

**MWRA Board of Directors Meeting
September 20, 2017
Voting Summary Sheet**

Item Name	Type	Notes	Vote	Discussion Highlights
Approval of Minutes	n/a	n/a	Unanimous	
Report of the Chair	n/a	n/a	n/a	*
Report of the Executive Director	n/a	n/a	n/a	*
Bond Defeasance of Future Debt Service	Approval	<ul style="list-style-type: none"> Redemption and defeasance of an aggregate principal amount of \$9,570,000 of outstanding MWRA senior bonds including to cause the escrow of cash and/or securities in an amount necessary to fund such redemption and defeasance, in order to reduce the debt service requirement by \$10,601,900 in the FY19 through FY21 timeframe. 	Unanimous	*
PCR Amendment - September 2017	Approval	<ul style="list-style-type: none"> Approved the amendments to the Position Control Register, as presented and filed with the records of the meeting. 	Unanimous	
Appointment of Chemist III, Laboratory Services	Approval	<ul style="list-style-type: none"> Appointed: Ms. Melissa Sturk Salary: \$91,416.02 Effective: To be determined by the Executive Director 	Unanimous	
Appointment of Chemist III, Laboratory Services	Approval	<ul style="list-style-type: none"> Appointed: Mr. Kevin Constantino Salary: \$91,416.02 Effective: To be determined by the Executive Director 	Unanimous	
Appointment of Regional Manager, Toxic Reduction and Control	Approval	<ul style="list-style-type: none"> Appointed: Mr. Alix Pierre-Louis Salary: \$110,228.55 Effective: To be determined by the Executive Director 	Unanimous	
Appointment of Manager, Energy, Operations Division	Approval	<ul style="list-style-type: none"> Appointed: Mr. Michael E. McDonald Salary: \$129,683, Effective: To be determined by the Executive Director 	Unanimous	
Appointment of Program Manager, Energy Management, Operations Division	Approval	<ul style="list-style-type: none"> Appointed: Ms. Courtney Fairbrother Salary: \$93,061.78 Effective: To be determined by the Executive Director 	Unanimous	
Appointment of Manager, Metering and Monitoring, Planning Department	Approval	<ul style="list-style-type: none"> Appointed: Mr. David A. Liston Salary: \$129,682 Effective: To be determined by the Executive Director 	Unanimous	
Appointment of Manager, SCADA and Process Control	Approval	<ul style="list-style-type: none"> Appointed: Mr. Augustin Serino Salary: \$134,769 Effective: To be determined by the Executive Director 	Unanimous	
Appointment Project Manager, Service Contracts, Metro Maintenance	Approval	<ul style="list-style-type: none"> Appointed: Altaf Bhatti Salary: \$90,774.59 Effective: To be determined by the Executive Director 	Unanimous	
Appointment of Senior Medium Voltage Electrical Specialist, Western Maintenance	Approval	<ul style="list-style-type: none"> Appointed: Mr. Robert Bonfiglio Salary: \$86,149.56 Effective: To be determined by the Executive Director 	Unanimous	
Appointment of Supervisor, Transmission and Treatment Operations, Carroll Water Treatment Plant	Approval	<ul style="list-style-type: none"> Appointed: Mr. Thomas Patriarca Salary: \$86,746.65 Effective: To be determined by the Executive Director 	Unanimous	
Supply and Delivery of Sodium Hypochlorite to the Deer Island Treatment Plant: Borden & Remington Corporation, Bid WRA-4413	Contract Award	<ul style="list-style-type: none"> Awarded: Borden & Remington Corporation Amount: \$1,285,696.19 Term: One year, from November 1, 2017 through November 16, 2016 	Unanimous	*
Alewife Brook Pump Station Rehabilitation: Barletta Engineering Corporation, Contract 6797, Change Order 2	Contract Amendment/Change Order	<ul style="list-style-type: none"> Awarded: Barletta Engineering Corporation Amount: \$250,000 Term: 180 days 	Unanimous	*
Wachusett Aqueduct Pumping Station Design, Construction Administration and Resident Inspection Services: Stantec Consulting Services, Inc., Contract 7156, Amendment 4	Contract Amendment/Change Order	<ul style="list-style-type: none"> Increase in the amount of \$711,617.02, with no change in the contract term. 	Unanimous	*

