



MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard
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Boston, MA 02129

Revision posted
07/21/2020
1:10pm

Frederick A. Laskey
Executive Director

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Chair: K. Theoharides
Vice-Chair: J. Carroll
Secretary: A. Pappastergion
Board Members:
C. Cook
K. Cotter
P. Flanagan
J. Foti
B. Peña
H. Vitale
J. Walsh
J. Wolowicz

BOARD OF DIRECTORS' MEETING

To be Held Virtually on July 22, 2020

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=eec98794302d91d1d6360ccd12f373364>

Meeting number (access code): 129 123 7866

Meeting password: 0722

Time:

1:00 p.m.

REVISED AGENDA

I. APPROVAL OF MINUTES

II. REPORT OF THE CHAIR

III. REPORT OF THE EXECUTIVE DIRECTOR

A. Advisory Board Recommendation Regarding Impacts of Covid-19

IV. WATER POLICY & OVERSIGHT ITEMS

A. Information

1. Project Update: Section 22 Rehabilitation Alternatives Analysis and Environmental Permitting: Black & Veatch Corporation, Contract 7155

B. Approvals

1. Emergency Water Supply Agreement with the Lynnfield Center Water District

V. PERSONNEL & COMPENSATION ITEMS

A. Approvals

1. PCR Amendments – July 2020

2. ~~Appointment of Environmental Manager, Operations (withdrawn)~~
2. Manager, Training and Development, Administration

VI. ADMINISTRATION, FINANCE & AUDIT ITEMS

A. Information

1. Delegated Authority Report – June 2020

B. Contract Awards

1. Accounts Payable and Payroll Depository Services: Webster Bank, N.A., Contract F256
2. Janitorial Services at MWRA Western Facilities: Management and Maintenance Inc., Bid WRA-4855
3. Drug and Alcohol Testing and Compliance Services: OHS Training & Consulting, Inc., Contract A626

VII. WASTEWATER POLICY & OVERSIGHT AGENDA ITEMS

A. Information

1. Update on Update on Early Warning Pilot for the Resurgence of COVID-19

VIII. CORRESPONDENCE TO THE BOARD

IX. OTHER BUSINESS

X. EXECUTIVE SESSION

XI. ADJOURNMENT

MASSACHUSETTS WATER RESOURCES AUTHORITY
Meeting of the Board of Directors
June 24, 2020

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law the June 24, 2020 meeting of the Board of Directors of the Massachusetts Water Resources Authority was held by remote participation. Chair Theoharides presided. Present remotely from the Board, in addition to Chair Theoharides, were Ms. Wolowicz and Messrs. Carroll, Cook, Cotter, Flanagan, Foti, Pappastergion, Peña, Vitale and Walsh. MWRA staff participants included Frederick Laskey, Executive Director, Carolyn Francisco Murphy, General Counsel, David Coppes, Chief Operating Officer, Carolyn Fiore, Deputy Chief Operating Officer, Thomas Durkin, Director of Finance, Michele Gillen, Director of Administration, Kathleen Murtagh, Director of Tunnel Redundancy, and Assistant Secretaries Ria Convery and Kristin MacDougall. The meeting was called to order at 1:04 p.m. All items requiring a Board vote were individually presented for discussion and deliberation. Motions were then consolidated for one omnibus roll call vote.

APPROVAL OF MAY 27, 2020 MINUTES

A motion was duly made and seconded to approve the minutes of the Board of Directors' meeting of May 27, 2020.

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

REPORT OF THE CHAIR

Chair Theoharides thanked MWRA staff for continuing to provide critical essential services during the pandemic and for their leadership on the Biobot study for COVID-19 surveillance. The Chair noted that Dr. Vandana Rao, EEA, is convening a meeting of the Drought Task Force to address drought conditions in the Commonwealth. Chair Theoharides also reported that Massachusetts has received direct relief from the federal government for food relief and food security to help build community resilience. Finally, the Chair noted that EEA is holding series of staff discussions about racial injustice. (Mr. Cook joined the meeting during the Report of the Chair.)

REPORT OF THE EXECUTIVE DIRECTOR

Mr. Laskey updated Board members on the status of MWRA operations and staff safety during the ongoing pandemic. Mr. Laskey reported on changes to procedures for the EPA Region 1's issuance of NPDES permits. He also provided updates on MWRA reservoir levels, the semi-annual Boston Harbor Case court report filing and a new,

subscription-based CSO notification system. Mr. Laskey also noted that Lynnfield Center Water District may be seeking an emergency MWRA water supply through the Lynnfield Water District, and that the July 2020 and August 2020 MWRA Board of Directors meetings will be rescheduled.

WASTEWATER POLICY & OVERSIGHT COMMITTEE

CONTRACT AWARDS

Early Warning Pilot for the Resurgence of COVID-19: Biobot Analytics, Inc.

Staff made a presentation. There was brief discussion.

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to execute a sole source contract, based on terms acceptable to the Authority, to provide an Early Warning Pilot for the Resurgence of COVID-19, to Biobot Analytics, Inc. in an amount not to exceed \$200,000, for a contract term of six months.

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

Purchase Order Contract to Provide Struvite, Scum, Sludge and Grit Removal Services at the Deer Island Treatment Plant: Moran Environmental Recovery, LLC, WRA-4838

Staff made a verbal presentation. There were questions and answers.

A motion was duly made and seconded to approve the award of Purchase Order Contract WRA-4838 to provide struvite, scum, sludge and grit removal services at the Deer Island Treatment Plant to the lowest responsive bidder, Moran Environmental Recovery, LLC., and to authorize the Executive Director, on behalf of the Authority, to execute said purchase order contract in an amount not to exceed \$998,210 for a period of two years, from August 1, 2020 through July 31, 2022.

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

Deer Island Eastern Seawall and Shoreline Protection Remediation – Design, Engineering Services During Construction, and Resident Engineering Services: Green International Affiliates, Inc., Contract 6723

Staff made a presentation.

A motion was duly made and seconded to approve the award of Contract 6723, Deer Island Treatment Plant Eastern Seawall and Shoreline Protection Remediation – Design, Engineering Services During Construction, and Resident Engineering Services to Green International Affiliates, Inc. and to authorize the Executive Director, on behalf

of the Authority, to execute said contract in an amount not to exceed \$2,600,472.63, for a contract term of 64 months from the Notice to Proceed.

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

Combustion Turbine Generator Maintenance, Deer Island Treatment Plant: O'Connor Corp., Contract S593

Staff made a verbal presentation. There were questions and answers.

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to approve the award of Contract S593, Combustion Turbine Generator Maintenance, Deer Island Treatment Plant, to the lowest responsible and eligible bidder, O'Connor Corporation, and to execute said contract in the not to exceed amount of \$1,343,847, for a contract term of 1,095 calendar days.

Chair Theoharides called for any further discussion or objections. Hearing none, the Chair referred the motion to an omnibus roll call vote. (ref. IV A.4)

Electrical Equipment Testing, Deer Island Treatment Plant: American Electrical Testing, Co., Contract S596

Staff made a verbal presentation. There were questions and answers.

A motion was duly made and seconded to approve the award of Contract S596, Electrical Equipment Testing, Deer Island Treatment Plant, to the lowest responsive bidder, American Electrical Testing Company, Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the not to exceed bid amount of \$1,928,700, for a term of 1,095 calendar days from the Notice to Proceed.

Chair Theoharides called for any further discussion or objections. Hearing none, the Chair referred the motion to an omnibus roll call vote. (ref. IV A.5)

Interceptor Renewal No. 7 Malden-Melrose, Sections 41/42/49/54/65, Design and Engineering Services During Construction: Kleinfelder Northeast, Inc., Contract 7216

Staff made a presentation.

A motion was duly made and seconded to approve the recommendation of the Consultant Selection Committee to award Contract 7216, Interceptor Renewal No. 7 Malden-Melrose (Sections 41/42/49/54/65) Design and Engineering Services During Construction, to Kleinfelder Northeast, Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$2,559,330.59, for a contract term of seventy-two months from the Notice to Proceed.

Chair Theoharides called for any discussion or objections. Hearing none, the Chair referred the motion to an omnibus roll call vote. (ref. IV A.6)

CONTRACT AMENDMENTS/CHANGE ORDERS

Chelsea Creek Headworks Upgrade: BHD/BEC JV 2015, A Joint Venture, Contract 7161, Change Order 38

Staff made a verbal presentation. There were questions and answers.

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to approve Change Order 38 to Contract 7161, Chelsea Creek Headworks Upgrade, with BHD/BEC 2015, A Joint Venture, for an amount not to exceed \$226,853, increasing the contract amount from \$82,975,797.06 to \$83,202,650.06, with no increase in contract term. Further, a motion was made and seconded 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.

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

PERSONNEL & COMPENSATION COMMITTEE

APPROVALS

PCR Amendments – June 2020

A motion was duly made and seconded to approve the amendments to the Position Control Register as presented, on a date to be determined by the Executive Director.

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

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 six months from July 1, 2020 to December 31, 2020, at the current hourly rate of \$15.76 per hour, for a total annual compensation not to exceed \$6,150.00.

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

ADMINISTRATION, FINANCE & AUDIT COMMITTEE

INFORMATION

Delegated Authority Report

Committee member Pappastergion called for any discussion or objections. Hearing none, Mr. Pappastergion proceeded to the next agenda item. (ref. VI A.1)

FY2020 Financial Update and Summary as of May 2020

Committee member Pappastergion called for any discussion or objections. Hearing none, Mr. Pappastergion proceeded to the next agenda item. (ref. VI A.2)

APPROVALS

Approval of the FY2021 Capital Improvement Program

A motion was duly made and seconded to approve the FY2021 Final Capital Improvement Program with a total budget of \$266.2 million for FY2021 including \$201.0 million in project spending and \$65.2 million in community assistance.

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

Approval for the Rivers School Admission to the MWRA Wastewater System

A motion was duly made and seconded that pursuant to MWRA Operating Policy 04 the Board approve the admission of the Rivers School, located on the border of Weston and Natick, to the MWRA wastewater system to discharge up to 12,000 gpd of wastewater via a connection to the Town of Natick.

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

CONTRACT AWARDS

Revenue Bond Consulting Engineer Services: CDM Smith Inc., Contract F258

A motion was duly made and seconded to approve the recommendation of the Consultant Selection Committee to select CDM Smith Inc. to provide revenue bond consulting engineer services in connection with the issuance of revenue bonds and to authorize the Executive Director, on behalf of the Authority, to execute said contract with CDM Smith, Inc. in an amount not to exceed \$325,600 for a term of 36 months from the Notice to Proceed.

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

OMNIBUS ROLL CALL VOTE

Chair Theoharides moved for on omnibus roll call vote on the motions presented and seconded.

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

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

Voted: to approve the minutes of the May 27, 2020 Board of Directors' meeting as presented and filed with the records of this meeting;

Further, voted: to authorize the Executive Director, on behalf of the Authority, to execute a sole source contract, based on terms acceptable to the Authority, to provide an Early Warning Pilot for the Resurgence of COVID-19, to Biobot Analytics, Inc. in an amount not to exceed \$200,000, for a contract term of six months; (ref. IV A.1)

Further, voted: to approve the award of Purchase Order Contract WRA-4838 to provide struvite, scum, sludge and grit removal services at the Deer Island Treatment Plant to the lowest responsive bidder, Moran Environmental Recovery, LLC., and to authorize the Executive Director, on behalf of the Authority, to execute said purchase order contract in an amount not to exceed \$998,210 for a period of two years, from August 1, 2020 through July 31, 2022; (ref. IV A.2)

Further, voted: to approve the award of Contract 6723, Deer Island Treatment Plant Eastern Seawall and Shoreline Protection Remediation – Design, Engineering Services During Construction, and Resident Engineering Services to Green International Affiliates, Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$2,600,472.63, for a contract term of 64 months from the Notice to Proceed; (ref. IV A.3)

Further, voted: to authorize the Executive Director, on behalf of the Authority, to approve the award of Contract S593, Combustion Turbine Generator Maintenance, Deer Island Treatment Plant, to the lowest responsible and eligible bidder, O'Connor Corporation, and to execute said contract in the not to exceed amount of \$1,343,847, for a contract term of 1,095 calendar days; (ref. IV A.4)

Further, voted: to approve the award of Contract S596, Electrical Equipment Testing, Deer Island Treatment Plant, to the lowest responsive bidder, American Electrical Testing Company, Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the not to exceed bid amount of \$1,928,700, for a term of 1,095 calendar days from the Notice to Proceed; (ref. IV A.5)

Further, voted: to approve the recommendation of the Consultant Selection Committee to award Contract 7216, Interceptor Renewal No. 7 Malden-Melrose (Sections 41/42/49/54/65) Design and Engineering Services During Construction, to Kleinfelder Northeast, Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$2,559,330.59, for a contract term of seventy-two months from the Notice to Proceed; (ref. IV A.6)

Further, voted: to authorize the Executive Director, on behalf of the Authority, to approve Change Order 38 to Contract 7161, Chelsea Creek Headworks Upgrade, with BHD/BEC 2015, A Joint Venture, for an amount not to exceed \$226,853, increasing the contract amount from \$82,975,797.06 to \$83,202,650.06, with no increase in contract term. Further, voted: to authorize the Executive Director to approve additional change orders as may be needed to Contract 7161 in an amount not to exceed the aggregate of \$250,000, in accordance with the Management Policies and Procedures of the Board of Directors. (ref. IV.B.1)

Further, voted: to approve the amendments to the Position Control Register as presented, 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 six months from July 1, 2020 to December 31, 2020, at the current hourly rate of \$15.76 per hour, for a total annual compensation not to exceed \$6,150.00; (ref. V A.2)

Further, voted: to approve the FY2021 Final Capital Improvement Program with a total budget of \$266.2 million for FY2021 including \$201.0 million in project spending and \$65.2 million in community assistance; (ref. VI A.1)

Further, voted: that pursuant to MWRA Operating Policy 04 the Board approve the admission of the Rivers School, located on the border of Weston and Natick, to the MWRA wastewater system to discharge up to 12,000 gpd of wastewater via a connection to the Town of Natick; (ref. VI A.2) and

Further, voted: to approve the recommendation of the Consultant Selection Committee to select CDM Smith Inc. to provide revenue bond consulting engineer services in connection with the issuance of revenue bonds and to authorize the Executive Director, on behalf of the Authority, to execute said contract with CDM Smith Inc. in an amount not to exceed \$325,600 for a term of 36 months from the Notice to Proceed. (ref. VI C.1)

OTHER BUSINESS

MWRA Advisory Board Executive Director Joseph Favaloro offered remarks on the MWRA FY21 CEB and CIP on behalf of the MWRA Advisory Board and its member communities. (Chair Theoharides left the meeting at the conclusion of Other Business.)

EXECUTIVE SESSION

Vice Chair Carroll moved that Board enter Executive Session to discuss real estate and litigation 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 enter Executive Session when their names are called will also be deemed their statements that no other person is present or able to hear this Executive Session discussion at their remote locations.

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

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

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

*** EXECUTIVE SESSION ***

ADJOURNMENT

The meeting returned to open session and adjourned at 2:19 p.m.

Approved: July 22, 2020

Attest:

Andrew M. Pappastergion, Secretary

DRAFT



Advocacy & Accountability

Representing Over 3 Million People in Massachusetts Communities Since 1985

June 19, 2020

Fred Laskey, Executive Director
Massachusetts Water Resource Authority
100 First Avenue, 3rd Floor
Boston, MA 02129

Dear Mr. Laskey:

Please note that the Advisory Board voted to approve the Comments and Recommendations for the FY2021 CIP at their meeting on June 18, 2020, after having previously approved the CEB's Comments and Recommendations at the May 4, 2020 meeting.

Below is a summary of the recommendations and the Advisory Board staff is in the process of finalizing our Comments & Recommendations document for the CEB and CIP, as is our statutory responsibility.

Of specific note in the list of Comments & Recommendations, please consider CEB & CIP Recommendation 1 – “Finding a New Normal” – which we feel is a priority as we progress through the COVID19 pandemic to determine if there are any significant changes needed to the approach of the Authority and Advisory Board to the CEB and CIP.

CEB & CIP – Recommendation 1 (“Finding a New Normal”)

The Authority should establish a committee to review the financial and operational impacts of the COVID19 pandemic on the (1) Current Expense Budget (CEB), and (2) Capital Improvement Program (CIP) in the short and long-term; this committee should include representation from Authority staff, the Board of Directors, and the Advisory Board, and provide an update to the Board of Directors and Advisory Board by September 30, 2020.

Current Expense Budget (CEB) – Comments & Recommendations

CEB – Recommendation 1 (“Rate Mitigation Package”)

The Advisory Board recommends two methods to providing financial flexibility to communities: (1) a significant reduction to the FY2021 RRR, and (2) leniency on loan repayments from communities to the MWRA for FY2021, FY2022, and FY2023 as we navigate the impacts of COVID19.

CEB – Recommendation 2 (“Assume a Vacancy Rate at the MWRA, without Reducing Headcount Goals”)

The Advisory Board supports the headcount goals of the Authority (1,150 FTE, plus the Tunnel Redundancy group) but has consistently called for the Authority to reflect a vacancy rate assumption as not all positions remain filled during the year. The result of this vacancy rate in FY2021 is \$905k.



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CEB Recommendation 3 (“Viewing OPEB/Pension as Two Sides of the Same Coin”)

The Advisory Board recommends that the Authority view OPEB and Pension as “Two Sides of the Same Coin” and make a significant reduction to planned contributions to these liabilities in FY2021; the MWRA Retirement Board voted a new funding schedule that reduced the contribution by \$1.00M.

CEB – Recommendation 4 (“Fixing the Staffing Issues of the Watershed Division”)

The Advisory Board has long led the push for the timely and unhindered hiring of positions at DCR’s Watershed Division, a process which is currently being held up by the Commonwealth, despite the fact that Watershed employees’ salaries and benefits are paid for by the MWRA and the Watershed Division receives oversight through the Water Supply Protection Trust. In response, the Advisory Board, the MWRA Board of Directors and the Water Supply Protection Trust all sent letters to the Director of Administration & Finance to request that Watershed hiring be exempt from hiring limits of DCR but received no response. At this point, it is unclear that the Watershed Division is being given the necessary latitude to hire as needed/planned (with MWRA funding and Trust approval) and the Advisory Board will pursue any means necessary to manage the Watersheds that protect the water of approximately 3 million people in the Commonwealth.

Additionally, the Advisory Board is appreciative that the Authority has chosen to accept the Advisory Board’s previous year recommendation by, for the first time, reflecting the historical vacancies that the Watershed Division has experienced. While the Advisory Board supports the FTE goals of the Watershed Division as laid out in the FY2021 Work Plan, with the current restrictions coming from the Commonwealth (against the wishes of the Advisory Board) it is not necessary for the Authority to budget as if the Watershed Division will be fully staffed in FY2021.

