



MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard
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Boston, MA 02129

Frederick A. Laskey
Executive Director

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ADMINISTRATION, FINANCE & AUDIT COMMITTEE MEETING

Chair: H. Vitale
Vice-Chair: J. Foti
Committee Members:
A. Blackmon
J. Carroll
K. Cotter
A. Pappastergion
B. Peña
J. Walsh

to be held on

Monday, May 8, 2017

Location: 100 First Avenue, 2nd Floor
Charlestown Navy Yard
Boston, MA 02129

Time: 10:00 a.m.

AGENDA

A. Information

1. Delegated Authority Report – April 2017
2. FY17 Financial Update and Summary as of April 2017

B. Approvals

1. Bond Defeasance of Future Debt Service

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Administration, Finance and Audit Committee

April 12, 2017

A meeting of the Administration, Finance and Audit Committee was held on April 12, 2017 at the Authority headquarters in Charlestown. Chairman Vitale presided. Present from the Board were Ms. Wolowicz and Messrs. Blackmon, Carroll, and Pappastergion. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Mike Hornbrook, Tom Durkin, Kathy Soni, Steve Perry, Fred Brandon, Pam Heidell, Louise Miller, Russ Murray, Pat Barrett, and Bonnie Hale. The meeting was called to order at 10:25 a.m.

Information

Delegated Authority Report – March 2017

There was question and answer on a few items contained in the report.

FY17 Financial Update and Summary as of March 2017

Staff summarized the update, and there was general discussion and question and answer.

2016 Annual Report on New Connections to the MWRA System

Staff reviewed the report; Mr. Carroll requested copies of some of the policies referenced.

Potential Cost Impacts of the Eversource Cable Work on the FY18 and FY19 Current Expense Budgets

Staff summarized the different possible scenarios and potential costs for FY18 and FY19.

Contract Awards

*Maintenance and Support of the Integrated Financial, Procurement and Human Resources/Payroll Management System: Infor Global Solutions

Staff described the systems and the type of work to be performed. The Committee recommended approval of the contract award (ref. agenda item B.1).

* Approved as recommended at April 12, 2017 Board of Directors meeting.

Approvals

***Memorandum of Agreement with the Town of Stoneham in Connection with the Northern Intermediate High Pipeline Project**

Staff described the background of the project and lengthy negotiations with Town officials. There was general discussion and question and answer on the current proposal. The Committee recommended approval of the MOA, substantially in the form presented (ref. agenda item C.1).

The meeting adjourned at 11:05 a.m.

* Approved as recommended at April 12, 2017 Board of Directors meeting.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: May 8, 2017
SUBJECT: Delegated Authority Report – April 2017



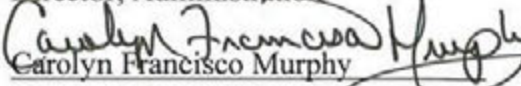
COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE


Michele S. Gillen

Director, Administration

Barbara Aylward, Administrator A & F
Preparer/Title


Carolyn Francisco Murphy
Director of Procurement

RECOMMENDATION:

For information only. Attached is a listing of actions taken by the Executive Director under delegated authority for the period April 1 – 30, 2017.

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 October 14, 2009, 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; or up to \$500,000 if the award is to other than 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; or up to \$500,000 if the award is to other than 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 APRIL 1 - 30, 2017

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMEND/CO	COMPANY	FINANCIAL IMPACT
C-1.	04/07/17	SOUTHBOROUGH WATER QUALITY LABORATORY UPGRADES DELETE THE REQUIREMENT TO REMOVE, HANDLE AND DISPOSE OF ASBESTOS CONTAINED MATERIALS; DECREASE WORK BY NATIONAL GRID ALLOWANCE; DECREASE SOUTHBOROUGH FIRE DEPARTMENT FIRE WATCH SERVICES ALLOWANCE.	6650A	9	PAUL J. ROGAN CO., INC.	(\$126,817.28)
C-2.	04/07/17	OAKDALE HYDRO GENERATOR INSPECTION, CLEANING & REPAIR AWARD OF A CONTRACT TO THE LOWEST RESPONSIVE BIDDER FOR THE OAKDALE HYDRO GENERATOR INSPECTION, CLEANING AND REPAIR FOR A TERM OF 30 CALENDAR DAYS.	OP-346	AWARD	LEPPERT-NUTMEG, INC.	\$43,512.00
C-3.	04/07/17	JOHN J. CARROLL WATER TREATMENT PLANT HVAC SYSTEMS MAINTENANCE INCREASE ESTIMATED ALLOWANCE FOR UNSPECIFIED MAINTENANCE AND REPAIR AND REPLACEMENT PARTS.	OP-321	2	US AIR CONDITIONING - HEATING, INC.	\$114,375.00
C-4.	04/10/17	CLINTON WASTEWATER TREATMENT PLANT PHOSPHORUS REDUCTION FINAL DESIGN CA/RE SERVICES INCREASE LEVEL OF EFFORT FOR CONSTRUCTION ADMINISTRATION SERVICES TO REVIEW AN ADDITIONAL 100 SUBMITTALS.	7377	3	STANTEC CONSULTING SERVICES, INC.	\$69,087.00
C-5.	04/27/17	UPGRADES TO CHELSEA SCREEN HOUSE REDIRECT WASTEWATER SYSTEM FLOWS BY INSTALLING AN INFLATABLE PLUG AND BULKHEAD IN LIEU OF SPECIFIED BYPASS PUMPING FOR THE INSTALLATION OF GATE 8; DELETE THE REQUIREMENT TO FURNISH 2 OF THE 4 BAR SCREEN DEFLECTORS; DELETE THE REQUIREMENT TO TRANSPORT AND DISPOSE OF 177.52 TONS OF CONTAMINATED SOIL; DECREASE CHELSEA FIRE DEPARTMENT FIRE WATCH SERVICES ALLOWANCE.	7431	8	WES CONSTRUCTION CORP.	(\$148,314.80)

PURCHASING DELEGATED AUTHORITY ITEMS APRIL 1 - 30, 2017

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-1.	04/07/17	PURCHASE OF ONE GENERAL MOTORS DOUBLE CAB PICKUP AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR THE PURCHASE OF ONE GENERAL MOTORS DOUBLE CAB PICKUP IN ACCORDANCE WITH THE MWRA'S VEHICLE REPLACEMENT POLICY REQUIREMENTS FOR AGE, MILEAGE AND CONDITION.	WRA-4351		LIBERTY CHEVROLET, INC.	\$51,606.04
P-2.	04/07/17	SUPPLY AND DELIVERY OF BIODIESEL FUEL AWARD OF A PURCHASE UNDER STATE BLANKET CONTRACT FOR THE SUPPLY AND DELIVERY OF BIODIESEL FUEL TO THE CHELSEA FACILITY FOR THE TIME PERIOD OF APRIL 1, 2017 THROUGH JULY 31, 2018.			DIESEL DIRECT, INC.	\$200,000.00
P-3.	04/24/17	PEST CONTROL SERVICES AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR PEST CONTROL SERVICES AT THE DEER ISLAND TREATMENT PLANT FOR A PERIOD OF TWO YEARS.	WRA-4358Q		FREEDOM PEST CONTROL	\$26,520.00
P-4.	04/24/17	PURCHASE OF 13 CISCO ROUTERS AND RELATED HARDWARE AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR THE PURCHASE OF 13 CISCO ROUTERS AND RELATED HARDWARE INTERFACE MODULES TO SUPPORT THE SCADA NETWORK.	WRA-4357Q		PRESIDIO NETWORK SOLUTIONS, INC.	\$36,472.85
P-5.	04/24/17	MAINTENANCE, TECHNICAL ASSISTANCE AND SUPPORT OF THE ARC GEOGRAPHIC INFORMATION SYSTEM AWARD OF A PURCHASE ORDER UNDER STATE BLANKET CONTRACT FOR THE MAINTENANCE, TECHNICAL ASSISTANCE AND SUPPORT OF THE ARC GEOGRAPHIC INFORMATION SYSTEM FOR A TERM OF ONE YEAR.			ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE, INC.	\$49,950.00
P-6.	04/24/17	HEWLETT PACKARD ENTERPRISE 3PAR DATA STORAGE MAINTENANCE AND SUPPORT AWARD OF PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER UNDER STATE BLANKET CONTRACT FOR HEWLETT PACKARD ENTERPRISE 3PAR DATA STORAGE MAINTENANCE AND SUPPORT FOR A TERM OF EIGHTEEN MONTHS.	WRA-4331Q		HUB TECHNICAL SERVICES, LLC	\$127,295.88
P-7.	04/24/17	SUPPLY AND DELIVERY OF SODIUM HYDROXIDE AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR THE SUPPLY AND DELIVERY OF SODIUM HYDROXIDE TO THE DEER ISLAND TREATMENT PLANT FOR A TERM OF ONE YEAR.	WRA-4353		BORDEN & REMINGTON CORP.	\$239,568.00