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Wachusett Aqueduct Pumping Station, BHD/BEC JV 2015, A Joint Venture: Contract 7157, Change Order 21	Contract Amendment/Change Order	•Increase in the lump sum amount of \$285,385, with no increase in contract term; further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 7157 in amounts not to exceed the aggregate of \$250,000	Unanimous	*
Internal Audit Department Activities Report - FY2017	Information	•Please see related staff summary	n/a	*
Delegated Authority Report - July and August 2017	Information	•Please see related staff summary	n/a	
FY2017 Fourth Quarter Orange Notebook	Information	•Please see related staff summary	n/a	*
FY2016-FY2020 Strategic Business Plan Annual Update for FY2017	Information	•Please see related staff summary	n/a	
FY2017 Amendment and Change Order Report	Information	•Please see related staff summary	n/a	
MWRA Reservoirs Status/Drought Report	Information	•Please see related staff summary	n/a	
FY2017 Year-end Capital Improvement Program Spending Report	Information	•Please see related staff summary	n/a	*
FY2017 Year-end Financial Update and Summary	Information	•Please see related staff summary	n/a	*
Hydrogen Cyanide Incident Chelsea Creek Headworks	Information	•Please see related staff summary	n/a	*
Report on Corrosion Control in the Water and Sewer Systems	Information	•Please see related staff summary	n/a	*
Status Update of North Reading and the MWRA	Information	•Please see related staff summary	n/a	*

Administration and Finance
 Wastewater
 Water
 Personnel
* Advisory Board position



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MWRA Advisory Board Summary
of the
MWRA Board of Directors Meeting
Wednesday, September 20, 2017

A meeting of the Board of Directors of the Massachusetts Water Resources Authority was held on Wednesday, November 16, 2016, at the Charlestown Navy Yard. Present: Jennifer Wolowicz and Brian Peña, Gubernatorial Appointees; John Carroll and Andrew Pappastergion, MWRA Advisory Board Representatives; Henry Vitale, Kevin L. Cotter, and Austin Blackmon, City of Boston Representatives; John J. Walsh, City of Quincy Representative, and Paul Flanagan, Town of Winthrop Representative. Absent: Secretary Beaton, Gubernatorial Appointee; and Joseph Foti, MWRA Advisory Board Representative.

The meeting was called to order at 1:00 pm. In the absence of the Chair, Mr. Carroll served as Chairman

Report of the Chair

There was no Report of the Chairman.

Report of the Executive Director

Mr. Laskey opened his remarks with a report about some very prestigious awards, starting with the Boston Water and Sewer Commission Executive Director, Henry Vitale, who received the 2017 Shattuck Chairman's Award. BWSC also won "New England's Best Drinking Water Taste Test" competition at the New England Water Works Association annual conference. Mr. Laskey noted that unnamed sources reported that MWRA came in second, with Framingham (also, using MWRA water) coming in third.

The previous evening, Steve Estes-Smargiassi, at a meeting on Cape Cod, received the George Warren Fuller award for distinguished service to the water supply field. Mr. Laskey noted that the award was a national award, similar to "getting an Oscar," and said that a contributing reason was that Mr. Estes-Smargiassi had been in a national role in the issue of lead in the water in Flint, Michigan.

Recently, John Gregoire, on the MWRA's behalf, has received the Northeast Region Water Merit from National Association of dam safety officials. Mr. Laskey thanked the Board for supporting the capital improvements that had been made in upgrades to the dams.

Mr. Laskey observed that while the drought seems a long distance behind the region, the graph displayed showed that the situation is not that much better than a year ago. This a reflection of the fact that while it takes a long time for the water level to drop down, it also takes a long time to build back up.

He turned to the subject of geese at Chestnut Hill (sometimes 100-150 geese)and observed there have been algae blooms and bacteria issues. There will be an assessment of issues at the Sudbury, including consideration of ways to deal with the geese.