CEB – Recommendation 5 (“Use Reserves to Lower Wholesale Rates for Communities in FY2021”)

The Advisory Board recommended using either Rate Stabilization or HEEC reserve funds to lower the Rate Revenue Requirement (RRR) for FY2021; use of reserves was not planned in the proposed budget, however the final budget includes \$1.50M in HEEC Reserve use.

Capital Improvement Program (CIP) – Comments & Recommendations

CIP – Recommendation 1 (“Burlington-Bedford-Lexington – Model for System Improvement and Expansion”)

The Advisory Board supports the addition of capital projects that will improve the water distribution system to the Burlington-Bedford-Lexington areas and would like to see these improvements prioritized in the coming fiscal years to allow for improved service to the current MWRA water customers (Bedford and Lexington) and the new service area of Burlington; additionally, this capital project should be viewed as a model for planning capital projects that support improved service to existing customers and future system expansion.



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CIP – Recommendation 2 (“Wastewater Metering System – Implementation”)

The Advisory Board has supported improvements to the Wastewater Metering System and has pushed for a timelier implementation of new meters in past Comments & Recommendations; however, due to COVID19 impacts on the ability to collect valid data for a 3-year “look back” period, the Advisory Board looked at revised scenarios for implementing the new meters. The Advisory Board recommends using a 3-year average with Sanitary flow scaling based on COVID water use in April-May 2020 (and potentially June if necessary), and factoring in a modest delay for the construction date to January 2021, as any further delay carries the risk of further diminished data capture rate by the current meters.


CIP – Comment 3 (“CSO Update”)

The Advisory Board has been monitoring the bi-annual CSO updates being produced as part of the review process that the Authority must go through to receive variances for water quality in receiving waters and, as such, the Advisory Board has provided a summary of the progress made to date in our Comments and Recommendations document.

Sincerely,

Lou Taverna, P.E.
Advisory Board Chairman


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: July 22, 2020
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:

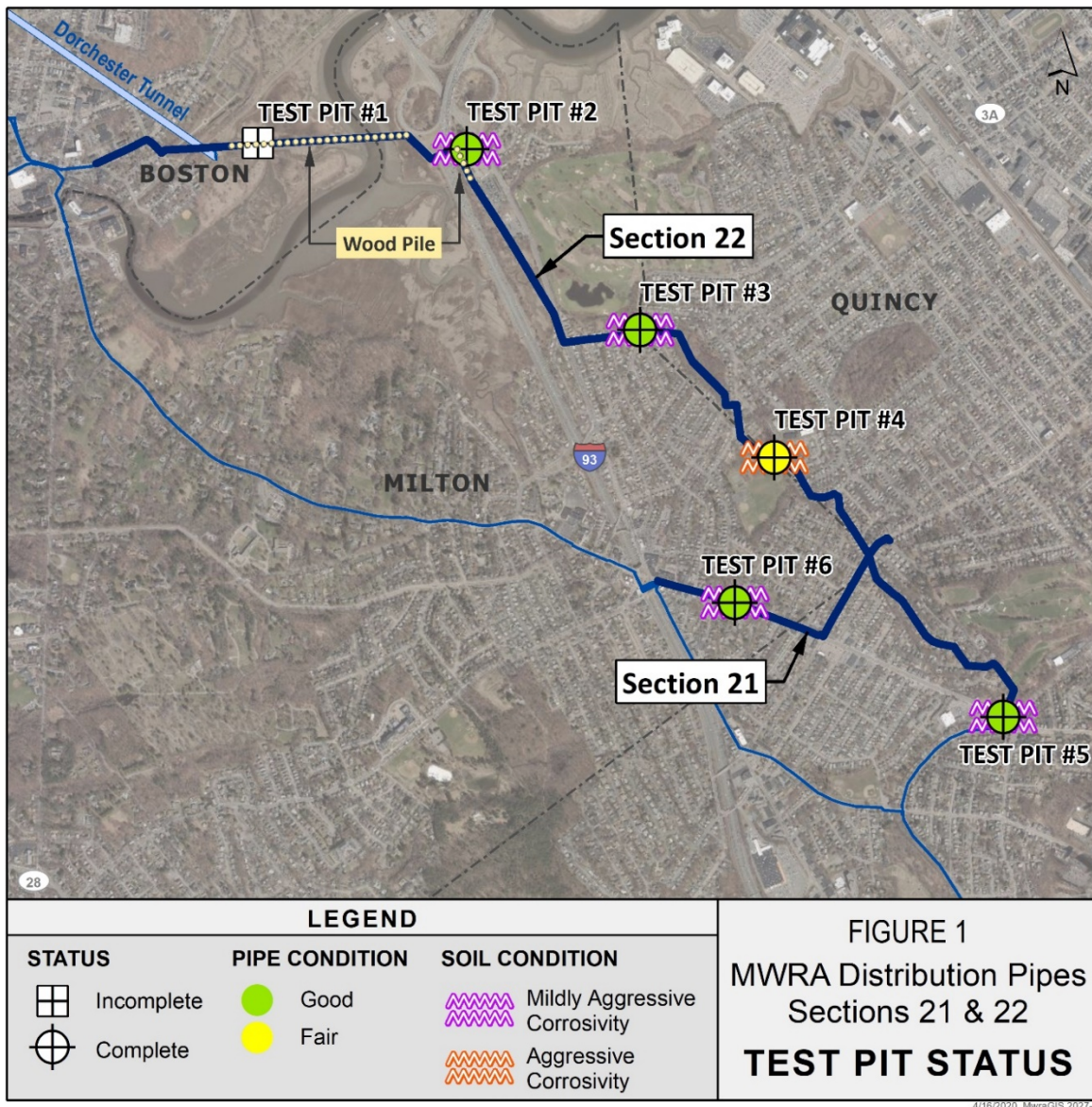
For information only.

DISCUSSION:

During the last quarter, the focus has been the installation of a test pit and borings, environmental permitting, alternative route development, and hydraulic modeling. Despite the COVID-19 pandemic, the project continued to move forward; however, there has been some delay in obtaining environmental permits from outside agencies and MWRA clearance of water pipeline location prior to commencement of borings due to reduced staffing. Five of six Phase 1 test pits have been completed to inspect the condition of the pipeline and identify localized soil conditions. The remaining Phase 1 test pit on Section 22 is located in the Neponset River Estuary, an Area of Critical Environmental Concern. This test pit will be completed in the next quarter. The location of the test pits are shown on Figure 1.

The final Section 22 test pit requires several approvals before proceeding since it is located in an ACEC. All permits have been obtained; the final DCR Construction Access permit was recently issued on July 14, 2020. On March 26, 2020, MWRA requested an advisory opinion under the Massachusetts Environmental Policy Act (MEPA) seeking a determination as to whether the test

pit and borings located in the ACEC trigger a MEPA threshold that would require an environmental notification form and/or environmental impact report. MWRA staff provided additional detail about the test pit and the best management practices that would be utilized to protect the resource. On June 3, 2020, MEPA issued its advisory opinion which concluded that installation of the test pit and borings in the ACEC does not require further MEPA review. In addition, on June 23, 2020, the US Army Corps of Engineers' Clean Water Act Section 404 issued coverage under a general permit to MWRA. A component of the Army Corps of Engineers' permit review process requires that several state and federal agencies, including Massachusetts Department of Environmental Protection, Massachusetts Office of Coastal Zone Management (CZM), and Natural Heritage and Endangered Species Program, review the application and that CZM specifically issue a consistency concurrence for the permit, which it did on June 24, 2020.



Based on inspection of the pipe and soil analysis from the first five test pits, the condition of the 48-inch diameter steel Section 22 pipeline ranges from fair to good condition. However, at Test Pit 4, the soils are aggressively corrosive, which has resulted in pitting and wall loss on the steel pipeline.



Section 21 Sample from Test Pit 6

Section 21 Test Pit 6 was completed on April 15. Section 21 is a 24-inch diameter cast iron water main that was installed in 1897. A sample of the piping was removed and sent to the laboratory for structural testing. The original pipe wall thickness is 0.84-inches. The largest corrosion pit was identified to be 0.34-inch on the interior of the pipe. The structural testing determined the cast iron material to be of acceptable quality and thickness and therefore can be considered for cleaning and lining in lieu of replacement.

To make a determination of the overall pipeline condition of Sections 21 and 22, additional soil corrosivity information is required to determine if the pipeline rehabilitation can be delayed to the future, should be replaced, or if rehabilitation by cleaning and lining is appropriate at this time. This will be accomplished by completing a limited soil boring program in between completed test pits.

The next phase of condition assessment includes 23 borings on Sections 21 and 22 between Test Pit 2 and Test Pit 6 at 800-foot intervals. The cost of this Phase 1 boring program is approximately \$88,000, or 25% of the \$350,000 total contract for borings and lab testing. Soil corrosivity data from the boring program will be compared to soil corrosivity data from the test pits to help determine the recommended alternatives for either pipeline rehabilitation or replacement. The initiation of this work, which was delayed due to the pandemic, began on July 13, 2020 and will be completed in 3 months.

Preliminary results of hydraulic modeling indicate that the existing Section 22 pipeline is adequately sized at the existing diameter of 48 inches under high water demand periods and replacement with a larger diameter pipeline is not required.

Alternatives considered for the Section 22 steel pipeline in the ACEC include determining if the pipeline condition is acceptable to delay rehabilitation to the future, slip lining, horizontal direction drilling, and alternative pipe routings outside the ACEC. Hydraulic modeling of slip lining with a 36-inch diameter liner within the ACEC resulted in significant reduction in capacity in this pipeline and is not recommended. Hydraulic modeling of a 40-inch slip line pipe is in progress.

During the next quarter, MWRA intends to perform internal leak detection of the portion of the 52-inch, cement-lined steel pipeline of Section 22 under the Neponset River to help determine if pipeline rehabilitation is required or more costly alternatives to replace this pipeline are necessary. In addition, work will include completing the Phase 1 test pit and boring program, finalizing the hydraulic modeling, and beginning the alternatives analysis, which will be presented in the Environmental Notification Form for the work in the ACEC.

As of July 1, 2020, 29% of the contract value 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.

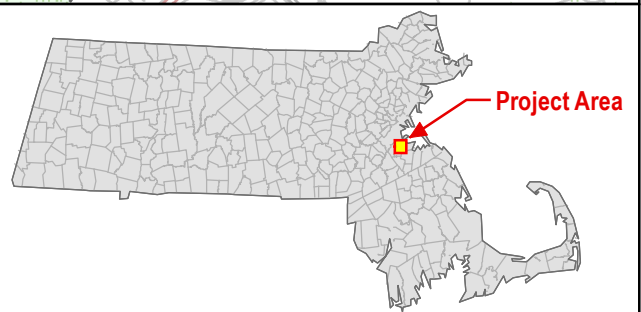
ATTACHMENT:

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: July 22, 2020
SUBJECT: Emergency Water Supply Agreement with the Lynnfield Center Water District

COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE

Carolyn M. Fiore, Deputy Chief Operating Officer
Beth Card, Director, Environmental and Regulatory Affairs
Preparer/Title


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

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to execute an Emergency Water Supply Agreement with the Lynnfield Center Water District, subject to the approval of the MWRA Advisory Board, for a period of up to six months pursuant to the attached Emergency Water Supply Agreement.

DISCUSSION:

Since early June 2020 the Lynnfield Center Water District has been in regular communication with the MWRA about the likely need to seek approval from MWRA for emergency withdrawal under MWRA's Operating Policy #OP.05: Emergency Water Supply Withdrawals, which applies to communities outside MWRA's water service area that are seeking water on an emergency basis. MWRA has the authority to approve short-term emergency connections for up to a 30-day period. Emergency connections lasting longer than 30 days and up to six months require MWRA Advisory Board and MWRA Board approval. Upon approval, long-term emergency connections are subject to the implementation of a six-month Emergency Water Supply Agreement. All emergency connections require a coinciding Massachusetts Department of Environmental Protection (DEP) Declaration of Emergency for the community.

Lynnfield is served by two separate water districts: The Lynnfield Water District (LCWD) serving the southern portion of the town, which is an MWRA customer community, and the Lynnfield Center Water District, serving a smaller area in the center of the town. The LCWD has experienced a consistent increase in daily water consumption since the COVID-19 pandemic and Governor Baker's stay-at-home advisory went into effect in mid-March of 2020. Daily consumption has increased by approximately 10 to 15 percent, which has been described as weekend consumption appearing throughout the week. Since early June, demand continued to increase causing LCWD's water tanks to drop below normal elevation. This resulted in low static pressure in the District's distribution system. In response, LCWD increased outdoor watering restrictions and conducting public outreach efforts to educate consumers on the situation. The District is currently at Level 5

Outdoor Water Use Restrictions, indicating Drought/Emergency Conditions, and banning all outdoor water usage. Water quantity challenges are compounded by the fact that one of LCWD's potential supplemental sources contains elevated nitrate levels, and use of that source is therefore limited by DEP.

In order to ensure adequate water supply for public health and safety, LCWD has connected to MWRA via the Lynnfield Water District. There are existing underground emergency connections between the Lynnfield Water District and the LCWD water systems. A temporary aboveground hydrant-to-hydrant connection, shown in Figure 1, has been constructed to more accurately monitor the volume and rate of water that flows through the connection. The LCWD engineering consultant reviewed the existing water treatment process compared to MWRA treatment to confirm there should be no water quality issues. It is anticipated that the connection may need to stay open for up to six months in total.



Figure 1: LCWD Hydrant Connection

On June 29, 2020, DEP issued an Emergency Declaration for LCWD (attached), which extends until October 30, 2020. The Emergency Declaration has two phases – the first allows for the LCWD to utilize an existing permitted wellfield (“Station 1”) that was shut down in 2017 due to high levels of nitrate in the water. The second phase allows for an emergency connection with MWRA, in accordance with OP.05, once the LCWD submits an MWRA Water Quality Blending Analysis Report to DEP, and DEP approves that report in writing. The purpose of the report is to evaluate potential adverse water quality impacts, such as differences in corrosion control that could occur due to blending of the different water sources. MWRA understands it is likely LCWD will complete the report and obtain DEP's approval in the month of July and seek MWRA approval to utilize the longer-term emergency connection. In order to avoid any delay, LCWD is seeking approval from the Advisory Board and Board of Directors to utilize the connection for up to six months.

Emergency Water Supply Approval Criteria and Requirements

MWRA's emergency water use policy sets forth withdrawal criteria and requirements. The key components of the approval process are as follows:

- The Executive Director or the Chief Operating Officer is authorized to approve the emergency use of MWRA water through an existing or temporary connection to MWRA, or a MWRA water system community by a non-MWRA water system or facility for a period not to exceed 30 calendar days.

- Emergency connections lasting longer than 30 days and up to six months require MWRA Advisory Board and MWRA Board of Directors approval. These long-term emergency connections are subject to an Emergency Water Connection Agreement between the community and MWRA.
- DEP declaration of water supply emergency in the requesting community, or alternatively, submission by the community of documentation supporting the existence of conditions that could lead to a DEP declaration of water supply emergency per G.L.c21G §15, is required for these emergency situations. Approval shall only be granted based on emergencies of non-chronic nature, such as supply and transmission disruptions.
- There must be no negative impact on MWRA's system and member communities.
- A long-term plan to remedy supply deficiencies must be developed.
- The applicant community does not use MWRA water supply as a chronic emergency back-up supply without equitable contribution for the fair asset value of the MWRA waterworks system.
- The community must submit a detailed description of water conservation and water accountability programs undertaken.

Contents of Emergency Water Supply Agreement

The Agreement limits water withdrawals to a maximum rate of 0.144 mgd. The proposed long-term emergency connection and emergency water supply agreement will be for a period that aligns with the term of the DEP Declaration of Water Supply Emergency and shall not exceed six months, provided MWRA Advisory Board approves. Pursuant to the Agreement, all withdrawals must be metered. The Agreement also requires LCWD to adhere to all conditions and requirements contained in the DEP Declaration of Water Supply Emergency. The Agreement reflects MWRA's charges for emergency withdrawals. This is LCWD's first emergency connection. As a result, there is a 10% surcharge on prevailing water rate and no net asset value payment.

BUDGET/FISCAL IMPACT:

Pursuant to OP.05, water taken for the first emergency withdrawal period is charged at the prevailing rate plus 10%. MWRA calculated the FY21 prevailing rate plus 10% to be \$4,752.69 per million gallons. For the first emergency period there is no net asset value charged.

ATTACHMENTS:

Draft Lynnfield Emergency Water Supply Agreement
MassDEP Emergency Declaration

DRAFT

EMERGENCY WATER SUPPLY AGREEMENT – PERIOD ONE BETWEEN THE MASSACHUSETTS WATER RESOURCES AUTHORITY AND LYNNFIELD CENTER WATER DISTRICT

Parties.

This Emergency Water Supply Agreement (“Agreement”) is entered into by and between the Massachusetts Water Resources Authority (“MWRA”), and the Lynnfield Water District (“LCWD”) hereinafter jointly referred to as the “Parties.” This Agreement documents the agreement and understanding of the Parties regarding the arrangement whereby MWRA will supply water to LCWD through a hydrant to hydrant connection with Lynnfield Water District (“LWD”), an MWRA served water community and whereby LCWD will purchase a portion of its water supply from the MWRA through LWD on an as-needed, emergency basis for a period not exceeding six months, as indicated in paragraph 11 hereof.

Recitals.

- R.1. The MWRA was created by the Massachusetts legislature in December, 1984 to operate, regulate, finance, and modernize the waterworks and sewerage systems servicing the greater metropolitan Boston area. Operating pursuant to the terms of Section 8(d) of its Enabling Act, chapter 372 of the Acts of 1984 (the “Act”), and pursuant to the Policies and Procedures for Emergency Water Supply Connections of its Board of Directors, the MWRA may enter into arrangements to provide emergency supplies of water to any local body of the Commonwealth, provided certain conditions are met.
- R.2. LCWD is a regulated, municipal, public water supply that produces and distributes potable well water for domestic, commercial, and municipal use, including fire suppression.).
- R.3. LWD is supplied by the MWRA and LCWD has an emergency hydrant to hydrant interconnection through LWD to the MWRA water supply system.
- R.4. LCWD’s drinking water sources include wells located in the Ipswich River Basin an North Coastal Basin. LCWD has experienced a consistent increase in daily water consumption since the COVID19 pandemic stay-at-home advisory went into effect in mid-March 2020. Daily consumption has increased by approximately 10 to 15 percent. In early June, demand continued to increase causing LCWD’s water tanks to drop below normal elevation, resulting in low static pressure in the LCWD’s distribution system. LCWD has instated Level 5 water restrictions, banning all outdoor watering.
- R.5. On June 2X, 2020, LCWD’s consultant via an electronic mail communication to MWRA, notified MWRA that water supply was low within LCWD’s distribution system.