POSITION CONTROL REGISTER (PCR) LOCATION CHANGES APRIL 2017

<u>DATE OF CHANGE</u>	<u>POSITION TITLE</u>	<u>CURRENT PCR#</u>	<u>CURRENT COST CENTER</u>	<u>NEW PCR #</u>	<u>NEW COST CENTER</u>	<u>REASON FOR CHANGE</u>
4/8/2017	Manager, Employment	8520011	Labor Relations	8510003	Employment/ Comp/ Benefits	To reflect reporting structure
4/8/2017	Sr Human Resources Analyst	8520012	Labor Relations	8510019	Employment/ Comp/ Benefits	To reflect reporting structure
4/8/2017	Asst Manager, Employment	8520015	Labor Relations	8510020	Employment/ Comp/ Benefits	To reflect reporting structure

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: May 8, 2017
SUBJECT: FY17 Financial Update and Summary



COMMITTEE: Administration, Finance & Audit

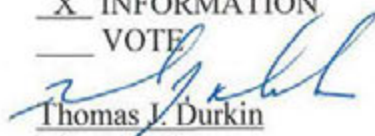

Kathy Soti, Budget Director


Louise L. Miller, Budget Manager

Preparer/Title

INFORMATION

VOTE



Thomas J. Durkin

Director, Finance

RECOMMENDATION:

For information only. This staff summary provides the financial update and variance highlights through April 2017, comparing actual spending and revenue to the FY17 budget.

DISCUSSION:

Total year-to-date variance is \$11.0 million lower than budget mainly due to lower direct expenses of \$5.1 million, lower indirect expenses of \$353,000, and higher revenues of \$5.5 million.

In April, \$2.6 million was transferred to the Defeasance Account as result of continued low variable rate environment, the favorable impact of the August 2016 defeasance, lower SRF funding than planned, and not borrowing senior debt scheduled for January 2017, now scheduled for May. The defeasance account balance as of April is \$14.3 million. The continued use of defeasances as part of our multi-year rates management strategy is critically important for us to meet the Advisory Board's goal of keeping annual rate increases under 4% in the out years.

Without the transfer of the \$14.3 million in debt service savings to the Defeasance Account, the total year-to-date budget variance through April would have been \$25.3 million.

Should these favorable trends continue for the last two months of the year, the year-end favorable variance is projected at \$32.7 million, of which \$22.3 million is related to debt service. Beyond debt service savings, staff project a surplus of approximately \$10.4 million at year-end of which \$3.7 million would be from lower direct expenses, \$501,000 from lower indirect expenses, and \$6.2 million from greater than budgeted revenues, mostly related to additional unbudgeted water revenue due to the drought.

In a separate staff summary to the Board today, staff is seeking approval for a June 2017 Bond Defeasance to reduce future year rate increases. Of the \$32.7 million surplus projected for FY17, \$25.0 million will be used to support the planned June 2017 defeasance and the impact of this defeasance will be built into the FY18 planning estimates.

FY17 Current Expense Budget

The expense variances through April 2017 by major budget category were:

- Net Lower Direct Expenses of \$5.1 million or 2.8%. Spending is lower primarily for Wages and Salaries, Utilities, Other Services, Maintenance, and Fringe Benefits. This is offset by higher spending for Overtime, Other Materials, Chemicals, and Worker's Compensation.
- Lower Indirect Expenses of \$353,000 or 0.1% for lower Insurance costs and Watershed reimbursements.

FY17 Budget and FY17 Actual Year to Date Variance by Expenditure Category

	FY17 Budget YTD	FY17 Actual YTD	\$ Variance	% Variance
Direct Expenses	\$181.0	\$176.0	-\$5.1	-2.8%
Indirect Expenses	\$28.2	\$27.8	-\$0.4	-1.3%
Debt Service	\$363.4	\$363.4	\$0.0	0.0%
Total	\$572.6	\$567.1	-\$5.4	-0.9%

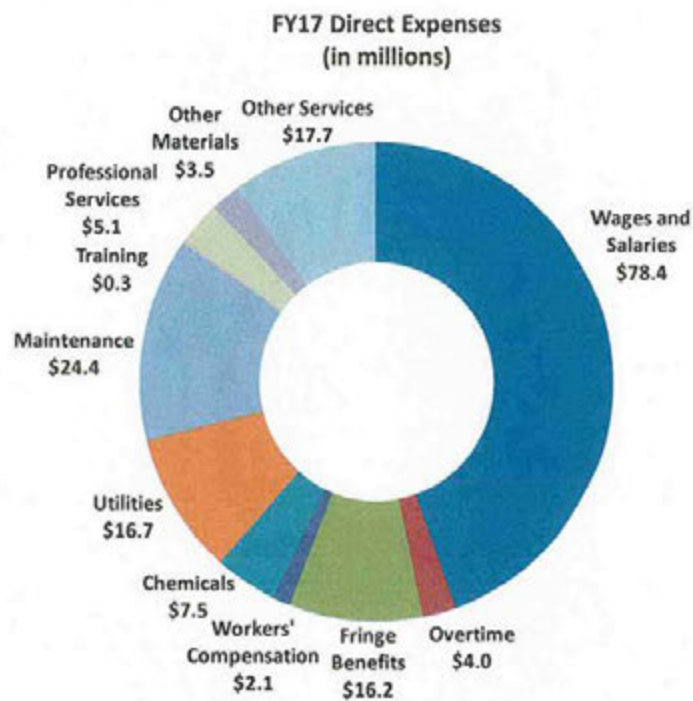
Totals may not add due to rounding

Total Revenues of \$601.1 million were \$5.5 million over budget reflecting primarily \$4.8 million receipt for water usage related to the drought, \$299,000 for a class action lawsuit settlement for derivative agreements, \$259,000 for disposal of surplus material, and \$184,000 for energy efficiency incentives from the utility companies. This is offset by lower Investment Income of \$99,000 for unanticipated calls re-invested at lower rates.

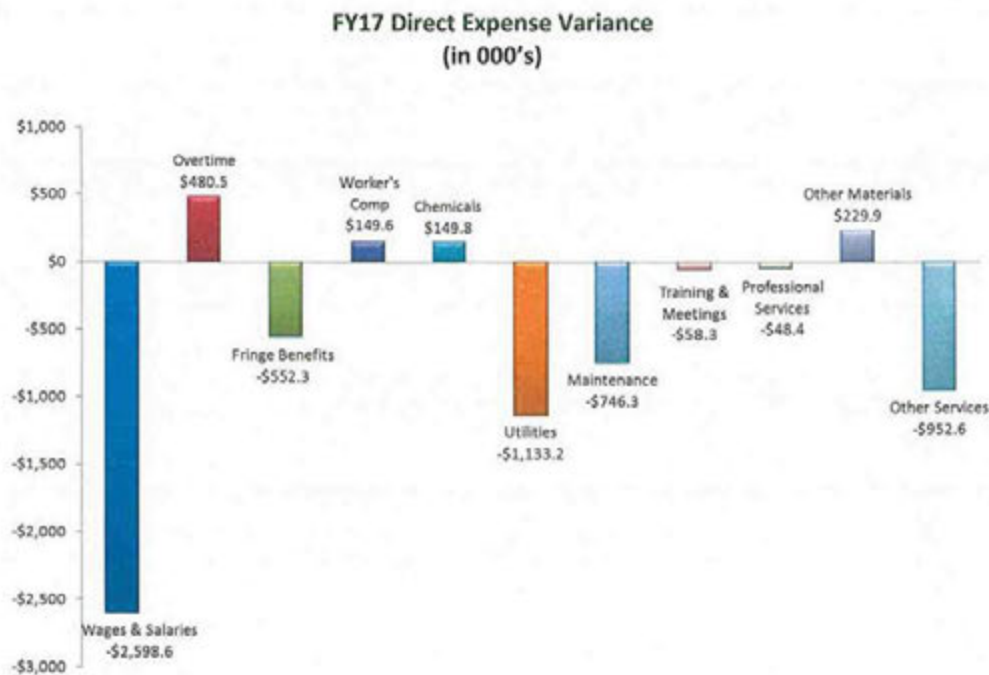
Please refer to Attachment 1 for a more detailed comparison by line item of the budget variances for the year to date.

