GRAVITY THICKENER NO. 4 AS WELL AS ADDITIONAL GROUT.	7428	9	WALSH CONSTRUCTION COMPANY II, LLC	\$120,815.29
C-4.	12/09/20	FUEL STORAGE TANK MAINTENANCE SERVICE AWARD OF A CONTRACT TO THE LOWEST RESPONSIVE BIDDER TO PROVIDE FUEL STORAGE TANK MAINTENANCE SERVICE FOR A TERM OF 1,095 CALENDAR DAYS.	OP-417	AWARD	MASS TANK INSPECTION SERVICES, LLC	\$480,000.00
C-5.	12/18/20	GRIT AND SCREENINGS HAULING AND DISPOSAL FINAL BALANCING CHANGE ORDER TO DECREASE THE FOLLOWING BID ITEMS TO REFLECT ACTUAL QUANTITIES USED: HAUL AND DISPOSE OF GRIT AND SCREENINGS FROM THE DEER ISLAND GRIT FACILITIES (EAST AND WEST), HAUL AND DISPOSE OF COMPACTED SCUM SCREENINGS FROM THE DEER ISLAND TREATMENT PLANT SCUM SCREENING FACILITY, HAUL AND DISPOSE OF GRIT AND SCREENINGS FROM THE NUT ISLAND HEADWORKS, HAUL AND DISPOSE OF GRIT AND SCREENINGS FROM OTHER MWRA FACILITIES, TRANSPORT IN-PLANT PLACEMENT OF CLEAN, CONTRACTOR-FURNISHED VACUUM CONTAINER BOX TO THE DEER ISLAND TREATMENT PLANT, PER DAY MWRA USE OF CONTRACTOR-FURNISHED VACUUM CONTAINER BOX AT THE DEER ISLAND TREATMENT PLANT, ROUND-TRIP TRANSPORT OF CONTRACTOR-FURNISHED VACUUM CONTAINER BOX FROM THE DEER ISLAND TREATMENT PLANT TO THE RECEIVING LANDFILL AND BACK TO THE DEER ISLAND TREATMENT PLANT OR TO THE CONTRACTOR'S OFFICE, DISPOSE OF SCUM FROM THE DEER ISLAND TREATMENT PLANT AT RECEIVING LANDFILL BY THE VACUUM CONTAINER METHOD, RINSE FEE FOR CONTRACTOR-FURNISHED CONTAINER BOXES RETURNED TO THE CONTRACTOR'S OFFICES, TRANSPORT AND TEMPORARY PLACEMENT OF CONTRACTOR-FURNISHED ROLL-OFF CONTAINER FROM CONTRACTOR'S OFFICES TO THE DEER ISLAND TREATMENT PLANT NORTH MAIN TUNNEL SHAFTS, ON-SITE MOVEMENT OF CONTRACTOR-FURNISHED ROLL-OFF CONTAINER WITHIN THE DEER ISLAND TREATMENT PLANT AT NORTH MAIN TUNNEL SHAFT SITE, TRANSPORT AND DISPOSE OF NORTH MAIN TUNNEL SHAFT FLOATABLE MATERIAL AT RECEIVING LANDFILL.	5564	2	W.L. FRENCH EXCAVATING CORP.	(\$890,094.26)
C-6.	12/18/20	BELLEVUE 2 AND TURKEY HILL WATER TANK PAINTING PROJECT FINAL BALANCING CHANGE ORDER TO DECREASE THE FOLLOWING BID ITEMS TO REFLECT ACTUAL QUANTITIES USED: STEEL PIT FILLING REPAIR, STEEL PIT WELDING REPAIR, STEEL SEAM WELDING PLATE REPAIR, SEAL JOINT FILLING OF ROOF BEAMS, SEAL WELDING OF ROOF BEAMS, CONCRETE STRUCTURAL CRACK REPAIR, CONCRETE SURFACE SPALL REPAIR, ANTI-CORROSION REBAR COATING, MISCELLANEOUS STRUCTURAL STEEL STIFFENER PLATE REPAIR, MISCELLANEOUS STRUCTURAL STEEL BEAM REPLACEMENT/DUPLICATE REPAIRS; DELETE THE REQUIREMENT TO PERFORM THE FOUNDATION REPAIR AND CEMENTITIOUS COATING AT THE TURKEY HILL STORAGE TANK; DECREASE THE ALLOWANCE FOR PRICE ADJUSTMENTS; ADJUST THE PRICE DUE TO A DECREASE IN THE TIME AND MATERIALS NECESSARY TO PERFORM THE WORK ORDERED IN CHANGE ORDER NO. 11.	7634	12	WORLDWIDE INDUSTRIES CORP.	(\$444,296.56)
C-7.	12/18/20	SOUTHERN EXTRA HIGH PIPELINE - SECTION 111 - DEDHAM SOUTH INCREASE IN POLICE DETAIL SERVICES; FURNISH AND INSTALL PVC SEWER MAIN AND REBUILD THE DROP CONNECTION TO THE EXISTING SEWER MANHOLE.	7505	7	RJV CONSTRUCTION CORP.	\$107,725.03
C-8.	12/24/20	MAINTENANCE PAINTING, CLINTON WASTEWATER TREATMENT PLANT DELETE THE REQUIREMENT TO PROVIDE ASSOCIATED TEMPORARY BY-PASS PUMPING FOR THE LINING OF THE EFFLUENT CHANNEL.	5569	3	THE AULSON COMPANY, LLC	(\$30,000.00)
C-9.	12/29/20	SECURITY EQUIPMENT MAINTENANCE AND REPAIR SERVICES FINAL BALANCING CHANGE ORDER TO DECREASE THE FOLLOWING BID ITEMS TO REFLECT ACTUAL QUANTITIES USED: SCHEDULE PREVENTIVE MAINTENANCE, NON-EMERGENCY AND EMERGENCY ON-CALL MAINTENANCE REPAIR AND MISCELLANEOUS WORK, INTEGRATION AND PROGRAMMING, SCHEDULED INFORMATION TECHNOLOGY SYSTEM OPERATION AND MAINTENANCE SERVICES, NON-EMERGENCY ON-CALL TECHNOLOGY SYSTEM OPERATION AND MAINTENANCE SERVICES, NON-EMERGENCY AND EMERGENCY ON-CALL TECHNOLOGY SYSTEM OPERATION, MAINTENANCE AND REPAIR SERVICES AND OTHER MISCELLANEOUS WORK, SPARE PARTS AND MARK-UP.	EXE-038	2	VISCOM SYSTEMS, INC.	(\$288,406.30)
C-10.	12/29/20	NUT ISLAND HEADWORKS ODOR CONTROL AND HVAC IMPROVEMENTS WIRING AND CONTROL PANEL MODIFICATIONS FOR ODOR CONTROL DAMPERS; FIRE ALARM MAINTENANCE SERVICES; DEMOLITION OF ODOR CONTROL HEAT EXCHANGER PIPING; RESTORATION OF LIGHTING PROTECTION GROUND CABLE ON THE ODOR CONTROL ROOF; FURNISH AND INSTALL CONDUITS AND WIRE FOR WET SCRUBBER INSTRUMENTS; DEMOLITION OF ELECTRICAL POWER AND CONTROLS FOR CHEMICAL STORAGE TANKS.	7548	2	WALSH CONSTRUCTION COMPANY II, LLC	\$126,224.03

PURCHASING DELEGATED AUTHORITY ITEMS DECEMBER 1 - 31, 2020

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-1.	12/01/20	PURCHASE OF SIX HEWLETT PACKARD BLADE SERVERS AWARD OF A PURCHASE ORDER UNDER STATE CONTRACT #ITC47 TO THE LOWEST RESPONSIVE BIDDER FOR SIX HEWLETT PACKARD BLADE SERVERS AND FIVE YEARS OF SUPPORT.	WRA-4909Q		HUB TECHNICAL SERVICES, LLC	\$92,770.98
P-2	12/01/20	SUPPLY AND DELIVERY OF BIODIESEL FUEL AWARD OF A 14-MONTH PURCHASE ORDER UNDER STATE CONTRACT ENE47 FOR THE SUPPLY AND DELIVERY OF BIODIESEL FUEL FOR THE TIME PERIOD NOVEMBER 1, 2020 THROUGH DECEMBER 31, 2021.			DENNIS K. BURKE, INC.	\$250,000.00
P-3	12/02/20	PURCHASE OF A FOUR-YEAR SUBSCRIPTION OF 103 MINE SAFETY APPLIANCE GRID FLEET MANAGER WEB APPLICATION LICENSE AND IMPLEMENTATION SERVICES AWARD OF A SOLE SOURCE PURCHASE ORDER FOR A FOUR-YEAR SUBSCRIPTION OF 103 MINE SAFETY APPLIANCE GRID FLEET MANAGER WEB APPLICATION LICENSE AND IMPLEMENTATION SERVICES.			SAFETY IO, LLC	\$26,720.00
P-4	12/02/20	PROVIDE SERVICES TO MOVE RECORDS FROM THE MARLBOROUGH RECORDS CENTER TO THE NEW WALPOLE RECORDS CENTER AWARD OF A PURCHASE ORDER UNDER STATE CONTRACT FAC96 TO THE LOWEST RESPONSIVE BIDDER TO PROVIDE SERVICES TO MOVE RECORDS FROM THE MARLBOROUGH RECORDS CENTER TO THE NEW WALPOLE RECORDS CENTER.	WRA-4912Q		RANDY DAVEKOS, DBA WAKEFIELD MOVING AND STORAGE, INC.	\$91,000.00
P-5	12/02/20	PURCHASE OF 100 MINE SAFETY APPLIANCE PORTABLE GAS MONITORS, THREE DOCKING STATIONS, 12 CALIBRATION GAS BOTTLES AND INSTALLATION SERVICES. AWARD OF A SOLE SOURCE PURCHASE ORDER FOR 100 MINE SAFETY APPLIANCE PORTABLE GAS MONITORS, THREE DOCKING STATIONS, 12 CALIBRATION GAS BOTTLES AND INSTALLATION SERVICES.			SAFETY SOURCE OF NEW ENGLAND, INC.	\$16,125,000.00
P-6	12/03/20	MAINTENANCE AND SUPPORT OF PBX EQUIPMENT AWARD OF A ONE-YEAR PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR MAINTENANCE AND SUPPORT OF PBX EQUIPMENT FOR THE TIME PERIOD JANUARY 1, 2021 THROUGH DECEMBER 31, 2021.	WRA-4906A		METROPOLITAN TELEPHONE CO, INC.	\$34,839.80
P-7	12/03/20	PROVIDE A REPORT WRITER CONSULTANT AWARD OF A PURCHASE ORDER UNDER STATE CONTRACT ITS63STAFFAUGCAT1 TO THE LOWEST RESPONSIVE BIDDER TO PROVIDE A REPORT WRITER CONSULTANT FOR A TERM OF 15 WEEKS.	WRA-4910Q		MINDLANCE INC.	\$45,920.00
P-8	12/03/20	PURCHASE OF ONE INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETER AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR ONE INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETER FOR THE DEPARTMENT OF LABORATORY SERVICES.	WRA-4899		PERKIN ELMER HEALTH SCIENCES, INC.	\$67,266.27
P-9	12/03/20	PURCHASE ORDER FOR 32 MONTHS OF PROPANE GAS AWARD OF A 32-MONTH PURCHASE ORDER UNDER STATE CONTRACT ENE46 FOR PROPANE GAS TO BE USED AS THE MAIN SOURCE OF HEAT AND FUEL FOR BACKUP POWER AT ELEVEN DIFFERENT FACILITIES FOR THE TIME PERIOD DECEMBER 1, 2020 THROUGH JULY 31, 2023.			OSTERMAN PROPANE, LLC	\$200,000.00
P-10	12/3/2020	MAXIMO SOFTWARE MAINTENANCE AND SUPPORT AWARD OF A ONE-YEAR PURCHASE ORDER UNDER STATE CONTRACT IT655 FOR MAXIMO SOFTWARE MAINTENANCE AND SUPPORT FOR THE SERVICE PERIOD OF JANUARY 20, 2021 THROUGH DECEMBER 31, 2021.			IBM CORPORATION	
P-11	12/09/20	PURCHASE OF TWO SIEMENS VARIABLE FREQUENCY DRIVE AWARD OF A SOLE SOURCE PURCHASE ORDER FOR TWO SIEMENS VARIABLE FREQUENCY DRIVES FOR THE SOUTH SYSTEM PUMP STATION.			SIEMENS INDUSTRY, INC.	\$27,144.00
P-12	12/09/20	INSTALL CABLING AND 62 ACCESS POINTS FOR WIFI AWARD OF A PURCHASE ORDER UNDER STATE CONTRACT ITC68 TO THE LOWEST RESPONSIVE BIDDER TO INSTALL CABLING AND 62 ACCESS POINTS FOR WIFI AT THE CHELSEA, CHARLESTOWN NAVY YARD AND SOUTHBOROUGH FACILITIES.	WRA-4904Q		COMM-TRACT CORPORATION	\$60,303.07
P-13	12/09/20	PURCHASE OF ARUBA HARDWARE AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR ARUBA HARDWARE NEEDED TO EXPAND AND UPGRADE THE WIRELESS INFRASTRUCTURE AT THE CHELSEA, CHARLESTOWN NAVY YARD AND SOUTHBOROUGH FACILITIES.	WRA-4913		WORLDCOM EXCHANGE, INC.	\$66,372.70
P-14	12/18/20	PURCHASE OF ONE NEW BOBCAT SKID STEER/COMPACT TRACK LOADER AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR ONE NEW BOBCAT SKID STEER/COMPACT TRACK LOADER TO BE USED AT THE METRO MAINTENANCE UNIT AND WILL BE MADE AVAILABLE FOR OTHER DEPARTMENT AS NEEDED.	WRA-4889		BOBCAT OF BOSTON, INC.	\$59,816.69
P-15	12/18/20	SUPPLY AND DELIVERY OF HYDROGEN SULFIDE CONTROL CHEMICALS AWARD OF A ONE-YEAR PURCHASE ORDER EXTENSION OPTION FOR THE SUPPLY AND DELIVERY OF HYDROGEN SULFIDE CONTROL CHEMICALS.	WRA-4807		EVOQUA WATER TECHNOLOGIES, LLC	\$147,900.00

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: January 20, 2021
SUBJECT: FY21 Financial Update and Summary Through December 2020

COMMITTEE: Administration, Finance & Audit

X INFORMATION

 VOTE

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


Thomas J. Durkin
Director, Finance

RECOMMENDATION:

For information only. This staff summary provides financial results and variance highlights for Fiscal Year 2021 through December 2020, comparing actual spending to the budget.

DISCUSSION:

Starting this month, 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 December the year-to-date debt related savings of \$5.6 million was transferred to the Defeasance Account. This is the result of the lower than budgeted variable interest rates, timing of the SRF transaction, partially offset by higher than anticipated Senior Debt.

The total Year-to-Date variance for the FY21 CEB is \$5.8 million, due to lower direct expenses of \$6.8, partially offset by higher indirect expenses of \$1.3 million; and higher revenue of \$0.3 million.

FY21 Current Expense Budget

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

- Lower Direct Expenses of \$6.8 million or 5.5% under budget. Spending was lower for Wages & Salaries, Other Services, Professional Services, Utilities, Fringe Benefits, Worker's Compensation, Overtime, Training and Meetings, Chemicals, Other Materials, and Maintenance.
- Higher Indirect Expenses of \$1.3 million or 4.8% over budget due primarily to the updated HEEC capacity and service charge, partially offset by lower Pension expense and Watershed reimbursements.

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

	FY21 Budget YTD	FY21 Actual YTD	\$ Variance	% Variance
Direct Expenses	\$122.5	\$115.7	-\$6.8	-5.5%
Indirect Expenses	\$26.5	\$27.8	\$1.3	4.8%
Capital Financing	\$222.3	\$222.3	\$0.0	0.0%
Total	\$371.3	\$365.8	-\$5.5	-1.5%

Totals may not add due to rounding

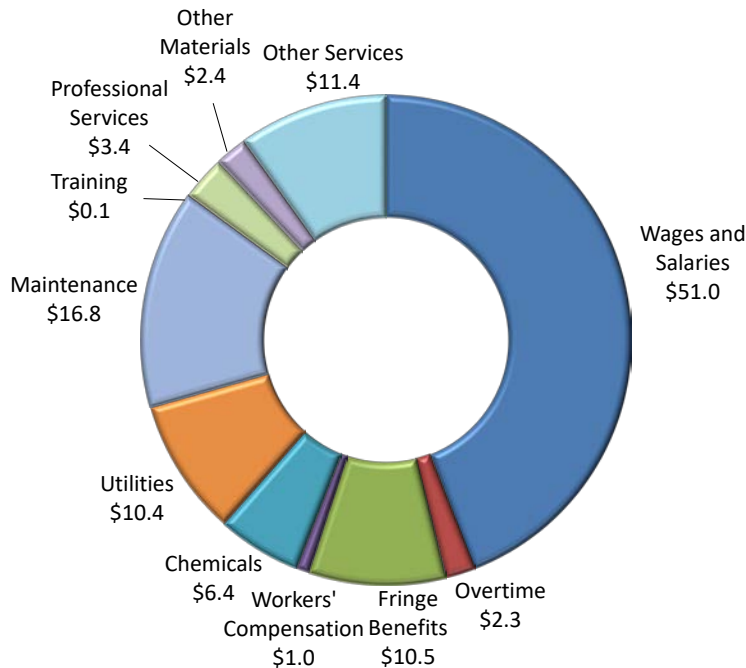
Total Revenues of \$396.9 million were \$0.3 million or 0.08% higher than budget due to higher Other Revenue, partially offset by lower Investment Income.