- R.6 On June 29, 2020 the MA Department of Environmental Protection (MassDEP) issued a Declaration of Water Supply Emergency to LCWD, to remain in effect until October 30, 2020 or until such time as MassDEP determines that emergency conditions no longer exist, whichever is sooner. The Declaration of Water Supply Emergency is included as Attachment A to this Agreement.
- R.7 The MWRA's Policy for Emergency Water Supply Withdrawals, OP#.05 (the "Policy") includes criteria and a process for approving requests for emergency withdrawals.
- R.9. LCWD has applied to the MWRA to use emergency interconnection to the MWRA system through LWD to supplement LCWD's local water supply sources.
- R.10. The MWRA has determined that it can supply LCWD with an emergency water supply for a period not exceeding six months under this Agreement without jeopardizing its ability to supply its member communities and without exceeding the safe yield of its water supply system.
- R.11. LCWD must comply with all applicable legal and regulatory requirements.
- R.12. Pursuant to the MWRA Policy, this Agreement is considered an Emergency Water Supply Agreement Period One.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual promises contained herein and for other good and valuable consideration, the MWRA and LCWD agree as follows:

1. The proposed emergency water supply agreement will extend from July XX, 2020 to October 30, 2020 in accordance with the terms of this Agreement, subject to termination in accordance with numbered paragraph 11 below.
2. LCWD may take water from the emergency interconnection at a maximum rate of 0.144 million gallons per day over the six month period.
3. The transfer of water from the MWRA through LWD to LCWD shall not extend beyond a period of six months, unless LCWD submits an application for an additional emergency water supply withdrawal and the MWRA's Board of Directors approves the additional emergency water supply withdrawal. Any withdrawals beyond the DEP Emergency Declaration six-month period will also require an extension of DEP's Water Supply Emergency Declaration. In considering withdrawals beyond six months, the MWRA will consider LCWD's efforts to reduce consumption, to implement its long range plans and comply with DEP orders, and to implement a water conservation program.
4. During the six month term of this Agreement, LCWD shall institute and continue all practicable conservation measures including, but not limited to, a water conservation public education program; 100% metering; leak detection surveys and rehabilitation programs;

conservation pricing for water services; and a local by-law governing outdoor water use with appropriate enforcement measures such as fines for non-compliance. LCWD shall actively administer and enforce such local by-law.

5. LCWD shall submit to MWRA a report on water use, and the status of the emergency.
6. LCWD shall comply with all the conditions of any DEP Declaration of Water Supply Emergency.
7. During the term of this Agreement, the MWRA shall bill LWD for the total volume of water used by LCWD as metered by LWD, and will bill LCWD directly for the 10% surcharge over the prevailing rate. There is no asset value contribution for the first emergency period as mandated by the Policy. LWD shall bill LCWD for water used in accordance with the terms of the agreement between LWD and LCWD, which is incorporated by reference. LCWD shall remit its payments to LWD for the total volume of water used. LCWD will remit its payments for the 10% surcharge to MWRA directly.
8. The parties agree that the emergency withdrawal authorized under this Agreement is not appropriate for or intended to provide a permanent water supply to LCWD. Any request by LCWD for a permanent partial water supply from MWRA shall require full consideration of all alternatives, including effective water conservation and leak detection, and shall be subject to all approvals required under Section 8 (d) of Chapter 372 of the Acts of 1984, MWRA policies, and under applicable state law and regulations.
9. The MWRA provides potable water in compliance with federal and state drinking water standards at the revenue meters of its waterworks communities. The parties agree that MWRA assumes no liability for the compliance of water delivered pursuant to this Agreement with those state and federal drinking water standards once the water has entered the water distribution system of LWD.
10. Any dispute arising between the MWRA and LCWD under the terms of this Agreement shall be resolved in accordance with the dispute resolution process set forth at 360 C.M.R. 1.00.
11. The term of this Agreement shall extend from June 2X, 2020, the day in which LCWD could begin to take water (“start date”) through and including the six-month anniversary of the Start Date. During the term, MWRA reserves the right to terminate this Agreement at any time due to unforeseen circumstances such as inadequate supply, insufficient hydraulic capacity and other conditions related to the safe supply of existing users and operational requirements of the MWRA’s waterworks system.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed on this _____ day of _____, 2019 by their duly authorized representatives.

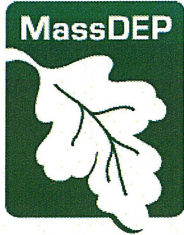
MASSACHUSETTS WATER
RESOURCES AUTHORITY

By:

Frederick A. Laskey
Executive Director

LYNNFIELD CENTER WATER DISTRICT

By:



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

June 29, 2020

Joseph T. Maney, Water Commissioner
Lynnfield Center
83 Phillips Road
Lynnfield, MA 001940-1529

City/Town: Lynnfield
PWS Name: Lynnfield Center Water District
PWS ID: 3164000
Emergency Declaration
Enf. No. 00009830

Dear Water Commissioner Joseph T. Maney:

On June 18, 2020, the Lynnfield Center Water District (“District”) requested an Emergency Declaration. The District reported substantially lowered tank levels due to water demands exceeding water supply availability. The increase in water demands is likely due to a combination of increased water usage associated with the stay at home order keeping residents at their houses during the work week and the prolonged period of drier than typical weather.

The District is requesting to supplement their existing water supply on a temporary basis with the following emergency water supplies:

- a. Station 1, an existing permitted wellfield in the District that is currently not in operation due to a 2017 Maximum Contaminant Level exceedance for nitrate, and
- b. Massachusetts Water Resource Authority (“MWRA”) water, to be provided by wheeling MWRA water through an existing mutual aid connection with the bordering Lynnfield Water District.

Attached is the Department of Environmental Protection (MassDEP), Northeast Regional Office, Declaration of State of Water Supply Emergency, Enf. No. 00009830.

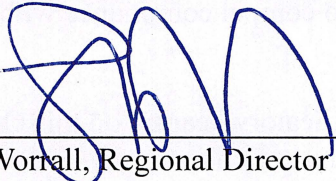
If you have any questions regarding this letter, please contact Amy Lachance at 617-429-1428.

The filing fee is not required if the appellant is a city, town, county, or district of the Commonwealth of Massachusetts or a municipal housing authority.

Failure to pay the filing fee as required is grounds for dismissal of the request for hearing.

Waiver of filing fee: Upon a showing of undue financial hardship, MassDEP may waive the adjudicatory hearing filing fee. A person who believes that payment of the \$100.00 filing fee would be an undue financial hardship must file, together with the request for adjudicatory hearing as provided above, an affidavit setting forth the facts the appellant believes constitute the undue financial hardship.

Issued by the Department of Environmental Protection this 29th day of June 2020

By  _____
Eric S. Worrall, Regional Director

**COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

In the Matter of)
Lynnfield Center Water District)

Enf. No. 00009830

EMERGENCY DECLARATION

The Parties

1. The Massachusetts Department of Environmental Protection (“MassDEP”) is a duly constituted agency of the Commonwealth of Massachusetts established pursuant to M.G.L. c. 21, § 7. MassDEP has its principal office located at One Winter Street, Boston, Massachusetts 02108, and its Northeast Regional Office located at 205B Lowell Street, Wilmington, Massachusetts 01887.
2. The Lynnfield Center Water District (“District”) is a public water system within the Commonwealth of Massachusetts having a principal place of business at and a mailing address of 83 Philips Road, Lynnfield, MA 01940-1529.

Statement of Facts and Law

3. The District operates a public water system with MassDEP Registration Number 3164000. The District, by and through its Water Department, operates and maintains three active sources (Stations 2, 3, and 4) and one permitted emergency source (“Station 1”).
4. On June 10, 2020, the District sent an email to MassDEP staff, petitioning MassDEP for a Declaration of a State of Water Supply Emergency pursuant to M.G.L.c.21G, §15 and seeking emergency use of:
 - a. Station 1, an existing permitted wellfield that is currently not in operation due to an exceedance of the Maximum Contaminant Level (“MCL”) for Nitrate, and
 - b. Massachusetts Water Resource Authority (“MWRA”) water, to be provided by wheeling MWRA water through an existing mutual aid connection with the bordering Lynnfield Water District (LWD).
5. The District’s consultant, CDM Smith, Inc., submitted a formal petition to MassDEP, dated June 18, 2020, on behalf of the District. The petition also requested an emergency declaration so that the existing District water supply can be supplemented with these emergency water supplies.
6. The District reported substantially lowered tank levels due to water demands exceeding water supply availability. The increase in water demand is likely due to a combination of increased water usage associated with the stay at home order keeping residents at their houses during the work week and the prolonged period of drier than typical weather. The District has observed

static pressures lower than 20 pounds per square inch (“psi”) in a few locations and there are concerns about meeting fire protection requirements throughout the District.

7. The District has raised the outdoor watering restrictions consistently over the past several weeks and as of June 10, 2020, has a Level 5 (highest) restriction in place to ban all outdoor water use. This restriction has been communicated to their consumers via direct dial telephone calls, social media, media outlets, and other means. The public water supply operators and the Fire Department have been patrolling to enforce this restriction.
8. The Water Management Act, M.G.L. c.21G, § 15, and the Water Management Regulations, specifically the provisions of 310 CMR 36.40(1), authorize any water system to petition MassDEP for a Declaration of a State of Water Supply Emergency if it finds that there exists or impends a water supply shortage of a dimension which endangers the public health, safety or welfare.
9. Pursuant to M.G.L. c.21G, § 15, and the Water Management Regulations at 310 CMR 36.40(2), MassDEP may declare a state of water emergency if it finds that there exists or impends a water supply shortage of a dimension which endangers the public health, safety or welfare. Further, in response to a petition for a Declaration of a State of Water Supply Emergency and pursuant to the provisions of M.G.L. c. 21G, § 15, MassDEP may require the water supplier to submit for its review and approval a plan for restraining the use of water by whatever means it deems appropriate and feasible. The statute limits any Declaration of a State of Water Supply Emergency to no more than six months in the aggregate in any twelve-month period, unless MassDEP determines that a longer state of emergency is required to protect the public health.
10. Further, the Water Management Regulations at 310 CMR 36.40(2) provides:

Upon receiving a petition for a declaration of a state of water supply emergency, the Department may declare an emergency if it finds that there exists or impends a water supply shortage of a dimension which endangers the public health, safety or welfare, due to circumstances including, but not limited to:

 - (a) Demand for water exceeds the availability of water;
 - ...
 - (d) inadequate source of water, inadequate distribution system capacity, inadequate storage capacity or drought including seasonal water shortages which repeatedly affect the same public water system....
11. Pursuant to the Water Management Act, M.G.L. c.21G, § 17, MassDEP may issue orders during a state of water emergency declared under M.G.L. c.21G, § 15 to, among other things, establish priorities for the distribution of any water or quantity of water use, to permit any person engaged in the operation of a water supply system to cease the distribution of water, to distribute water to certain users as specified by MassDEP, and to require the implementation of specific water conservation measures.

Determination and Order

12. For the reasons set forth above and pursuant to the Water Management Act, M.G.L. c.21G, § 15, MassDEP hereby determines that a water supply emergency exists and that it endangers the public health, safety or welfare of the citizens of the District. Unless extended by MassDEP, this Emergency Declaration shall remain in effect until October 31, 2020, as verbally requested by the District, or until such time as MassDEP determines that emergency conditions no longer exist, whichever is sooner.
13. By issuing this Emergency Declaration, MassDEP hereby grants the District authority to use water from Station 1, subject to the following specific conditions:
 - a. The use of water from Station 1 is hereby granted for a period ending 30 days after the effective date of this Emergency Declaration.
 - b. Prior to activation, the District shall submit to MassDEP a written statement that certifies that:
 - i. Station 1 has been evaluated to ensure that the equipment has been properly maintained and will function in accordance with all requirements.
 - ii. Treatment chemicals, including sodium hypochlorite, have not been stored for prolonged periods. Prolonged storage of sodium hypochlorite can result in a decrease in available chlorine and can allow for the formation of chlorate and perchlorate in the sodium hypochlorite solution.
 - c. The water from Station 1 shall be sampled and analyzed in accordance with 310 CMR 22.00 every day for Nitrate using the on-site analyzer, and the results from these analyses shall be obtained and submitted to MassDEP within two business days.
 - d. The water from Station 1 shall be sampled twice weekly for Nitrate and analyzed by a certified laboratory in accordance with 310 CMR 22.00, and the results from these analyses shall be obtained and submitted to MassDEP within two business days.
 - e. If at any time the water from Station 1 exceeds a Nitrate level of 9.0 mg/L, the District shall immediately turn off Station 1 and provide immediate notification to MassDEP.
 - f. If at any time the water from Station 1 exceeds a Nitrate level of 10.0 mg/L, the District shall also provide Tier 1 Public Notice in accordance with 310 CMR 22.16.
 - g. The District shall conduct monitoring and reporting in accordance with 310 CMR 22.00.
 - h. No later than July 3, 2020, the District shall submit their Emergency Response Plan, containing provisions for issuing a Tier 1 Public Notice, to MassDEP.
 - i. On or before July 13, 2020, the District shall submit to MassDEP an MWRA Water Quality Blending Analysis Report ("Report"). The Report shall contain the written analysis of potential adverse impacts that could occur due to the blending of the MWRA water and the District water, including simultaneous compliance issues with corrosion control.

14. By issuing this Emergency Declaration, MassDEP hereby grants the District authority to use their interconnections between the District and Lynnfield Water and MWRA, subject to the following specific conditions:
 - a. Use of MWRA water shall not commence until the Report required pursuant to Paragraph 13.h. of this Emergency Declaration has been approved in writing by MassDEP.
 - b. The District shall obtain any and all necessary approvals from MWRA prior to activating the connection.
 - c. The District shall only utilize MWRA water as needed to meet system demands greater than the available capacity of the District's other available sources.
 - d. The District shall submit to MassDEP a written progress report every two (2) weeks on the efforts to control demand both on the municipal system and by private well owners, and system-wide water use.
15. Effective immediately, the current ban on non-essential water use shall remain in place for the duration of this Emergency Declaration. For purposes of this Emergency Declaration, the term "nonessential outside water use" is defined to include those uses that do not have health or safety impacts, are not required by regulation, and are not needed to meet the core functions of a business or other organization. The District shall have the authority to enforce these regulations through the assessment of penalties or the imposition of fines.
16. Within two (2) calendar days of the date of issuance of this Emergency Declaration, the District shall provide public notice to its consumers through the District's Reverse-911 system of the issuance of this Emergency Declaration and the ban on all non-essential water use. The District shall provide MassDEP with the written text of said notice and the date(s) on which said notice was provided by July 3, 2020. The District shall further notify customers by any additional means, including but not limited to sign boards, notices on web site and social media, as deemed necessary. If the District has published notice in a local newspaper and/or on the District's website or by any other means, then the District shall also submit a copy of the public notice to MassDEP within ten (10) business days of publication of the notice.
17. On or before July 13, 2020, the District shall submit to MassDEP a written report documenting all efforts taken by the District to implement and enforce the ban on nonessential outside water use required herein, including all actions taken by the District to inform the public of the restrictions and to enforce the restrictions, including the assessment of penalties or imposition of fines. The report shall describe water use trends over the period of the emergency and describe progress and the status of all other conservation programs being implemented by the District. The District shall submit copies of all materials and notices prepared to inform the public of the District need to conserve water and comply with the restrictions on nonessential outside water use.
18. The District shall comply with all the remaining terms and conditions of Water Registration Numbers # 3-17-164.01 and # 3-18-164.01, and Permit Numbers # 9P2-3-17-164.01 and # 9P2-3-18-164.01, that remain unchanged by this Emergency Declaration.

19. Except as otherwise provided, all notices, submittals and other communications required by this Consent Order shall be directed to:

Amy Lachance, Section Chief
Drinking Water Program
MassDEP/Northeast Regional Office
205B Lowell Street
Wilmington, MA 01887

20. If the District fails to comply with the provisions of this Emergency Declaration, MassDEP may assess a civil administrative penalty as provided in M.G.L. c.21A, § 16 and M.G.L. c.21G, § 14. MassDEP may also seek civil judicial penalties as provided in M.G.L. c.21G, § 14. Each day of continued violation shall constitute a separate offense. In addition, MassDEP may ask the Attorney General to bring an action in the superior court to compel compliance with this Declaration.

21. Respondent is hereby notified that it has a right to an adjudicatory hearing on this Order. Pursuant to M.G.L. c. 21G, § 12 and 310 CMR 36.40(1) and effective twenty-one days after the Order is received by the Respondent, Respondent shall be deemed to have waived its right to an adjudicatory hearing on this order unless Respondent files with MassDEP (i.e., MassDEP receives), a written notice of claim for an adjudicatory appeal that clearly and concisely states every point of fact and law Respondent intends to raise as grounds for the appeal, the relief sought, and any additional information required by applicable law. The request must be mailed to:

Commonwealth of Massachusetts
MassDEP-Office of Appeals and Dispute Resolution
One Winter Street
Boston, MA 02211

And a copy sent to:

Heidi M. Zisch, Counsel
MassDEP-Office of General Counsel
Northeast Regional Office
205B Lowell Street
Wilmington, MA 01887

The appeal must be accompanied by a valid check made payable to Commonwealth of Massachusetts in the amount of \$100.00 for the required filing fee. The filing fee must be mailed to:

Commonwealth of Massachusetts
MassDEP-Office of Appeals and Dispute Resolution
P.O. Box 4062
Boston, MA 02211

Eric S. Worrall
Regional Director

cc: Angela Moulton, P.E.
CDM Smith
75 High Street, Suite 701
Boston, MA 02109

Lynnfield Health Department
55 Summer Street,
Lynnfield, MA 01940

e-cc: Duane LeVangie, MassDEP-BWR-Boston
Heidi M. Zisch, MassDEP-OGC-NERO

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STAFF SUMMARY


TO: Board of Director
FROM: Frederick A Laskey, Executive Director
DATE: July 22, 2020
SUBJECT: July PCR Amendments



COMMITTEE: Personnel and Compensation

Andrea Murphy, Director of Human Resources
Preparer/Title

INFORMATION
 VOTE



Michele S. Gillen
Director, Administration

RECOMMENDATION:

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

DISCUSSION:

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

July PCR Amendments

There are nine PCR Amendments this month, including five new positions for the Tunnel Redundancy Program, which were included in the FY21 CEB to increase staff and match the progress of the Program now that the Preliminary Design contract has been awarded. Four of the five new positions requested match those included in the CEB. One position was modified at the suggestion of the Program's Expert Review Panel Members who recommended, in addition to staffing up early, that Managers for Construction, Administration, and Program Controls be added. In response to this recommendation, the Deputy Director, Design and Construction position was modified and the responsibilities established to be a combination of those recommended.

Organizational Change

1. Title change to one filled position in the Operations Division, Operations Engineering department from Program Manager, Process Control and Project Support Unit 9 Grade 29, to Program Manager, Operations Engineering, Unit 9 Grade 29, to more accurately reflect the responsibilities of the position.