Direct Expenses

Year-to-date direct expenses totaled \$176.0 million, \$5.1 million or 2.8% less than budgeted.



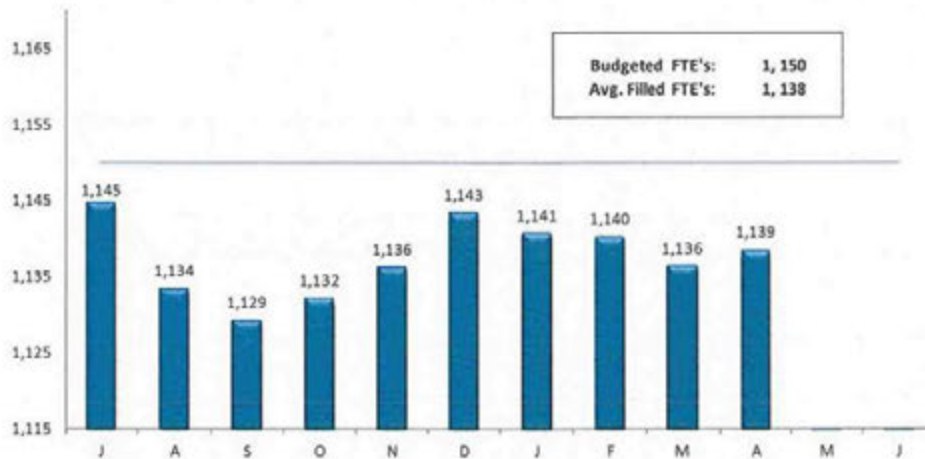
Lower than budgeted spending in Wages and Salaries, Utilities, Other Services, Maintenance, Fringe Benefits, Training & Meetings, and Professional Services, was offset by higher spending for Overtime, Other Materials, Chemicals, and Worker's Compensation.



Wages and Salaries

Wages and Salaries were under budget by \$2.6 million or 3.2% mainly as a result of lower average Full Time Equivalent positions (FTEs) than budgeted, the timing of backfilling vacant positions, and the salary mix differential between staff retiring and new hires. The average FTEs through April were 1,138, which was 12 positions lower than the 1,150 FTEs budgeted.

FY17 MWRA Full Time Equivalent (FTE) Position Trend



Utilities

Utilities were under budget by \$1.1 million or 6.3%. The major driver of the underspending is the \$1.4 million electricity cost due to lower than budgeted pricing and the Deer Island Treatment Plant being offline during the HECC cable location work. As of the end of March (Year to Date through April is not yet available), the lower volume variance at Deer Island was approximately \$667,000, and the lower unit pricing from Direct Energy and Eversource have yielded a favorable price variance of \$574,000.

This favorable electricity variance was offset by a net higher spending of \$232,000 for diesel fuel. Deer Island had two deliveries of diesel fuel to date during FY17 versus one budgeted, resulting in \$657,000 overspending, mostly as result of the HECC cable location work. It is worthwhile mentioning that although the additional diesel purchase at Deer Island resulted in approximately \$1.0 million overspending the lower actual price of \$1.66/gal versus the budgeted \$2.10/gal had a \$345,000 favorable impact.

Field Operations was under budget for Diesel Fuel by \$426,000 related to lower than budgeted pricing, partially offsetting the overall increased net spending at Deer Island.

Other Services

Other Services spending was lower than budget by \$953,000 or 5.1% due to lower spending of \$327,000 for sludge pelletization services because of lower year to date quantities, and \$170,000 for Grit and Screenings disposal services also primarily due to lower quantities; \$222,000 for Space/Lease Rentals due to lower escrow payments at the Chelsea Facility for taxes and insurance, and lower than budget pass-through maintenance cost at the Charlestown Navy Yard Facility; and \$174,000 for Other Services primarily for timing of community lead service assistance.

Maintenance

Maintenance was underspent \$746,000 or 3.0%. Within maintenance, Deer Island is underspent to due timing of maintenance work on the CTG to replace the monitoring systems, scum mixer gearboxes, heat exchangers and HVAC replacement units and delays in the facility painting/coating project; and MIS is underspent due to timing of Microsoft Office Suite upgrade for all PCs and laptops. The Nut Island fire incident which was not budgeted this year, accounts for a \$410,000 overspending. Other overspending occurred in FOD in Plant and Machinery Materials primarily for carbon replacement at Nut Island, rotating assembly for Caruso Pump Station, and wet well wash down system for Prison Point Pump Station; and in Pipeline Services primarily for sewer manhole rehabilitation and paving.

Fringe Benefits

Fringe Benefit spending was lower than budgeted by \$552,000 or 3.3% primarily for lower Health Insurance costs of \$463,000 due to fewer employees and retirees than budgeted participating in health insurance plans, and the shift from family to individual plans.

Training & Meetings

Training & Meetings was underspent by \$58,000 or 17.0%, primarily in Fleet Services, MIS and Operations due to timing of training.

Professional Services

Professional Services were underspent by \$48,000 or 0.9%. Within Professional Services, Other Services was underspent primarily in Finance for finance/investment services; Lab and Testing Analysis in EnQual – Wastewater for harbor monitoring; and Engineering in Office of Emergency Preparedness due to delay in Dam Emergency Action Plan updates. This was offset by higher spending for Legal Services in Law.

Overtime

Overtime expenses were higher than budgeted by \$480,000 or 13.8%, mainly due to Deer Island related to the HEEC cable relocation project and wet weather events, Metro Maintenance due to off-hour maintenance work and wet weather events, Metro Water Operations for coverage, and

Water Valve maintenance. Some examples of off-hour maintenance work have been replacing cable trays and wiring for pumps at Chestnut Hill Underground Pump Station, Reservoir Road electrical switchgear replacement, carpet replacement at the Chelsea Administration building, and rollout of the MAXIMO upgrade. This is offset by lower spending in Wastewater Operations due to lower than anticipated overtime associated with the North Main Pump Station Project at Deer Island, which itself is offset by higher spending for recent wet weather events.

Other Materials

Other Materials were higher than budget by \$230,000 or 7.0% mainly due to timing of Vehicle Purchases of \$423,000; Lab & Testing Supplies of \$85,000; Other Materials of \$64,000 primarily for gravel at the Clinton Landfill; and Health & Safety of \$33,000. This is offset by lower Vehicle Expenses of \$236,000 due to lower than budgeted fuel prices; Computer Hardware of \$55,000; Postage of \$42,000 due to timing of refilling postage meters in the mail room, and Computer Software of \$39,000.

Chemicals

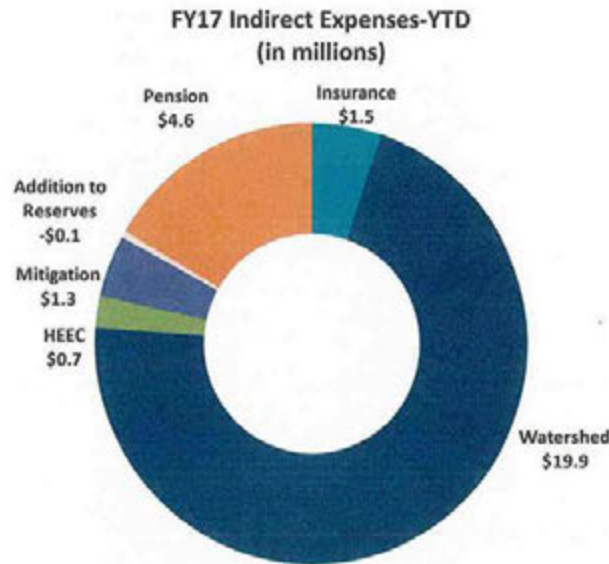
Chemicals expenses were higher than budgeted by \$150,000 or 2.0%. Expenses for Sodium Hypochlorite were over budget year-to-date by \$122,000 due to higher than budgeted price for new contracts and timing of deliveries at Deer Island; Activated Carbon of \$85,000 at Deer Island Treatment Plant due to the timing of the change out of West Odor Control activated carbon bed; Carbon Dioxide of \$37,000 due to lower dissolved CO₂ in raw water requiring higher dosage of Carbon Dioxide at Carroll Water Treatment Plant; Ferric Chloride of \$36,000 at Deer Island; and Polymer of \$35,000 at Deer Island. This is offset by lower spending on Soda Ash of \$88,000 and Liquid Oxygen of \$54,000 at Carroll Water Treatment Plant where the use of UV as a disinfectant is requiring less Liquid Oxygen.