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

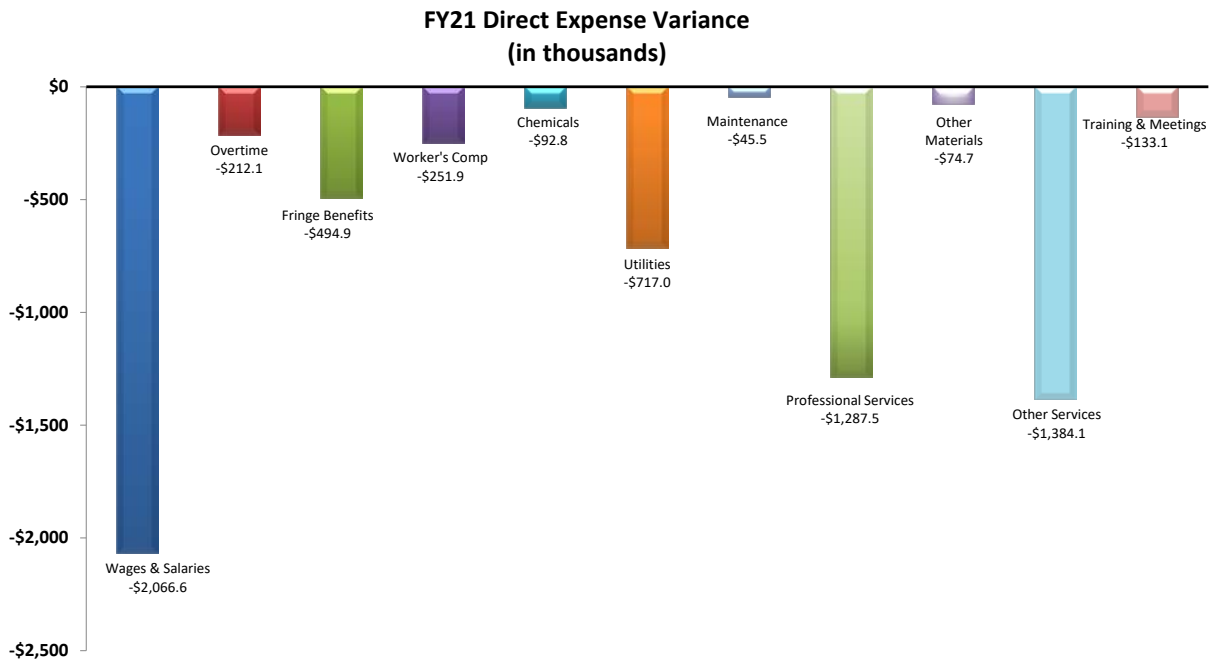
Direct Expenses

FY21 direct expenses through December totaled \$115.7 million, which was \$6.8 million or 5.5% less than budgeted.

**FY21 Direct Expenses
(in millions)**



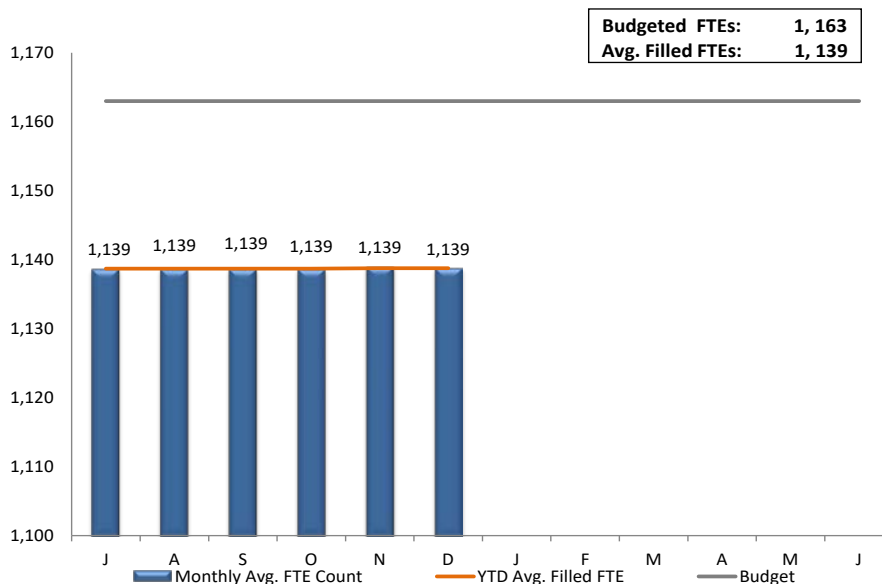
The budget variance is due to lower spending for Wages & Salaries, Other Services, Professional Services, Utilities, Fringe Benefits, Worker’s Compensation, Overtime, Training and Meetings, Chemicals, Other Materials, and Maintenance.



Wages and Salaries

Wages and Salaries are under budget by \$2.1 million or 3.9%. Through December, there were 24 fewer average FTEs (1,139 versus 1,163 budget) or 2.1% and lower average salaries for new hires versus retirees. The timing of backfilling vacant positions also contributed to Regular Pay being under budget.

FY21 MWRA Full Time Equivalent (FTE) Position Trend



Other Services

Other Services were lower than budget by \$1.4 million or 10.8%. The budget variance is due to lower than budgeted spending for Sludge Pelletization of \$809,000 due to lower year-to-date quantities, Memberships/Dues/Subscriptions of \$441,000 primarily in Operations, Telecommunications of \$126,000 primarily in MIS, and Grit and Screening Removal of \$107,000 due to lower quantities. This is partially offset by greater than budgeted spending in Other Services of \$203,000 primarily in Water Operations due to the Brookline water pipeline break.

Professional Services

Professional Services were lower than budget by \$1.3 million or 27.7%. The overall underspending is due to lower than budgeted spending in Computer Systems Consultant of \$999,000 in MIS primarily due to timing of projects including Website Redesign, PIMS Power Builder, Landesk, and Crystal Report Writer; Engineering of \$357,000 primarily in Field Operations; Other Professional Services of \$171,000 in Administration and Law; and Legal Services of \$136,000 in Law and Administration. This is partially offset by Lab and Testing Analysis of \$394,000 in Operations due to the Biobot contract.

Utilities

Utilities were less than budget by \$0.7 million or 6.4%. The budget variance is due to underspending in Electricity of \$676,000 primarily at Deer Island (\$346,000) driven primarily by power demand charges being less than budgeted based on flows, new pricing, and real time market prices for the non-block purchases under the Direct Energy contract, and Water Operations of \$206,000 due to lower rates and quantity.

Fringe Benefits

Fringe Benefit spending was lower than budget by \$0.5 million or 4.5%. This is primarily driven by lower Health Insurance costs of \$480,000, due to fewer than budgeted participants in health insurance plans, increased contribution by external new hires vs. lower contribution rates of staff retiring, and the shift from family to individual plans that are less expensive.

Worker's Compensation

Worker's Compensation expenses were lower than budget by \$0.3 million or 20.3%. The lower expenses were primarily due to favorable variances in compensation payments (\$108,000), medical payments (\$96,000), and administrative expenses (\$48,000). This reflects fewer accidents and reduced severity of those accidents. Due to the uncertainties of when spending will happen, the budget is spread evenly throughout the year.

Overtime

Overtime expenses were lower than budget by \$0.2 million or 8.6% primarily in Field Operations (\$278,000) mainly for emergency and planned overtime, with lower spending on emergency maintenance, CSO activation, planned off-hours maintenance, training and community assistance; TRAC (\$22,000) due to fewer responses to rain events and limited 8M permit inspections; and

Engineering & Construction (\$68,000). This was partially offset by higher spending for Deer Island (\$157,000) for shift coverage and unplanned maintenance.

Training and Meetings

Training and Meetings expenses were lower than budget by \$0.1 million or 71.0% driven by the timing of spending as well as conferences that were postponed or canceled due to the pandemic.

Chemicals

Chemicals were lower than budget by \$0.1 million or 1.4%. Lower than budgeted spending on Soda Ash of \$93,000 is driven by Water Operations due to source water showing fluctuations in alkalinity, which affects the dose; Sodium Hypochlorite of \$76,000 is driven by Field Operations due to lower dosing at Carroll Water Treatment Plant and Deer Island due to lower flows; Polymer of \$71,000 driven by Deer Island due to less usage for centrifuge operations; and Sodium Bisulfite of \$63,000 driven by Treatment. This is offset by higher than budgeted spending on Carbon Dioxide of \$95,000 driven by Water Operations due to the *force majeure* surcharge and higher dose to meet pH target; Hydrogen Peroxide of \$88,000 driven by Deer Island due to higher Hydrogen Sulfide gas levels; and Ferric Chloride of \$78,000 driven by Deer Island to keep the orthophosphate levels in the digesters at the desired target level. Through December, Deer Island flows are 4.4% lower than the budget and Carroll Plant, flows are 0.92% higher than the budget. It is important to note that Chemical variances are also based on deliveries, which in general reflect the usage patterns and timing.

Other Materials

Other Materials were lower than budget by \$0.1 million or 3.0%, driven by lower than budgeted spending of \$170,000 for Other Materials and \$145,000 for Vehicle Expenses primarily due to less driving and lower fuel prices. This is partially offset by Computer Hardware of \$269,000 in MIS and Healthy/Safety Materials of \$89,000, both driven by the COVID-19 pandemic.

Maintenance

Maintenance was lower than budget by \$45,000 or 0.3%, largely driven by the timing of projects. Maintenance Materials, which are under budget by (\$241,000), driven by Special Equipment Materials (\$196,000) and HVAC Materials (\$180,000), partially offset by Automotive Materials (\$90,000). Also, Maintenance Services are over budget by \$196,000 driven by Plant and Machinery Services (\$743,000) and Computer Software Licenses (\$274,000), partially offset by Building & Grounds Services (\$535,000) and Special Equipment Services (\$174,000).

Indirect Expenses

Indirect Expenses totaled \$27.8 million, which is \$1.3 million or 4.8% greater than budget. The variance is primarily driven by the cost for the new HEEC cable (\$3.1 million). Based on the latest information from HEEC, MWRA will owe HEEC additional costs related to FY20, and we expect to make that payment by June 2021. Because we are now aware of this liability, we accrued for it starting in November. This is partially offset by lower Pension expense (\$1.0 million). After approval of the FY21 Current Expense Budget, the retirement system received a new Public

Employee Retirement Administration Commission approved required contribution. The required contribution was reduced from \$11.0 million to \$10.0 million.

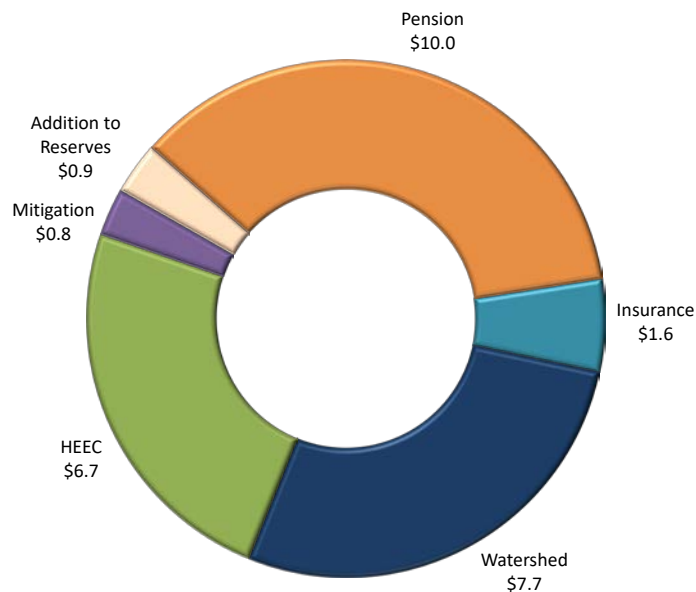
Lastly, Watershed costs are lower than budget by \$907,000 due to lower costs associated with Wages and Salaries, Maintenance, Equipment, and Fringe Benefits. This is partially offset by a prior period adjustment.

FY21 Watershed Protection Variance

\$ in millions	YTD Budget	YTD Actual	YTD \$ Variance	YTD % Variance
Operating Expenses	9.2	7.3	-1.9	-20.6%
PILOT	0.0	0.0	0.0	0.0%
Subtotal	9.2	7.3	-1.9	-20.6%
Revenue offset	0.6	0.5	0.0	-5.8%
Current Fiscal Year Net Total Budget	8.6	6.8	-1.9	-21.6%
DCR Balance Forward (FY20 4th quarter accrual true-up)	0.0	1.0	1.0	
Total Budget	8.6	7.7	-0.9	-10.5%

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 trued-up quarterly based on the quarterly invoice. MWRA’s budget is based on the annual Fiscal Year Work Plan approved by the Massachusetts Water Supply Protection Trust. The FTE count at the end of December was 131 (and 131.8 on a year-to-date basis) vs. a budget of 150.

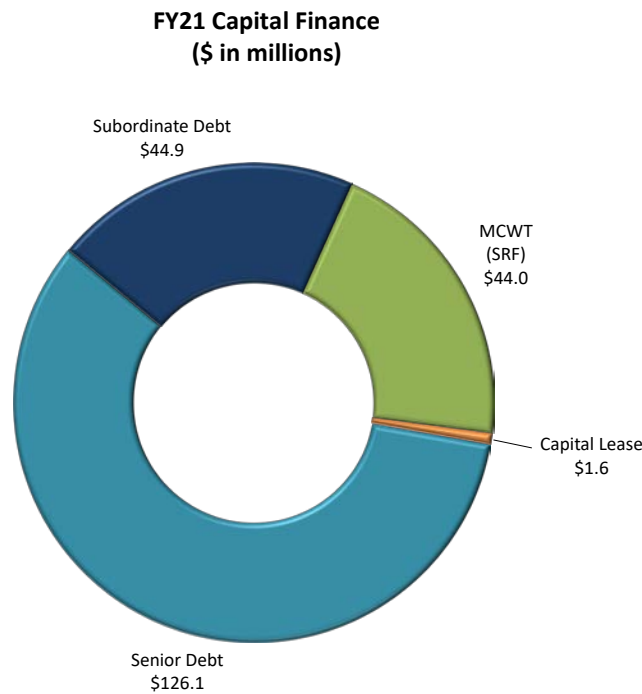
FY21 Indirect Expenses (in millions)



Capital Financing

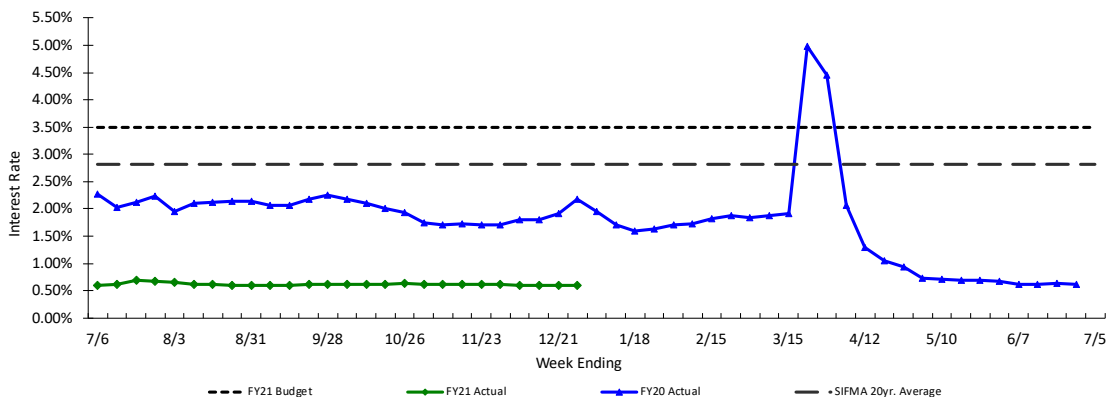
Capital Financing expenses include the principal and interest payments for fixed senior debt, the variable subordinate debt, the Massachusetts Clean Water Trust (SRF) obligation, the commercial paper program for the local water pipeline projects, current revenue for capital, Optional Debt Prepayment,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

Year-to-date Capital Financing expenses for FY21 totaled \$222.3 million, which is right on budget. In December, the year-to-date debt related savings of \$5.6 million was transferred to the Defeasance Account. This is the result of the lower than budgeted variable interest rates, timing of the SRF transaction, partially offset by higher than anticipated Senior Debt.