The Audited Financials have been distributed, with a “clean” opinion.

Working with the Advisory Board, a method is being developed to revisit the need for two Board meetings in June.

Approvals

Approval of Minutes

The Board voted to approve the minutes from the July 19, 2017, Board of Directors meeting, as presented and filed with the records of the meeting.

Approval of Bond Defeasance of Future Debt Service

The Board voted to authorize the Executive Director or his designee, on behalf of the Authority, to enter into, execute and deliver all necessary agreements and other instruments and to take such other actions necessary to effectuate the redemption and defeasance of an aggregate principal amount of \$9,570,000 of outstanding MWRA senior bonds including to cause the escrow of cash and/or securities in an amount necessary to fund such redemption and defeasance, in order to reduce the debt service requirement by \$10,601,900 in the FY19 through FY21 timeframe.

Staff noted that for the last several years, budget staff have been evaluating the most advantageous uses for budgetary surpluses. Among them are deposits to reserves or making an additional payment to the pension system or OPEB, or the defeasance of debt. It is the use of defeasance that staff has recommended for the budgetary surplus from FY 2017. It will serve as another tool for managing debt service in future years when payments are projected to rise.

The proposed defeasance reduces debt service by a total of \$10.6 million between FY19 and FY21. Another benefit is interest savings of \$315,500.

Approval of PCR Amendment – September 2017

The Board voted to approve an amendment to the Position Control Register as presented and filed with the records of the meeting.

Approval of Omnibus Motion for Items 3 through 12

The Board voted to approve items 3 through 12 as listed on the agenda. These items referenced approvals for appointments from the Personnel Committee. Please see the attached voting summary.

Contract Awards

Supply and Delivery of Sodium Hypochlorite to the Deer Island Treatment Plant: Borden & Remington Corporation, Bid WRA-4413

The Board voted to approve the award of Purchase Order Contract WRA-4413, Supply and Delivery of Sodium Hypochlorite to the Deer Island Treatment Plant, to the lowest eligible and responsible bidder, Borden & Remington Corporation, and to authorize the Executive Director, on behalf of the Authority, to execute and deliver said purchase order contract in an amount not to exceed \$1,285,696.19 for a period of one year, from November 17, 2017, through November 16, 2018.

Staff noted that the contractor is the current provider. Sodium hypochlorite is used at Deer Island to treat the final effluent before discharge. While the bid price is rising, staff reported that this is due to an overall market tightening, with the United States, Europe, and South America all cutting back on production and may continue for the next few years.

Contract Amendments/Change Orders

Alewife Brook Pump Station Rehabilitation: Barletta Engineering Corporation, Contract 6797, Change Order 2

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order 2 to Contract 6797, Alewife Brook Pump Station Rehabilitation, with Barletta Engineering Corporation, for a lump sum amount of \$690,000, increasing the contract amount from \$12,568,878, and extending the contract term by 180 calendar days from May 31, 2018, to November 27, 2018.

Further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 6797 in amounts not to exceed the aggregate of \$250,000, and 180 days in accordance with the Management Policies and Procedures of the Board of Directors.

The pump station was built in the 1950s; this project is to rehabilitate the station. The construction contract was awarded in November 2015 with a completion date by May 2018. To date, the construction work is approximately 30% complete.

A critical aspect of the project is to bypass the station's dry and wet weather flow by using a temporary bypass pump system to allow for construction of the improvements. However, Barletta submitted a design for the bypass system but, when installed, the trial tests failed to meet the required bypass test. The design contractor, Stantec, argued that its bypass design could achieve the contract required bypass flow rates.

Following unsuccessful attempts to resolve the issue, staff have recommended that MWRA move forward with the Barletta-proposed modifications to the conceptual plan outlined in the contract documents. The modifications will utilize, to the maximum extent practical, as much of the initial bypass installation as feasible. The additional costs to install new components for the revised configuration, including engineering design, is approximately \$462,000. The remaining \$228,000 for the change order is associated with the project schedule delay and bypass system work. Staff stated that this approach maximizes work that has already been done and minimizes additional work that needs to be done.