Worker's Compensation

Year-to-Date Worker's Compensation expenses were lower than budget by \$150,000 or 7.7%. For the month of April, actuals costs were \$370,000 lower. This was primarily due to the compensation reserves for two claims decreasing a total of \$240,000 in April.

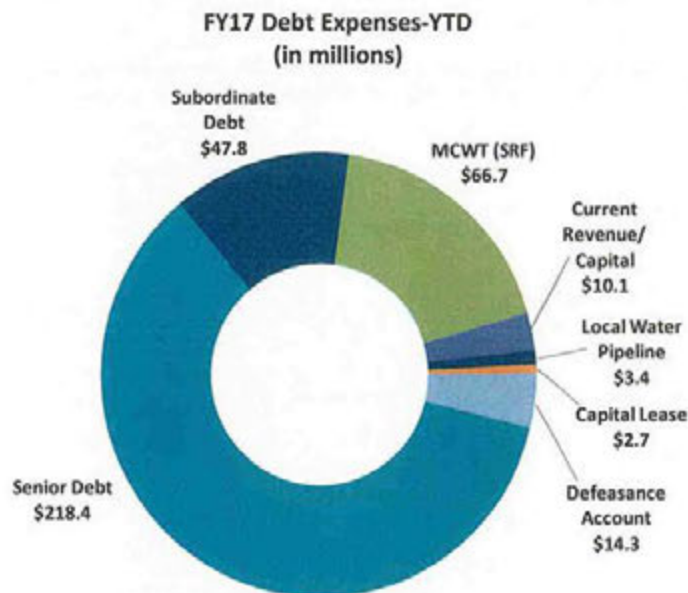
Indirect Expenses

For the fiscal year to date, Indirect Expenses totaled \$27.8 million, \$353,000 or 1.3% lower than budget, related to lower than budgeted insurance claims of \$196,000; an over-accrual in FY16 of \$55,000 for Watershed management operating expenses; and a lower PILOT payment due of \$107,000.



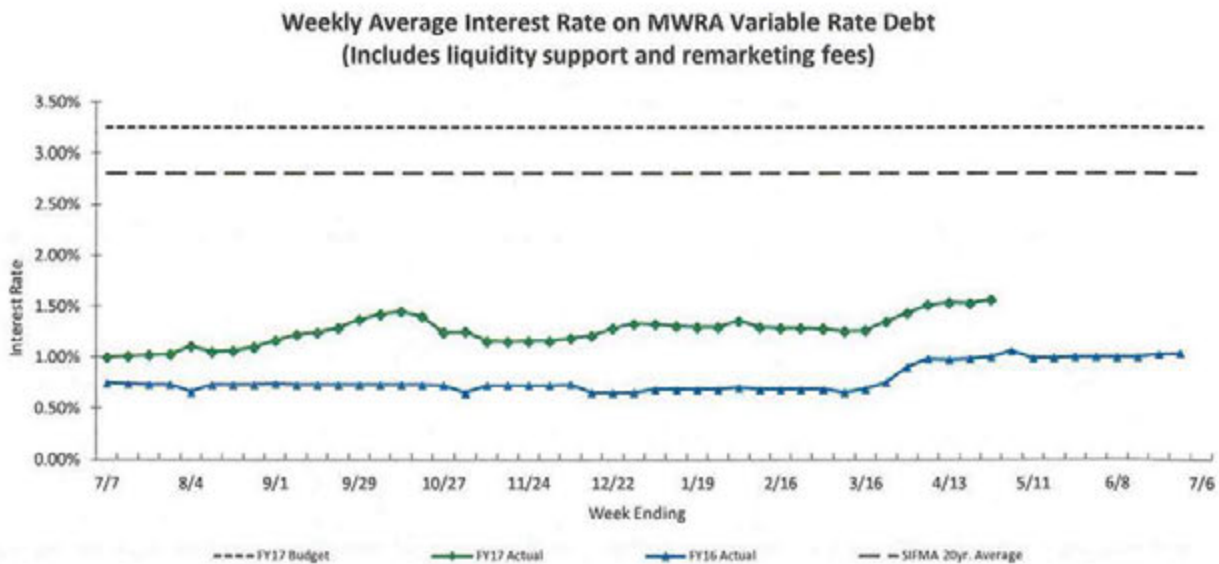
Debt Service

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



Debt Service expenses for the fiscal year totaled \$363.4 million, which is at the budgeted level after the transfer of \$14.3 million of a favorable year-to-date variance to the Defeasance Account. The short-term rates related variance is \$9.0 million year-to-date. Additionally, the Authority recognized \$5.4 million in year-to-date underspending that is the result of the favorable impact of the August 2016 defeasance, lower SRF funding than planned, and not borrowing senior debt scheduled for January.

The graph below reflects the FY17 actual variable rate trend by week over the past year and the FY17 Budget.



Revenue & Income

Total Revenue for the fiscal year totaled \$601.1 million, \$5.5 million or 0.9% higher than budget.

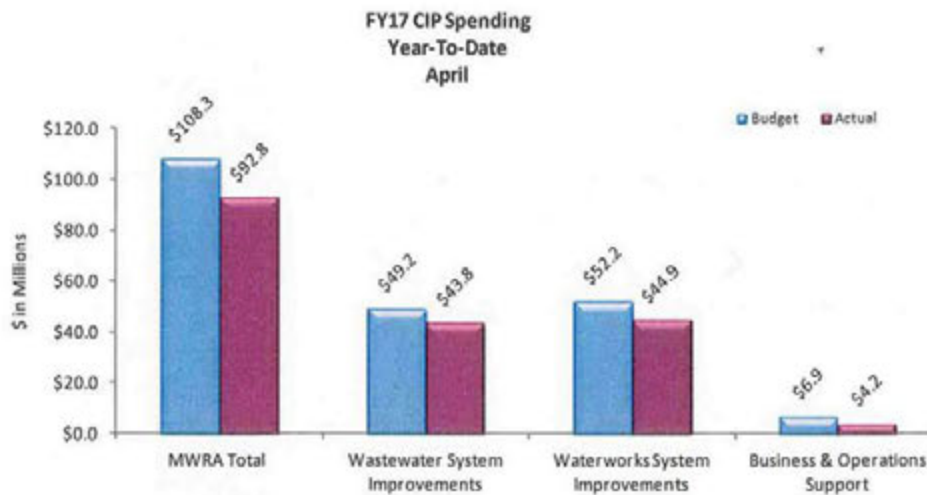
The higher than budgeted non-rate Revenue was driven by the receipt of \$4.8 million for water usage related to the summer drought; \$299,000 for a class action lawsuit settlement for derivative agreements; \$259,000 for the disposal of surplus materials; and \$184,000 for energy efficiency incentives from the utility companies. This is offset by lower Investment Income of \$99,000 for unanticipated calls re-invested at lower rates.

Please refer to Attachment 2 for a more detailed variance explanation by line item.

FY17 Capital Improvement Program

Capital expenditures in FY17 total \$92.8 million through the end of April, \$15.5 million or 14.3% less than budget.

After accounting for programs which are not directly under MWRA's control, most notably the Inflow and Infiltration (I/I) program, the Local Water Pipeline program, and the community managed Combined Sewer Overflow (CSOs) projects, capital spending totaled \$82.5 million, \$3.0 million or 3.5% under budget.



Overall underspending reflects the underspending of \$7.4 million in Waterworks Improvements, \$5.4 million in Wastewater Improvements and \$2.7 million in Business and Operations Support.