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

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



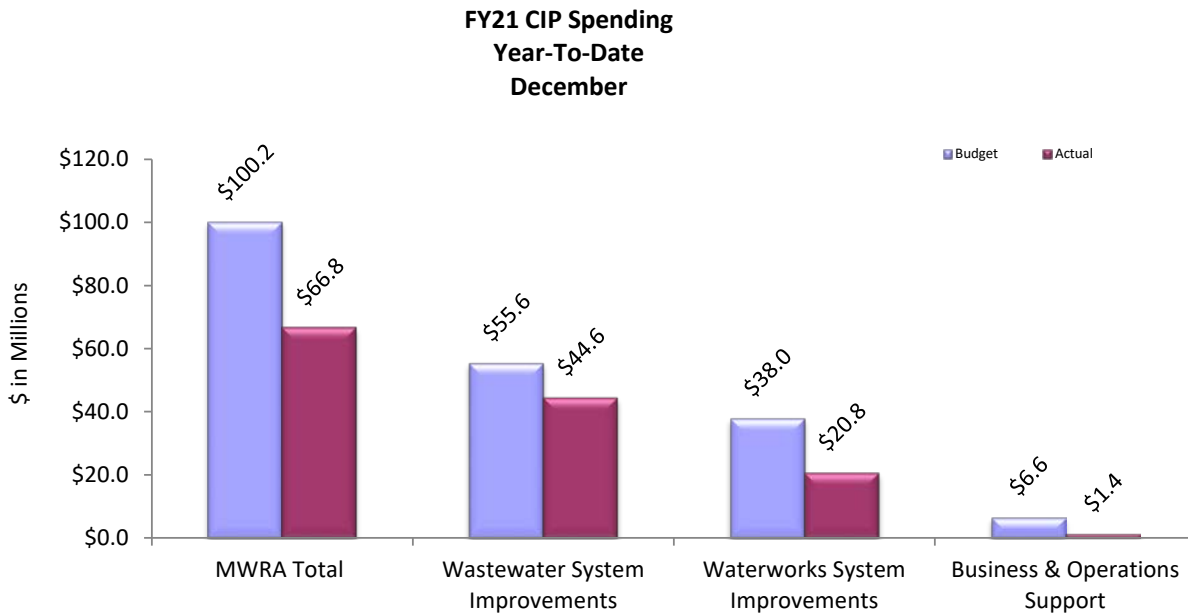
Revenue & Income

Revenues of \$396.9 million were \$311,000 or 0.08% over budget. Other Revenue was \$704,000 or 16.1% over budget due to Energy Revenue (\$397,000), Miscellaneous Revenue of (\$141,000) primarily associated with worker's compensation reimbursement for older claims; Disposal of surplus materials of \$135,000; and \$68,000 in grant money. In addition, Other User Charges were over the budgeted by \$73,000 due to the entrance fee payments from the Rivers School in Weston and Crescent Ridge Dairy in Sharon. This was partially offset by lower Investment Income of \$467,000 or 18.7% due to lower than budgeted interest rates (0.49% vs. 0.73%) partially offset by higher than budgeted average balances.

FY21 Capital Improvement Program

Capital expenditures in Fiscal Year 2021 through December total \$66.8 million, \$33.4 million or 33.3% 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 \$47.3 million, \$15.4 million or 24.5% under budget.



Overall, CIP spending reflects the underspending in Wastewater Improvements (\$11.0 million), Waterworks (\$17.2 million) and Business and Operations Support (\$5.2 million). Major variances in Wastewater are primarily due to Channel 4 work being behind schedule for the Chelsea Headworks Upgrades Construction pending a time extension, delay in equipment delivery for Nut Island Odor Control and HVAC Improvements, updated schedule for the Dorchester Infiltration/Inflow Removal, timing of community repayments for the I/I Local Financial Assistance Program due to less than anticipated communities deferring their loan repayments, work anticipated in FY21 that was completed in FY20 for the Pellet Conveyance Piping project, and delay in NTP and bypass pumping system for the Dorchester Interceptor Sewer. This was partially offset by timing of work for Deer Island Chemical Tank and Digester Pipe, and contractor progress for the Gas Protection System Replacement Phase 1 and Gravity Thickener Rehabilitation.

Waterworks variances are primarily due to less than anticipated communities deferring their loan repayments for the Water Loan Program, delay in award of CP-1 Shafts 6, 8, and 9A, timing of consultant work for the Tunnel Preliminary Design and MEPA Review and Program Support Services contracts. This was partially offset by contractor progress on the Southern Extra High Section 111 Construction 2 and 3, Commonwealth Avenue Pumping Station Construction,

contractor progress on WASM 3 Rehabilitation, CP-1, and FY20 planned work completed in FY21 for the Cosgrove Intake Roof Replacement.

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

\$ in Millions	Budget	Actuals	\$ Var.	% Var.
Wastewater System Improvements				
Interception & Pumping	27.5	20.4	(7.1)	-25.8%
Treatment	8.7	9.2	0.6	6.7%
Residuals	2.8	1.4	(1.5)	-52.2%
CSO	2.0	0.7	(1.3)	-64.0%
Other	14.6	12.9	(1.7)	-11.6%
Total Wastewater System Improvements	\$55.6	\$44.6	(\$11.0)	-19.7%
Waterworks System Improvements				
Drinking Water Quality Improvements	0.8	0.5	(0.3)	-36.4%
Transmission	7.1	5.4	(1.6)	-23.0%
Distribution & Pumping	8.0	7.6	(0.4)	-5.0%
Other	22.2	7.3	(14.9)	-67.3%
Total Waterworks System Improvements	\$38.0	\$20.8	(\$17.2)	-45.3%
Business & Operations Support	\$6.6	\$1.4	(\$5.2)	-78.7%
Total MWRA	\$100.2	\$66.8	(\$33.4)	-33.3%

Totals may not add due to rounding

FY21 Spending by Program:

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

Other Waterworks: Net underspending of \$14.9 million

- \$15.0 million for Local Financial Assistance due to timing of community repayments due to less than anticipated communities deferring their loan repayments.
- \$0.4 million for Carroll Water Treatment Plant SCADA Design due to updated schedule for the SCADA Construction
- This underspending was partially offset by overspending of \$0.3 million for Cosgrove Intake Roof Replacement, \$0.2 million for Bellevue 2/Turkey Hill Tanks Painting, and \$0.1 million for Gillis Pumping Station/Cottage Farm CSO Roof Replacement due to FY20 planned work that was completed in FY21.

Interception & Pumping: Net underspending of \$7.1 million

- \$3.7 million for Chelsea Creek Upgrade Construction and Resident Engineering Inspection due to Channel 4 work behind schedule and time extension.
- \$2.6 million for Nut Island Odor Control and HVAC Construction due to delays in equipment delivery and Covid-19 shut down.
- \$0.4 million for Prison Point Design/CA/REI due to delay in construction award.
- \$0.3 million for Dorchester Interceptor Sewer Construction due to delay in Notice to Proceed and bypass pumping system.

- \$0.3 million for Wastewater Metering Planning/Design due to time extension through the construction installation and warranty period, and \$0.2 million for Construction due to delay in award.
- This underspending was partially offset by overspending of \$0.2 million for Siphon Structure Rehabilitation Design due to consultant progress.

Business & Operations Support: Net underspending of \$5.2 million

- \$2.0 million for As-Needed Technical Assistance and Resident Engineering and Inspection Services due to lower than projected task order work, \$0.9 million for Lawson Upgrade and \$0.8 million for Enterprise Content Management due to schedule changes, \$0.5 million for Vehicle Purchases due to timing, and \$0.4 million for Security Equipment and Installation due to timing of physical security initiatives.

Other Wastewater: Net underspending of \$1.7 million

- \$1.7 million for Community I/I Financial Assistance due to timing of community repayments as a result of less than anticipated communities deferring their loan repayments.

Waterworks Transmission: Net underspending of \$1.6 million

- \$1.1 million for CP-1 Shafts 6, 8, and 9A due to delay in award of contract.
- \$0.8 million for Tunnel Preliminary Design & MEPA Review and \$0.1 million for Program Support Services due to timing of consultant work.
- \$0.6 million for Weston Aqueduct Sluice Gates Construction due to updated schedule.
- \$0.1 million for Weston Aqueduct Supply Mains/Spot Pond Supply Mains Design/CA due to delays in final design.
- This underspending was partially offset by overspending of \$1.5 million for WASM 3 Rehabilitation, CP-1 due to contractor initiating work sooner than anticipated, and \$0.5 million for Commonwealth Avenue Pumping Station Construction due to contractor progress.

Residuals: Net underspending of \$1.5 million

- \$0.9 million for Pellet Conveyance Piping Relocation and \$0.6 million for Residuals Mechanical/Electrical/Dryer Drum Replacements due to work anticipated in FY21 completed in FY20.

Combined Sewer Overflow: Net underspending of \$1.3 million

- \$1.4 million for Dorchester Inflow Removal Construction due to updated schedules partially offset by \$0.1 million for CSO Performance Assessment due to greater than anticipated consultant progress.

Wastewater Treatment: Net overspending of \$0.6 million

- \$0.7 million for Chemical Tank Relining and Digester Pipe Construction and \$0.3 million for Gas Protection System Replacement Phase 1, and \$0.2 million for Gravity Thickener Rehabilitation due to contractor progress.
- \$0.1 million for Radio Repeater System Upgrade Phase 1 due to work anticipated in FY21 that was completed in FY20.

- This overspending was partially offset by underspending of \$0.7 million for less than anticipated as-needed task order work

Water Distribution and Pumping: Net underspending of \$0.4 million

- \$0.9 million for Sections 23, 24, 47 Rehabilitation, and \$0.5 million for Section 89/29 Replacement - Construction due to schedule changes.
- \$0.3 million for Sections 25, 75, 59, and 60 Design/CA due to delay in getting field testing started.
- \$0.2 million for Sections 50/57 Water due to contract scope reduction.
- \$0.1 million for NIH Section 89 and 29 Design/CA/RI due to less than anticipated contract administration/resident inspection budgeted spending.
- This underspending was partially offset by overspending of \$1.6 million for Southern Extra High Section 111 Construction 2 and 3 due to contractor progress, \$0.3 million for Section 56 Replacement/Saugus River - Design/CA due to consultant progress, and \$0.1 million for NIH Section 89 & 29 Redundancy due to final work completed.

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

- \$0.2 for Carroll Water Treatment Plant Technical Assistance due to less than anticipated as-needed technical assistance, and \$0.2 million for updated schedule for CP-7 Existing Facilities Modifications.

Construction Fund Balance

The construction fund balance was \$279 million as of the end of December. Commercial Paper/Revolving Loan available capacity was \$222 million.

ATTACHMENTS:

Attachment 1 – Variance Summary December 2020

Attachment 2 – Current Expense Variance Explanations

Attachment 3 – Capital Improvement Program Variance Explanations

ATTACHMENT 1
FY21 Actuals vs. FY21 Budget

	Dec 2020 Year-to-Date				
	Period 6 YTD Budget	Period 6 YTD Actual	Period 6 YTD Variance	%	FY21 Approved
<u>EXPENSES</u>					
WAGES AND SALARIES	\$ 53,107,118	\$ 51,040,469	\$ (2,066,649)	-3.9%	\$ 112,919,298
OVERTIME	2,471,356	2,259,223	(212,133)	-8.6%	5,019,295
FRINGE BENEFITS	10,989,455	10,494,543	(494,912)	-4.5%	22,402,224
WORKERS' COMPENSATION	1,238,328	986,384	(251,944)	-20.3%	2,476,655
CHEMICALS	6,522,577	6,429,737	(92,840)	-1.4%	12,091,255
ENERGY AND UTILITIES	11,166,128	10,449,156	(716,972)	-6.4%	24,200,847
MAINTENANCE	16,837,460	16,791,999	(45,461)	-0.3%	32,618,569
TRAINING AND MEETINGS	187,537	54,399	(133,138)	-71.0%	405,264
PROFESSIONAL SERVICES	4,653,955	3,366,464	(1,287,491)	-27.7%	8,377,283
OTHER MATERIALS	2,514,579	2,439,916	(74,663)	-3.0%	6,706,916
OTHER SERVICES	12,810,536	11,426,460	(1,384,076)	-10.8%	24,983,777
TOTAL DIRECT EXPENSES	\$ 122,499,029	\$ 115,738,750	\$ (6,760,277)	-5.5%	\$ 252,201,383
INSURANCE	\$ 1,529,609	\$ 1,621,631	\$ 92,022	6.0%	\$ 3,059,218
WATERSHED/PILOT	8,633,052	7,725,035	(908,017)	-10.5%	26,422,138
HEEC PAYMENT	3,607,600	6,707,587	3,099,987	85.9%	7,215,200
MITIGATION	846,172	826,029	(20,143)	-2.4%	1,692,344
ADDITIONS TO RESERVES	907,539	907,539	-	0.0%	1,815,077
RETIREMENT FUND	11,000,000	10,000,000	(1,000,000)	-9.1%	11,000,000
POST EMPLOYEE BENEFITS	-	-	-	---	6,065,490
TOTAL INDIRECT EXPENSES	\$ 26,523,972	\$ 27,787,821	\$ 1,263,849	4.8%	\$ 57,269,467
STATE REVOLVING FUND	\$ 45,479,580	\$ 44,023,509	\$ (1,456,071)	-3.2%	\$ 97,811,162
SENIOR DEBT	125,843,307	126,119,680	276,373	0.2%	258,730,904
DEBT SERVICE ASSISTANCE	-	-	-	---	-
CURRENT REVENUE/CAPITAL	-	-	-	---	16,200,000
SUBORDINATE MWRA DEBT	49,366,018	49,366,018	-	0.0%	96,339,598
LOCAL WATER PIPELINE CP	-	-	-	---	5,686,864
CAPITAL LEASE	1,608,530	1,608,530	-	0.0%	3,217,060
VARIABLE DEBT	-	(4,444,119)	(4,444,119)	---	-
DEFEASANCE ACCOUNT	-	5,623,817	5,623,817	---	3,900,000
DEBT PREPAYMENT	-	-	-	---	-
TOTAL DEBT SERVICE	\$ 222,297,436	\$ 222,297,436	\$ -	0.0%	\$ 481,885,588
TOTAL EXPENSES	\$ 371,320,437	\$ 365,824,007	\$ (5,496,428)	-1.5%	\$ 791,356,438
<u>REVENUE & INCOME</u>					
RATE REVENUE	\$ 384,692,500	\$ 384,692,500	\$ -	0.0%	\$ 769,385,000
OTHER USER CHARGES	4,289,930	4,362,778	72,848	1.7%	9,208,367
OTHER REVENUE	4,374,380	5,078,802	704,422	16.1%	6,095,403
RATE STABILIZATION	750,000	750,000	-	0.0%	1,500,000
INVESTMENT INCOME	2,492,027	2,025,454	(466,573)	-18.7%	5,167,668
TOTAL REVENUE & INCOME	\$ 396,598,837	\$ 396,909,534	\$ 310,697	0.1%	\$ 791,356,438

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY21 Budget YTD December	FY21 Actuals December	FY21 YTD Actual vs. FY21 Budget		Explanations
			\$	%	
Direct Expenses					
Wages & Salaries	53,107,118	51,040,469	(2,066,649)	-3.9%	Wages and Salaries are under budget by \$2.1 million. Year to date, there have been 24 fewer average FTEs (1,139 versus 1,163 budget), lower average new hire salaries versus retirees, the timing of backfilling vacant positions.
Overtime	2,471,356	2,259,223	(212,133)	-8.6%	Lower spending mainly in Field Operations (\$278,000) primarily in emergency and planned overtime with lower spending on emergency maintenance, CSO activation, planned off-hours maintenance, training and community assistance. TRAC (\$22,000) due to fewer responses to rain events and limited 8M permit inspections, and. Engineering & Construction (\$68,000), offset by higher spending for Deer Island (\$157,000) for shift coverage and unplanned maintenance.
Fringe Benefits	10,989,455	10,494,543	(494,912)	-4.5%	Lower than budget in Health Insurance of \$480,000, due to fewer than budgeted participants in health insurance plans, increased contribution by external new hires vs. lower contribution rates of staff retiring, and the shift from family to individual plans which are less expensive. In addition, Medicare was under budget by \$32,000, partially offset by Unemployment Insurance which is over budget by \$49,000. due to unemployment fraud charges that are being disputed..
Worker's Compensation	1,238,328	986,384	(251,944)	-20.3%	The lower expenses were due to favorable variances in Compensation Payments of \$108,000, Medical Payments of \$96,000, and Administrative Expenses of \$48,000. These lower payments reflect fewer accidents to date. Due to uncertainties of when spending will happen, the budget is spread evenly throughout the year.
Chemicals	6,522,577	6,429,737	(92,840)	-1.4%	Lower than budget spending on Soda Ash of \$93,000 driven by Water Operations due to source water showing fluctuations in alkalinity, affecting the dose; Sodium Hypochlorite of \$76,000 driven by Field Operations of \$41,000 due to lower dosing at JCWTP and. Deer Island of \$29,000 due to lower flows; Polymer of \$71,000 driven by DITP due to less usage for centrifuge operations; and Sodium Bisulfite of \$63,000 driven by Treatment. This is offset by higher than budget spending on Carbon Dioxide of \$95,000 driven by Water Operations due to the force majeure surcharge and higher dose to meet pH target; Hydrogen Peroxide of \$88,000 driven by DITP due to higher H2S gas levels; and Ferric Chloride of \$78,000 driven by DITP to keep the orthophosphate levels in the digesters at the desired target level . DITP flows are 4.4% lower than the budget and CWTP flows are 0.92% higher than the budget through December. 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	11,166,128	10,449,156	(716,972)	-6.4%	Underspending in Electricity of \$0.7 million primarily at DITP (\$0.3 million) driven primarily by power demand charges being less than budgeted based on flows, new pricing, and real time market prices for the non-block purchases under the Direct Energy contract. Also, Water Operations (\$0.2 million) is under budget primarily due to lower rates and quantity.