MWRA has notified the design contractor and the construction contractor that MWRA fully reserves its rights to recoup all damages arising out of this change order work.

Wachusett Aqueduct Pumping Station Design, Construction Administration and Resident Inspection Services: Stantec Consulting Services, Inc., Contract 7156, Amendment 4

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Amendment 4 to increase the amount of Contract 7156 with Stantec Consulting Services, Inc., Wachusett Aqueduct Pumping Station Design, Construction Administration and Resident Inspection Services, in the amount of \$711,617.02, with no change in the contract term.

The contract was awarded in January 2012 and is part of the MWRA's long-term redundancy plan for the water transmission system. The pumping station will address a major weakness in the current redundancy from the Wachusett Reservoir to the Carroll Treatment Plant in Marlborough, and will provide redundancy for the Cosgrove Tunnel, currently the sole water supply conduit to the Carroll Treatment Plant. The amendment is to provide funds for additional engineering services during construction identified after execution of the original contract. The changes include differing site conditions at the surge tank, energy optimization, increased operational resiliency for the pumps, and upgrade of the obsolete water treatment plant fire alarm system. In response to a question from the Board, staff noted that there will also be a review of omissions and errors. The MWRA keeps an ongoing tally of these costs, and staff meet quarterly to consult on how to move forward in addressing these issues. Staff noted that this amendment does not include issues relating to design changes or errors; rather, they represent an additional level of effort or changes in conditions or other design changes requested by the Authority.

Wachusett Aqueduct Pumping Station, BHD/BEC JV 2015, A Joint Venture: Contract 7157, Change Order 21

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order 21 to increase the amount of Contract 7157 with BHD/BEC JV 2015, A Joint Venture, Wachusett Aqueduct Pumping Station, for a lump sum amount of \$285,385, with no increase in contract term; further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 7157 in amounts not to exceed the aggregate of \$250,000 in accordance with the Management Policies and Procedures of the Board of Directors.

Staff highlighted the change order which will address the fire alarm system. The contractor is to furnish and install a fire alarm control panel at the new pumping station and the new front entrance guard house that can interface with the existing fire alarm system at the water treatment plant.

After award of the pump station construction contract, the manufacturer of the model of the fire alarm in use at the operations building and related buildings and production of spare parts for the system would be discontinued. Staff is recommending that replacement of the fire alarm panels be done by the Wachusett Aqueduct Pump Station electrical contractor in order to ensure proper coordination of the fire alarm systems and to assign responsibility for scheduling, testing, and startup to a single party. The work has been identified by MWRA staff as an unforeseen condition.

Information

Internal Audit Department Activities Report – FY 2017

Staff highlighted assignments that were conducted over a wide range of activities and noted that copies of individual reports were available for the Board. Savings achieved totaled just over \$3.5 million resulting from 65 assignments, including internal audits, management advisory services, consultant incurred cost audits, consultant preliminary reviews, construction labor burden reviews, the true-up and review of HEEC billings and negotiations, and contract negotiation support. Much of the effort, in addition to cost recovery, is in preventing costs from being paid out. Another area of effort is tracking and follow-up of audit recommendations which, in turn, reduce risk, improve operations, and implement controls over Authority activities. Mr. Vitale noted that the State Auditor, Suzanne Bump, has spoken highly about the MWRA's Audit Department. Mr. Laskey also observed that Ms. Bump will be speaking at a meeting of Authority managers later in the week.

FY 2017 Fourth Quarter Orange Notebook

Staff reported on personnel, particularly given that approval of a number of appointments are on the agenda. Staff provided an update on staffing, including filling open positions due to retirements which have increased over time. Many positions are being filled internally with transfers or promotions and backfilling entry-level positions. Staff reported that in FY 2017 there were 222 promotions, transfers or external hires, of which 150 were promotions and transfers, and 72 were external hires. The Authority is also offering training programs and "shadow" programs which support promotions and readiness for various licenses.