FY17 Year-to-date Spending By Program:

\$ in Millions	Budget	Actuals	\$ Var.	% Var.
Wastewater System Improvements				
Interception & Pumping	17.8	14.9	(2.9)	-16.3%
Treatment	13.1	21.1	8.0	60.7%
Residuals	0.1	0.0	(0.1)	N/A
CSO	7.1	3.1	(4.0)	-56.7%
Other	11.0	4.7	(6.4)	-57.7%
Total Wastewater System Improvements	\$49.2	\$43.8	-\$5.5	-11.1%
Waterworks System Improvements				
Drinking Water Quality Improvements	2.3	0.9	(1.4)	-60.7%
Transmission	22.1	21.0	(1.1)	-4.8%
Distribution & Pumping	18.8	16.5	(2.4)	-12.7%
Other	9.0	6.5	(2.5)	N/A
Total Waterworks System Improvements	\$52.2	\$44.9	-\$7.4	-14.1%
Business & Operations Support	\$6.9	\$4.2	(\$2.7)	-39.0%
Total MWRA	\$108.3	\$92.8	(\$15.5)	-14.3%

Totals may not add due to rounding

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

Wastewater Treatment: Net overspending of \$8.0 million

- \$1.8 million for Deer Island Primary/Secondary Clarifier Rehabilitation legal settlement.
- \$1.7 million for Deer Island Power System Improvements, \$1.6 million for North Main Pump Station and Winthrop Terminal Facility Butterfly Valve Replacements \$1.3 million for Clinton Phosphorus Reduction Construction, \$0.7 million for Digester Sludge Pump Phase 2, and \$0.4 million for Winthrop Terminal Facility Variable Frequency Drives Replacement Construction due to contractor progress.
- \$0.7 million for Electrical Upgrades Construction 4 and Secondary Reactor VFDs of \$0.2 million due to timing of final work in FY17 that had been budgeted in FY16.

Other Wastewater: Net underspending of \$6.4 million

- \$6.4 million for Community Infiltration/Inflow (I/I) due to less than anticipated requests for grants and loans.

Combined Sewer Overflow: Net underspending of \$4.0 million

- \$3.9 million for Cambridge Sewer Separation Project due to timing of final restoration work.

Interception & Pumping: Net underspending of \$2.9 million

- \$2.9 million for Chelsea Creek Headworks Upgrades Construction and Engineering Services due to a later than budgeted Notice-to-Proceed date.
- \$0.5 million on Caruso Pump Station Improvements Construction due to construction delays, and other smaller projects totaling \$0.6 million.
- The underspending was partially offset by \$0.9 million for Alewife Brook Pump Station Rehabilitation Construction due to contractor progress and \$0.5 million for Chelsea Screenhouse Upgrades due to timing of final work in FY17 that had been budgeted in FY16.

Waterworks Other: Net underspending of \$2.5 million

- \$1.9 million for Local Water Community Assistance due to less than budgeted community requests for loans.
- \$0.3 million for Quabbin Utility Work due to billing delays and \$0.2 million for updated schedule for Carroll WTP SCADA/PLC Upgrades.

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

- \$4.8 million for Section 89/29 Redundancy Phase 1C and 2 Construction and \$1.4 million for SEH Section 111 Construction Phase 1 and 2 for changes in schedules.
- Weston Aqueduct Supply Mains Section 36/C/S9-A11 Valve of \$0.4 million due to anticipated balancing credit change order for underspent items.

- The underspending was partially offset by overspending of \$3.2 million for Section 89/29 Redundancy Phase 1B Construction due to contractor progress and \$1.2 million for Spot Pond Supply Mains due to additional work for Webster Avenue Bridge Pipe Rehabilitation.

Drinking Water Quality Improvements: Net underspending of \$1.4 million

- \$0.9 million for updated schedule for Marlborough Maintenance Facility and pending final balancing change order for Southborough Water Quality Upgrades, and Spot Pond Covered Storage Facility Design/Build of \$0.2 million due to construction delays, and other smaller projects totaling \$0.3 million.

Waterworks Transmission: Net underspending of \$1.1 million

- \$0.7 million caused by less than anticipated progress for the Rosemary Brook Siphon Building Repairs due to delays in obtaining specialty items for work.
- \$0.4 million for Wachusett Aqueduct Pump Station Construction due to less than anticipated progress due to earlier issues with the guard shack.
- \$0.2 million for Shaft 5A/5 Surface Piping Cathodic Protection due to change in schedule.
- The underspending was partially offset by overspending of \$0.6 million for the Hatchery Pipeline Construction and ESDC/REI due to contractor progress.

Construction Fund Balance

The construction fund balance was at \$62.3 million as of the end of April. Commercial Paper availability was at \$222.0 million to fund construction projects.

Attachment 1–Variance Summary April 2017

Attachment 2 – Current Expense Variance Explanations

Attachment 3 – Capital Improvement Program Variance Explanations

Attachment 4 – FY17 Budget vs. FY17 Projections

ATTACHMENT 1

	April 2017 Year-to-Date					
	Period 10 YTD Budget	Period 10 YTD Actual	Period 10 YTD Variance	%	FY17 Approved	% Expended
EXPENSES						
WAGES AND SALARIES	\$ 81,004,479	\$ 78,405,830	\$ (2,598,649)	-3.2%	\$ 101,588,897	77.2%
OVERTIME	3,483,864	3,964,356	480,492	13.8%	4,192,676	94.6%
FRINGE BENEFITS	16,773,647	16,221,364	(552,283)	-3.3%	20,242,323	80.1%
WORKERS' COMPENSATION	1,953,492	2,103,082	149,590	7.7%	2,344,190	89.7%
CHEMICALS	7,390,272	7,540,076	149,804	2.0%	9,110,407	82.8%
ENERGY AND UTILITIES	17,871,385	16,738,180	(1,133,205)	-6.3%	21,541,077	77.7%
MAINTENANCE	25,112,682	24,366,346	(746,336)	-3.0%	31,080,642	78.4%
TRAINING AND MEETINGS	342,648	284,306	(58,342)	-17.0%	435,481	65.3%
PROFESSIONAL SERVICES	5,166,918	5,118,496	(48,422)	-0.9%	6,531,939	78.4%
OTHER MATERIALS	3,270,878	3,500,770	229,892	7.0%	6,219,630	56.3%
OTHER SERVICES	18,673,021	17,720,428	(952,593)	-5.1%	22,974,855	77.1%
TOTAL DIRECT EXPENSES	\$ 181,043,286	\$ 175,963,234	\$ (5,080,051)	-2.8%	\$ 226,262,117	77.8%
INSURANCE	\$ 1,652,108	\$ 1,457,282	\$ (194,826)	-11.8%	\$ 1,997,898	72.9%
WATERSHED/PILOT	20,087,010	19,924,727	(162,283)	-0.8%	24,291,268	82.0%
BECo PAYMENT	639,922	656,610	16,688	2.6%	773,859	84.8%
MITIGATION	1,288,346	1,275,777	(12,569)	-1.0%	1,558,000	81.9%
ADDITIONS TO RESERVES	(138,710)	(138,710)	-	0.0%	(167,742)	82.7%
RETIREMENT FUND	4,632,624	4,632,624	-	0.0%	4,632,624	100.0%
POST EMPLOYEE BENEFITS	-	-	-	---	4,876,050	0.0%
TOTAL INDIRECT EXPENSES	\$ 28,161,300	\$ 27,808,310	\$ (352,990)	-1.3%	\$ 37,961,957	73.3%
STATE REVOLVING FUND	\$ 69,432,160	\$ 66,718,505	\$ (2,713,655)	-3.9%	\$ 86,971,915	76.7%
SENIOR DEBT	221,032,691	218,371,943	(2,660,748)	-1.2%	268,472,556	81.3%
CORD FUND	-	-	-	---	-	---
DEBT SERVICE ASSISTANCE	-	-	-	---	(873,804)	---
CURRENT REVENUE/CAPITAL	10,088,462	10,088,462	-	0.0%	12,200,000	82.7%
SUBORDINATE MWRA DEBT	56,721,360	56,721,360	-	0.0%	69,997,992	81.0%
LOCAL WATER PIPELINE CP	3,431,104	3,431,104	-	0.0%	4,149,242	82.7%
CAPITAL LEASE	2,660,262	2,660,262	-	0.0%	3,217,060	82.7%
DEBT PREPAYMENT	-	-	-	---	10,994,960	0.0%
VARIABLE DEBT	-	(8,964,611)	(8,964,611)	---	-	0.0%
DEFEASANCE ACCOUNT	-	14,339,015	14,339,015	---	-	0.0%
TOTAL DEBT SERVICE	\$ 363,366,037	\$ 363,366,037	\$ -	0.0%	\$ 455,129,921	79.8%
TOTAL EXPENSES	\$ 572,570,623	\$ 567,137,582	\$ (5,433,041)	-0.9%	\$ 719,353,995	78.8%
REVENUE & INCOME						
RATE REVENUE	\$ 574,611,068	\$ 574,611,068	\$ -	0.0%	\$ 694,878,500	82.7%
OTHER USER CHARGES	7,916,830	7,979,834	63,004	0.8%	8,752,834	91.2%
OTHER REVENUE	5,542,066	11,080,940	5,538,874	99.9%	6,519,171	170.0%
RATE STABILIZATION	-	-	-	---	-	---
INVESTMENT INCOME	7,560,078	7,461,387	(98,691)	-1.3%	9,473,490	78.8%
TOTAL REVENUE & INCOME	\$ 595,630,042	\$ 601,133,228	\$ 5,503,186	0.9%	\$ 719,623,995	83.5%