2. Title change to one vacant position in the Operations Division, Operations Engineering department from Program Manager, Wastewater Operations Unit 9 Grade 29, to Program Manager, Operations Engineering, Unit 9 Grade 29, to consolidate the program manager technical support functions for field operations programs within Operations Engineering.
3. Title and grade change to one vacant position in the Operations Division, TRAC department from Senior General Construction Inspector Unit 9 Grade 21, to Field Inspector, Water and Wastewater, Unit 9 Grade 19, to create a position responsible for both water and sewer inspections in order to provide more flexibility for workload management.
4. Title and grade change to one filled position in the Operations Division, TRAC department from Source Coordinator, Unit 9 Grade 23, to Project Manager, Source Coordination, Unit 9 Grade 25 as part of a legal settlement.
5. New position of Project Engineer (Tunnel Redundancy) Unit 9 Grade 21 to provide engineering support for the multi-year Tunnel Redundancy Program.
6. New position of Project Manager, Geotechnical (Tunnel Redundancy), Unit 9 Grade 25 to provide geotechnical engineering support and project management for the multi-year Tunnel Redundancy Program.
7. New position of Program Manager, Design (Tunnel Redundancy) Unit 9 Grade 29 to provide engineering support for the multi-year Tunnel Redundancy Program.
8. New position of Senior Program Manager, Geology (Tunnel Redundancy) Unit 9 Grade 30 to provide oversight of the major geotechnical field testing program and geological database for the multi-year Tunnel Redundancy Program.
9. New position of Deputy Director, Design and Construction (Tunnel Redundancy) Non-Union Grade 15 to oversee program quality management, schedule and budget controls, risk management, and constructability/value engineering reviews for the multi-year Tunnel Redundancy Program.

The first three amendments require approval by the Personnel and Compensation Committee. The last six amendments require Board approval after review by the Personnel and Compensation Committee.

BUDGET/FISCAL IMPACT:

The annualized budget impact of these PCR amendments will be a maximum cost of \$628,402. Staff will ensure that the cost increase associated with these PCR amendments will not result in spending over the approved FY FY21 Wages and Salaries budget.

ATTACHMENTS:

Old Job Descriptions
New Job Descriptions

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

PCR AMENDMENTS REQUIRING PERSONNEL & COMPENSATION COMMITTEE APPROVAL - July 22, 2020

| Number | Current PCR # | V/F | Type | Current Title | UN | GR | Amended Title | UN | GR | Current/Budget Salary | Estimated New Salary | Estimated Annual | | Reason For Amendment | | | |
|--|--|-----|------|--|----------|----|---|----|----|-----------------------|----------------------|------------------|------------------|----------------------|-----------------|----------|---|
| | | | | | | | | | | | | \$ Impact | | | | | |
| P1 | Operations Operations Engineering 5811027 | F | T, G | Program Manager, Process Control and Project Support | 9 | 29 | Program Manager, Operations Engineering | 9 | 29 | \$128,959 | \$128,959 | - | \$128,959 | \$0 | - | \$0 | Title change to more accurately reflect the responsibilities of the position. |
| P2 | Operations Operations Engineering 24700142 | V | T, G | Program Manager, Wastewater Operations | 9 | 29 | Program Manager, Operations Engineering | 9 | 29 | \$128,959 | \$92,357 | - | \$128,959 | -\$36,602 | - | \$0 | To consolidate the program manager technical support functions for field operations programs within Operations Engineering. |
| P3 | Operations TRAC 2210078 | V | T, G | Senior General Construction Inspector | 9 | 21 | Field Inspector, Water and Wastewater | 9 | 19 | \$92,263 | \$60,366 | - | \$83,905 | -\$31,897 | - | -\$8,358 | To create a position responsible for both water and sewer inspections in order to provide more flexibility for workload management. |
| PERSONNEL & COMPENSATION COMMITTEE TOTAL= | | | | | 3 | | | | | | TOTAL: | | -\$68,499 | - | -\$8,358 | | |

PCR AMENDMENTS REQUIRING BOARD APPROVAL - July 22, 2020

| Number | Current PCR # | V/F | Type | Current Title | UN | GR | Amended Title | UN | GR | Current/Budget Salary | Estimated New Salary | Estimated Annual | | Reason For Amendment | | | |
|----------------------|---------------------------------|-----|------|--------------------|----------|----|--|----|----|-----------------------|-------------------------------|------------------|------------------|----------------------|------------------|-----------|---|
| | | | | | | | | | | | | \$ Impact | | | | | |
| B1 | Operations TRAC 2210066 | F | T, G | Source Coordinator | 9 | 23 | Project Manager, Source Coordination | 9 | 25 | \$89,918 | \$110,569 | - | \$110,569 | \$20,651 | - | \$20,651 | Legal settlement. |
| B2 | Tunnel Redundancy 3640009 | N/A | N/A | | N/A | | Project Engineer (Tunnel Redundancy) | 9 | 21 | \$0 | \$66,333 | - | \$92,263 | \$66,333 | - | \$92,263 | This position will provide engineering support for the multi-year Redundancy Program. |
| B3 | Tunnel Redundancy 3640010 | N/A | N/A | | N/A | | Project Manager, Geotechnical (Tunnel Redundancy) | 9 | 25 | \$0 | \$79,357 | - | \$110,569 | \$79,357 | - | \$110,569 | This position will provide geotechnical engineering support and project management for the multi-year Tunnel Redundancy Program. |
| B4 | Tunnel Redundancy 3640011 | N/A | N/A | | N/A | | Program Manager, Design (Tunnel Redundancy) | 9 | 29 | \$0 | \$92,357 | - | \$128,959 | \$92,357 | - | \$128,959 | This position will provide engineering support for the multi-year Tunnel Redundancy Program. |
| B5 | Tunnel Redundancy 3640012 | N/A | N/A | | N/A | | Senior Program Manager, Geology (Tunnel Redundancy) | 9 | 30 | \$0 | \$96,214 | - | \$134,318 | \$96,214 | - | \$134,318 | This position will provide oversight of the major geotechnical field testing program and geological database for the multi-year Tunnel Redundancy Program. |
| B6 | Tunnel Redundancy 3640013 | N/A | N/A | | N/A | | Deputy Director, Design and Construction (Tunnel Redundancy) | NU | 15 | \$0 | \$140,000 | - | \$150,000 | \$140,000 | - | \$150,000 | This position will oversee program quality management, schedule and budget controls, risk management, and constructibility/ value engineering reviews for the multi-year Tunnel Redundancy Program. |
| BOARD TOTAL = | | | | | 6 | | | | | | TOTAL ESTIMATED COSTS: | | \$494,912 | - | \$636,760 | | |
| GRAND TOTAL = | | | | | 9 | | | | | | TOTAL ESTIMATED COSTS: | | \$426,413 | - | \$628,402 | | |

**MWRA
POSITION DESCRIPTION**



POSITION: Program Manager, Process Control & Project Support

DIVISION: Operations

DEPARTMENT: Process Control & Project Support

BASIC PURPOSE:

Provides technical support to water and wastewater operations on all operational process control related matters. Independently manages, with minimal supervision, the planning, design and construction services for various operation and maintenance projects and programs.

SUPERVISION RECEIVED:

Works under the general supervision of the Senior Program Manager within the Process Control & Project Support Group.

SUPERVISION EXERCISED:

Exercises close supervision of assigned staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Provides technical support and develops project work plans to support operations, maintenance and construction activities to ensure minimal impact to operations and to water/wastewater customers.
- Manages the checkout and startup of new process control equipment and systems during construction and rehabilitation of facilities to ensure new equipment and automation meet the process control objective.
- Manages technical support for senior staff in the development of program plans and standard designs for projects which may include design and construction of new and rehabilitation projects, development of maintenance and operations procedures, and hydraulic evaluation efforts.
- Provides technical review of consultants prepared reports and design projects, contractor shop drawings and O&M manuals for new facilities and facility rehabilitation projects.

- Performs condition assessments and field audits on equipment at MWRA facilities, CSOs, outfalls and other structures within the system in support of safe/efficient infrastructure. Develops written reports of field investigations and corrective actions plans for any faulty equipment and/or systems found during the investigations.
- Develops and coordinates maintenance service contracts in the field such as, but not limited to, SCADA, I&C and Electrical at Metro water and wastewater facilities.
- Assists in the development and administration of condition monitoring programs such as vibration analysis, load bank testing, and Thermography.
- Manages the utilization of existing Authority software and databases (ex. Process Book, PI, Telog Enterprise Website, etc.) to analyze facility and system data for assigned post event investigations and process control and hydraulic evaluations. Provides presentations and reports to Managers to detail findings and recommendations.
- Represents the department at various internal and external meetings, including construction meetings, O & M Meetings, and project progress meetings for facility upgrades and other complex projects.
- Works with Senior Manager, Pipeline to develop and implement sewer system optimization and storage program.
- Manages staff productivity monitoring and continual improvement through staff skill development, strategic planning, SOP improvements, and research and implementation of technology advances.
- Participates in the selection and hiring of project consultants and oversees the consultants planning process.
- Participates in the Emergency Operations Center (EOC) staffing as required and trains staff to provide storm and incident management.

SECONDARY DUTIES:

- Provides backup and support to the Senior Program Manager, Operations during wet weather events.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year college degree in civil, mechanical, chemical, or environmental engineering is required; and
- (B) A thorough knowledge of the operation and maintenance of a large Municipal Sewerage and/or Water System as normally attained through seven (7) to nine (9) years of experience with three (3) of supervision of staff and or large projects; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Demonstrated ability to work effectively as part of an engineering team and also to function independently with minimal supervision. Demonstrated ability to supervise technical staff.
- (B) Demonstrated understanding of process design, hydraulics and mechanical equipment integral to pumping and treatment systems typically found in water and wastewater facilities.
- (C) Demonstrated knowledge of process control theory, practices and principles
- (D) Demonstrated abilities to work productively and maintain working relationships with external parties.
- (E) Proficiency with personal computers and knowledge of word processing, spreadsheets, database and engineering applications software required.
- (F) Excellent interpersonal, verbal and written communications skills are required.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License is required.

A valid Grade 6 wastewater operator's license, a collections system certification or 4D Drinking Water Supply Facilities Operators license preferred.

TOOLS AND EQUIPMENT USED:

Hand tools, mobile radio, telephone, beeper, personal computer including word processing and other software, copy and fax machine.

PHYSICAL DEMANDS:

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

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

The employee must frequently lift and/or move up to 10 pounds and occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision, distance, 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 employee occasionally works in outside weather conditions. The employee occasionally works near moving mechanical parts and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in high, precarious places and is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals, and risk of electrical shock.

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

April 2019

**MWRA
POSITION DESCRIPTION**



POSITION: Program Manager, Operations Engineering

DIVISION: Operations

DEPARTMENT: Operations Engineering

BASIC PURPOSE:

Supports day-to-day monitoring of wastewater facilities and collection systems and water facilities, distribution and transmissions systems. Monitors system operations during wet weather events, system emergencies and normal operations to improve system performance and increase optimization. Independently manages the planning, design and construction services for various operation and maintenance projects and programs.

SUPERVISION RECEIVED:

Works under the general supervision of the Senior Program Manager in Operations Engineering.

SUPERVISION EXERCISED:

Exercises close supervision of assigned staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages and monitors system performance during wet weather events, develops tracking systems to monitor operational performance, provides recommendations for improvements, and initiates the implementation of identified short-term and long-range improvements. Participates in the Emergency Operations Center (EOC) staffing as required. Acts as a back-up to and assists the Managers of Water and Wastewater Operations during emergencies and as needed.
- Utilizes existing Authority software and databases (ex Process Book, PI, Telog Enterprise Website, etc) to analyze facility and system data for post-event evaluations investigations and process control and hydraulic investigations. Develops Process Book graphics for system monitoring. Gathers data and formulates storm reports for Wastewater Operations.
- Maintains ongoing readiness documentation for all wastewater facilities in preparation of

wet weather events.

- Implements facility reviews to ensure SCADA automation, alarming functions, and emergency safeguards are functioning as designed and documented.
- Manages the development and implementation of project work plans to support operations, maintenance and construction activities to ensure minimal impact to operations and to water/wastewater customers.
- Manages and coordinates the startup of new process control equipment and systems during construction of new and rehabilitation of facilities to ensure new equipment as designed to meet MWRA operational requirements.
- Manages technical support for senior staff in the development of program plans and standard designs for projects which may include design and construction of new and rehabilitation projects, development of maintenance and operations procedures, and hydraulic evaluation efforts.
- Provides technical review of consultants prepared reports and design projects, contractor shop drawings and O&M manuals for new facilities and facility rehabilitation projects.
- Performs condition assessments and field audits on equipment at MWRA facilities, CSOs, outfalls and other structures within the system in support of safe/efficient infrastructure. Develops written reports of field investigations and corrective actions plans for any faulty equipment and/or systems found during the investigations.
- Develops, updates and assists in the implementation of Standard Operating Procedures (SOPs) and facility manuals for water and wastewater facilities.
- Manages the development and coordination of maintenance service contracts in the field such as, but not limited to, Paving, I&C and Electrical at Metro water and wastewater facilities.
- Represents the department at various internal and external meetings, including, O & M Meetings, and project progress meetings for MWRA design and construction projects.
- Assists in the project development with other MWRA departments to identify potential operational conflicts and ensure MWRA systems will maintain required level of services during implementation of designs.

- Manages staff productivity monitoring and continual improvement through staff skill development, strategic planning, SOP improvements, and research and implementation of technology advances.
- In conjunction with E&C staff, develops consultant engineering scope of services, participates in the consultant procurement efforts and manages consultant teams as necessary for operational improvement projects done by task orders.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in civil, mechanical, chemical, or environmental engineering; and
- (B) A thorough knowledge of the operation and maintenance of a large Municipal Sewerage and/or Water System as normally attained through seven (7) to nine (9) years of experience including at least three (3) years experience supervising staff and/or large projects; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

\Demonstrated ability to work effectively as part of an engineering team and also to function independently with minimal supervision.

- (A) Demonstrated ability to supervise technical staff.
- (B) Demonstrated understanding of process design, hydraulics and mechanical equipment integral to pumping and treatment systems typically found in water and wastewater facilities.
- (C) Demonstrated knowledge of process control theory, practices and principles.
- (D) Demonstrated abilities to work productively and maintain working relationships with external parties.
- (E) Proficiency with personal computers and knowledge of MS Office, database programs,

and engineering applications software.

(F) Experience with GIS, Arcmap, Telog, SCADA, hydraulic modeling software, MAXIMO, process book, and PI is preferred.

(G) Excellent interpersonal, verbal and written communications skills.

SPECIAL REQUIREMENTS:

Must be available to respond to emergencies as needed. May be required to be part of an on-call rotation with other Operations Engineering staff twenty-four (24) hours a day, seven (7) days a week.

Required to provide support during planned off-hour operational events, including wet weather events

A valid Massachusetts Class D Motor Vehicle Operators License is required.

A Massachusetts Registered Professional Engineer's License is preferred.

A valid Grade 5 wastewater operator's license, a Grade 4 collections system certification or 3D Drinking Water Supply Facilities Operators license is preferred.

TOOLS AND EQUIPMENT USED:

Hand tools, mobile radio, telephone, beeper, personal computer including word processing and other software, copy and fax machine.

PHYSICAL DEMANDS:

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

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

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

distance, 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 employee occasionally works in outside weather conditions. The employee occasionally works near moving mechanical parts and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in high, precarious places and is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals, and risk of electrical shock.

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

July 2020

**MWRA
POSITION DESCRIPTION**



POSITION: Program Manager, Wastewater Operations

DIVISION: Field Operations

DEPARTMENT: Wastewater Operations

BASIC PURPOSE:

Assists the Manager of Operations in managing the operation of the Authority's Wastewater OCC, wastewater pumping stations, headworks and CSO facilities. Manages wet weather events, develops Standard Operating Procedures (SOPs), trains staff on SOPs, facility operations, process control procedures and emergency response plans. Coordinates maintenance programs, acts as a construction liaison as well as an Operational advisor.

SUPERVISION RECEIVED

Works under the general supervision of the Manager of Operations

SUPERVISION EXERCISED:

Will exercise close supervision over wastewater operations staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Develops, updates and ensures implementation of Standard Operating Procedures (SOPs) for all wastewater facilities. Develops operational and inspection protocols for operations staff as directed by the Manager of Operations.
- Manages predictive and preventive maintenance initiatives. Works closely with Operations Supervisors, Maintenance Managers and Work Coordination Managers to ensure all work orders are issued, completed and closed in a timely manner. Conducts periodic audits on Operations staff maintenance activities. Attends weekly maintenance coordination meetings. Utilizes Maximo to open and process work orders as required.
- Responsible for coordinating all aspects of communication/Tellog, PLC, system alarms with SCADA, Metering and Engineering groups.
- Responsible for operations involvement on construction projects, attend construction meetings and participates in the construction and start-up of new facilities.

- Performs facility audits, facility inspections, SPCC inspections and staff scheduling issues as directed by the Manager of Operations. Responsible for scanner system and updates of new technology associated with facility automation as needed.
- Manages departmental records relating to the Yellow/Orange Notebooks.
- Utilizes PI Processbook to monitor facility operation and to gather information to produce reports. Gathers data and formulates storm reports for Wastewater Operations.
- Acts as liaison to the safety coordinator and implements recommendations as needed. Responsible for the safe operation of all wastewater system components and ensures all staff are in compliance with all MWRA safety policies and procedures.
- Manages wet weather events for Wastewater Operations.
- Trains staff on proper Operational Techniques and Emergency Response.

SECONDARY DUTIES:

- Performs related duties as required

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) B.S. in Mechanical, Electrical, or Civil Engineering or related field; or
- (B) Demonstrated knowledge of wastewater operations and wastewater equipment maintenance and practices as acquired by seven (7) to nine (9) years experience in the field including three (3) years of experience supervising staff and/or large projects; or
- (C) Any combination of education and experience.

Necessary Knowledge, Skills, and Abilities:

- (A) Ability to read and interpret plans and drawings.
- (B) Proficient in the use of personal computers and associated Microsoft Office software programs, including Word, Excel, and Access.
- (C) Experience with the CMMS software MAXIMO.

(D) Trained in Confined Space Entry and capable of entering, of setting up, installing, disassembling confined space equipment and ability to work in a confined space

SPECIAL REQUIREMENTS:

A valid Grade 5 Wastewater Operator's license, or the ability to obtain within 6 months.

A valid Grade 4 Collections System Certification, or the ability to obtain within 6 months.
A valid Massachusetts Class D Motor Vehicle Operator's License.

TOOLS AND EQUIPMENT USED:

Office equipment as normally associated with the use of telephone and personal computer.

PHYSICAL DEMANDS:

The physical demands 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 fingers, handle, feel or operate objects, including office equipment or controls and reaches with hands and arms. The employee must frequently lift and or move up to 10 pounds, occasionally lift/or move up to 25 pounds. Specific vision abilities required by this job include close vision, distance vision, depth perception and the ability to focus.

WORK ENVIRONMENT:

The work environment characteristics 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 will also be exposed to outdoor weather conditions. The employee is occasionally exposed to fumes and airborne particles.