FY 2017 Year-End Capital Improvement Program Spending Report

Staff opened the report by noting that spending in FY 2017 was closer to budget than it had been in previous years. During the year, MWRA managed 52 design and construction contracts and awarded 30 new contracts valued at \$158.7 million. For the year, capital spending was budgeted at \$155.3 million. Total spending was \$133.2 million, which was \$22.1 million or 14.3% below the budgeted amount. The report also highlights spending and loan repayments for the community financial assistance programs for both water and wastewater, and lists projects that were completed or reached substantial completion during the year. More detail on variances for major projects is provided in the full report and related analyses are attached to the staff summary.

FY 2017 Year-End Financial Update and Summary

The total FY 2017 year-end variance is \$15.1 million due to lower direct expenses of \$5.8 million, lower debt service of \$1.8 million (after a defeasance transaction of \$25 million), lower indirect expenses of \$0.6 million, and higher revenues of \$6.9 million.

Unbudgeted revenue for additional water sales related to the drought resulted in \$4.8 million in surplus funds. These funds will be used to partially fund the lead services line removal loan program which will benefit water customers. Also, \$391,580 in state Debt Service Assistance was applied to the FY18 current expense budget.

Approximately \$10 million of the remaining FY 2017 surplus is proposed to be used to defease debt in future years. (See Approval action item.)

Hydrogen Cyanide Incident Chelsea Creek Headworks

Staff provided a report of a hydrogen cyanide detection at the Chelsea Creek Headworks on August 8. Staff reviewed the sequence of events and steps that were taken to address the alarm and provide appropriate responses to the situation, including coordination with the Chelsea and Boston Fire Departments, the contractor, and Authority staff from a number of departments. A multi-pronged response was initiated.

Based on the information reviewed during and after the incident, staff concluded that the event was triggered by the detection of hydrogen sulfide that was misidentified as hydrogen cyanide. Since then, meters that correct for the interference of hydrogen sulfide (using filters) were put into use. As a result, hydrogen cyanide is rarely detected in the headworks and at very low levels. MWRA has been collecting hourly meter readings. Hydrogen sulfide levels have gone up and down, consistent with wastewater flow through the facility, while hydrogen cyanide results have hovered close to the instrument detection level, near 0 ppm. Staff have also held tool box talks with wastewater staff to describe the incident and the plan for continued monitoring. The unions were also briefed about the incident and next steps including working with the contractor at the headworks.

Report on Corrosion Control in the Water and Sewer Systems

Staff highlighted the report on corrosion control of the piping systems and the cathodic protection systems. The existing systems are reaching the end of their useful lives, are no longer providing protection and are in need of replacement. Staff have developed a cathodic protection replacement program, as part of the capital program, to assess, make repairs, replace and maintain the existing cathodic protection systems. Corrosion control is usually in the context of water quality and the prevention of leaching of lead and copper into drinking water. This program is more in the context of corrosion control on the outside of the pipe (how it interacts with the soil and the environment). A list of current and proposed projects is provided at the end of the staff summary. Current projects are included in the FY18 capital program. More information will be developed for the proposed FY19 capital program and budget.

Status Update of North Reading and the MWRA

Staff reported on a change in direction regarding an interconnection between the MWRA water supply system to North Reading. Since 2014, North Reading had been undertaking a series of actions related to its long-term water supply plan, with admission to MWRA as a central focus. The direction that North Reading had been pursuing was to join MWRA and connect by mid-2019.

More recently, in early September, the North Reading Board of Selectmen approved a motion authorizing the Town Manager to move forward with drafting an extension to the Town's existing Intermunicipal Water Supply Agreement with its existing supplier, Andover, as well as a long term successor Agreement with Andover. The Board of Selectmen also voted to postpone until no later than April 30, 2018, further planning, design, and construction related to the MWRA interconnection. Staff observed that part of the discussion focused on the subject of rates. The rates for water from the Andover systems are similar to MWRA rates (which currently are slightly below the rates charged by Andover). But assumptions regarding the pace of possible rate increases in the future became a factor (including how far into the future the projections were being made).

This summary does not include every item discussed by the Board, nor the full extent of the discussions. Please contact the Advisory Board office with questions, comments or requests for more information.