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY17 Budget YTD April	FY17 Actuals YTD April	FY17 YTD Actual vs. FY17 Budget		Explanations
			\$	%	
Direct Expenses					
Wages & Salaries	81,004,479	78,405,830	(2,598,649)	-3.2%	Underspending is mainly the result of lower average Full Time Equivalent positions (FTEs) than budgeted, the timing of backfilling vacant positions and the salary mix differential between staff retiring and new hires. The average FTEs for the fiscal year was 1,138, which was 12 positions lower than the 1,150 FTEs budgeted.
Overtime	3,483,864	3,964,356	480,492	13.8%	Higher spending at DITP related to the HEEC cable relocation project and wet weather, Metro Maintenance due to off-hour maintenance work and wet weather, Metro Water Ops for coverage, and Water Valve Maint. This is offset by lower spending in Wastewater Operations due to lower than anticipated OT associated with the NMPS work at DITP, offset by higher spending for wet weather.
Fringe Benefits	16,773,647	16,221,364	(552,283)	-3.3%	Lower than budget mainly due to Health Insurance of \$463,000, due to fewer than budgeted participation and the changes between family and individual plans. Unemployment Insurance, Medicare, and Dental insurance also underspent due to fewer than budgeted positions.
Worker's Compensation	1,953,492	2,103,082	149,590	7.7%	Overspending due to higher compensation payments of \$480,000 and management costs of \$23,000. This is offset by lower medical payments of \$354,000. In April actual spending was \$370,000 under budget. Indemnity reserves for two claims decreased \$240,000. It is important to note that spending on this line item can change significantly depending on future claims and severity of cases.
Chemicals	7,390,272	7,540,076	149,804	2.0%	Overspending on Sodium Hypochlorite of \$122,000 (higher than budgeted cost for new contracts); Activated Carbon of \$85,000 at DITP for odor control; Carbon Dioxide of \$37,000; Ferric Chloride of \$36,000; Polymer of \$35,000; Sodium Bisulfite of \$30,000; Other Oxidizers of \$25,000. This is offset by lower spending on Soda Ash of \$88,000; Liquid Oxygen of \$54,000; Hydrofluosilic Acid of \$38,000; and Aqua Ammonia of \$26,000.
Utilities	17,871,385	16,738,180	(1,133,205)	-6.3%	Underspending in Electricity of \$1.4 million primarily at DITP due to lower prices and being off grid during the HEEC cable location work; and Wastewater facilities partially for not using wet scrubbers at NI and lower flows throughout the system. This is offset by higher spending at waterworks facilities attributed to pumping more water to Bedford and higher than anticipated demand charges at the new Spot Pond Pump Station. Diesel Fuel is overspent by \$232,000 primarily related to running the CTGs at DITP during the HEEC cable location work. This is offset by lower spending in Wastewater Operations. Natural Gas is underspent \$74,000 primarily at the Carroll Plant and the Chelsea Facility, offset by overspending at B/W IPS.

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY17 Budget YTD April	FY17 Actuals YTD April	FY17 YTD Actual vs. FY17 Budget		Explanations
			\$	%	
Maintenance	25,112,682	24,366,346	(746,336)	-3.0%	Materials were underspent by \$420,000 and Services were underspent by \$326,000. Nut Island fire remediation efforts have costs \$410,000 in FY17 for both materials and services; primarily in Building & Grounds Services, Pipeline Services and Plant & Machinery Materials. Underspending in HVAC Materials of \$404,000 at Deer Island for timing on the purchase of HVAC material like heat exchanger, chiller & condensing unit, heating coils, etc.; Computer Software/Licenses Upgrade of \$353,000 in MIS for the timing of the MS Office Suite upgrade; Plant & Machinery Materials of \$320,000 at DI offset by overspending in FOD due to timing of a spare rotating assembly at DeLauri, carbon replacement at Hough's Neck, and unbudgeted parts for the South Boston CSO pumps and Clinton; Electrical Services of \$248,000 at Deer Island and FOD Metro Maint for timing of new testing contract; Specialized Equipment Services of \$166,000 in FOD Metro Maint; and Pipeline Materials of \$122,000 in Water Pipeline Maint for the purchase of valves, pipe and fittings. This is offset by overspending in Pipeline Services of \$364,000 primarily for sewer manhole rehabilitation project and timing of paving of in-house work in the roadways; HVAC Services of \$197,000 primarily at the Carroll Plant.
Training & Meetings	342,648	284,306	(58,342)	-17.0%	Underspending primarily in Fleet Services, MIS, and Operations due to timing.
Professional Services	5,166,918	5,118,496	(48,422)	-0.9%	Lower spending on Other Services of \$148,000 primarily in Treasury and HR; Engineering of \$100,000 primarily in Office of Emergency Preparedness for delay in Dam Emergency Action Plan updates; and Lab & Testing Analysis of \$34,000 in EnQual - Wastewater. This is offset by higher spending for Legal Services of \$253,000 in the Law Department.
Other Materials	3,270,878	3,500,770	229,892	7.0%	Higher than budget spending for Vehicle Purchases/ Replacements of \$423,000 due to timing; Lab & Testing of \$85,000 in Operations; Other Materials of \$64,000 primarily for gravel for Clinton landfill; and Health/Safety of \$33,000. This is offset by underspending of \$236,000 in Vehicle Expenses primarily due to lower fuel prices; Computer Hardware in MIS due to timing; Postage of \$42,000 due to timing of replenishing the postage meters; and Computer Software of \$39,000 in Operations - SCADA Maintenance group.
Other Services	18,673,021	17,720,428	(952,593)	-5.1%	Lower than budgeted Sludge Pelletization of \$327,000 due to lower year to date quantities; Space Lease/Rentals of \$222,000 due to lower escrow for Chelsea taxes and insurance, and pass through maintenance cost at CNY; Other Services of \$174,000 primarily for timing of community lead testing assistance; Grit and Screenings of \$170,000 due to lower quantities; and Telephone of \$75,000 in Operations associated with the SCADA data lines.
Total Direct Expenses	181,043,286	175,963,234	(5,080,052)	-2.8%	

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY17 Budget YTD April	FY17 Actuals YTD April	FY17 YTD Actual vs. FY17 Budget		Explanations
			\$	%	
Indirect Expenses					
Insurance	1,652,108	1,457,282	(194,826)	-11.8%	Lower Claims than budgeted of \$196,000 offset by higher premiums of \$2,000.
Watershed/PILOT	20,087,010	19,924,727	(162,283)	-0.8%	Lower Watershed Reimbursement of \$55,000 due to over accrual at the end of FY16 as compared to actual invoiced paid and a lower PILOT payment due of \$107,000.
HEEC Payment	639,922	656,610	16,688	2.6%	
Mitigation	1,288,346	1,275,777	(12,569)	-1.0%	Actual inflation rate was 1.5% vs. 2.5% used for the budget.
Addition to Reserves	(138,710)	(138,710)	-	0.0%	
Pension Expense	4,632,624	4,632,624	-	0.0%	
Post Employee Benefits	-	-	-		
Total Indirect Expenses	28,161,300	27,808,310	(352,990)	-1.3%	
Debt Service					
Debt Service	363,366,037	363,366,037	-	0.0%	Through April staff have transferred \$14.3 million of a favorable YTD variance to the Defeasance Account. The short-term rates related variance is \$9.0 million lower YTD.
Debt Service Assistance	-	-	-		
Total Debt Service Expenses	363,366,037	363,366,037	-	0.0%	
Total Expenses					
Total Expenses	572,570,623	567,137,581	(5,433,042)	-0.9%	
Revenue & Income					
Rate Revenue	574,611,068	574,611,068	-	0.0%	
Other User Charges	7,916,830	7,979,834	63,004	0.8%	
Other Revenue	5,542,066	11,080,940	5,538,874	99.9%	\$4.8 M for sale of water due to the drought; \$299k for settlement of class action lawsuit for derivative agreements; \$259k from sale of surplus equipment; and \$184,000 for energy efficiency incentives from the utility companies
Rate Stabilization	-	-	-		
Investment Income	7,560,078	7,461,387	(98,691)	-1.3%	Investment Income is under budget for unanticipated calls re-invested at lower rates.
Total Revenue	595,630,042	601,133,229	5,503,187	0.9%	
Net Revenue in Excess of Expenses	23,059,419	33,995,648	10,936,229		