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

June 2019

**MWRA
POSITION DESCRIPTION**



POSITION: Program Manager, Operations Engineering

DIVISION: Operations

DEPARTMENT: Operations Engineering

BASIC PURPOSE:

Supports day-to-day monitoring of wastewater facilities and collection systems and water facilities, distribution and transmissions systems. Monitors system operations during wet weather events, system emergencies and normal operations to improve system performance and increase optimization. Independently manages the planning, design and construction services for various operation and maintenance projects and programs.

SUPERVISION RECEIVED:

Works under the general supervision of the Senior Program Manager in Operations Engineering.

SUPERVISION EXERCISED:

Exercises close supervision of assigned staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages and monitors system performance during wet weather events, develops tracking systems to monitor operational performance, provides recommendations for improvements, and initiates the implementation of identified short-term and long-range improvements. Participates in the Emergency Operations Center (EOC) staffing as required. Acts as a back-up to and assists the Managers of Water and Wastewater Operations during emergencies and as needed.
- Utilizes existing Authority software and databases (ex Process Book, PI, Telog Enterprise Website, etc) to analyze facility and system data for post-event evaluations investigations and process control and hydraulic investigations. Develops Process Book graphics for system monitoring. Gathers data and formulates storm reports for Wastewater Operations.
- Maintains ongoing readiness documentation for all wastewater facilities in preparation of

wet weather events.

- Implements facility reviews to ensure SCADA automation, alarming functions, and emergency safeguards are functioning as designed and documented.
- Manages the development and implementation of project work plans to support operations, maintenance and construction activities to ensure minimal impact to operations and to water/wastewater customers.
- Manages and coordinates the startup of new process control equipment and systems during construction of new and rehabilitation of facilities to ensure new equipment as designed to meet MWRA operational requirements.
- Manages technical support for senior staff in the development of program plans and standard designs for projects which may include design and construction of new and rehabilitation projects, development of maintenance and operations procedures, and hydraulic evaluation efforts.
- Provides technical review of consultants prepared reports and design projects, contractor shop drawings and O&M manuals for new facilities and facility rehabilitation projects.
- Performs condition assessments and field audits on equipment at MWRA facilities, CSOs, outfalls and other structures within the system in support of safe/efficient infrastructure. Develops written reports of field investigations and corrective actions plans for any faulty equipment and/or systems found during the investigations.
- Develops, updates and assists in the implementation of Standard Operating Procedures (SOPs) and facility manuals for water and wastewater facilities.
- Manages the development and coordination of maintenance service contracts in the field such as, but not limited to, Paving, I&C and Electrical at Metro water and wastewater facilities.
- Represents the department at various internal and external meetings, including, O & M Meetings, and project progress meetings for MWRA design and construction projects.
- Assists in the project development with other MWRA departments to identify potential operational conflicts and ensure MWRA systems will maintain required level of services during implementation of designs.

- Manages staff productivity monitoring and continual improvement through staff skill development, strategic planning, SOP improvements, and research and implementation of technology advances.
- In conjunction with E&C staff, develops consultant engineering scope of services, participates in the consultant procurement efforts and manages consultant teams as necessary for operational improvement projects done by task orders.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in civil, mechanical, chemical, or environmental engineering; and
- (B) A thorough knowledge of the operation and maintenance of a large Municipal Sewerage and/or Water System as normally attained through seven (7) to nine (9) years of experience including at least three (3) years experience supervising staff and/or large projects; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

\Demonstrated ability to work effectively as part of an engineering team and also to function independently with minimal supervision.

- (A) Demonstrated ability to supervise technical staff.
- (B) Demonstrated understanding of process design, hydraulics and mechanical equipment integral to pumping and treatment systems typically found in water and wastewater facilities.
- (C) Demonstrated knowledge of process control theory, practices and principles.
- (D) Demonstrated abilities to work productively and maintain working relationships with external parties.
- (E) Proficiency with personal computers and knowledge of MS Office, database programs,

and engineering applications software.

(F) Experience with GIS, Arcmap, Telog, SCADA, hydraulic modeling software, MAXIMO, process book, and PI is preferred.

(G) Excellent interpersonal, verbal and written communications skills.

SPECIAL REQUIREMENTS:

Must be available to respond to emergencies as needed. May be required to be part of an on-call rotation with other Operations Engineering staff twenty-four (24) hours a day, seven (7) days a week.

Required to provide support during planned off-hour operational events, including wet weather events

A valid Massachusetts Class D Motor Vehicle Operators License is required.

A Massachusetts Registered Professional Engineer's License is preferred.

A valid Grade 5 wastewater operator's license, a Grade 4 collections system certification or 3D Drinking Water Supply Facilities Operators license is preferred.

TOOLS AND EQUIPMENT USED:

Hand tools, mobile radio, telephone, beeper, personal computer including word processing and other software, copy and fax machine.

PHYSICAL DEMANDS:

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

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

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

distance, 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 employee occasionally works in outside weather conditions. The employee occasionally works near moving mechanical parts and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in high, precarious places and is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals, and risk of electrical shock.

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

July 2020

**MWRA
POSITION DESCRIPTION**



POSITION: Senior General Construction Inspector

DIVISION: Operations

DEPARTMENT: TRAC

BASIC PURPOSE:

Provides inspection services on construction contracts performed by outside agencies affecting Operations Division facilities. Provides surveys of pipeline and valve connections for the purpose of updating record drawings.

SUPERVISION RECEIVED:

Works under the general supervision of a Project Manager and the Sr. Program Manager Field Operations & Permitting.

SUPERVISION EXERCISED:

Plans, schedules and supervises the General Construction Inspectors and/or Junior Civil Engineers.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Supervises the inspection of and/or inspects work affecting waterworks and wastewater facilities of contractors hired by agencies external to the MWRA.
- Supervises the inspection of and/or inspects the work of contractors hired by the Authority to ensure conformance to plans, specifications and standards. Maintains record of labor, costs of changes and extra work.
- Supervises the inspection of and/or inspects and records work performed by the Water Pipeline Program. Gives line and grade as required. Maintains records of all recorded work. Uses electronic survey and measuring devices, including but not limited to theodolite, total station and GPS.
- Provides surveys of existing waterworks pipelines and valve connections. Provides reports as necessary and updates record drawings on computer based drafting and design systems (such as AutoCAD or NUB).

- Oversees the performance of and conducts Cross Connection Control Surveys and Backflow Device testing.
- Takes water samples of MWRA and Community water systems. Assist in the daily operation of the Deer Island Water System. Performs mark out of MWRA water mains.
- Manages the Field Operations Department as-needed paving contract.

SECONDARY DUTIES:

- Performs related duties as required.
- Coordinates special projects as needed.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Knowledge of basic engineering practices in building and civil works construction as normally attained through a two (2) year college program in civil engineering or a related field; and
- (B) Working knowledge of engineering, surveying, construction and civil works as acquired through approximately three (3) to five (5) years of experience in engineering, construction or a related field; or
- (C) Any equivalent combination of education and experience.

Skills and Abilities:

- (A) Demonstrated proficiency in the use of theodolite, total station instrument, and GPS.
- (B) Ability to read blueprints, detail records and record drawings.
- (C) Ability to carry out detailed instructions accurately.
- (D) Ability to deal with other personnel, such as contractors, the public and other agencies.
- (E) Ability to maintain accurate records of work performed.
- (F) Knowledge of computers with experience in Microsoft Office Products, computer based drafting and design systems, and MAXIMO.

SPECIAL REQUIREMENTS:

Massachusetts Class D Motor Vehicle Operators License

Grade 3 Water Operators License within 6 months of hire.

A Cross-Connection Surveyor Certificate within 6 months of hire.

TOOLS AND EQUIPMENT USED:

Surveying equipment and instruments, telephone, personal computer, copy and fax machine.

PHYSICAL DEMANDS:

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

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

The employee must frequently lift and/or move up to 10 pounds and occasionally lift and/or move up to 75 pounds. Specific vision abilities required by this job include close vision, distance, 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 outside weather conditions. The employee regularly works near moving mechanical parts and is occasionally exposed to wet and/or humid conditions. The employee is occasionally exposed to fumes or airborne particles and toxic or caustic chemicals.

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

January 2017

**MWRA
POSITION DESCRIPTION**



POSITION: Field Inspector, Water & Wastewater

DIVISION: Operations

DEPARTMENT: TRAC

BASIC PURPOSE:

Provides inspection services on construction contracts performed by outside agencies affecting the Authority's wastewater transport system and water distribution system. Performs 8 M Permitting and Dig Safe inspection and markout activities.

SUPERVISION RECEIVED:

Works under the general supervision of the Senior Field Inspector. May receive functional supervision on projects from a Senior Program Manager, Field Operations & Permitting or TRAC Project Manager.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Inspects the work of contractors to ensure conformance to plans, specifications and standards. Maintains record of labor, costs of changes and extra work.
- Coordinates with Senior Field Inspectors and Project Managers to ensure that conditions of applicable 8(M) and other permits are enforced.
- Inspects materials for conformance to specifications, maintain records of progress, completed work and document changes and additional work.
- Surveys and calculates specifications along with using other engineering methodology to determine areas of reconnaissance locations and layouts in the field.
- Reviews designs and construction of projects of medium complexity and assists senior field inspector and engineering personnel on major projects for completion and conformance to specifications.

- Participates in Dig Safe inspection and markout activities both during work hours and on-call.
- Records completed work, maintains records of the cost of changes and additional work.
- Surveys existing water and wastewater appurtenances to update record drawings and detail records.
- Documents daily work completed within work order system including all field notes from job site.
- Performs mark out of MWRA water mains and sewers.
- Investigates dry weather wastewater discharges and various wet weather overflows.
- Supports wet weather operations as needed.
- Participates in emergency response to any/all MWRA emergencies as necessary.
- Provides On-Call inspection services as needed.
- Follows all MWRA safety policies and procedures to ensure a safe work environment.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Knowledge of basic engineering practices in building and civil works construction as normally attained through a Bachelor's degree in civil engineering, construction management, or a related field; and
- (B) Working knowledge of engineering, surveying, construction and civil works as acquired through one (1) to two (2) years of technical or professional experience in engineering, construction or a related field; or
- (C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Demonstrated proficiency in field location techniques such as GPS.
- (B) Ability to read blueprints, detail records and record drawings.
- (C) Ability to carry out detailed instructions accurately.
- (D) Ability to develop and maintain productive working relationships with outside parties and to work effectively as part of a team.
- (E) Ability to maintain accurate records of work performed.
- (F) Knowledge of computers with experience in Microsoft Office Suite, computer- based drafting and design systems, and MAXIMO.
- (G) Excellent interpersonal, oral and written communication skills.

SPECIAL REQUIREMENTS:

Mandatory On Call work for after-hours inspection services in a rotation with other inspection staff.

A valid Massachusetts Class D Motor Vehicle Operators License is required.

A valid Grade 1 Water Distribution Operator-in-Training License and a Collections System 1 Certification is preferred.

TOOLS AND EQUIPMENT USED:

Power and hand tools, telephone, personal computer, copy and fax machine.

PHYSICAL DEMANDS:

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

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

hear; climb or balance; stoop, kneel, crouch, or crawl.

The employee must frequently lift and/or move up to 10 pounds and occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance, 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 outside weather conditions.

The employee regularly works near moving mechanical parts and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in precarious places and is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals, and risk of electrical shock.

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

July 2020

**MWRA
POSITION DESCRIPTION**



POSITION: Source Coordinator

DIVISION: Operations

DEPARTMENT: Field Operations/Toxic Reduction and Control (TRAC)

BASIC PURPOSE:

Ensures that septage surveillance, inspections, and gasoline/oil separator inspections and reviews, and audits of facilities with group or general permits performed by TRAC meet programmatic and legal requirements. Responds to oil spills. Identifies, reports on, and responds to industrial storm water discharges to combined sewers.

SUPERVISION RECEIVED:

Works under the general supervision of the Regional Manager.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Provides overall direction to TRAC Regional Inspectors concerning gasoline/oil separators and septage sites and haulers.
- Reviews the work of Regional Inspectors on septage surveillance and inspections and gasoline/oil separator inspections to ensure that they meet programmatic and legal requirements.
- Reviews plans for new gasoline/oil separators to ensure structural integrity and proper design and conducts field inspections to verify plans.
- Conducts inspections of septage hauler facilities and drafts septage hauler permits.
- Identifies instances in combined sewer areas where industrial storm water flows to combined sewers and coordinates TRAC's response to such instances.
- Reviews septage and gasoline/oil separator forms, templates, and other related documents and updates and revises them as appropriate.

- Tracks septage and gasoline/oil separator goals and accomplishments and provides reports on accomplishments.
- Maintains accurate and current information relating to septage and gasoline/oil separators on TRAC databases.

SECONDARY DUTIES:

- Acts as On-Call Manager for TRAC in rotation with other TRAC staff.
- Reviews and recommends policies and procedures within TRAC.
- Participates in liaison, coordination, and educational activities within the MWRA and with other governmental agencies and the public.
- Participates actively in TRAC multi-disciplinary work groups.
- Drafts reports, memoranda, and other documents.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year undergraduate degree in chemistry, biology, environmental sciences, a related engineering or science discipline, or other related field; and
- (B) Five (5) to seven (7) years of experience in sanitary engineering including working with the installation and operation of gasoline/oil separators; or
- (C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Thorough knowledge and understanding of sanitary engineering practices and principles.
- (B) Understanding of the installation and operation requirements for gasoline/oil separators.
- (C) Familiarity with computers, including word-processing, spreadsheet, database, and other information systems.

- (D) Ability to open manholes, move manhole covers, and complete dye testing of sewer lines.
- (E) Ability to read and interpret engineering maps, plans, and specifications.
- (F) Strong written and oral communication skills.

SPECIAL REQUIREMENTS:

Valid Massachusetts Class D Motor Vehicle Operators license.

TOOLS AND EQUIPMENT USED:

Inspection equipment, mobile radio, telephone, personal computer including word processing and other software, copy and fax machine.

PHYSICAL DEMANDS:

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

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

The employee must occasionally lift and/or move more than 100 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, depth perception, peripheral vision and the ability to adjust focus.

WORK ENVIRONMENT:

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

While performing the duties of this job, the employee occasionally works in outside weather conditions. The employee occasionally works near moving mechanical parts and is occasionally exposed to vibration. The employee is occasionally exposed to fumes or airborne particles, and toxic or caustic chemicals.

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

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**MWRA
POSITION DESCRIPTION**



POSITION: Project Manager, Source Coordination

DIVISION: Operations

DEPARTMENT: Field Operations/Toxic Reduction and Control (TRAC)

BASIC PURPOSE:

Ensures that septage surveillance, inspections, and gasoline/oil separator inspections and reviews performed by TRAC staff meet programmatic and legal requirements. Supervises Regional Inspectors. Responds to oil spills. Identifies, reports on, and responds to industrial storm water discharges to combined sewers.

SUPERVISION RECEIVED:

Works under the general supervision of the Regional Manager.

SUPERVISION EXERCISED:

Exercises direct supervision of two TRAC Regional Inspectors.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Supervises Regional Inspectors and provides them with overall direction concerning technical requirements for inspection to ensure that there is internal consistency and coordination on practices, procedures, and implementations.
- Ensures activities conducted by Regional Inspectors adhere to established federal, state and MWRA pre-treatment program regulations, policies and guidelines.
- Schedules field activities for assigned staff using pre-treatment and other software. Reviews inspections done by TRAC staff to help ensure that they meet programmatic and legal requirements. Reviews inspection reports and recommends corrections as necessary.
- Manages TRAC inspection projects from inception to report issuance. Reviews and recommends inspection policies and procedures within TRAC. Provides direction to the TRAC managers and staff concerning conducting inspections and drafting inspection reports and memos to ensure that there is consistency practices, procedures, and implementation.

- Serves as lead coordinator on special projects and emergency response. Performs inspections, conducts dye testing and coordinates activities with TRAC sampling staff.
- Provides orientation and training on inspection and safety issues and procedures to other TRAC staff. Ensures the training of employees in inspection, quality control, administrative, and safety procedures is up-to-date and provides instruction as appropriate.
- Assists the Regional Manager with interviewing and recommending staff for hire and promotion and developing budgets.
- Reviews the work of Regional Inspectors on septage surveillance and inspections and gasoline/oil separator inspections to ensure that they meet programmatic and legal requirements.
- Reviews plans for new gasoline/oil separators to ensure structural integrity and proper design and conducts field inspections.
- Conducts inspections of septage hauler facilities and drafts septage hauler permits.
- Identifies instances in combined sewer areas where industrial storm water flows to combined sewers and coordinates TRAC's response to such instances.
- Reviews, updates, and revises septage and gasoline/oil separator forms, templates, and other related documents as appropriate.
- Tracks septage and gasoline/oil separator goals and accomplishments and provides reports on accomplishments.
- Maintains accurate and current information relating to septage and gasoline/oil separators on TRAC databases.
- Performs administrative duties such as reviewing and evaluating staff, scheduling work, managing vehicles, approving time sheets, and developing and implementing training for staff members.

SECONDARY DUTIES:

- Reviews and recommends policies and procedures within TRAC.
- Participates in liaison, coordination, and educational activities within the MWRA and with

other governmental agencies and the public.

- Participates actively in TRAC multi-disciplinary work groups.
- Drafts reports, memoranda, and other documents.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in chemistry, biology, environmental sciences, a related engineering or science discipline, or other related field; and
- (B) Six (6) to eight (8) years of experience in sanitary engineering including working with the installation and operation of gasoline/oil separators; and
- (C) At least 2 years of supervisory experience; or
- (D) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Thorough knowledge and understanding of sanitary engineering practices and principles.
- (B) Understanding of industrial wastewater sampling, pollution prevention and source reduction.
- (C) Experience inspecting industrial facilities, issuing discharge permits, and enforcing environmental requirements.
- (D) Understanding of the installation and operation requirements for gasoline/oil separators.
- (E) Knowledge of local, state and federal regulations related to trucked and hauled waste, storm and ground water issues, and hazardous waste, especially waste oil.
- (F) Knowledge of Massachusetts State Plumbing Code.
- (G) Demonstrated leadership skills and ability to work as part of a project team, to develop and maintain productive working relationships with contract vendors, and to function independently.

- (H) Proficiency with computers including MS Office Suite and other information systems.
- (I) Ability to open manholes, move manhole covers, and complete dye testing of sewer lines.
- (J) Ability to read and interpret engineering maps, plans, and specifications.
- (K) Ability to develop written policies and procedures, emergency response plans, and training programs.
- (L) Strong supervisory, written and oral communication skills.

SPECIAL REQUIREMENTS:

- Acts as On-Call Manager for TRAC in rotation with other TRAC staff.
- Valid Massachusetts Class D Motor Vehicle Operators license.

TOOLS AND EQUIPMENT USED:

Inspection equipment, mobile radio, telephone, personal computer including word processing and other software, copy and fax machine.

PHYSICAL DEMANDS:

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

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

The employee must occasionally lift and/or move more than 100 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, depth perception, peripheral vision and the ability to adjust focus.