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY21 Budget YTD December	FY21 Actuals December	FY21 YTD Actual vs. FY21 Budget		Explanations
			\$	%	
Maintenance	16,837,460	16,791,999	(45,461)	-0.3%	Underspending in Ongoing Maintenance by \$45,000 is largely driven by the timing of projects. Maintenance Materials which are under budget by (\$0.2 million), driven by Special Equipment Materials (\$0.2 million), HVAC Materials (\$0.2 million), Electrical Materials (\$0.1 million), Building & Grounds Materials (\$0.1 million), and Pipe Materials (\$0.1 million), partially offset by Warehouse inventory (\$0.3 million) and Automotive Materials (\$0.1 million). Also, <i>Maintenance Services</i> are over budget by \$0.2 million driven by Plant and Machinery Services (\$0.7 million), Computer Software Licenses (\$0.3 million), and Pipe Services (\$0.1 million), partially offset by Building & Grounds Services (\$0.5 million) and Special Equipment Services (\$0.2 million)..
Training & Meetings	187,537	54,399	(133,138)	-71.0%	Lower than budget spending on Training & Meetings by \$133,000 is driven by MIS (\$49,000), Field Operations (\$23,000), DI (\$18,000) Engineering & Construction (\$10,000), and Procurement (\$8,000) primarily due to timing and conferences that were postponed.or canceled.
Professional Services	4,653,955	3,366,464	(1,287,491)	-27.7%	Lower than budget spending in Computer Systems Consultant of \$998,000 in MIS primarily due to timing delays of projects including Website Redesign, PIMS Power Builder, Landesk, and Crystal Report Writer; Engineering of \$357,000 primarily in Field Operations; Other Professional Services of \$171,000 in Administration and Law; Legal Services of \$136,000 in Law and Administration; partially offset by Lab and Testing Analysis of \$394,000 in Operations due to the Biobot contract.
Other Materials	2,514,579	2,439,916	(74,663)	-3.0%	Driven by lower than budgeted spending of \$170,000 for Other Materials , and \$145,000 for Vehicle Expense primarily due to less driving and lower fuel prices, partially offset by Computer Hardware of \$269,000 in MIS Health/Safety Materials of \$89,000 both driven by necessary purchases due to Covid-19.
Other Services	12,810,536	11,426,460	(1,384,076)	-10.8%	Lower than budgeted spending for Sludge Pelletization of \$809,000 due to lower year-to-date quantities; Memberships/Dues/Subscriptions of \$441,000 primarily in Operations; Telecommunication Services of \$126,000 primarily in MIS; Grit & Screening Removal of \$107,000 due to lower quantities, partially offset by higher than budgeted spending for Other Services of \$203,000 primarily in Water Operations due to the Brookline water pipeline break.
Total Direct Expenses	122,499,029	115,738,750	(6,760,279)	-5.5%	

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY21 Budget YTD December	FY21 Actuals December	FY21 YTD Actual vs. FY21 Budget		Explanations
			\$	%	
Indirect Expenses					
Insurance	1,529,609	1,621,631	92,022	6.0%	Higher premiums received for property and excess general liability (\$188,000) offset by Lower Payments/Claims costs (\$96,000).
Watershed/PILOT	8,633,052	7,726,035	(907,017)	-10.5%	Watershed costs are lower than budget by \$907,000 due to lower costs associated with Wages and Salaries, Maintenance, Equipment, Fringe Benefits, Professional Services, and Utilities, and partially offset by a prior period adjustment.
HEEC Payment	3,607,600	6,707,587	3,099,987	85.9%	Increase is due to updated cost for HEEC capacity and service charge.
Mitigation	846,172	826,029	(20,143)	-2.4%	
Addition to Reserves	907,539	907,539	-	0.0%	
Pension Expense	11,000,000	10,000,000	(1,000,000)	-9.1%	After approval of the FY21 CEB, the retirement system received a new PERAC approved required contribution. The required deposit was reduced from \$11.0 million to \$10.0 million.
Post Employee Benefits	-	-	-		
Total Indirect Expenses	26,523,972	27,788,821	1,264,849	4.8%	
Debt Service					
Debt Service	222,297,435	222,297,435	-	0.0%	\$5.6 million was transferred to the defeasance account reflecting lower than budgeted interest expenses of \$4.4 million due to lower interest rates and lower SRF spending of \$1.5 million as a result of timing.
Debt Service Assistance	-	-	-		
Total Debt Service Expenses	222,297,435	222,297,435	-	0.0%	
Total Expenses					
Total Expenses	371,320,436	365,825,006	(5,495,430)	-1.5%	

**ATTACHMENT 2
Current Expense Variance Explanations**

Total MWRA	FY21 Budget YTD December	FY21 Actuals December	FY21 YTD Actual vs. FY21 Budget		Explanations
			\$	%	
Revenue & Income					
Rate Revenue	384,692,500	384,692,500	-	0.0%	
Other User Charges	4,289,930	4,362,779	72,849	1.7%	Rivers School in Weston entrance fee of \$42,000 and Crescent Ridge Dairy in Sharon of \$34,000.
Other Revenue	4,374,380	5,078,802	704,422	16.1%	Energy Revenue (\$397,000); Miscellaneous Revenue of (\$141,000) primarily associated with worker's compensation reimbursement for older claims; Disposal of surplus materials of \$135,000; (\$68,000) in grant money, and \$42,000 for emergency water supply surcharge.
Rate Stabilization	750,000	750,000	-	0.0%	HEEC Reserve.
Investment Income	2,492,027	2,025,453	(466,574)	-18.7%	Investment Income is under budget due to lower than budgeted interest rates (0.49% actual vs. 0.73% budget) partially offset by higher than budgeted average balances.
Total Revenue	396,598,837	396,909,534	310,697	0.08%	
Net Revenue in Excess of Expenses	25,278,401	31,084,528	5,806,127		

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

	FY21 Budget YTD December	FY21 Actuals YTD December	YTD Actuals vs. Budget		Explanations
			\$	%	
Wastewater					
Interception & Pumping (I&P)	\$27,452	\$20,375	(\$7,077)	-25.8%	<u>Underspending</u> Chelsea Creek Headworks Upgrades - Construction and REI: \$3.7M (delay in work on Channel 4, and time extension) Nut Island Odor Control & HVAC Improvements Phase 2 - Construction: \$2.6M (delays in equipment delivery and Covid-19 shut down) Interceptor Renewal No. 3, Dorchester Interceptor Sewer - Construction: \$293k (delay in notice-to-proceed and bypass pumping system) Prison Point Rehabilitation - Design/CA/RI: \$388k (delay in construction award) Wastewater Meter System Planning/Study/Design: \$333k (pending time extension through construction installation and warranty period) Wastewater Meter System Equipment Replacement: \$202k (delay in award) <u>Offset Overspending</u> Siphon Structure Rehabilitation Design: \$163k (consultant progress)
Treatment	\$8,662	\$9,239	\$577	6.7%	<u>Overspending</u> Chemical Tank and Digester Pipe: \$721k (contractor progress) Gas Protection System Replacement - Phase 1: \$335k, and Gravity Thickener Rehabilitation: \$210k (contractor progress) Radio Repeater System Upgrade - Phase 1: \$138k (work anticipated in FY20 completed in FY21) <u>Offset Underspending</u> As-Needed Design: \$678k (less than anticipated task order work)
Residuals	\$2,840	\$1,358	(\$1,481)	-52.2%	<u>Underspending</u> Pellet Conveyance Relocation: \$885k, and Residuals Mechanical/Electrical/Dryer Drum Replacements: \$596k (work anticipated in FY21 completed in FY20)
CSO	\$2,021	\$727	(\$1,294)	-64.0%	<u>Underspending</u> Dorchester Inflow Removal Construction: \$1.4M (updated schedules) <u>Offset Overspending</u> CSO Performance Assessment: \$126k (consultant progress)
Other Wastewater	\$14,577	\$12,882	(\$1,695)	-11.6%	<u>Underspending</u> I/I Local Financial Assistance: \$1.7M (timing of community repayments as a result of less than anticipated communities deferring loan repayments)
Total Wastewater	\$55,552	\$44,581	(\$10,971)	-19.7%	


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

	FY21 Budget YTD December	FY21 Actuals YTD December	YTD Actuals vs. Budget		Explanations
			\$	%	
Waterworks					
Drinking Water Quality Improvements	\$812	\$517	(\$295)	-36.4%	<u>Underspending</u> CP-7 Existing Facilities Modifications: \$225k (updated schedule) Carroll Water Treatment Plant Technical Assistance 9 & 10: \$151k (timing of task order work)
Transmission	\$7,061	\$5,440	(\$1,621)	-23.0%	<u>Underspending</u> CP-1 Shafts 6, 8, and 9A: \$1.1M (delay in award of contract) Metropolitan Tunnel Redundancy Preliminary Design & MEPA Review: \$799k, and Program Support Services: \$113k (timing of consultant work) Weston Aqueduct Sluice Gates - Construction: \$638k, and River Road Improvements-Wachusett: \$202k (updated schedules) Watershed Land: \$308k (timing of purchases) Weston Aqueduct Supply Mains/Spot Pond Supply Mains - Design/CA: \$126k (delays in final design) <u>Offset Overspending</u> WASM 3 Rehabilitation, CP-1: \$1.5M (contractor initiated work sooner than anticipated) Commonwealth Ave Pump Station Improvements - Construction: \$524k, (contractor progress)
Distribution & Pumping	\$7,984	\$7,587	(\$397)	-5.0%	<u>Underspending</u> CP3-Sections 23, 24, 47 Rehabilitation: \$949k, and Section 89/29 Replacement - Construction: \$507k (schedule changes) Sections 25, 75, 59 & 60 Replacement - Design/CA: \$272k (delay in commencement of field testing) Sections 50 & 57 Water Rehabilitation - Design/ESDC; \$154k (contract scope reduction) Section 89/29 Redundancy -Design/CA/RI: \$80k (Construction Administration and Resident Inspection services less than anticipated budgeted spending) <u>Offset Overspending</u> SEH Redundancy Pipeline Section 111 - Construction Phase 2 & 3: \$1.6M (contractor progress) Section 56 Replacement/Saugus River - Design/CA: \$285K (consultant progress) Section 89/29 Redundancy Construction Phase 2: \$87k (final work completed)

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

	FY21 Budget YTD December	FY21 Actuals YTD December	YTD Actuals vs. Budget		Explanations
			\$	%	
Other Waterworks	\$22,186	\$7,265	(\$14,921)	-67.3%	<u>Underspending</u> Local Water Pipeline Financial Assistance Program: \$15.0M (timing of community repayments due to less than anticipated communities deferring their loan repayments) CWTP SCADA Upgrades - Design Programming RE: \$404k (updated schedule for SCADA Construction) <u>Offset Overspending</u> Cosgrove Intake Roof Replacement: \$266k, Bellevue 2/Turkey Hill Tanks Painting: \$177k, and Gillis Pump Station/Cottage Farm CSO Roof Replacements: \$141k (FY20 planned work completed in FY21)
Total Waterworks	\$38,043	\$20,809	(\$17,234)	-45.3%	
Business & Operations Support					
Total Business & Operations Support	\$6,618	\$1,408	(\$5,210)	-78.7%	<u>Underspending</u> As-Needed Technical Assistance and CS/REI Services: \$2.0M (lower than projected task order work) Lawson Upgrade: \$879k, Enterprise Content Management: \$799k, and Instrumentation & Controls IT: \$198k (schedule changes) FY19-23 Vehicle Purchases: \$483k (due to timing) Security Equipment & Installation: \$421k, (timing of physical security initiatives)
Total MWRA	\$100,214	\$66,798	(\$33,416)	-33.3%	


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: January 20, 2021
SUBJECT: Task Order Appraisal Services
Colliers International Holdings, Inc., Contract 603TA, Amendment 2
Foster Appraisal & Consulting Co, Inc., Contract 604TA, Amendment 2

COMMITTEE: Administration, Finance & Audit

 INFORMATION
 X VOTE

Lisa Grollman, Project Manager, RPEM
Preparer/Title


Michele S. Gillen
Director of Administration

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Amendment 2 to Contract 603TA with Colliers International Holdings, Inc. and Amendment 2 to Contract 604TA with Foster Appraisal & Consulting Company, Inc., for Task Order Appraisal Services to extend the term of each contract by 12 months, from February 20, 2021 to February 19, 2022, with no increase in the contract amounts.

DISCUSSION:

MWRA staff use property appraisals to establish value when acquiring property in support of Board-approved capital construction projects, in the disposition of surplus MWRA property, and for negotiation of lease, permit and license fees. MWRA also requires consulting services and market studies, as needed.

On June 28, 2017, the Board of Directors authorized MWRA to enter into two separate contracts for task-order appraisal services, one with Colliers International Holdings, Inc. and one with Foster Appraisal & Consulting Company, Inc., each for a term of 3 years and each in the amount of \$50,000. In August 2020, MWRA executed Amendment 1 to each of these contracts under delegated authority, extending the contracts by 6 months to February 20, 2021, and increasing the budgets by \$12,500 per contract to a total of \$62,500 each. Each contract has approximately \$31,000 remaining for MWRA to use on an as-needed basis and authorize by task order.

This Amendment

Since executing the first amendment to each contract, two existing MWRA projects require additional appraisal services. Staff recommend continuity in the appraisal work and, thus, request time extensions for each of the contracts so that the additional appraisal services may be performed.

Both Colliers and Foster undertook task order assignments for Contract 7540 Water Sections 50/57 and Sewer Sections 19/20/21 Rehab – Medford. These projects require services beyond February 20, 2021 and may even extend into early 2022. Therefore, it is most efficient and cost effective to keep Colliers and Foster on board to complete the appraisals and amend the contracts to extend the respective terms by 12 months. Additionally, Colliers is providing appraisal and consulting work for MWRA’s future office space planning needs. Accordingly, staff recommend extending the contract term and allowing Colliers to efficiently complete work that is underway. Staff are satisfied with the quality of services provided by both Colliers and Foster. Both companies are agreeable with continuing to provide services under their respective contracts with time extensions, while also maintaining their current single hourly rates throughout the extended period.

Staff are in the process of convening a selection committee for two new appraisal task order contracts, which will include increased funding for appraisal work to support the Metropolitan Tunnel Redundancy Project. These contracts are scheduled to be procured in the first quarter of 2021.

CONTRACT SUMMARY:

	<u>Amount</u>	<u>Time</u>	<u>Commencement Date</u>
Contract (603TA and 604TA)	\$50,000 each	36 Months	August 20, 2017
Amendment 1*	\$12,000 each	6 Months	August 20, 2020
Amendment 2	\$0	12 Months	Pending
Adjusted Contract Amounts	\$62,000 each	54 Months	

*Approved under delegated authority; Amendment 1 increased the total amount of each contract by 25%.

BUDGET/FISCAL IMPACT:

Contracts 603TA and 604TA are used on an as-needed basis and costs incurred to perform services will be charged to the specific project under the FY21 CIP.

MBE/WBE PARTICIPATION:

Due to the lack of subcontractor opportunities, there were no MBE/WBE requirements assigned to this project

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: January 20, 2021
SUBJECT: Chelsea Creek Headworks Upgrade
BHD/BEC 2015, A Joint Venture
Contract 7161, Change Order 44



COMMITTEE: Wastewater Policy & Oversight

INFORMATION
 VOTE

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


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

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Change Order 44 to Contract 7161, Chelsea Creek Headworks Upgrade, with BHD/BEC 2015, A Joint Venture for an amount not to exceed \$308,291, increasing the contract amount from \$83,880,801.06 to \$84,189,092.06, with no increase in contract term.