ATTACHMENT 3
Capital Improvement Program Variance Explanations
(000's)

	FY17 Budget YTD April	FY17 Actuals YTD April	YTD Actuals vs. Budget		Explanations
			\$	%	
Wastewater					
Interception & Pumping (I&P)	\$17,840	\$14,926	(\$2,914)	-16.3%	<u>Underspending</u> Chelsea Creek Headworks Upgrades Construction and Resident Engineering and Inspection: \$3.2M (NTP shifted 3 months; contract is currently in submittals and Request For Information status) Caruso Pump Station Improvements Construction: \$0.5M (delayed installation of HVAC equipment due to unforeseen roof replacement) Other smaller projects totaling \$0.8M. <u>Offset Overspending</u> Alewife Brook Pump Station Rehab Construction: \$0.9M (project progress) Chelsea Screenhouse Upgrades Construction and ESDC/REI: \$0.7M (work scheduled for FY16 performed in FY17)
Treatment	\$13,136	\$21,112	\$7,976	60.7%	<u>Overspending</u> Primary & Secondary Clarifier Rehab - Construction: \$1.8M (Portion of \$2.65M settlement with contractor. Remainder was retainage payment.) Power System Improvements - Construction: \$1.7M (project progress) NMPS & WTF Butterfly Valve Replacement: \$1.6M (project progress) Clinton Wastewater Treatment Plant Phosphorus Reduction - Construction: \$1.3M (project progress) Electrical Equipment Upgrades Construction 4: \$0.7M (work scheduled and budgeted for FY16 performed in FY17) Digested Sludge Pump Replacement - Phase 2: \$0.7M (project progress) WTF VFD Replacement - Construction: \$0.4M (spending for bonds and insurances) Scum Skimmer Replacement: \$0.3M (payment of punch list items) <u>Offset Underspending</u> Other smaller projects totaling \$0.5M.
Residuals	\$133	\$0	(\$133)	-	

ATTACHMENT 3
Capital Improvement Program Variance Explanations
(000's)

	FY17 Budget YTD April	FY17 Actuals YTD April	YTD Actuals vs. Budget		Explanations
			\$	%	
CSO	\$7,110	\$3,077	(\$4,033)	-56.7%	<u>Underspending</u> Cambridge Sewer Separation: \$3.9M (delay in final restoration work due to Huron Avenue water main replacement by the City of Cambridge that required a six month time extension) Reserved Channel Sewer Separation Design and Construction: \$0.4M (pending reconciliation of final costs; expected in June 2017)
Other Wastewater	\$11,012	\$4,655	(\$6,357)	-57.7%	I/I Local Financial Assistance: \$6.4M (less than anticipated requests for grants and loans). The annual CIP budget is based on prior average annual disbursements. Communities' requests for grants and loans are based on their own individual planned schedule of infiltration and inflow work and can vary greatly beyond the Authority's control.
Total Wastewater	\$49,232	\$43,770	(\$5,462)	-11.1%	
Waterworks					
Drinking Water Quality Improvements	\$2,285	\$898	(\$1,387)	-60.7%	<u>Underspending</u> Spot Pond Covered Storage Facility: \$0.2M (Microwave tower installed. Installation of communication shelter ongoing.) CP7 Existing Facilities: \$0.9M (updated schedule for Marlborough Maintenance Facility and balancing change order for Southborough Lab)
Transmission	\$22,054	\$20,992	(\$1,062)	-4.8%	<u>Underspending</u> Rosemary Brook Siphon Building Repair: \$0.7M (anticipated time extension due to additional restoration work) Wachusett Aqueduct Pump Station: \$0.4M (redesign of work adjacent to City of Marlborough water pipe and progress less than anticipated at the pump station) Shaft 5A/5 Surface Piping Cathodic Protection: \$0.2M (change in schedule) <u>Offset Overspending</u> Hatchery Pipeline Construction and ESDC/REI: \$0.6M (project progress)

ATTACHMENT 3
Capital Improvement Program Variance Explanations
(000's)

	FY17 Budget YTD April	FY17 Actuals YTD April	YTD Actuals vs. Budget		Explanations
			\$	%	
Distribution & Pumping	\$18,845	\$16,452	(\$2,393)	-12.7%	<u>Underspending</u> NIH Section 89/29 Redundancy Phase 1C and Phase 2 Construction: \$4.8M SEH Redundancy Pipeline Section 111 Phase 1 and Phase 2 - Construction: \$1.4M (schedule changes) Weston Aqueduct Supply Mains Section 36/C/S9 - A11 Valve: \$0.4M (anticipated credit change order for less than estimated quantities of rock and contaminated soil, and timing of valve installation work) Chestnut Hill Gatehouse No. 1 Repairs - Construction: \$0.5M (schedule change) <u>Offset Overspending</u> Section 4 Webster Ave Bridge Pipe Rehab - Construction: \$1.2M (additional change order work based on redesign) NIH Section 89/29 Redundancy Phase 1B Construction and Design/ESDC: \$3.7M (project progress)
Other Waterworks	\$9,049	\$6,528	(\$2,521)	-27.9%	<u>Underspending</u> Local Water System Assistance Program: \$1.9M (less than budgeted community requests for loans. The annual CIP budget is based on prior average annual disbursements. Communities' requests for loans are based on their own individual planned pipeline lining and/or replacement work and can vary greatly beyond the Authority's control.) Central Monitoring System: \$0.5M (Waterworks SCADA/PLC Upgrades schedule change and timing of payments for utility fees and permits)
Total Waterworks	\$52,233	\$44,870	(\$7,362)	-14.1%	
Business & Operations Support					
Total Business & Operations Support	\$6,866	\$4,186	(\$2,680)	-39.0%	<u>Underspending</u> MIS Projects: \$1.7M (timing of IT Strategic Plan implementation) As-Needed Design: \$1.1M (less than budgeted use of these contracts) Security Equipment: \$0.4M (change in schedule) <u>Offset Overspending</u> Equipment Purchase: \$0.6M (timing of vehicle purchases)
Total MWRA	\$108,330	\$92,826	(\$15,504)	-14.3%	