WORK ENVIRONMENT:

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

While performing the duties of this job, the employee occasionally works in outside weather conditions. The employee occasionally works near moving mechanical parts and is occasionally exposed to vibration. The employee is occasionally exposed to fumes or airborne particles, and toxic or caustic chemicals.

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

July 2020

**MWRA
POSITION DESCRIPTION**



POSITION: Project Engineer
DIVISION: Tunnel Redundancy
DEPARTMENT: Tunnel Redundancy

BASIC PURPOSE:

Under supervision of senior staff, assists in the development and management of water and sewer tunnel projects from planning through construction award, performs engineering analyses, and prepares engineering documents and project reports.

SUPERVISION RECEIVED:

Works under the general supervision of the Director, Design and Construction or his/her designee.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Participates in the management of all phases of consultant selection and supervision of professional engineering contracts, including the development of scope of services, plans and specifications, cost estimates, work schedules, technical review of consultant work, negotiations, and preparation of contract award recommendations.
- Assists in the oversight of consultant contracts, including monitoring project progress, review and approval process for invoices, contracts, and amendments and providing such information for department monthly reports and Capital Improvement Program (CIP) and Current Expense Budget (CEB) reports.
- Performs engineering functions in the development of work plans, feasibility studies, conceptual design reports, construction contract documents, and other engineering documents for water and wastewater facilities/tunnels.
- Assists in the review of consultant submittals for quality work and conformance with engineering practices and Authority policies, applicable regulatory and bidding law requirements, and Quality Assurance/Quality Control (QA/QC) procedures.

- Evaluates distribution system improvements, identifies hydraulic deficiencies, completes pipeline sizing and routing studies, and models effects of water main shutdown by utilizing the MWRA Water Distribution System Computer Model.
- Assists in project coordination with other MWRA departments, communities, public interest groups and government agencies. May attend public meetings with regulatory agencies.
- Assists with the preparation of project-related permits and approvals and participates in the process to obtain their approval.

SECONDARY DUTIES:

- Performs special tasks, project and other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in civil, sanitary or environmental engineering; and
- (B) A minimum of two (2) to five (5) years experience in water and/or wastewater facilities/tunnels planning, design or construction is required (some experience in tunnel hydraulics and planning is preferred); or
- (C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Familiarity with the planning of water and wastewater facilities/tunnels.
- (B) Familiarity with computer software packages such as MS Office Suite.
- (C) Experience in InfoWater water distribution modeling, GIS, Arcmap, AutoCAD, Telog, and PI ProcessBook preferred.
- (D) Demonstrated abilities to work as part of a project team and to develop and maintain productive working relationships with external parties.
- (E) Excellent interpersonal, written, and oral communication skills.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License is required.

Registration as an Engineer-in-Training is preferred.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

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

While performing the duties of this job, the employee regularly works in an office environment. The employee occasionally works near moving mechanical parts and is occasionally exposed to outdoor weather conditions. The employee is occasionally exposed to fumes or airborne particles and toxic or caustic chemicals.

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

July 2020

**MWRA
POSITION DESCRIPTION**



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

BASIC PURPOSE:

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

SUPERVISION RECEIVED:

Works under the general supervision of the Manager, Geotechnical and Tunneling (Tunnel Redundancy).

SUPERVISION EXERCISED:

Exercises close supervision over a small staff of professional employees.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages projects and tasks related to the evaluation, planning, design, or construction of tunnel facilities, distribution lines, transmission lines, and associated structures, water pumping stations, water treatment facilities, wastewater treatment plants, wastewater pumping stations, Combined Sewer Overflow (CSO) facilities, headworks facilities, collection system components, equipment and support buildings.
- Supervises geotechnical, geological, and hydrogeological investigation programs and related worked by consultants and contractors. Oversee multi-phase subsurface investigation programs, geologic mapping, geophysical survey, in-situ testing, instrumentation installation, analytical sampling, and laboratory testing programs related to the Tunnel Redundancy Program as well as assigned water and wastewater engineering and or maintenance projects.
- Manage the preparation and review of reports, memoranda, work plans, designs, cost estimates and other professional engineering work, including evaluations, calculations, technical analysis, scheduling, and specifications.

- Performs professional engineering work of substantial difficulty and importance, including the gathering of information, development of evaluation and design, and preparation of reports, contract plans and specifications requiring the exercising of independent engineering judgment.
- Provides construction administration services, including review of shop drawings, attends monthly progress meetings, conducts inspection, reviews drawings, plans sequence of work with contractors, submits progress reports, and all other services necessary to support construction projects.
- Participates in the development, implementation and monitoring of construction and service contracts, plans and specifications for proposed construction, modifications / replacements, permit applications and permits.
- Supports all phases of consultant and contractor selection and supervision of professional engineering consultant contracts. Assists the development of scope of services, plans and specifications, costs estimates, and work schedules. Participates in contract administration tasks.
- Assists in performance tracking to ensure compliance with contract budgets, schedules, and terms. Ensures projects are implemented with effective quality management, comprehensive work plans and adequate resources by reviewing work plans, field reports, work summary reports, logs, and other documents, conducting site visits, maintain communication with project team, and tracking and evaluating performance matrix.
- Supports the management of geotechnical databases, subsurface data, geotechnical/geological/hydrogeological records, and other project documents, records access, and exchange of technical information.
- Resolves or recommends ways to solve civil engineering issues and problems including subsurface exploration and testing methods, tunnel alignment, shaft location selection, shaft design, tunnel diameter and liner system, tunnel boring machine specification, shaft and tunnel groundwater control, probing and grouting, blasting, ground monitoring, and instrumentation.
- Assists in coordination of projects with communities, external public interest groups, government agencies, and other MWRA departments. Provides technical information and assistance. Support professional and community groups and outreach projects.
- Participates in emergency response to any/all MWRA emergencies as needed.

SECONDARY DUTIES:

Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in geotechnical engineering, civil engineering, geology or related engineering field; and
- (B) Five (5) to seven (7) years of engineering geology or civil/geotechnical/tunnel engineering experience, including subsurface investigation, rock core logging, and geophysical testing; and
- (C) Two (2) years of experience in a supervisory capacity; or
- (D) Any equivalent combination of education or experience.

Preferred Qualifications:

- (A) Knowledge of principles and practices of tunneling engineering and underground construction.
- (B) Experience with major water/wastewater facilities or water systems.

Necessary Knowledge, Skills and Abilities:

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

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License.

Registration as a Massachusetts Professional Engineer or Professional Geologist (any state) is preferred.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

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

While performing the duties of this job, the employee regularly works in an office environment with frequent works in outside weather conditions. The employee at times works near moving mechanical parts, and is at times exposed to wet and/or humid conditions and vibration. The employee occasionally works in high or underground precarious places and is at times exposed to fumes or airborne particles, toxic or caustic chemicals and risk of electrical shock.

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

July 2020

**MWRA
POSITION DESCRIPTION**



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

BASIC PURPOSE:

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

SUPERVISION RECEIVED:

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

SUPERVISION EXERCISED:

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

ESSENTIAL DUTIES AND RESPONSIBILITIES:

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

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

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

SECONDARY DUTIES:

Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

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

NECESSARY KNOWLEDGE, SKILLS AND ABILITIES:

Knowledge of principles and practices of civil engineering.

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

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

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

Excellent interpersonal, written, and oral communication skills.

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

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

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License.

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

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

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

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

While performing the duties of this job, the employee regularly works in an office environment. While performing the duties of this job, the employee occasionally works in outside weather conditions. The employee occasionally works near moving mechanical parts, and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in high or underground precarious places and is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals and risk of electrical shock.

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

July 2020

**MWRA
POSITION DESCRIPTION**

NEW

POSITION: Senior Program Manager, Geology (Tunnel Redundancy)

DIVISION: Tunnel Redundancy

DEPARTMENT: Tunnel Redundancy

BASIC PURPOSE:

Manages activities relative to subsurface investigations, geologic mapping, tunnel geology, design and construction. Additionally, provides engineering geology support to projects related to the Tunnel Redundancy Program as well as rehabilitation and capital improvement of other water and wastewater facilities and infrastructure.

SUPERVISION RECEIVED:

Works under the general supervision of the Manager, Geotechnical and Tunneling (Tunnel Redundancy).

SUPERVISION EXERCISED:

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

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Serves as the Program Geologist during the planning, design and construction of the tunnel systems related to the Tunnel Redundancy Program.
- Manages projects, including the planning, design and construction of projects within the Tunnel Redundancy Program as well as rehabilitation and capital engineering projects for waterworks and wastewater facilities and pipelines. Reviews project schedules and budget development, provides technical assistance, develops and monitors contracts, reviews and evaluates progress, invoice and change order.
- Manages MWRA's geologic samples including their cataloging and storage.
- Reviews the work of consultants and construction firms for large tunneling projects, including all work products, for quality of work, budget, schedule, and compliance with contractual terms and MWRA objectives and policies.
- Manages the implementation of multi-phase, multimillion dollar subsurface investigation programs related to the Tunnel Redundancy Program. Supervises the quality and consistency

of the subsurface investigation data, geologic mapping, geophysical testing and survey, instrumentation installation, testing, data acquisition, and the interpretation of geologic data from consultants throughout various contracts related to the Tunnel Redundancy Program.

- Prepares and participates in the review of procedures, work plans, and schedules for conducting subsurface investigations and inspections, and records management of subsurface/geologic data and materials.
- Manages activities and interactions related to geotechnical and geological investigations and evaluations. Reviews subsurface investigation work plan, geotechnical, geological and geophysical data and reports received from consultant firms related to the Tunnel Redundancy Program and for projects Authority-wide.
- Reviews work of consultants related to geology and hydrogeology, including subsurface investigation and testing methods, geologic mapping, geophysical survey and testing, tunnel alignment, shaft location selection, tunnel boring machine specification, shaft and tunnel groundwater control, probing and grouting, blasting, and tunnel support.
- Reviews geotechnical data reports and geotechnical baseline reports, preliminary design reports, designs, cost estimates and contract documents (plans and specifications) for shaft and tunnel projects. Review sources of project delays for tunnel and shaft construction identified by the consultant and their proposed mitigation measures.
- Manages project site inspections for subsurface investigation, geophysical survey, geologic mapping, and related activities.
- Supervises professional staff, including assignment of tasks, evaluation of performance, and staff development planning. Provides technical and administrative assistance to staff in the development and management of projects, which include design and engineering services during construction in the Tunnel Redundancy Program as well as new and rehabilitation water and wastewater projects.
- Assists with the development and review of annual and supplementary budgets and schedules for compliance with established department, division, and MWRA program goals.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in geology, geotechnical engineering, civil engineering or related engineering field; and
- (B) Eight (8) to ten (10) years of engineering geology, civil/geotechnical/tunnel engineering experience, including rock core logging, geologic mapping, and geophysical testing including at least three (3) years of progressive experience in shaft and tunnel design or construction, including experience with tunnel mapping, preparation and review of geotechnical data report and geotechnical baseline report; and
- (C) At least three (3) years of experience in a supervisory or project management capacity; or
- (D) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of principles and practices of tunnel engineering and underground construction, engineering geology and civil engineering.
- (B) Understanding of issues related to design and construction of large underground infrastructure is required. Experience in large deep rock tunnel programs is preferred.
- (C) Knowledge of principles and practices of rock mechanics.
- (D) Knowledge of regional geologic setting required; knowledge of local geology preferred.
- (E) Proven interpersonal, managerial, verbal and written communication skills.
- (F) Demonstrated ability to work effectively as part of a collaborative project team and also to function independently with minimal supervision.
- (G) Familiarity with engineering software related to subsurface investigations, rock mapping, shaft, and tunnel design is preferred.

SPECIAL REQUIREMENTS:

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

Registration as a Professional Geologist (any state) is preferred.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

The employee may be required frequently to lift and/or move up to ten pounds and occasionally be required to lift and/or move up to twenty five pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, 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 frequently works in outside weather conditions. The employee at times works near moving mechanical parts, and is at times exposed to wet and/or humid conditions and vibration. The employee occasionally works in high or underground precarious places and is at times exposed to fumes or airborne particles, extreme heat or extreme cold, and the risk of electrical shock.

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

July 2020

**MWRA
POSITION DESCRIPTION**



POSITION: Deputy Director of Design and Construction

DIVISION: Tunnel Redundancy

DEPARTMENT: Tunnel Redundancy

BASIC PURPOSE:

Directs the administration of the Tunnel Redundancy Department to ensure timely and cost-effective delivery of the Tunnel Redundancy Program. Reports on the status of all program issues that affect quality, schedules and budgets. Develops, implements and manages program cost and schedule controls, quality management, risk management and document control policies and procedures for the Tunnel Redundancy Program. Oversees constructability and value engineering reviews of design submittals.

SUPERVISION RECEIVED:

Works under the general supervision of the Director of Design and Construction

SUPERVISION EXERCISED:

Directly manages Tunnel Redundancy Department professional staff including a Project Controls Specialist and a Program Quality Manager and consultants.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Oversees project control functions of the Tunnel Redundancy Program. Develops and adheres to a Project Controls Plan. Manages all budget and cost control functions, and supports the Program on all levels of cost reporting and forecasting.
- Oversees and monitors key performance indicators to ensure budgets and schedules are met and develops corrective actions.
- Oversees the preparation, update, and maintenance of integrated project/program schedules for engineering/design, procurement, construction, and commissioning/closeout.

- Directs, develops and administers a Program Risk Management Plan. Conducts assessments to define and analyze program risks. Oversees the development and management of a risk register. Develops processes to eliminate or mitigate potential risks.
- Determines cost and schedule impacts associated with risks that have been identified for the Program.
- Directs preparation of Program cost estimates. Prepares and updates construction budget and schedule projections.
- Manages annual development of current expense and capital budgets and directs variance reporting, analysis and reallocation of budget resources. Develops, updates, and maintains cash flow projections, including cost at completion. Directs program performance monitoring and analysis and monitors performance against the CIP schedule.
- Oversees and administers a Program Quality Management Plan.
- Oversees and monitors quality management during design and construction phases. Ensures that Quality Assurance/Quality Control practices and procedures are followed by the project team through project audits and surveillance.
- Oversees constructability and value engineering reviews of design submittals.
- Manages professional staff including assigning projects, evaluating performance and planning staff development.
- Addresses community and professional organizations and maintains liaison with other agencies.

SECONDARY DUTIES:

Supervises Staff Engineer, Project Engineer, Manager of Design, and Program Manager in the absence of the Director, Design and Construction (Tunnel Redundancy).

Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in civil engineering, geotechnical engineering, or associated engineering field required; (advanced degree or other significant post-graduate educational experience in an engineering discipline preferred); and
- (B) Ten (10) to twelve (12) years demonstrated success in progressively responsible management positions in engineering design, engineering project management, and/or construction functions relating to deep shaft and rock tunnel systems or major water/wastewater facilities; and
- (C) At least five (5) years of experience must be in a managerial capacity; or
- (D) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Preferred experience: project management, project controls, risk management, contract administration and/or claims management in a public sector environment. Experience with water systems. Design or construction experience on megaprojects (i.e., projects over \$1B).
- (B) Knowledge of principles of and practices of civil, geotechnical or tunneling engineering.
- (C) Advanced understanding of issues related to design, construction and operation of large and complex water and wastewater facilities and infrastructure.
- (D) Demonstrated ability to work effectively in a senior leadership position of a collaborative project team and to function independently with minimal supervision.
- (E) Demonstrated understanding of Massachusetts bidding laws, including MGL Chapter 30 and Chapter 149 construction bidding regulations.
- (F) Knowledge of environmental regulations and permitting requirements.
- (G) Proficiency with Microsoft Office Suite.
- (H) Exceptional leadership and project management skills.
- (I) Excellent interpersonal, written, and oral and communication skills.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License is required.

A Registered Massachusetts Professional Engineer license is required.

Certified Project Management Professional by the Project Management Institute is preferred.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

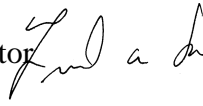
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employee regularly works in an office environment. The employee occasionally works in outside weather conditions. The employee occasionally works near moving mechanical parts and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in high, precarious places and is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals, and risk of electrical shock.

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

July 2020

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: July 22, 2020
SUBJECT: Appointment of Manager, Training and Development

COMMITTEE: Personnel & Compensation

 INFORMATION

 X VOTE

Andrea Murphy, Director, Human Resources
Preparer/Title


Michele S. Gillen
Director, Administration

RECOMMENDATION:

To approve the appointment of Mr. John Porcello, Jr. to the position of Manager, Training and Development, (Non-Union, Grade 14) in the Administration Division, at an annual salary of \$115,000.00, commencing on a date to be determined by the Executive Director.

DISCUSSION:

The Human Resources Training Unit is responsible for developing, implementing and evaluating professional and technical training programs for the MWRA workforce. The purpose of these training programs is to provide MWRA employees with the knowledge and skills needed to meet various operational, engineering and management challenges faced by the MWRA. Additionally, the Training Unit is responsible for the tuition reimbursement program and the Employee Assistance Program. The Training Unit also provides agency-wide training and communication on important MWRA policies and procedures, such as the Drug and Alcohol Free Workplace Policy and Diversity and Harassment Prevention training, as well as important safety training and support.

Technical training programs are also provided in response to specific requests for training or to meet common training needs (e.g., license preparatory courses). Professional development programs offer skills enhancement, promote career growth and direction, and broaden understanding of the MWRA work environment.

The Manager, Training and Development oversees these training programs. This position became vacant upon the retirement of the incumbent. This position reports to the Director of Human Resources.

Selection Process

The position of Manager, Training and Development was posted internally. Only one applicant applied and was deemed qualified based on his experience, knowledge, abilities, and education.

Mr. Porcello has 33 years of experience at the MWRA and has held many roles in maintenance and operations, including Facilities Specialist, Headworks Operator, Sewer Maintenance Foreman and Planning/Scheduling Coordinator. In addition, he has been a Confined Space Entry Instructor for over 20 years. Since October 2019, he has been in the position of Acting Manager, Training and Development position.

Recently, Mr. Porcello successfully transitioned many of MWRA's training to a virtual environment in response to the coronavirus pandemic, such as Introduction to Water and new Safety Training on Covid-19 protocols. The Training Unit has hired new vendors who offer on-line training for classes such as Electrical Safety for Non-Electricians and preparation classes for water licenses. Mr. Porcello has also been utilizing WebEx Training that allows the trainers to share content, interact with participants and assess learning objectives. Going forward, the Training Unit will continue efforts to offer more classes on-line.

Mr. Porcello has earned an Adult Learning Certificate from the Association for Talent and Development. In addition, he holds a Grade IV Wastewater Collection Systems Operator certificate and a Class B Commercial Driver's license.

BUDGET/FISCAL IMPACT:

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

ATTACHMENTS:

Resume of John Porcello, Jr.
Position Description
Organizational Chart

John C. Porcello Jr.

Experience:

1987 - Present

Massachusetts Water Resources Authority
Various Positions

Chelsea, MA

2019 – Present

Acting Manager, Training and Development

Responsibilities include design and implementation of all training and development programs, developing curriculum and training materials, ensuring mandatory training needs for regulatory compliance and licensing are being met, manage the tuition reimbursement and remissions programs.