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

DISCUSSION:

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

This project is a major upgrade of the entire facility and includes automation of the screenings collection and solids conveyance system, allowing the facility to be unstaffed during dry weather flow. The grit collector systems are being replaced and existing climber screens are being replaced with catenary screens. Influent and effluent sluice gates are being replaced and the gate hydraulic operating system is being replaced with electric gate actuators. Carbon adsorbers are being installed for odor control, HVAC systems are being upgraded, and redundancy is being added to both systems. Ancillary systems including the emergency generator, fuel oil tank, and transformer are being replaced. Instrumentation and control systems are being upgraded, the communications tower is being replaced and a communications building is being added. Abatement of hazardous building materials including paint containing PCBs, flood protection measures to protect the

facility to the 100-year flood elevation plus 2.5 feet, and upgrades to meet current code requirements for egress, electrical, plumbing and fire suppression are also included.

Project Update

- The first three process channels have been completed and are available for service. The fourth process channel is currently undergoing the 14-day functional acceptance test. There have been multiple failures of the new stainless steel grit collector chain in the first two channels. MWRA, the Contractor, and the chain supplier disagree as to the cause of the failure and the parties have reserved their respective rights. New collector chain has been fabricated and will replace the original chain, one channel at a time, once the fourth process channel has been accepted.
- The new odor control system, including filters, fans and carbon adsorbers was completed and placed into service in October 2020. The new makeup air units were placed into service in May 2020. The complete ventilation system will be balanced, with automatic controls beginning in January 2021.
- Hazardous material abatement is approximately 99% complete.

This Change Order

Change Order 44 consists of the following four items:

Grit Pit Flood Repairs and Flood Improvements

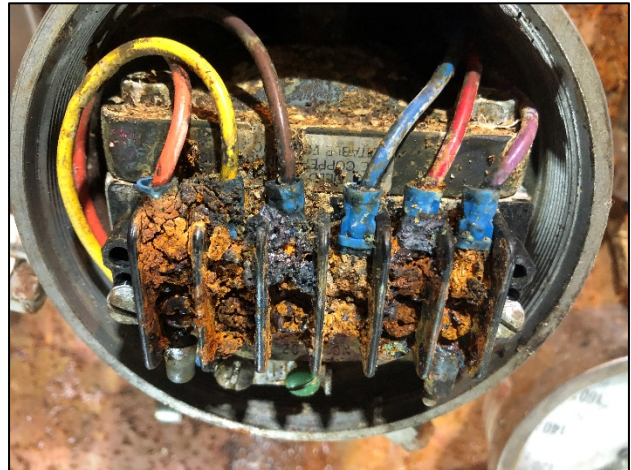
Not to Exceed \$202,640

The Contractor is required to furnish and install a pneumatic ejection system to transport grit collected from the four process channels to the dumpsters located at grade level. There are two grit ejection systems, one serving process channels 1 and 2 and the other serving process channels 3 and 4. Each grit ejection system is located in a pit, similar to a vault, below the operating floor. Each grit ejection system is comprised of two five-cubic yard pods, six knife gates, associated piping, and instrumentation. The new ejection system is similar in mechanical design to the existing system, with additional instrumentation added to provide full automation. This includes level instruments to monitor the pod level when the pods are full, proximity switches on the knife gates to confirm position, and pressure transmitters to ensure proper air pressure is used to eject the grit from the pod. On June 28, 2020, after the grit system for channels 1 and 2 was placed into service, there was a significant rain event, which required the facility to choke the upstream flow. While choking the flow, wastewater splashed onto the operating floor and flooded the grit pits. This flood damaged the level devices, pressure switches, solenoid valves, and some of the proximity switches making the entire ejection system inoperable. Raw wastewater infiltrated the raceway system and created an electric short in those devices. The contract requires that all devices and electrical raceway systems be rated for a wet environment, but they are not rated for submergence. Having these locations rated for submergence was not an original design criterion. Staff report these pits do have the potential to flood on rare occasions during high flow events such as while choking the flow or if the pumps trip at Deer Island. Loss of the entire grit ejection system is unacceptable. Staff requested that the Design Engineer evaluate options to design a new system to withstand a temporary flooded condition. The redesign includes providing new instrumentation rated for submergence and where possible, relocation of the device above the operating floor. In addition, junction boxes will be removed from the electrical raceway systems to eliminate

infiltration points and all conduits will be sealed. The Contractor will implement these changes for channels 3 and 4 and will need to rework the originally installed system for channels 1 and 2, which had been previously installed. As part of the redesign, the Contractor will furnish and install new grit ejection system instrumentation rated for temporary submergence to replace instrumentation that was damaged and modify the electrical raceway system to ensure the grit ejection system can withstand a short-term flooded condition.



Grit Pod Pit Instrumentation and Controls



Typical Instrument Damage Following Flood Event

This item was identified by MWRA staff as a design change. MWRA staff, the Consultant, and the Contractor have agreed to a not-to-exceed amount of \$202,640 for this work. The Contractor proceeded with this work at its own risk in order to complete the remainder of the contract work.

PCB Awareness Training, Drilling, Coring, Chipping and Saw Cutting Not to Exceed \$50,000

On May 18, 2018, Change Order 11 was executed to deliver polychlorinated biphenyl (PCB) awareness training and perform concrete drilling, coring, chipping and saw cutting with proper containment, collection and disposal of PCB dust and particles on a time and materials basis. The original not-to-exceed amount of \$200,000 was based on an estimate of the quantity of floor and wall penetrations for new conduit, pipe and duct as well as the number of anchors needed for associated supports, restraints and other structural connections to existing concrete. At the time Change Order 11 was executed, the coordination drawings were still being finalized, so this quantity was not known. Moreover, there have been numerous change orders that have required additional drilling, coring, chipping and saw cutting. As a result, the original estimated amount for this work has been expended and must be increased. Staff estimate that an additional \$50,000 will be needed for the remaining contract work.

This item was identified by MWRA staff as a design omission and the Consultant agreed. MWRA staff, the Consultant, and the Contractor have agreed to a not to exceed amount of \$50,000 for this work. The Contractor proceeded with this work at its own risk in order to complete the remainder of the contract work.

Odor Control Fan Pad Handrails

\$30,651

The Contractor is required to furnish and install new outdoor odor control equipment installed on raised foundations approximately five feet above finished grade as part of the flood protection improvements at the Chelsea Creek site. The site is located within the flood plain, so the raised foundations will ensure continued operation in the event of a flood. This installation requires that handrails be installed around the odor control equipment to provide fall protection for MWRA staff. After commencement of the contract, the Contractor requested clarification on the material of construction and responsible party for furnishing and installing the handrails around the perimeter of the fan foundation. The drawings were clear that the handrails around the three carbon adsorber vessels would be constructed of fiberglass reinforced plastic (FRP) and would be furnished by the carbon adsorber manufacturer and installed by the General Contractor. The information was not provided for the handrails around the fan foundation. The design engineer confirmed that the handrails in this location are anodized aluminum and will be furnished and installed by the miscellaneous and ornamental iron filed subcontractor. Since the contract documents did not indicate the materials of construction or identify the responsibility for these handrails, neither the general contractor nor the miscellaneous and ornamental iron filed subcontractor included these in their submitted bid price. To correct this omission, the miscellaneous and ornamental iron filed subcontractor shall furnish and install approximately 120-linear feet of anodized aluminum handrails with kick plate around the perimeter of the odor control fan foundation.



Odor control fan pad with temporary handrails

This item was identified by MWRA staff as a design omission and the Consultant agreed. MWRA staff, the Consultant, and the Contractor have agreed to a lump sum amount of \$30,651 for this work. The Contractor proceeded with this work at its own risk in order to complete the remainder of the contract work.

Increase Chelsea Fire Department Allowance

Not to Exceed \$25,000

Bid Item 1-B is an allowance established for Fire Department Services for the Chelsea Fire Department to provide fire watch services during all hot work, such as welding, cutting, torching and grinding. The original contract allowance included \$50,000. On September 18, 2019, Change Order 32 was approved by the Board of Directors to increase the original allowance by \$50,000 to account for additional change order work requiring hot work. To date, the contract is approximately 90% complete and approximately \$99,000 has been spent. The miscellaneous and ornamental iron filed subcontractor mobilized to the site in the past year and has performed a significant amount of field welding and grinding on the various installations at the site, including duct supports, dunnage framing, mechanical screen and work platforms. It was anticipated that these assemblies would have more bolted connections for field fit-up, so these hot work activities were not considered in the design or in Change Order 32. Staff anticipate that the remaining

amount will be expended and that an additional \$25,000 will be needed for the remaining contract work.

The approved PCO for this item was identified by MWRA staff as an overrun in quantities. MWRA staff and the Contractor have agreed to a not to exceed amount of \$25,000 for this additional work. Work associated with this proposed change order has not begun.

Although the Contractor agrees with the pricing for the four items included in this change order, it does not agree with MWRA's determination of no increase in contract term. Therefore, MWRA staff anticipate that Change Order 44 will be executed unilaterally and the Contractor will likely file a subsequent claim for additional time.

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

CONTRACT SUMMARY:

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

Change Order 30*	\$24,122.00	0 Days	08/12/19
Change Order 31*	\$164,177.00	0 Days	09/16/19
Change Order 32	\$236,588.00	0 Days	09/25/19
Change Order 33*	\$200,073.00	0 Days	11/20/19
Change Order 34	\$425,000.00	0 Days	12/09/19
Change Order 35*	\$248,039.60	0 Days	02/20/20
Change Order 36	\$144,652.00	0 Days	03/31/20
Change Order 37*	\$169,097.00	0 Days	06/30/20
Change Order 38	\$226,853.00	0 Days	07/31/20
Change Order 39*	\$24,128.00	0 Days	09/09/20
Change Order 40*	(\$15,556.00)	0 Days	09/09/20
Change Order 41*	\$0.00	14 Days	10/21/20
Change Order 42*	\$69,579.00	0 Days	11/23/20
Change Order 43	\$600,000.00	120 Days	12/24/20
Change Order 44	<u>\$308,291.00</u>	<u>0 Days</u>	Pending
Total of Change Orders:	\$11,330,092.06	134 Days	
Adjusted Contract:	\$84,189,092.06	1594 Days	

*Approved under delegated authority

If Change Order 44 is approved, the cumulative value of all change orders to this contract will be \$11,330,092.06 or 15.6% of the original contract amount. Work on this contract is approximately 90% complete.


BUDGET/FISCAL IMPACT:

The FY21 Capital Improvement Program includes a budget of \$83,366,700 for Contract 7161. Including this change order for an amount not to exceed \$308,291, the adjusted subphase total will be \$84,189,092.06 or \$822,392.06 over budget. This amount will be absorbed within the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

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


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: January 20, 2021
SUBJECT: Nut Island Headworks Odor Control and HVAC Improvements
Walsh Construction Company II, LLC
Contract 7548, Change Order 3

COMMITTEE: Wastewater Policy & Oversight

INFORMATION
 VOTE

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


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

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Change Order 3 Contract 7548, Nut Island Headworks Odor Control and HVAC Improvements, with Walsh Construction Company II, LLC, for a not to exceed amount of \$380,000, increasing the contract amount from \$57,716,618.61 to \$58,096,618.61, with no increase in contract term.

Further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 7548 in an amount not to exceed the aggregate of \$250,000, in accordance with the Management Policies and Procedures of the Board of Directors.

DISCUSSION:

Contract 7548 provides upgrades to the odor control system, heating, ventilation and air conditioning system and other equipment at the Nut Island Headworks facility. Most of the equipment is at or near the end of its useful life and replacement is required to ensure the continued reliability of this critical facility. This contract also provides reconfiguration of ductwork serving the odor control system to expand the system's operational flexibility and will improve surface access into the below-grade odor control room, the need for which was made evident during the fire in January 2016.

Improvements to the odor control system include replacement of the carbon adsorbers, fans, ductwork dampers, and the odor control SCADA system including the programmable logic controller and instrumentation; installation of ductwork to allow bypassing of the wet scrubbers; rehabilitation of the wet scrubbers system including replacement of chemical tanks, pumps, piping, media and mist eliminators; and installation of roof hatches and a new stairway to improve access into the odor control room.

Improvements to the HVAC system include replacement of the air handling units and unit heaters; replacement of the boilers; replacement of the energy management system; and installation of equipment to provide ventilation setbacks and recirculation to improve energy efficiency, as allowed by code.

Improvements to other equipment include replacement of the underground fuel oil storage tanks serving the standby generator and boilers; replacement of the dewatering system pumps serving the bottom level; and replacement of the emergency spillway isolation sluice gates.

This Change Order

Change Order 3 consists of the following two items:

Fire Protection System Modifications

Not to Exceed \$200,000

The Contractor is required to furnish and install new odor control and HVAC equipment and ductwork to replace the existing systems throughout the facility. The fire protection piping and sprinklers must be modified to accommodate the odor control and HVAC system improvements. Sections of the existing sprinkler piping must be temporarily disconnected and removed to allow for the replacement of large equipment and ductwork. In some cases, the sprinkler piping can be reinstalled to its original location once the new work is complete. In other cases, new sprinkler piping is needed for the revised duct alignments and equipment layout.



Fire Protection Lines in Odor Control Room



Sprinklers Cut and Capped and Rerouted

After commencement of the contract and during construction coordination, a number of changes were identified to provide a complete fire protection system. Numerous sections of new fire protection piping were not indicated on the contract drawings. The fire protection system design was created in a three-dimensional (3D) computer model. This 3D model was used to generate the 2D contract drawings used for the Contractor to prepare its bid. Although the 3D model was complete, the design engineer did not provide enough 2D plan or section views in the contract drawings to indicate the full scope of work. To correct this omission, the Contractor must furnish

and install additional sprinkler piping in the odor control room, grit room and pump and blower room for a complete fire protection system.

The National Fire Prevention Association Standard for the installation of sprinkler systems requires that sprinklers be installed under fixed obstructions greater than 48-inches in width to ensure sprinkler coverage. The Design Consultant did not account for two locations in the odor control room where ductwork exceeding 48 inches did not include sprinklers. This includes a new 54-inch by 58-inch exhaust air duct that will replace an existing 36-inch by 48-inch duct and a new 90-inch odor control duct that will be installed as a common fan discharge header. To correct this error, the Contractor needs to furnish and install new sprinkler piping under the 54-inch by 58-inch exhaust air duct and 90-inch odor control duct to comply with National Fire Prevention sprinkler standards.



Fire Protection Lines under Ductwork

In addition, the Contractor is required to install an elevated walkway in the odor control room to provide access to the new odor control dampers located approximately 16 feet above the finished floor. The new structural steel supporting the walkway is in direct conflict with an existing six-inch fire protection main. Due to multiple obstructions in the odor control room, it was determined that relocating the existing six-inch main is more efficient than revising the structural steel supports. To correct this error, the Contractor will relocate the six-inch fire protection main in the odor control room to eliminate the conflict with the new walkway structural steel.

Finally, the Contractor is required to prepare and submit a Construction Fire Safety Plan in accordance with National Fire Prevention Association 241, Safeguarding Construction, Alteration, and Demolition Operations. This plan is to be reviewed and approved by local fire authorities. After commencement of the contract and prior to construction activities, a site meeting was held with the Quincy Fire Department to review the Contractor's scope of work, the construction fire safety program, and emergency response plans. MWRA staff and the Design Consultant met with the Quincy Fire Department personnel during design and the requirement for additional sprinklers was not identified and not included in the contract documents. Upon review of the Contractor's safety plan, the Superintendent of the Quincy Fire Department was concerned with the extended duration of the sprinkler impairment while the precast planks are removed from the odor control room roof. Since the facility will remain in service and be occupied, the anticipated 12-month duration was determined to be too long without providing interim fire protection measures. To mitigate this concern, temporary sidewall sprinkler lines will be installed along the boundary of the roof opening to provide sprinkler coverage to the impaired zone. To comply with the Quincy Fire Department's changes to the safety plan, the Contractor will furnish and install temporary

sidewall sprinkler lines at the odor control roof opening while the roof planks are absent.

This item was identified by MWRA staff as a design error and omission, as well as an unforeseen condition, and the Consultant and Contractor agreed. MWRA staff, the Consultant, and the Contractor have agreed to a not-to-exceed amount of \$200,000 for this work. The Contractor proceeded with this work at its own risk in order to complete the remainder of the contract work.

Relocate Existing Utilities in Stair 12

Not to Exceed \$180,000

The Contractor is required to furnish and install a new stairwell to provide a means of egress from the odor control room to the outdoors to comply with the latest International Existing Building Code. The new stairwell is designated as “Stair 12” and will be constructed adjacent to the existing ventilation shaft that serves the odor control room. After commencement of the contract and during initial coordination, a number of existing utilities were identified in the footprint of Stair 12. The design identified many of the larger utilities, such as HVAC ductwork and chemical feed systems, but missed smaller utilities such as electrical conduits and devices, plumbing lines and fixtures and pneumatic lines serving dampers and bubbler tubes. Per Code, none of these items can pass through the stairwell and must be either demolished or relocated. Further, these utilities were not shown on the contract drawings or designated for demolition or relocation. Accordingly, this scope of work was not included in the Contractor’s bid price. To correct these errors and omissions, the Contractor must demolish or relocate all utilities within the footprint of Stair 12 and provide scaffolding as needed for safe access to perform this work.



Multiple utilities located within Stair 12

This item was identified by MWRA staff as a design error and omission and the Consultant agreed. MWRA staff, the Consultant, and the Contractor agreed to a not-to-exceed amount of \$180,000 for this work. The Contractor proceeded with this work at its own risk in order to complete the remainder of the contract work.

CONTRACT SUMMARY:

	Amount	Time	Dated
Original Contract:	\$57,565,399.00	1,034 Days	02/12/20
CHANGE ORDERS			
Change Order 1*	\$24,995.58	0 Days	12/08/20
Change Order 2*	\$126,224.03	0 Days	Pending
Change Order 3	<u>\$380,000.00</u>	<u>0 Days</u>	Pending
Total Change Orders:	\$531,219.61	0 Days	

Adjusted Contract: \$58,096,618.61 1,034 Days

*Approved under delegated authority

If Change Order 3 is approved, the cumulative value of all change orders will be \$531,219.61 or 0.92% of the original contract. Work on this contract is 19% complete.


BUDGET/FISCAL IMPACT:

The FY21 Capital Improvement Program includes a budget of \$57,565,399 for Contract 7548. Including this change order for \$380,000, the adjusted subphase total will be \$58,096,618.61 or \$531,219.61 over budget. This amount will be covered within the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

The MBE/WBE participation requirements for this project were established at 1.1% and 1.2%, respectively. The Contractor has been notified that it is still expected to meet these requirements.


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: January 20, 2021
SUBJECT: Gravity Thickener Upgrade, Deer Island Treatment Plant
Walsh Construction Company II, LLC
Contract 7428, Change Order 10

COMMITTEE: Wastewater Policy & Oversight

 INFORMATION
 X VOTE

David F. Duest, Director, Deer Island WWTP
Richard J. Adams, Manager, Engineering Services
Frank Brickelmaier, Project Manager
Preparer/Title


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

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Change Order 10 to Contract 7428, Gravity Thickener Upgrade, Deer Island Treatment Plant, with Walsh Construction Company II, LLC, for a lump sum amount of \$262,041.00, increasing the contract amount from \$19,767,702.23 to \$20,029,743.23, and extending the contract term by 98 calendar days from February 4, 2021 to May 13, 2021.

Further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 7428 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.

DISCUSSION:

Under Contract 7428, the Contractor is performing a comprehensive upgrade of all six gravity thickeners that includes complete replacement of each tank's sludge and scum thickening equipment as well as replacement of five of the six fiberglass-reinforced plastic (FRP) dome covers. (The FRP domed cover for Gravity Thickener 2 has already been replaced.) Gravity Thickeners 1 and 2 are of similar design in that all equipment is located under the FRP dome covers. Gravity Thickeners 3 through 6 are of similar design, with some of the mechanism equipment such as the motor, drive, and torque monitoring box, located above the FRP dome covers. The work also involves draining and disposing of the contents of Digested Sludge and Gas Storage Tank 1 to enable the replacement of valves and piping in the Residuals Facility, inside the ring wall and on top of Digested Sludge and Gas Storage Tank 1.

This Change Order

Change Order 10 consists of the following four items:

Furnish and Install Two 16-inch Insertion Valves and Valve Supports

\$159,668.45



Tank 1 Insertion Valve Location

The contract documents require piping modifications at the base of Digested Sludge and Gas Storage Tank 1. This work requires the draining of Tank 1 and isolation of Tank 2. When staff initiated the process of draining Tank 1, the existing isolation valves did not hold and staff could not drain the tank. Installation of two 16-inch insertion valves is required to isolate the tanks and allow the Contractor to proceed with the work. The insertion valves are located in confined spaces with limited access.

This item was identified by staff as an unforeseen condition. Staff and the Contractor have agreed to a lump sum amount of \$159,668.45 for this work. The Contractor proceeded with this work at its own risk in order to complete the remainder of the contract work.

Furnish and Install 316 Stainless Steel Plates for Structural Reinforcement Above the Doorways at Gravity Thickeners 1 and 2

\$96,962.95



Gravity Thickener 2 –Steel Plate

The contract documents included design parameters for the roof manufacturer to provide a replacement roof for the Gravity Thickeners. During the review of the roof manufacturer's submittal, MWRA's Consultant discovered that the original design of the concrete tank wall for Gravity Thickeners 1 and 2 was missing adequate reinforcing bars near the two doors on each tank. These reinforcing bars should have been installed in the mid 1990s under the Boston Harbor Project when the tanks were originally constructed. The work is required to bring the concrete walls up to the Building Code Requirements for Structural Concrete. Each Gravity Thickener requires two steel plates, for a total of four, to be installed.

This item was identified by staff as a design omission. MWRA staff and the Contractor have agreed to a lump sum amount of \$96,962.95 for this additional work. The Contractor proceeded with this work at its own risk in order to complete the remainder of the contract work.

Provide Additional Excavation at Gravity Thickener 5 to
Locate the Existing Four-Inch Water Piping

\$5,409.60



Gravity Thickener 5 Water Connection

The contract drawings require the Contractor to furnish and install four-inch high-pressure plant water piping connections to each gravity thickener. The Contractor excavated at the location identified on the drawings to make the connection but the existing pipe was not found. Additional excavation was required to locate the pipe to connect to the high-pressure plant water system.

This item was identified by MWRA staff as an unforeseen condition. Staff and the Contractor have agreed to a lump sum amount of \$5,409.60 for this additional work. The Contractor has completed this work at its own risk in order to proceed with the remainder of the contract work.

Extend the Contract Time by 98 Calendar Days

\$0.00

The contract time must be extended to complete the work of installing the 316 stainless steel plates above the doorways at Gravity Thickeners 1 and 2.

The plates are approximately 10.5 feet long by 1.5 feet wide and are 1-½ inches thick. They are to be fabricated to the curvature of the tank. Each plate will have 18 anchor locations that are to be designed once the Contractor maps out the location of existing steel reinforcement using ground penetrating radar. Due to the size of these plates, there is a long lead time after release of the approved submittal. The completion of this work requires the contract to be extended by 98 calendar days, from February 4, 2021 to May 13, 2021.

The two 16-inch insertion valves on the 16-inch digested sludge lines will allow Operations to drain Tank 1 and isolate Tank 2. Since the tank was not able to be drained as originally scheduled because the existing valves did not fully close, the contract work has been delayed by 68 calendar days.

The two activities above are unrelated to one another and work can proceed simultaneously. The work of installing the stainless steel plates at Gravity Thickeners 1 and 2 controls the time extension.

These items were identified by staff as a design omission and unforeseen condition. Staff and the Contractor have agreed to extend the contract term by 98 calendar days from February 4, 2021 to May 13, 2021 at no additional cost to the Authority.

CONTRACT SUMMARY:

	<u>Amount</u>	<u>Time</u>	<u>Dated</u>
Original Contract:	\$19,633,050.00	1,000 Days	05/11/18
Change Orders:			
Change Order 1*	\$5,772.35	0 Days	10/09/18
Change Order 2*	\$13,584.64	0 Days	04/05/19
Change Order 3*	\$4,834.25	0 Days	07/26/19

Change Order 4*	\$25,645.65	0 Days	10/28/19
Change Order 5*	\$12,701.17	0 Days	02/18/20
Change Order 6*	\$7,791.11	0 Days	03/31/20
Change Order 7*	\$58,786.32	0 Days	08/27/20
Change Order 8*	(\$115,278.55)	0 Days	12/07/20
Change Order 9*	\$120,815.29	0 Days	12/14/20
Change Order 10	<u>\$262,041.00</u>	<u>98 Days</u>	Pending
Total of Change Orders:	\$396,693.23	98 Days	
Adjusted Contract:	\$20,029,743.23	1,098 Days	

*Approved under delegated authority

If Change Order 10 is approved, the cumulative value of all change orders to this contract will be \$396,693.23 or 2.02% of the original contract amount. Work on this contract is approximately 80% complete.

BUDGET/FISCAL IMPACT:

The FY21 Capital Improvement Program includes \$19,895,588 for Contract 7428. Including this change order for \$262,041.00, the adjusted subphase total will be \$20,029,743.23 or \$134,155.23 over budget. This amount will be covered within the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract were established at 7.24% and 3.6% respectively. The Contractor proposed 7.2% MBE and 3.62% WBE participation and has committed to continuing making good faith efforts to satisfy the 0.04% MBE participation deficit. This is acceptable to the Affirmative Action and Compliance Unit. The Contractor has been notified that these requirements are still expected to be met.

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: January 20, 2021
SUBJECT: Deer Island Treatment Plant Maintenance Coating
SOEP Painting Corporation
Contract S583, Change Order 2



COMMITTEE: Wastewater Policy and Oversight

INFORMATION
 VOTE

David F. Duest, Director, Deer Island WWTP
Richard J. Adams, Manager, Engineering Services
Raymond Snyder, Senior Program Manager
Preparer/Title



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

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Change Order 2 to Contract S583, Deer Island Treatment Plant Maintenance Coating, with SOEP Painting Corporation for a lump sum amount of \$147,599.80, increasing the contract amount from \$2,735,730 to \$2,883,329.80, with no increase in contract term.

Further, to authorize the Executive Director to approve additional change orders as may be needed to Contract S583 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 Contract S583 scope of work contains the following three major components: rehabilitation of the coatings in eight scum wells, six carbon adsorbers and four digester overflow boxes. The rehabilitation consists of cleaning, inspection, steel and concrete repairs and coating installation. The digester overflow boxes will have steel ladders and railings removed and replaced with fiber reinforced plastic ladders and railings.

This Change Order

Change Order 2 consists of the following four items:

Repair Three Pipe Supports, Demolish Nozzles, Valves and Associated Pipe and Cap the
Remaining Pipe Stubs in all Four Module 3 Overflow Boxes \$61,453.43



Six-inch Sludge Nozzle with Corroded Hole at Base

The nozzles and pipe supports are located near the bottom of the overflow boxes. Although inspections were performed in the overflow boxes following draining, it was discovered that it was not possible to identify the full extent of repair work due to the amount of debris that was remaining in the bottom of the tank. Extensive cleaning would have been required to determine the condition of the nozzles. The design documents were based upon the conditions found during the initial inspection and these repairs were not apparent during these inspections. The Contractor is required to perform these repairs in order to complete the original scope of work.

This item was identified by MWRA staff as a design omission. Staff and the Contractor have agreed to a lump sum amount of \$61,453.43 for this additional work.

The Contractor proceeded with this work at its own risk in order to complete the remainder of the contract work.

Demolish, Furnish and Install Inspection Hatch Closure Plates in Module 3 Overflow Boxes

\$42,776.03

The condition of the inspection doors were identified by the Designer to be in poor condition and it was recommended that the doors be removed and replaced with closure plates. After staff reassignments and subsequent communications failure, the Designer failed to include this work in the contract documents. New project controls are being implemented by staff to better track the status of recommendations for future projects. In order to complete the project, the Contractor must furnish and install the closure plates.

This item was identified by MWRA staff as a design omission. Staff and the Contractor have agreed to a lump sum amount of \$42,776.03 for this additional work. The Contractor proceeded with this work at its own risk in order to complete the remainder of the contract work.

Furnish and Install Gas Dome Closure Plates in Module 3 Overflow Boxes

\$26,522.34



Perforated Closure Plate at Dome/Shell Interface, Right Side

Closure plates of the incorrect size and thickness were included in the contract documents and could not be utilized for the required repairs. Plates of correct size and thickness were required to be furnished.

This item was identified by staff as a design error. Staff and the Contractor have agreed to a lump sum amount of \$26,522.34 for this additional work. The Contractor proceeded with this work at its own risk in order to complete the remainder of the contract work.



16-Inch Elbow with Crack

Replace Two 90-Degree Glass Lined Elbows on the Digester Overflow Lines \$16,848.00

The 90-degree elbows are located near the bottom of the overflow boxes. Although inspections were performed in the overflow boxes following draining, it was not possible to identify the full extent of repair work due to the amount of debris that remained at the bottom of the tank. Extensive cleaning would have been required to perform a full assessment of the condition of the elbows. The design documents were based upon assumptions formulated during the initial inspection. The Contractor is required to perform these repairs in order to complete the original scope of work. This item was identified by staff as an unforeseen condition. Staff and the Contractor have agreed to a lump sum amount of \$16,848.00 for this additional work. The Contractor proceeded with this work at its own risk in order to complete the remainder of the contract work.

CONTRACT SUMMARY:

	Amount	Time	Dated
Original Contract:	\$2,495,000.00	600 Days	08/13/19
CHANGE ORDERS			
Change Order 1*	\$240,730.00	0 Days	11/25/20
Change Order 2	<u>\$147,599.80</u>	<u>0 Days</u>	Pending
Total Change Orders	\$388,329.80	0 Days	
Adjusted Contract:	\$2,883,329.80	600 Days	

*Approved under delegated authority

If Change Order 2 is approved, the cumulative value of all change orders will be \$388,329.80 or 15.6% of the original contract. Work on this contract is 85% complete.


BUDGET/FISCAL IMPACT:

Sufficient funds are available in Operations Division’s FY 21 Current Expense Budget to cover this change order.

MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract were established at 7.24% and 3.6%, respectively.


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: January 20, 2021
SUBJECT: Project Update: Section 22 Rehabilitation Alternatives Analysis and Environmental Permitting
Black & Veatch Corporation; Contract 7155

COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE

John P. Colbert, P.E., Chief Engineer
Paul T. Rullo, P.E., Program Manager
Preparer/Title


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

On July 17, 2019, the Board of Directors voted to award Contract 7155, Section 22 Rehabilitation Alternatives Analysis and Environmental Permitting, to Black & Veatch Corporation in the amount of \$2,870,000 for a contract term of 36 months from the Notice to Proceed. At the Board's request following the notice to proceed, MWRA staff are providing quarterly updates of the project status, including pipeline condition activities completed in the last quarter and the planned activities for the next quarter.

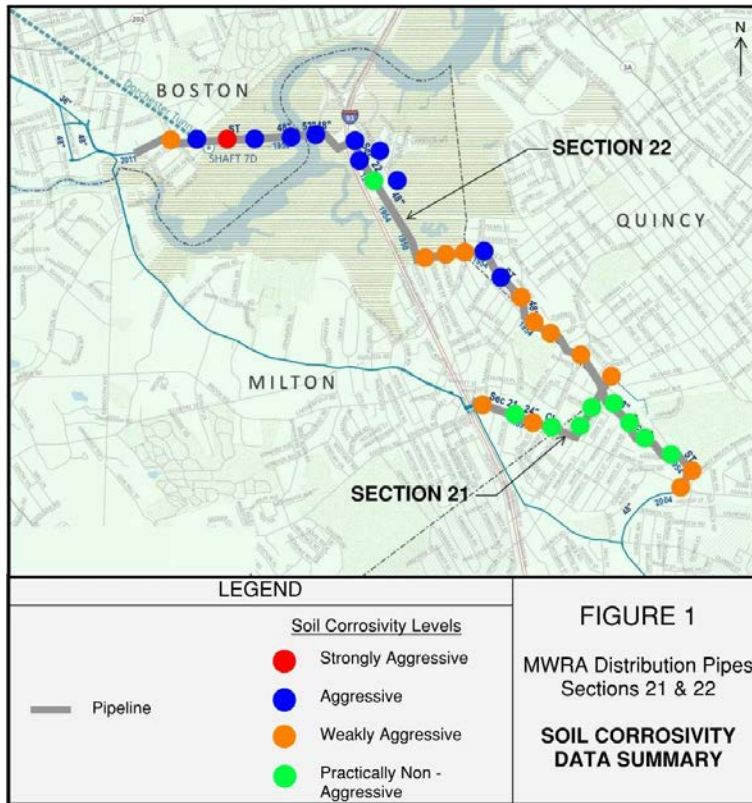
RECOMMENDATION:

For information only.