2011 – 2019

Planning/Scheduling Coordinator

Responsibilities include planning, estimating, scheduling and coordination of daily work for the Wastewater Pipeline and Tele-inspection groups, tracking all work orders and creating reports as needed using MAXIMO and other computer software, researching and creating job plans, assisting with training in the use of MAXIMO as required.

2009 – 2011

Sewer Maintenance Foreman

Responsibilities included leading and assisting a crew of three to four people in the repair and maintenance of the Authority's wastewater pipeline system, operating specialized equipment as needed, tracking work orders with MAXIMO and following all safety standards.

1987 – 2009

Facilities Specialist

Responsibilities included construction and maintenance of wooden structures and accessories for the Field Operations Division, estimating time and materials, maintaining inventory, tools and equipment and tracking work orders for all jobs through the Authority's MAXIMO system.

2006 – 2007

Headworks Operator

Responsibilities included supervising and assisting in the operation of a remote headworks facility, monitoring graphic control panels and adjusting flows as indicated, preparing operational logs and maintaining communication with Deer Island Primary Operations center.

Education:

Association for Talent and Development – Adult Learning Certificate
Eastern Gateway Community College – Business Management

Additional Certifications:

Confined Space Entry, Roadway Safety, Unit 3 Supervisor Training, Rigging Basics, Competent Person, Adult First Aid & CPR, Completed Flagger Training, MBCR Trained, MBTA ROW Trained

Personal:

Class B CDL - Grade IV Wastewater Collections System Operators Certificate - Competent in Microsoft Word, Excel, Access, PowerPoint, and Outlook - Member of the New England Water Environment Association - MWRA Confined Space Entry Instructor

**MWRA
POSITION DESCRIPTION**

POSITION: Manager, Training and Development

PCR#:

DIVISION: Administration

DEPARTMENT: Human Resources

BASIC PURPOSE:

Develops, implements and manages all professional, technical and non-technical training and development programs for the Authority.

SUPERVISION RECEIVED:

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

SUPERVISION EXERCISED:

Exercises close supervision over the Program Manager Training and Senior Training Specialist.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages the design, implementation and evaluation of all training and development programs for non-union, supervisory, technical, trades, maintenance and administrative personnel.
- Manages the training unit and ensures that all training programs are results-oriented and meet current and future employee and MWRA training needs.
- Provides guidance to MWRA Senior Manager on succession planning training initiatives.
- Designs and implements license renewal, skill development and career development programs to ensure that MWRA has the human resources to meet current and future work and skill mix requirements.
- Ensures availability of classes for employees to meet mandatory requirements for license renewals (Water, Wastewater, Electrician, Plumber, Hoisting, etc.)
- Manages the tuition reimbursement and remission program.
- Designs and conducts Training Needs Assessments and periodic surveys to determine the training requirements and priorities of the organization.
- Maintains training data integrity and accuracy for all training programs and keeping information up-to-date in tracking systems.

- Develops training unit procedures and assists in the development and implementation of training policies, procedures and special human resource program initiatives.
- Develops curriculum and other descriptive training materials. Conducts and supervises training programs, workshops and seminars.
- Establishes and maintains active working relationships with union leadership in implementing training programs.
- Establishes and maintains contact with other agencies, training organizations and associations for the purpose of keeping abreast of new training offerings and courses.
- Maintains liaison with educational institutions in developing environmental, wastewater and other related programs into their curriculum and in recruiting prospective participants.

SECONDARY DUTIES:

- Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year college program in education, human resources, communication or related field; and
- (B) Thorough understanding of design, development, management, delivery and evaluation of professional, technical and non-technical training programs as acquired through seven (7) to ten (10) years experience, of which at least three (3) years are in a supervisory and/or managerial capacity. Public sector and employee relations experience preferred; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Meeting facilitation experience as attained through formal certification or equivalent experience.
- (B) Excellent written and oral communication skills.
- (C) Demonstrated knowledge and skills in professional, technical and non-technical training areas, competency-based training, performance evaluation and career development.

SPECIAL REQUIREMENTS:

Valid Class D Massachusetts Motor Vehicle Operators 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 use hands to feel, finger, handle or operate objects, including office equipment or controls and reach with hands and arms. The employee is occasionally required to stand and walk. The employee is regularly required to sit, and talk or hear.

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

WORK ENVIRONMENT:

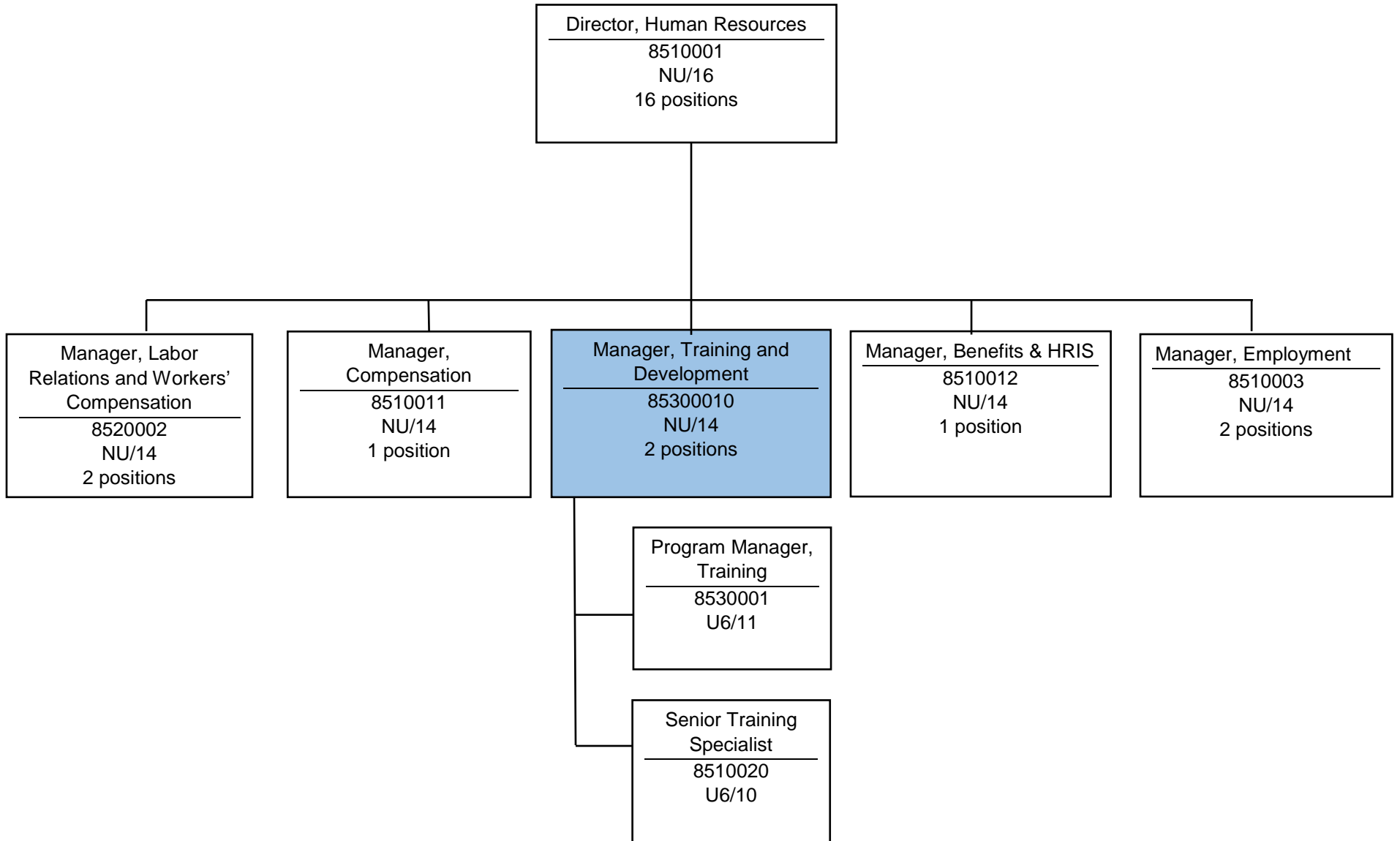
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

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

The noise level in the normal work environment is quiet.

June 2018

**Administration
Human Resources
July 2020**



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: July 22, 2020
SUBJECT: Delegated Authority Report – June 2020



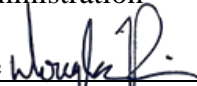
COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE



Michele S. Gillen
Director of 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 June 1 – 30, 2020.

This report is broken down into three sections:

- Awards of Construction, non-professional and professional services contracts and change orders and amendments in excess of \$25,000, including credit change orders and amendments in excess of \$25,000;
- Awards of purchase orders in excess of \$25,000; and
- Amendments to the Position Control Register, if applicable.

BACKGROUND:

The Board of Directors' Management Policies and Procedures, as amended by the Board's vote on February 21, 2018, delegate authority to the Executive Director to approve the following:

Construction Contract Awards:

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

Change Orders:

Up to 25% of the original contract amount or \$250,000, whichever is less, where the change increases the contract amount, and for a term not exceeding an aggregate of six months; and for any amount and for any term, where the change decreases the contract amount. The delegations for cost increases and time can be restored by Board vote.

Professional Service Contract Awards:

Up to \$100,000 and one year with a firm; or up to \$50,000 and one year with an individual.

Non-Professional Service Contract Awards:

Up to \$250,000 if a competitive procurement process has been conducted, or up to \$100,000 if a procurement process other than a competitive process has been conducted.

Purchase or Lease of Equipment, Materials or Supplies:

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

Amendments:

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

Amendments to the Position Control Register:

Amendments which result only in a change in cost center.

BUDGET/FISCAL IMPACT:

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

CONSTRUCTION/PROFESSIONAL SERVICES DELEGATED AUTHORITY ITEMS JUNE 1 - 30, 2020

| NO. | DATE OF AWARD | TITLE AND EXPLANATION | CONTRACT | AMEND/CO | COMPANY | FINANCIAL IMPACT |
|------|---------------|--|----------|----------|-------------------------------------|------------------|
| C-1. | 06/01/20 | BOILER AND WATER HEATER SERVICE AT VARIOUS WASTEWATER FACILITIES FINAL BALANCING CHANGE ORDER TO DECREASE THE FOLLOWING BID ITEMS TO REFLECT ACTUAL QUANTITIES USED: SCHEDULED BOILER PREVENTIVE MAINTENANCE, NON-EMERGENCY ON CALL SERVICE, ON-SITE EMERGENCY REPAIR SERVICE, MANUFACTURER'S AUTHORIZED SERVICE REPRESENTATIVE, WATER TREATMENT CHEMICALS AND GLYCOL AND REPLACEMENT PARTS. | OP-355 | 2 | COOLING & HEATING SPECIALISTS, INC. | (\$58,950.14) |
| C-2. | 06/01/20 | METROPOLITAN OPERATIONS PAVING INCREASE IN UNIT PRICES AND ALLOWANCE FOR THE FOLLOWING ITEMS: COLD PLANNING (2-INCHES DEEP), TOP COAT, SINGLE THERMOPLASTIC ROADWAY STRIPES, DOUBLE THERMOPLASTIC ROAD STRIPES, PAINTED TRAFFIC MARKINGS, POLICE DETAIL ALLOWANCE; COMPENSATE THE CONTRACTOR FOR IDLE TIME FOR TWO CREWS ON JUNE 28, 2019 AND JULY 2, 2019. | OP-354 | 2 | SUNSHINE PAVING CORP. | \$106,952.50 |
| C-3. | 06/26/20 | FLAT ROOF REPLACEMENT - COTTAGE FARM CSO AND GILLIS PUMPING STATION FURNISH AND INSTALL PRESSURE TESTED BLOCKING AND ADDITIONAL METAL COPING; FURNISH AND INSTALL AND INSTALL REPLACEMENT ROOF STRAINERS. | 6888 | 1 | TITAN ROOFING, INC. | \$30,650.90 |

PURCHASING DELEGATED AUTHORITY ITEMS JUNE 1-30, 2020

| NO. | DATE OF AWARD | TITLE AND EXPLANATION | CONTRACT | AMENDMENT | COMPANY | FINANCIAL IMPACT |
|------|---------------|---|-----------|-----------|---|------------------|
| P-1. | 06/04/20 | PURCHASE OF 300 CROSS COLLECTOR AND LONGITUDINAL FLIGHTS AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR 300 CROSS COLLECTOR AND LONGITUDINAL FLIGHTS FOR THE PRIMARY AND SECONDARY CLARIFIERS AT THE DEER ISLAND TREATMENT PLANT. | WRA-4840Q | | EVOQUA WATER TECHNOLOGIES LLC | \$32,143.00 |
| P-2 | 06/04/20 | PURCHASE OF 12 WASTE SLUDGE VALVES WITH ACTUATORS AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR 12 WASTE SLUDGE VALVES AND ACTUATORS FOR THE DEER ISLAND TREATMENT PLANT | WRA-4830 | | AQUILLA AND NEPTUN ENTERPRISES LLC | \$71,604.00 |
| P-3 | 06/04/20 | REPLACEMENT OF ACTIVATED CARBON AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR THE REPLACEMENT OF ACTIVATED CARBON AT THE NUT ISLAND HEADWORKS | WRA-4827 | | CARBON ACTIVATED CORPORATION | \$135,562.50 |
| P-4 | 06/08/20 | MAINTENANCE AND SUPPORT FOR PROCESS INFORMATION SOFTWARE AWARD OF A ONE-YEAR SOLE SOURCE PURCHASE ORDER FOR MAINTENANCE AND SUPPORT OF PROCESS INFORMATION SOFTWARE FOR DEER ISLAND FOR THE TIME PERIOD JULY 1, 2020 THROUGH JUNE 30, 2021. | | | OSISOFT, LLC | \$81,262.50 |
| P-5 | 06/08/20 | TWO EXPLOSION-PROOF WASTEWATER AUTOSAMPLERS AWARD OF A SOLE SOURCE PURCHASE ORDER FOR TWO EXPLOSION PROOF WASTEWATER AUTOSAMPLERS. | | | WAVE CONTROL SYSTEMS LTD. | \$94,400.00 |
| P-6 | 06/15/20 | PURCHASE OF ONE PONTOON-STYLE VERTICAL PROFILING BUOY SYSTEM AWARD OF A SOLE SOURCE PURCHASE ORDER FOR ONE PONTOON-STYLE VERTICAL PROFILING BUOY SYSTEM FOR WATER QUALITY PROFILING AT THE QUABBIN RESERVOIR | | | YSI INC. | \$83,048.00 |
| P-7 | 06/23/20 | MAINTENANCE, TECHNICAL ASSISTANCE AND SUPPORT AWARD OF A ONE-YEAR PURCHASE ORDER UNDER STATE CONTRACT ITS65 FOR MAINTENANCE, TECHNICAL ASSISTANCE AND SUPPORT OF THE ARC GEOGRAPHIC INFORMATION SYSTEM FOR THE TIME PERIOD JULY 1, 2020 THROUGH JUNE 30, 2021 | | | ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE INC. | \$49,950.00 |
| P-8 | 06/23/20 | PURCHASE OF FIVE YSI EX02 SONDES AND THREE YEARS OF INSPECTION AND MAINTENANCE AWARD OF A SOLE SOURCE PURCHASE ORDER FOR FIVE YSI EX02 SONDES FOR THE NEW WATER QUALITY BUOY AT THE QUABBIN RESERVOIR AND THREE YEARS OF INSPECTION AND MAINTENANCE. | | | YSI, INC. | \$109,541.52 |
| P-9 | 06/30/20 | PURCHASE OF ONE HIGH MAST ARTICULATING LIFT AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR ONE REPLACEMENT HIGH MAST ARTICULATING LIFT FPR DEER ISLAND. | WRA-4843 | | ALL AROUND ACCESS, LLC | \$38,800.00 |
| P-10 | 6/30/2020 | PURCHASE OF ONE RESERVE BOOM CRANE AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR ONE REPLACEMENT REVERSE BOOM CRANE FOR DEER ISLAND | WRA-4842 | | TECHNOLOGY INTERNATIONAL, INC. | \$75,250.00 |
| P-11 | 06/30/20 | SUPPLY AND DELIVERY OF 126,000 GALLONS OF ULTRA-LOW SULFURE #2 DIESEL FUEL AWARD OF A PURCHASE ORDER UNDER STATE CONTRACT ENE47 FOR THE SUPPLY AND DELIVERY OF 126,000 GALLONS OF ULTRA-LOW SULFUR #2 DIESEL FUEL FOR THE DER ISLAND TREATMENT PLANT. | WRA-4831 | | GLOBAL MONTELLO GROUP, CORPRATION | \$148,150.80 |
| P-12 | 06/30/20 | SUPPLY AND DELIVERY OF 213 SECTIONS OF GRIT COLLECTION CHAIN AWARD OF A CRITICAL NEED PURCHASE ORDER FOR THE SUPPLY AND DELIVERY OF 213 SECTIONS OF GRIT COLLECTOR CHAIN FOR THE CHELSEA CREEK HEADWORKS | | | ALLIED LOCKE INDUSTRIES, INC. | \$212,776.35 |
| P-13 | 06/30/20 | MAINTENANCE AND SUPPORT FOR HEWLETT PACKARD ENTERPISE EQUIPMENT AWARD OF A ONE-YEAR PURCHASE ORDER UNDER STATE CONTRACT ITC47 TO THE LOWEST RESPONSIVE BIDDER FOR HEWLETT PACKARD ENTERPISE EQUIPMENT MAINTENANCE AND SUPPORT FOR THE TIME PERIOD JULY 1, 2020 THROUGH JUNE 30, 2021. | WRA-4848A | | HEWLETT PACKARD ENTERPRISE COMPANY | \$251,237.94 |


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: July 22, 2020
SUBJECT: Accounts Payable and Payroll Depository Services
Webster Bank, N.A., Contract F256



COMMITTEE: Administration, Finance & Audit

VOTE
 INFORMATION


Michele S. Gillen
Director of Administration

Matthew R. Horan, Deputy Director, Finance/Treasurer
Thomas H. Frontiero, Cash Manager
Preparer/Title


Thomas J. Durkin
Director of Finance

RECOMMENDATION:

To approve the recommendation of the Consultant Selection Committee to award contract F256 to Webster Bank N.A., to provide accounts payable and payroll depository services and to authorize the Executive Director, on behalf of the Authority, to execute Contract F256 with no annual fees to the Authority, and with an interest rate payable to MWRA at the top end of the Federal Funds range plus 21 basis points for a term to end on June 30, 2024.

DISCUSSION:

MWRA requires a commercial bank to provide an operating account for its accounts payable and payroll activities. The services provided by the bank include depository, account reconciliation, Automatic Clearing House transactions (ACH), checking, wire transfers, escrows and information services for the operating account. MWRA maintains an average balance of approximately \$45 million in its operating account.