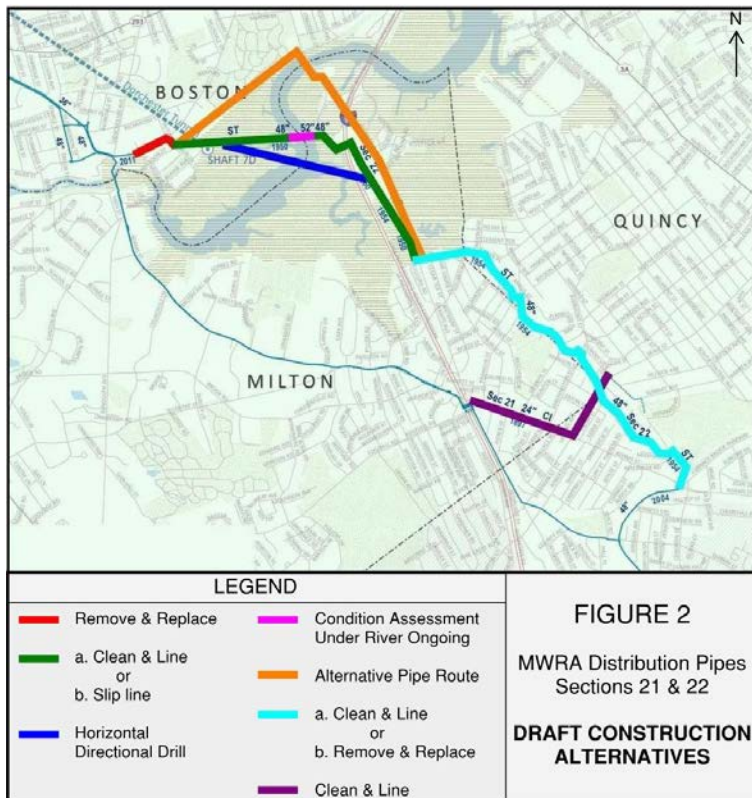
DISCUSSION:

During the previous quarter, the focus of the project has been completion of the Phase 1 boring and test pit program, preparation of the draft Hydraulic Evaluation, preparation of the draft Geotechnical Data Report, preparation of the draft Pipeline Condition Assessment and Corrosion Analysis, and development of construction alternatives.

Documentation of the condition of the restored areas at boring and test pit locations at the end of the growing season within the area of critical environmental concern (ACEC) was provided to state and federal agencies, as required in the Advisory Opinion issued by the Massachusetts Environmental Policy Act (MEPA) office. These agencies included Coastal Zone Management, Department of Conservation and Recreation, Department of Environmental Protection, the MEPA Office, and the Army Corps of Engineers. As required by the permit issued by the ACOE, post construction monitoring reports regarding reestablishment of native vegetation will be delivered to the agencies for at least three growing seasons.



Based on inspection of the pipe and soil analysis from the six test pits performed, the condition of the 48-inch diameter steel Section 22 pipeline ranges from fair to good condition and the 24-inch diameter cast iron Section 21 pipe is in good condition. Initial results indicated that soils are aggressively corrosive in the area of Test Pit 4. However, after review of the 29 borings completed in the Phase 1 boring program, aggressive soils are located within the area of the Neponset River marsh as shown on Figure 1. The pipe located within the marsh is concrete encased which has provided an effective barrier from the aggressive soils.



Black & Veatch has begun evaluating alternatives for the project scope based upon the Phase 1 boring and test pit program. The pipeline in the ACEC may require a MEPA filing and therefore an evaluation of alternatives is required for this submittal. Figure 2 depicts the primary alternatives that Black & Veatch is evaluating.

Four key findings of the pipeline condition assessment and historical data review are summarized below. As the alternatives evaluation evolves, staff will also determine an implementation schedule of recommended project components as a means to reduce short term construction spending.

1. Pipeline Section 22 in Adams Street and Butler Street in Boston, approximately 1,000 linear feet, has experienced numerous leaks. This section is proposed to be replaced.
2. Pipeline Section 22 within the ACEC marsh area, approximately 6,700 linear feet, is in aggressive soils and has experienced a few leaks. However, the pipeline is in overall good condition due to its exterior concrete envelope. The wood pile foundation was also found to be in good condition. This segment will be evaluated for rehabilitation or rehabilitation delayed to a later time.

The portion of Section 22 under the Southeast Expressway is not fully encased in concrete and has experienced a major leak in this sensitive area. This section is proposed to be sliplined.

The condition assessment of the 600-linear-foot section under the Neponset River is still under review and the rehabilitation method is being evaluated.

3. Pipeline Section 22 for the remainder of the project, approximately 8,300 linear feet, is in fair to good condition, and is in weakly aggressive soils with isolated areas of aggressively corrosive soils. Corrosion pits have been measured to a depth of approximately half of the 7/16-inch steel pipe wall. This segment has had only a few leaks in the past. This segment will be evaluated to be cleaned and lined with portions of replacement or the rehabilitation delayed to a later time.
4. Pipeline Section 21, approximately 5,000 linear feet, is in good overall condition, is in weakly aggressive soils, and the interior of the pipeline is heavily tuberculated. This segment has had only a few leaks in the past. This segment is proposed to be cleaned and lined due to its age and condition.

In the ACEC, alternatives to be considered include determining if the pipeline condition is acceptable to delay rehabilitation to the future; slip lining the existing pipeline; horizontal direction drilling for installation of a replacement pipeline under the Neponset River; and an alternative pipe route outside the ACEC. Initial results of hydraulic modeling of traditional slip lining with a 36-inch diameter steel liner within the ACEC indicated that the water system does not provide adequate flow for system demands. The feasibility of sliplining with either 40-inch steel pipe or 42-inch steel pipe is being evaluated. The draft hydraulics analysis memorandum is currently under review.

Within the Neponset River Estuary, Test Pit 1 was completed in August 2020. The results indicate the pipeline, concrete encasement, and wood pile foundation are in good condition. Based on similar positive test results from Test Pit 2, the piping under the Neponset River will be evaluated to identify any leakage to determine if pipe rehabilitation can be delayed. The section under the Neponset River is fully encased in concrete, supported with a wood pile foundation, and the interior of the pipe is lined with concrete. The Section 22 pipeline was recently modified to add access ports to the pipeline for insertion of inspection equipment.

MWRA has developed an operational plan to create necessary flow velocity to support the inspection equipment.

600 Foot Crossing of Neponset River – Boston/Milton



During the next quarter, it is anticipated that the Neponset River crossing inspection will be completed; geotechnical data reports, the pipeline condition assessment, the hydraulics evaluation memo, and the alternatives analysis will be completed. In addition, the need for a Phase 2 boring program will be evaluated. MWRA will also discuss with MEPA staff to determine if an Environmental Notification Form must be filed for the rehabilitation in the ACEC.

As of January 1, 2021, 40% of the contract budget has been expended.

BUDGET/FISCAL IMPACT:

The FY21 CIP includes a budget of \$2,870,000 for Contract 7155.

MBE/WBE PARTICIPATION:






The contract with Black & Veatch includes 25.4% MBE and 15.6% WBE participation.

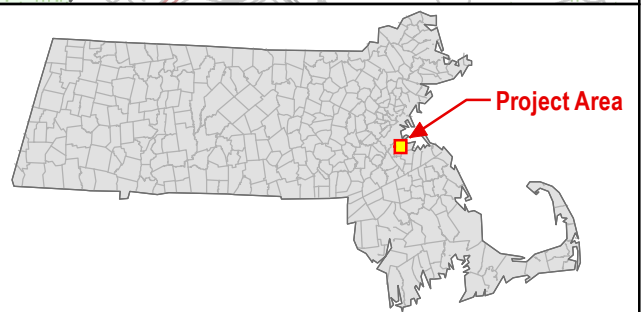
ATTACHMENT:

Section 22 – Project Location Schematic




Section 22 Rehabilitation Alternatives Analysis and Environmental Permitting

- | | | | |
|---|--------------------------|---|--------------------------|
|  | Project Location |  | MWRA Transmission Shafts |
|  | Other Distribution Pipes |  | MWRA Water Storage |
|  | MWRA Transmission Lines |  | Meters |
|  | Protected Open Space | | |



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: January 20, 2021
SUBJECT: Northern Extra High Pressure Zone Improvements
Black & Veatch Corporation
Contract 7404

COMMITTEE: Water Policy & Oversight


INFORMATION

VOTE


Michele S. Gillen

Director of Administration

Paul T. Rullo, P.E., Program Manager
John Colbert, P.E., Chief Engineer
Preparer/Title


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

RECOMMENDATION:

To approve the recommendation of the Selection Committee to award Contract 7404, Northern Extra High Pressure Zone Improvements, Design, Bidding and Engineering Services During Construction, to Black & Veatch Corporation and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$6,710,053.83 for a contract term of 94 months from the Notice to Proceed.

DISCUSSION:

The Northern Extra High (NEH) Pressure Zone provides water to Arlington, Bedford (through Lexington), Belmont, Lexington, Waltham, and Winchester. The six communities are supplied an average of 11.55 million gallons per day (mgd) from MWRA through twelve community meters. Water is pumped to these communities and into storage facilities in Arlington, Lexington and Waltham by three pumping stations: Spring Street Pumping Station, Brattle Court Pumping Station, and Lexington Street Pumping Station. The pumping stations draw water from the Norumbega Covered Storage Facility via the Weston Aqueduct Supply Main 3 (WASM 3). There are two construction contracts planned to repair and replace WASM 3. The first contract is currently in construction and the second contract is in design.

The Town of Burlington was recently approved for admission to the MWRA Water System to purchase up to 6.5 mgd via a connection to the Town of Lexington's water system, which is supplied via the NEH Pressure Zone. The proposed connection for Burlington has two phases. Phase 1 is complete and installed approximately 2,450 linear feet of new water main to allow Burlington to purchase 0.886 mgd from MWRA. Phase 2 is in design and scheduled to be completed in the fall of 2022. It includes construction of approximately 10,000 linear feet of new water main in the Lexington water system to connect to MWRA's water system. This connection will allow Burlington to purchase an average of 3.5 mgd and, if necessary, a maximum of 6.5 mgd

in the event Burlington takes the Mill Pond Treatment Plant offline.

The NEH Pressure Zone Improvements Project involves installation of up to 23,100 linear feet of new 24-inch water main, replacement of approximately 8,400 linear feet of existing water main, rehabilitation or replacement of approximately 4,800 linear feet of existing water main, installation of two new community meters, and rehabilitation or replacement of existing community meters. The project is necessary to improve redundancy in the NEH pressure zone by the rehabilitation or replacement of aging infrastructure. The majority of the improvements are located in Lexington and Arlington, and the general locations and extent of the proposed improvements for the Project are presented in Figure 1, attached, and include three construction packages. The first construction package will include installation of approximately 5,300 linear feet of new 24-inch water main to extend Section 63 in Lexington, as the first leg of the redundant loop, which will also allow Burlington's Phase 2 pipeline to connect to the MWRA system. The new MWRA pipeline is scheduled to be completed by the time Burlington's Phase 2 project is complete.

The second construction package will include installation of up to 11,100 linear feet of new 24-inch water main in Lexington to interconnect Section 45 to the new pipeline installed in CP1 to improve redundancy. CP2 will also include installation of a new meter for Lexington and replacement of 3,400 linear feet of 20-inch pipe in Section 63 in Arlington with 24-inch piping.

The third construction package will include installation of up to 6,700 linear feet of new 24-inch water main in Lexington to interconnect Section 83 to Section 45 and the new pipeline installed in CP2 to improve redundancy. CP3 will also include increasing the capacity of approximately 5,000 linear feet of Sections 34 and 45 in Arlington with 20-inch pipe (currently 12-inch and 16inch), rehabilitation or replacement of approximately 4,800 linear feet of 24-inch Section 61 in Arlington, installation of one new meter for Belmont, and rehabilitation and replacement of existing community water meters for Arlington, Lexington, Belmont, Waltham and Winchester.

The scope of the professional services contract includes design, bidding, and engineering services during construction for the NEH Pressure Zone Improvements. The scope of services includes the design and preparation of contract documents for three construction contracts to be publicly bid in accordance with the provisions of Massachusetts General Laws Chapter 30, § 39M. With a one-year warranty period following completion of CP3, the professional services contract is anticipated to be complete by the end of 2027, for a total contract duration of 94 months (seven years and ten months).

Procurement Process

On November 5, 2020, MWRA issued a one-step Request for Qualifications Statements/Proposals (RFQ/P) that was publicly advertised in the Central Register, the Boston Herald, Banner Publications and El Mundo. In addition, approximately 148 firms received notice of the RFQ/P via the MWRA Supplier Portal, 26 firms became plan holders and the solicitation/advertisement was emailed directly to seven engineering firms. The RFQ/P included the following evaluation criteria and points: Cost (25 points); Qualifications and Key Personnel (25 points); Experience/Past Performance on Similar Non-MWRA Projects and MWRA Projects (25 points); Technical Approach/Capacity/Organization and Management Approach (20 points); and Minority/Women Business Enterprises (5 points).

MWRA received five proposals on December 11, 2020 from the following firms: Black & Veatch, Green International (teamed with CDM-Smith), Hazen and Sawyer, Kleinfelder, and Stantec.

The following information represents the costs and overall level of effort proposed by each firm:

Firm	Proposed Cost	Other Direct Costs**	Proposed Hours
Black & Veatch	\$6,710,053.83*	\$2,225,410.90	33,738
Stantec	\$6,999,712.85*	\$2,576,308.60	35,052
Green International & CDM-Smith	\$7,880,256.61	\$2,617,964.00	42,104
Hazen and Sawyer	\$9,251,708.16*	\$2,315,955.76	48,532
Kleinfelder	\$9,608,539.44	\$3,121,996.73	50,799
<i>Engineer's Estimate</i>	<i>\$8,081,985.96</i>	<i>\$2,297,953.71</i>	<i>39,616</i>

* Cost adjusted to correct minor mathematical errors.

**Other Direct Costs are included in the Proposed Cost and include subcontractors' costs for traffic assessment, base mapping, pipeline and meter condition assessment (test pits, nondestructive internal pipe testing, pipeline coupon retrieval and testing, and corrosion testing), the geotechnical and hazardous materials program (borings, corrosion testing and analysis, and laboratory analysis), and a technical assistance allowance.

The selection committee met on January 6, 2021 to evaluate and rank the proposals. The results are presented below.

Proposer	Total Final Score	Order of Preference* Points	Ranking
Black & Veatch	387.5	8	1
Green International and CDM-Smith	382	10	2
Stantec	378	12	3
Kleinfelder	349	21	4
Hazen and Sawyer	323	24	5

*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 Black & Veatch team has extensive experience and past performance working on water pipeline projects. In addition to positive references for performance on similar out-of-state projects, the firm has successfully managed several pipeline projects for MWRA, including the Southern Spine Distribution Main Section 107 located in Boston, Milton, and Quincy, the Boston Low Service Pipeline, and the rehabilitation of the southern portion of Section 22. Black & Veatch also successfully worked on other MWRA water main and pump station projects. Black & Veatch received favorable references on all recent MWRA projects. The Selection Committee determined that Black & Veatch proposed a highly qualified team with appropriate past experience. The Project Manager, has 30 years of experience in water pipeline design and is familiar with MWRA drawing requirements.

Black & Veatch also demonstrated a full understanding of the project requirements in its technical approach, including expected challenges, and confirmed it has the capacity, organization and management approach necessary to manage and complete the project.

The proposed cost from Black & Veatch of \$6,710,053.83 was 17% lower than the Engineer's Estimate and 4.1% lower than the second lowest overall cost. Black & Veatch representatives explained their lower costs. Their proposed costs and hours for project administration are less than

the Engineer's Estimate due to their efficient staff management as demonstrated on other MWRA projects (Section 22, Commonwealth Avenue Pumping Station). For design tasks, Black & Veatch prepared its cost proposal with the idea that significant work on preliminary design would occur early in the contract years and felt confident that in the mid- to later years, it could meet the production rate as calculated and proposed.

Black & Veatch's level of effort, although less than the Engineer's Estimate, is similar to the level of effort for two recently awarded MWRA pipeline design contracts: Contract 6955, Intermediate High Pipeline Improvements and Contract 7485, Sections 53 and 99 Improvements. These contracts are similar in that each requires three construction packages and a combination of new, replacement, and rehabilitation of pipes. Overall, staff believe after reviewing the team and hours proposed that Black and Veatch can successfully complete the project.

Green International and CDM-Smith were the second-ranked team. The proposed project team is highly qualified; however, its chosen reference projects, while relevant, have not yet been completed. In addition, the Green/CDM higher proposed cost impacted its ranking. The higher cost is attributed to the fact that it proposed a number of subconsultants, which tends to be less efficient and more costly than a compact team.

Stantec was the third ranked firm. Stantec's proposal was not as strong in comparison to the selected firm concerning technical approach, qualifications and MBE/WBE participation.

Kleinfelder and Hazen and Sawyer were the fourth and fifth ranked proposers respectively. Their costs and hours were significantly higher than the Engineer's Estimate and resulted in the higher ranking.

While the top three ranked firms were close in scoring; Black & Veatch received the highest score and was ranked first. Therefore, staff recommended the award of this contract to Black & Veatch Corporation in the amount of \$6,710,053.83.

BUDGET/FISCAL IMPACT:

The FY21 CIP includes a budget of \$6,823,000 for Contract 7404.

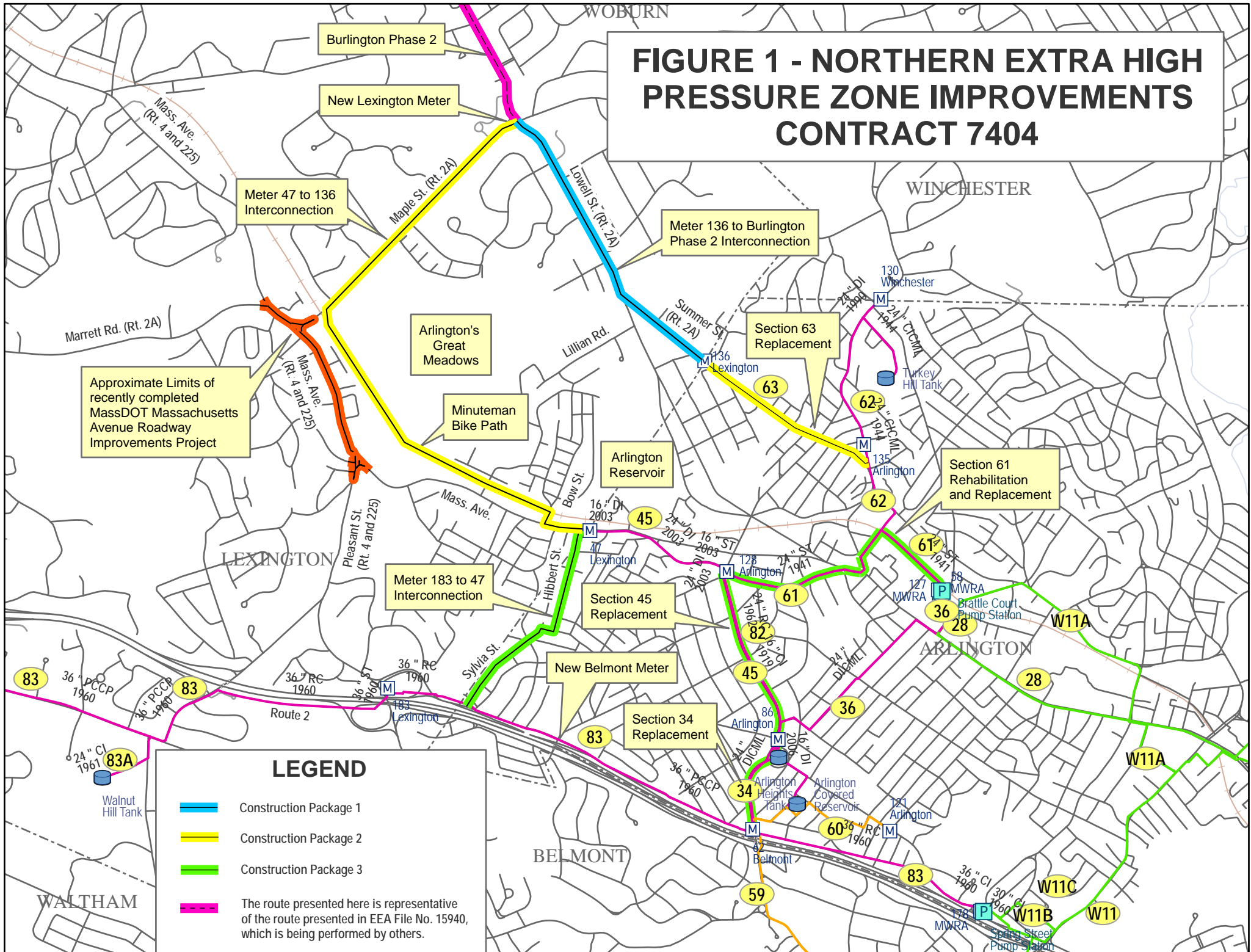
MBE/WBE PARTICIPATION:

The minimum MBE and WBE participation requirements for this project were established at 7.18% and 5.77%, respectively. Black & Veatch Corporation has committed to 11.4% MBE and 16.7% WBE participation.

ATTACHMENT:

Contract 7404 Contract Summary

FIGURE 1 - NORTHERN EXTRA HIGH PRESSURE ZONE IMPROVEMENTS CONTRACT 7404




Approximate Limits of recently completed MassDOT Massachusetts Avenue Roadway Improvements Project

LEGEND

- Construction Package 1
- Construction Package 2
- Construction Package 3
- The route presented here is representative of the route presented in EEA File No. 15940, which is being performed by others.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: January 20, 2021
SUBJECT: Strategies to Minimize Contaminants of Concern in MWRA's Finished Water
University of Massachusetts, Amherst
Contract W331

COMMITTEE: Water Policy and Oversight


INFORMATION

VOTE


Michele S. Gillen

Director of Administration

Betsy Reilley, Ph.D., Director, ENQUAL
Mandu Inyang, Ph.D., Program Manager
Preparer/Title


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

RECOMMENDATION:

To approve the award of a sole source collaborative research contract with the University of Massachusetts at Amherst titled "Strategies to Minimize Contaminants of Concern in MWRA's Finished Water," MWRA Contract W331, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$300,000 for a contract term of 36 months from the Notice to Proceed.

DISCUSSION:

Certain naturally occurring compounds in MWRA's reservoirs, such as organic matter, nutrients, and algae, can have detrimental impacts on water quality and affect compliance with drinking water standards. During 2019, elevated levels of organic matter in Quabbin Reservoir resulted in elevated levels of disinfection byproducts: five haloacetic acids (HAA5) are regulated in drinking water, and these HAA5 levels nearly exceeded their regulatory limits within two of the three Chicopee Valley Aqueduct (CVA) system communities in 2019. In addition, an algae bloom of *Chrysophaerella* resulted in significant taste complaints by residents in all three of the CVA communities in 2019. Algae blooms, including blooms of cyanobacteria, are of concern for not only the potential taste and odor impacts, but also the presence of algal toxins, several of which have drinking water guideline recommendations and public notification requirements. The University of Massachusetts at Amherst has worked with MWRA on a number of studies regarding contaminants that may impact water quality and potential treatment strategies to minimize these impacts.

To improve our understanding and develop procedures to address these water quality issues, tasks including literature reviews, laboratory analyses, benchtop testing, model development, and development of operational strategies have been identified in the following five areas of interest:

1. Characterization of the Source of HAA Precursors in Quabbin Reservoir
2. Development of Strategies for Control of HAAs in the CVA System
3. Development of Strategies for Controlling Algae and Cyanotoxins Inputs From the Quabbin Reservoir
4. Mitigation of Cyanotoxins Using Conventional Treatment at MWRA's John J. Carroll Water Treatment Facility
5. Mitigation of Other Relevant Contaminants of Concern

The University of Massachusetts at Amherst's (UMass Amherst) Civil and Environmental Engineering Department is uniquely qualified to perform this study based on its experience, expertise and familiarity with the Quabbin and Wachusett Reservoirs and their water chemistry. Specifically:

- UMass Amherst has already collected relevant raw water quality data on the Wachusett Reservoir from the ongoing Wachusett Oil Spill Study (Contract W320) for FY2016 through FY2020. UMass Amherst also performed prior research characterizing natural organic matter in the Quabbin Reservoir, which was published in 2003 in a peer review journal article (Garvey & Tobiason, 2003). These data will provide the knowledge base to expedite the progress of the proposed study from calendar year 2021 through calendar year 2023. Any other investigator will require a longer time to understand the water chemistry at the Wachusett and Quabbin Reservoirs.
- The Wachusett Oil Spill Study has provided UMass Amherst with relevant experience in developing bench-scale tests that closely simulate the current treatment process (ozone-UV-chloramination) at the Carroll Treatment Plant. The same bench-scale treatment processes can be used to replicate treatment steps (UV-Chlorination) at the Brutsch Water Treatment Facility.
- UMass Amherst has collaborated with MWRA and DCR on several projects in the past. The proposed study will investigate potential sources of organic matter loadings, including haloacetic acid precursors in Quabbin Reservoir, which will require cooperation with DCR staff to initiate a storm monitoring program for one or more key tributaries around the Quabbin (*e.g.*, Fever Brook or East Branch Swift districts).
- UMass Amherst is geographically located relatively close to the Quabbin Reservoir for in-reservoir water sampling (with the assistance of DCR) or delivery of the reservoir water samples. It also has a ready pool of talented faculty and graduate students that can easily be deployed for collecting samples and working on several aspects of the proposed study.
- UMass Amherst recently acquired a Varian 3800s Gas Chromatograph, equipped with electronic flow controlled injector. This complex piece of equipment now provides UMass Amherst with the capability of quantifying disinfection by-products and their oxidation by-products following treatment with UV and chlorine. In addition, UMass Amherst has a liquid chromatograph-mass spectrometer (LC/MS/MS) equipment with high mass resolution which has the required sensitivity, stability and accuracy that is comparable to

current EPA standard methods for identifying cyanotoxins in both Quabbin and Wachusett water.

UMass Amherst is the only entity with more than 10 years of hydrologic modeling and water quality experience on Wachusett and Quabbin Reservoirs and has the equipment and expertise required to complete these services. Further, UMass Amherst charges a modified total direct cost overhead rate of 26% for projects with State organizations, including MWRA, rather than its standard 59%, resulting in a savings in overhead costs to MWRA. Moreover, a continued collaboration with UMass Amherst for this study is beneficial to MWRA as it provides an opportunity for an on-going partnership with a local research university in investigating and resolving potential water quality issues that can arise or affect MWRA's water supply and distribution system.

For the reasons described above, staff recommend that MWRA enter into a collaborative research contract with the University of Massachusetts at Amherst in an amount not to exceed \$300,000, for a contract term of 36 months from the Notice to Proceed. The Director of Procurement has approved the sole source nature of this contract.

BUDGET/FISCAL IMPACTS:

The total annual budget is approximately \$100,000. The total budget over three years is \$300,000. Sufficient funds are included in Operations FY21 Current Expense Budget for the first part of this contract. Funds will be included in future budgets for the remainder of the contract.

MBE/WBE PARTICIPATION:

No MBE or WBE participation requirements were established for this sole source contract.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: January 20, 2021
SUBJECT: River Road Rehabilitation
E. T. & L. Corp.
Contract 7701




COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE


Michele S. Gillen

Director of Administration

John J. Gregoire, Program Manager, Reservoir Operations
Valerie Moran, P.E., Director, Waterworks
Preparer/Title


David W. Coppes, P.E.

Chief Operating Officer

RECOMMENDATION:

To approve the award of Contract 7701, River Road Rehabilitation, to the lowest responsible and eligible bidder, E. T. & L. Corp., and to authorize the Executive Director on behalf of the Authority to execute said contract in the bid amount of \$2,182,000 with a contract term of 270 calendar days from the Notice to Proceed.

DISCUSSION:

River Road is MWRA's primary vehicular access to the Wachusett Dam's Lower Gatehouse in Clinton. A substantial alignment of the road is situated within a very steep slope. This area has had historic and recent landslide failures leading to physical road damage, temporary closures, and temporary repairs (Figure 1). In order to ensure continued access for routine operations and maintenance activities, as well as planned construction repairs at the Lower Gatehouse, a portion of this road (Figure 2) requires permanent stabilization and repair.



Figure 1. River Road 2008 landslide (L) and 2019 landslide (C) and (R)

During design, contaminated soils were discovered below the road. These contaminants (semi-volatile organic compounds, petroleum hydrocarbons and metals) are likely the result of early industrial activities on the site prior to construction of Wachusett Dam. A subsequent environmental program was performed to assess the limits of contamination for compliance with the Massachusetts Contingency Plan under Massachusetts DEP Regulations, as well as to design the road repairs. Accordingly, soil excavation for construction activities must follow DEP's Release Abatement Measures plan, under the direction of a Licensed Site Professional, with subsequent reporting requirements.



Figure 2. River Road at Wachusett Dam and Lower Gate House

The work includes the removal and disposal of approximately 9,050 tons of soil below the road alignment (Figure 2). Within this is approximately 20 tons of contaminated soil, which requires on-site testing and offsite landfill disposal. Removed soils will be replaced with higher strength fill to meet slope stability requirements.

The contractor will provide all materials, equipment, labor and supervision for construction of 900 linear feet of new roadway 13 feet wide, including grading, paving, new guardrail and placement of rip-rap armoring along the slope adjacent to Lancaster Mill Pond. Construction also includes a new stormwater system to meet the 100-year design requirements under the Massachusetts Stormwater Guidance. Those components include a detention basin, installation of slotted drainpipe, drain structures and a stormwater treatment structure to meet water quality standards. The stormwater work also includes demolition of the obsolete upslope drainage system, including an original failed stilling basin related to the most recent landslide. Final site work includes soils grading, seeding, slope plantings and wetland restoration.

Procurement Process

Contract 7701 was advertised as a Chapter 30 contract in the Boston Herald, El Mundo, Banner Publications, Central Register, COMMBUYS and on MWRA's e-Procurement System (Event No. 4468). A remote prebid conference was held on November 12, 2020. Seventeen bids were received on December 22, 2020 with the following results:

<u>Bidders</u>	<u>Bid Amount</u>
E. T. & L. Corp.	\$2,182,000.00
T Ford Company, Inc.	\$2,222,000.00
GVC Construction, Inc.	\$2,253,199.00
Ricciardi Bros., Inc.	\$2,277,000.00
George R. Cairns and Sons, Inc.	\$2,426,200.00
L.E.C. Civil Contractors	\$2,517,086.51
Luciano's Excavation Inc.	\$2,539,166.00
A.J. Virgilio Construction Inc.	\$2,610,295.63
Construction Dynamics, Inc.	\$2,660,000.00
J.L. Raymakers & Sons, Inc.	\$2,882,732.00
R. Zoppo Corp.	\$2,887,500.00
Ludlow Construction Co., Inc.	\$2,957,000.00
MDR Construction Co., Inc.	\$3,283,275.00
J. Bates & Son, LLC.	\$3,375,849.00
RJV Construction Corp.	\$3,378,000.00
WES Construction Corp	\$3,452,000.00
John Rocchio Corporation	\$4,063,050.20
<i>Engineer's Estimate</i>	<i>\$3,150,670.00</i>

There were a number of questions during bidding regarding soil disposal requirements. The ultimate destination for disposal will affect both disposal and hauling costs. Staff believe that this uncertainty explains some of the variability in the bids received. The Engineer's Estimate carried a high cost for this item, which accounts for over a third of the total project cost. Staff reached out to E.T. & L. staff to better understand their cost approach and they confirmed that they carried substantially less for the soil disposal items than in the Engineer's Estimate. Staff reviewed E. T. & L.'s bid and discussed the major bid items with the company. E. T. & L.'s bid is complete, accurate and reasonable for the scope of work involved.

References were checked on several of E. T. & L.'s contracts completed in the last five years, which are similar in nature to the work of this contract. In total, the company provided 47 projects completed since 2015 with reference contact information for each contract. Several of the references were reached and questioned relative to the company's ability to perform the work of this project. In general, the references provided positive feedback regarding E. T. & L.'s technical proficiency with work in wetlands, its ability to perform work on time and on budget, and timely submission of submittals and pay applications. References spoke highly of E. T. & L.'s professionalism, organization and communication. Responses provided by the references indicate that E. T. & L. has the qualifications and experience necessary to perform the work of this contract.

Staff reviewed OSHA records for E. T. & L. The firm had seven OSHA citations in the past five years, which are related to two separate incidents. Based on the list of projects completed over the last five years provided by E. T. & L., it is apparent that it has completed a large volume of work, which involves trenching and excavation in that period. In addition, all references contacted provided positive responses when asked about E. T. & L.'s safety procedures during its

performance of the work. The OSHA settlements required E. T. & L. to retrain employees, develop and implement an internal trenching and excavation permitting system to be completed by the foreman prior to workers entering any trenches. There do not appear to be any additional incidents or citations that have occurred since August 2017. More recently, OSHA conducted an inspection of one of E. T. & L.'s work sites in January 2020 that did not identify any violations.

Additionally, MWRA's construction contract specifications have a detailed Health and Safety Plan requirement, which includes a Site Specific Safety Plan meeting all requirements applicable to the project, including OSHA requirements and Commonwealth of Massachusetts Procedures for all Construction Sites.

Based on the bid review and subsequent discussions with representatives from E. T. & L., staff are satisfied that the firm understands the full scope of work and can perform the work for the bid price, which includes the payment of prevailing wage rates. E. T. & L. affirmatively stated that it bid competitively and aggressively, based on its experience with this type of road rebuilding work.

Therefore, staff are of the opinion that E. T. & L. possesses the skill, ability and integrity necessary to perform the work under this contract and is qualified to do so. Staff recommend the award of this contract to E. T. & L. Corp. as the lowest responsible and eligible bidder.

BUDGET/FISCAL IMPACT:

The FY21 CIP includes a budget of \$3,032,620 for Contract 7701. At the suggestion of the Advisory Board and as discussed in the FY19 Year End Financial Update at the September 2019 Board Meeting, \$2.0 million from the FY19 Watershed Reimbursement surplus was deposited in the Construction Fund and remains available for this project.

MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract were established at 7.24% and 3.6% respectively. However, E.T. & L. Corp. has a partial waiver for MBE participation requirements only.