In order to submit a proposal, the banks had to meet the requirements of MWRA's General Revenue Bond Resolution (Resolution). The Resolution requires that the bank be organized under the laws of the Commonwealth or a national banking association and having capital stock, surplus and undivided earning aggregating at least \$100 million. The banks were also required to confirm they meet the requirements of 201CMR 17:00 which establishes the standards for the protection of personal information. All banks were required to provide positive pay services, which require the teller processing a check to match the information printed on the check to the system to ensure that checks have not been altered or copied. The Proposers were also required to confirm they would meet MWRA's technology standards and would provide MWRA with remote deposit capabilities. The Proposers also provided MWRA with information related to their disaster recovery plans to ensure uninterrupted service.

PROCUREMENT PROCESS:

The procurement process to select a bank utilized a one step Request for Qualification Statements/Proposals (RFQ/P), which was issued on February 19, 2020. Eight banks, Bank of America, Century Bank, Eastern Bank, People’s United Bank, TD Bank, US Bank, Webster Ba, and Wells Fargo Bank submitted proposals by May 1, 2020, via the MWRA Supplier Portal. As part of the RFQ/P process, MWRA required that all banks certify that they would meet the requirements of the General Bond Resolution regarding usage and control of the Authority’s funds, and that that their management information systems were compatible with the Authority’s systems.

The Selection Committee evaluated and ranked the proposal based on the criteria contained in the RFQ/P including Cost (40 points), Capacity/Organization, and Management Approach (20 points), Technical Approach (20 points), Experience and Past Performance (10 points), and Qualifications and Key Personnel (10 points). Cost was weighted the highest and included an evaluation of annual fees (e.g., ACH services, reconciliation services) and interest income earned on cash balances. In order to evaluate the different banks’ interest earnings proposals, MWRA required that the rates be presented as a spread to the Federal Funds Rate. With regard to the cost criteria, Webster’s proposal was most advantageous, with no annual fees, forgoing the \$10,000 allowance for implementation services, and an interest rate of 21 basis points above the top end of the Federal Funds Rate range. The following table provides details on the cost analysis for all the proposals. The estimated average interest rate is based the current Federal Funds Rate range.

| Proposer | Estimated Average Interest Rate | Estimated Average Annual Interest Income | Average Annual Fees | Net Annual Income (Expense) |
|-----------------|---------------------------------|--|---------------------|-----------------------------|
| Bank of America | 0.08% | \$ 35,437.50 | \$ (29,665.59) | \$ 5,771.91 |
| Century | 0.05% | \$ 22,500.00 | \$ (27,228.00) | \$ (4,728.00) |
| Eastern | 0.28% | \$ 127,500.00 | \$ - | \$ 127,500.00 |
| People's | 0.15% | \$ 67,500.00 | \$ (38,691.60) | \$ 28,808.40 |
| TD Bank | 0.18% | \$ 81,476.00 | \$ (17,560.44) | \$ 63,915.56 |
| Webster | 0.46% | \$ 207,000.00 | \$ - | \$ 207,000.00 |
| Wells Fargo | -0.05% | \$ (22,500.00) | \$ (\$76,014.00) | \$ (98,514.00) |
| US Bank | 0.07% | \$ 31,500.00 | \$ (35,580.00) | \$ (4,080.00) |

*Interest Income is based on an average balance of \$45 Million. Annual fees above do not include \$10,000 allowance to cover implementation costs.

In addition to cost, Webster’s proposal included staff with considerable experience in public sector banking. Webster has sufficient capacity to ensure accurate and timely processing of payroll and accounts payables, and demonstrated the necessary skills to complete work required under this contract. The other seven proposals were from firms that presented strong teams with significant experience in providing these services, however, with higher fees and lower interest income. As a result, the Selection Committee overwhelmingly agreed that Webster was the best overall value for the Authority.

After reviewing all proposals, the selection committee ranked the proposals as follows:

| Final Ranking | Proposer | Order of Preference Total Score | Total Points |
|----------------------|-----------------|--|---------------------|
| 1 | Webster | 7 | 399 |
| 2 | Eastern | 11 | 378 |
| 3 | TD Bank | 17 | 358 |
| 4 | Century | 18 | 356 |
| 5 | Bank of America | 26 | 338 |
| 6 | People's | 27 | 316 |
| 7 | US Bank | 35 | 300 |
| 8 | Wells Fargo | 39 | 249 |

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

The Selection Committee voted to recommend that Webster be awarded a contract. Century Bank is currently providing these services under a contract (F239), which will expire on December 31, 2020. Staff are seeking to make the new contract effective in August 2020 to allow for a transition period for account set up and testing so that Webster can go live on October 1, 2020.

BUDGET/FISCAL IMPACT:

Webster proposed providing these services at no cost to MWRA. The interest income associated with this contract is currently estimated at 46 basis points, which is 21 basis points higher than the short-term interest rate assumption of 25 basis points.

MBE/WBE PARTICIPATION:

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

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: July 22, 2020
SUBJECT: Janitorial Services at MWRA Western Facilities
Facilities Management and Maintenance, Inc.
Bid WRA-4855



COMMITTEE: Administration, Finance & Audit

 INFORMATION

 X VOTE


Michele S. Gillen

Director of Administration

Seth T. Gonyea, Project Manager, Facilities
Mark H. Johnson, P.E., Director Waterworks
Douglas J. Rice, Director of Procurement
Preparer/Title



David W. Coppes, P.E.

Chief Operating Officer

RECOMMENDATION:

To approve the award of Contract WRA-4855, Janitorial Services at MWRA Western Facilities, to Facilities Management and Maintenance, Inc. through State Blanket Contract #FAC81, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$341,280.28, for a contract term of three years.

DISCUSSION:

The John J. Carroll Water Treatment Plant is a continuously operating facility that supplies potable water to MWRA’s service area and is staffed 24 hours a day, 7 days a week. MWRA’s Southborough campus houses a major portion of Western Operations’ management, maintenance and laboratory functions for the treatment plant and other water treatment and transmission sites, and is normally staffed weekdays from 7:00 A.M. to 3:30 P.M. MWRA’s current Records Center is staffed weekdays from 7:00 A.M. to 3:00 P.M., and includes the John J. Carroll Water Treatment Plant Warehouse, which is generally unoccupied and accessed only periodically when supplies are needed. These facilities require regularly scheduled janitorial services to ensure their safe, clean management.



John J Carroll Water Treatment Plant

The scope of services under this contract includes the following:

- At the Carroll Plant - Daily cleaning of the Operations Building, which contains office areas, the control room, a lunchroom, restrooms, locker rooms, etc. The Security Gatehouse, which contains an office area and bathroom and the Chemical Building's bathrooms. Additionally, periodic cleaning services are required for the stairwells and corridors of the Ozone Building, the stairwells and skylights of the Chemical Building, the entries and stairwells of the Post Treatment Building, the entries to the Generator Building, and the entries and stairwells of the UV Buildings and the entries and bathrooms of the pump station;
- At the Southborough Campus - Daily cleaning in the Administration, Laboratory, Quality Assurance, Warehouse and Trade Shop Buildings, which contain office areas, lunchrooms, restrooms, locker rooms, laboratory rooms and other spaces. Additional periodic cleaning services, such as vacuuming upholstered chairs, deep cleaning floors, washing windows and cleaning carpets are also required for these buildings;
- At the Records Center Routine cleaning of the office areas, for the duration of the remaining lease, three times per week and more intensive tasks including cleaning the storage area floors on a quarterly and annual basis; and Warehouse quarterly cleaning of the warehouse floor; and
- At the Marlborough Maintenance Facility – Daily cleaning of the office areas, SCADA engineering room, vestibule and corridors. Additional periodic deep cleaning of ceramic tiles and resinous floor, vacuuming upholstered chairs, and vacuuming and dusting of vertical services including walls, partition doors, ducts, blinds, lighting fixtures and air conditioning ventilating louvers.



Southborough Campus

While developing the scope of services for this three-year contract, staff considered what level of cleaning should be included in response to the COVID-19 pandemic and for what duration. Due to uncertainty in the extent of additional cleaning services that may be required, there is a provision for additional services on a time and material basis incorporated into the contract.

Procurement Process

Purchasing Staff solicited bids from five firms listed as approved contractors on the Commonwealth of Massachusetts' janitorial contract (Massachusetts State Contract #FAC81) and the SEIU Responsible Contractors List to perform janitorial services at the John J. Carroll Water Treatment Plant, the Southborough Campus, the Records Center, and the Marlborough Maintenance Facility for a contract term of three years.

The contract requires payment of prevailing wage rates established by the Department of Labor Standards for the Marlborough area. Bidders were required to submit annual prices for all three years with award based on the lowest total bid price for the entire three-year contract term.

On June 15, 2020, Event 4312 closed with the following results:

| Vendor | Three-Year Bid Total |
|--|-----------------------------|
| Facilities Management and Maintenance, Inc. | \$341,280.28 |
| Star Building Services | \$450,243.60 |

Facilities Management and Maintenance, Inc. submitted the lowest cost of the two responsive bids received. For purposes of comparison, under the current contract with S.J Services, Inc., which is set to expire on July 31, 2020, MWRA is currently paying an annual rate of \$101,928 for janitorial services with a similar scope. Facilities Management and Maintenance, Inc.'s bid price for the first year of this contract is \$109,696.84. The firm's contract price will be \$113,337.76 for year two and \$118,245.68 for year three.

Staff attempted to contact the other firms that were solicited, but did not bid. A representative from Compass Facility Services stated that due to an extremely busy schedule it was uncertain if they could commit to this contract. Cleanco Maintenance, Done Right Services and AMPM Facility Services were unresponsive to emails.

Staff spoke with representatives of Facilities Management and Maintenance, Inc. to discuss the bid proposal. As a result, staff concluded the bid price is reasonable, complete and includes the payment of applicable prevailing wage rates.

Staff are of the opinion that Facilities Management and Maintenance, Inc. possesses the skill, ability and experience necessary to perform the work under this contract and is qualified to do so. Therefore, staff recommend the award of this contract to Facilities Management and Maintenance, Inc. as the lowest responsive bidder.

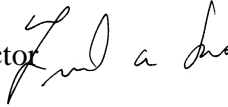
BUDGET/FISCAL IMPACT:

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

MBE/WBE PARTICIPATION:

Facilities Management and Maintenance, Inc. is not a certified minority-owned or women-owned business.


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick Laskey, Executive Director 
DATE: July 22, 2020
SUBJECT: Drug and Alcohol Testing and Compliance Services
OHS Training & Consulting, Inc., Contract A626

COMMITTEE: Administration, Finance and Audit

 INFORMATION
 X VOTE

Andrea Murphy, Director of Human Resources
Steve Perry, Manager, Labor Relations & Workers' Comp
Preparer/Title


Michele S. Gillen
Director Administration

RECOMMENDATION:

To approve the recommendation of the Consultant Selection Committee to select OHS Training & Consulting, Inc. for the provision of drug and alcohol testing and compliance services, and to authorize the Executive Director, on behalf of the Authority, to execute said contract with OHS Training & Consulting, Inc. in an amount not to exceed \$34,200 for a term of 36 months.

DISCUSSION:

MWRA contracts with an outside vendor for drug and alcohol testing services to comply with the Department of Transportation (DOT) regulations for CDL drivers. Additionally, employees are subjected to drug and alcohol testing following certain vehicle accidents or instances of reasonable suspicion and follow-up testing in accordance with the MWRA's Drug and Alcohol Testing Policy.

To comply with DOT requirements and the MWRA Drug and Alcohol Testing Policy, testing must be performed at DOT-certified laboratories and by certified collectors when performed. A minimum of four quarterly random drug and alcohol testing sessions are performed annually at MWRA facilities to comply with DOT regulations. Under this contract, the drug and alcohol testing vendor will provide the following services:

- Compliance with DOT testing regulations for commercial drivers
- DOT and non-DOT drug and alcohol testing
- Maintenance of follow-up testing schedule
- Annual DOT Clearinghouse Review
- On-site/after-hours testing
- Random draw selection

Procurement Process:

On June 8, 2020, staff issued a one-step Request for Qualifications/Proposals for drug and alcohol testing and compliance services. The RFQ/P was publicly advertised in Goods and Services, the Boston Herald, Banner Publication and El Mundo, with a direct solicitation sent to four firms.

Evaluation criteria were weighted as follows: Cost – 30 points; Capacity Organization and Management Approach – 25 points; Experience and Past Performance – 25 points; Qualifications and Key Personnel – 15 points; and Technical Approach – 5 points.

Proposals were received from four firms; Advantage Drug Testing LLC (Advantage), All One Health (All One Health), DSI Medical Services, Inc. (DSI) and OHS Training and Consulting, Inc. (OHS). DSI would not agree to accept MWRA’s contract terms, and withdrew its proposal. The Selection Committee, which included staff from Human Resources, Operations and a union president, reviewed, scored and ranked the remaining three proposals as follows:

| <u>Vendor</u> | <u>Rank</u> | <u>Points</u> | <u>Not to Exceed Cost</u> |
|----------------|-------------|---------------|---------------------------|
| OHS | 1 | 272 | \$34,200 |
| Advantage | 2 | 244 | \$41,025 |
| All One Health | 3 | 223 | \$51,575 |

OHS provided the lowest cost proposal. OHS is a Women’s Business Enterprise (WBE) and its key personnel all met the qualifications and certification requirements of the RFQ/P. OHS provides drug and alcohol testing services for large private sector construction firms, such as Consigli Construction Company, JF White Contracting, and Turner Construction Company. OHS’s testing location in Winthrop is easily accessible to both the Deer Island and Chelsea staff, and OHS will use its certified testers as well as other testing facilities for testing in other locations.

Advantage is the MWRA’s current drug and alcohol testing vendor, and provided the second lowest cost proposal for testing. Advantage identified the key personnel who would be assigned to the contract, all of whom met the qualifications and certifications within the RFQ/P. Advantage has prior public sector experience with drug and alcohol testing services for the Boston Water and Sewer Commission, the Town of Brookline and the City of Malden. It also identified clinics in Somerville, Worcester, Natick and Winthrop, which are convenient for Authority use.

All One Health provided the highest cost proposal, \$17,000 over the lowest bidder. It identified key personnel within the proposal who met the required qualifications of the RFQ/P and would provide a single point of contact for contract management. Its DOT testers work out of its Wilmington site and it identified other testing locations in Winthrop, Cambridge and Marlborough. All One Health has public sector experience, providing drug and alcohol testing for the Massachusetts Port Authority.

For the reasons set forth above, and the based on the final rankings, the Selection Committee recommends the award of this contract to OHS Training & Consulting, Inc in an amount not to exceed \$34,200.


BUDGET/FISCAL IMPACT:

There are sufficient funds in the FY21 Current Expense Budget for this contract.

MBE/WBE PARTICIPATION:

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


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: July 22, 2020
SUBJECT: Early Warning Pilot for the Resurgence of COVID-19

COMMITTEE: Wastewater Policy & Oversight

INFORMATION
 VOTE

Steven F. Rhode, Director of Laboratory Services
Carolyn M. Fiore, Deputy Chief Operating Officer
Preparer/Title


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

RECOMMENDATION:

For information only.

DISCUSSION:

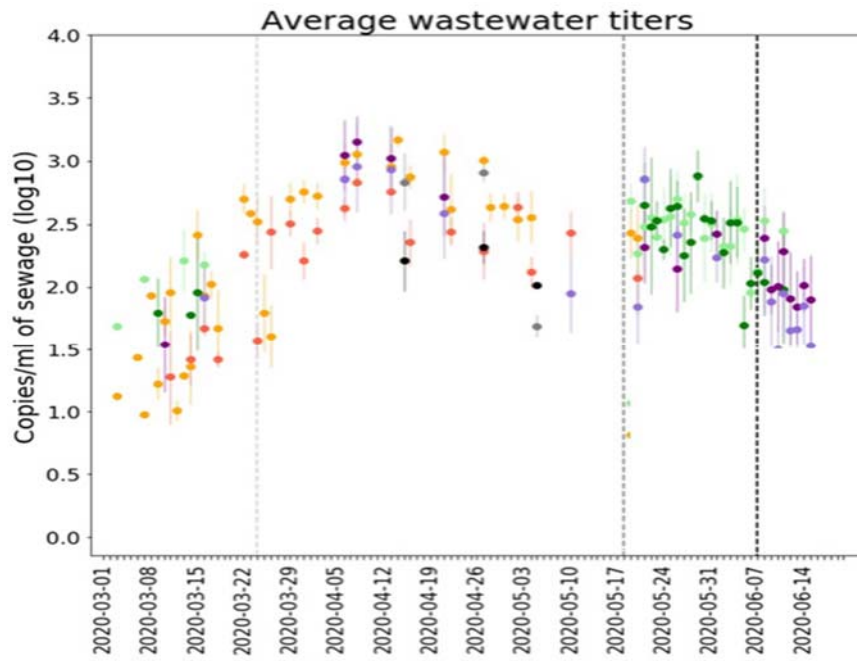
The Board of Directors approved a pilot program with Biobot Analytics, Inc. on June 24, 2020 for an early warning system for future outbreaks of COVID-19 within the area served by the MWRA sewer system. The pilot program consists of the analysis of wastewater samples for the genetic signal (viral RNA) of the SARS-CoV-2 virus that causes COVID-19 with rapid analysis, and provisions for additional follow-up samples in order to inform public health authorities of any change in the signal for the virus. This staff summary reports on the results of recent samples.

Biobot Analytics, a local start-up created by recent graduates and faculty of MIT, released the first demonstration of this approach in the United States, using data from courtesy samples provided by MWRA in early March 2020¹. Subsequent studies from numerous locations around the world have demonstrated the efficacy of wastewater analyses to provide a potential early warning of COVID-19 outbreaks in advance of confirmed cases showing up in the public health data.

The pilot commenced with north and south influent samples from the Deer Island treatment plant collected and analyzed three times per week and samples collected from several of MWRA's head works facilities collected weekly. Data generated from the pilot are being shared with staff from Massachusetts Departments of Public Health and Environmental Protection as well as senior staff in the offices of the Secretaries of Health and Human Services, and Energy and Environment. MWRA will also post data regularly on mwra.com.

While the data collected to date clearly shows the increase in the Spring outbreak of the pandemic and the subsequent decline after the Governor's emergency declaration and the Commonwealth undertook control measures (figure 1), the data exhibits a good deal of 'noise' and a number of interpretation questions have been generated.

¹ "Coronavirus Traces Found in Massachusetts Wastewater at Levels Far Higher Than Expected." Newsweek; 4/9/2020. <https://www.newsweek.com/coronavirus-traces-massachusetts-wastewater-levels-higher-expected-1497141>



Data from early July showed an apparent increase in the levels of viral RNA and the sampling frequency was increased to five times per week at all sites to help with interpretation of these results. Figure 2 shows the data smoothed to a 7 day average and plotted on a linear scale to reduce this noise and also includes more recent results. As this is a pilot of an evolving science, staff and officials recognize the need to be cautious in attributing meaning or identifying the cause of deviations in the results. A team of Public Health, DEP, MWRA and Biobot officials is being established to interpret the data.