ATTACHMENT 4

TOTAL MWRA	FY17 Budget	FY17 Projection	Change FY17 Budget vs FY17 Projection	
			\$	%
EXPENSES				
WAGES AND SALARIES	\$ 101,858,897	\$ 98,876,200	\$ (2,982,697)	-2.9%
OVERTIME	4,192,676	4,693,199	500,523	11.9%
FRINGE BENEFITS	20,242,324	19,588,233	(654,091)	-3.2%
WORKERS' COMPENSATION	2,344,190	2,643,780	299,590	12.8%
CHEMICALS	9,110,407	9,259,739	149,332	1.6%
ENERGY AND UTILITIES	21,541,078	20,652,675	(888,403)	-4.1%
MAINTENANCE	31,080,642	31,737,369	656,727	2.1%
TRAINING AND MEETINGS	435,481	409,086	(26,395)	-6.1%
PROFESSIONAL SERVICES	6,531,939	6,784,941	253,002	3.9%
OTHER MATERIALS	6,219,630	6,204,993	(14,637)	-0.2%
OTHER SERVICES	22,974,855	21,954,208	(1,020,647)	-4.4%
TOTAL DIRECT EXPENSES	\$ 226,532,117	\$ 222,804,423	\$ (3,727,694)	-1.6%
INSURANCE	\$ 1,997,898	\$ 1,803,072	(194,826)	-9.8%
WATERSHED/PILOT	24,291,268	24,000,159	(291,109)	-1.2%
HEEC PAYMENT	773,859	773,859	-	0.0%
MITIGATION	1,558,000	1,542,800	(15,200)	-1.0%
ADDITIONS TO RESERVES	(167,742)	(167,742)	-	0.0%
RETIREMENT FUND	3,132,624	3,132,624	-	0.0%
ADDITIONAL PENSION DEPOSIT	1,500,000	1,500,000	-	0.0%
POSTEMPLOYMENT BENEFITS	4,876,050	4,876,050	-	0.0%
TOTAL INDIRECT EXPENSES	\$ 37,961,957	\$ 37,460,822	\$ (501,135)	-1.3%
STATE REVOLVING FUND	\$ 86,971,915	\$ 82,906,636	(4,065,279)	-4.7%
SENIOR DEBT	268,472,557	263,027,504	(5,445,053)	-2.0%
SUBORDINATE DEBT	69,997,992	69,997,992	-	0.0%
LOCAL WATER PIPELINE CP	4,149,242	1,011,093	(3,138,149)	-75.6%
CURRENT REVENUE/CAPITAL	12,200,000	12,200,000	-	0.0%
CAPITAL LEASE	3,217,060	3,217,060	-	0.0%
DEBT PREPAYMENT	10,994,960	10,994,960	-	0.0%
VARIABLE RATE SAVINGS	-	(9,643,716)	(9,643,716)	-
DEFEASANCE ACCOUNT	-	22,292,195	22,292,195	-
DEBT SERVICE ASSISTANCE	(873,804)	(873,804)	-	0.0%
TOTAL DEBT SERVICE	\$ 455,129,920	\$ 455,129,920	\$ -	0.0%
TOTAL EXPENSES	\$ 719,623,994	\$ 715,395,165	\$ (4,228,829)	-0.6%
REVENUE & INCOME				
RATE REVENUE	\$ 694,878,500	\$ 694,878,500	-	0.0%
OTHER USER CHARGES	8,752,834	8,752,834	-	0.0%
OTHER REVENUE	6,519,171	12,819,171	6,300,000	96.6%
RATE STABILIZATION	-	-	-	-
INVESTMENT INCOME	9,473,490	9,309,490	(164,000)	-1.7%
TOTAL REVENUE & INCOME	\$ 719,623,996	\$ 725,759,995	\$ 6,136,000	0.9%
VARIANCE:			\$ (10,364,830)	\$ (10,364,830)



STAFF SUMMARY

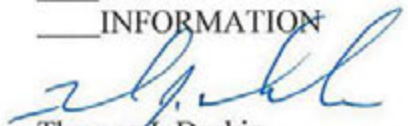
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: May 8, 2017
SUBJECT: Bond Defeasance of Future Debt Service



COMMITTEE: Administration, Finance & Audit

VOTE
 INFORMATION

Matthew R. Horan, Treasurer 
Sean R. Cordy, Sr. Financial Analyst 
Preparer/Title


Thomas J. Durkin
Director of Finance

Consistent with MWRA's multi-year rates management strategy, MWRA staff are recommending the execution of an approximately \$36.3 million defeasance in June 2017 to reduce future year rate increases. The \$36.3 million in available funds is derived from the use of \$247,658 million surplus funds from FY16, \$25.0 million of the FY17 surplus and the \$11.0 million Debt Prepayment included in the FY17 CEB. These funds will be used to prepay debt service coming due in FY18 through FY22. The defeasance of debt, coupled with diligent management of operational expenses, have been the keys to MWRA's ability to keep assessment increases sustainable and predictable.

RECOMMENDATION:

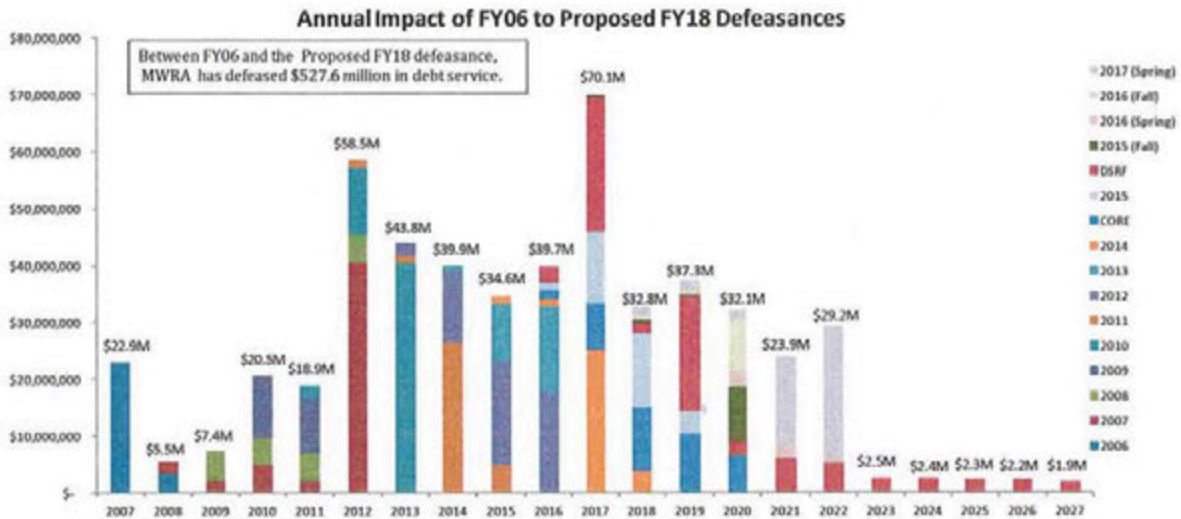
To authorize the Executive Director or his designee, on behalf of the Authority, to enter into, execute and deliver all necessary agreements and other instruments and to take such other actions necessary to effectuate the redemption and defeasance of an aggregate principal amount of approximately \$36,250,000 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 approximately \$44.8 million in the FY18 through FY22 timeframe.

DISCUSSION:

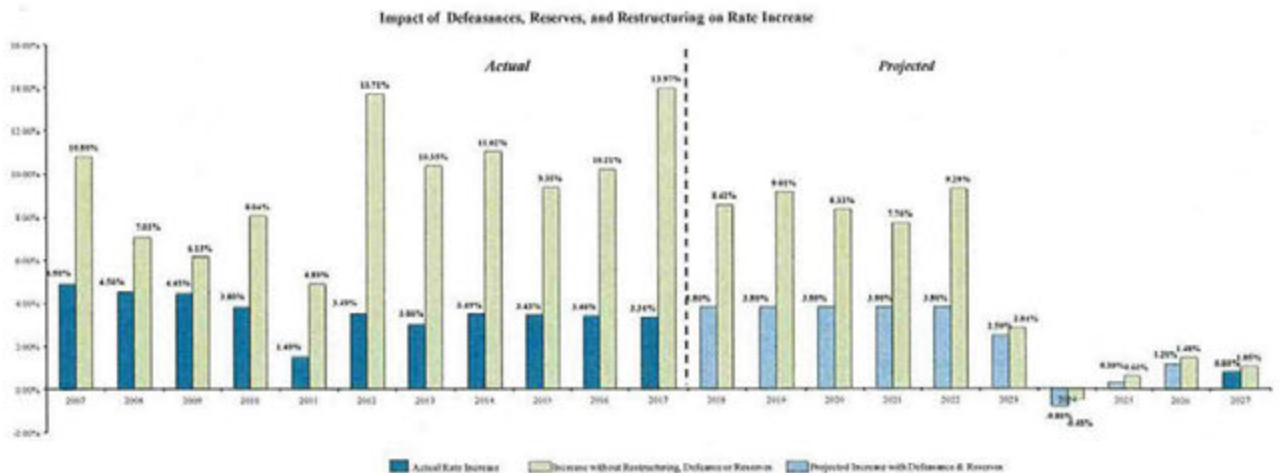
Since FY12, the MWRA has utilized the budgetary defeasance account strategy to set aside surplus funds associated with the capital finance budget to defease outstanding debt. After the final close out of the FY16 budget, there were \$247,658 in surplus funds remaining (beyond the \$9.1 million used for the September 2016 defeasance), which were allocated to the defeasance account to be utilized as part of the FY17 defeasance. In order to mitigate rate increases, staff reflected the impact of a \$31.3 million defeasance in the Proposed FY18 CEB comprised of the FY16 and FY17 surpluses as well as the FY17 CEB Debt Prepayment. Now, based on current year-end projections, staff are requesting approval to use the projected additional surplus funds

to increase the size of the defeasance to approximately \$36.3 million, consisting of \$247,658 from FY16 and \$25.0 million from FY17, and the \$11.0 million of Debt Prepayment for even greater debt service reductions in future years.

MWRA's ongoing use of defeasances has had a significant impact lowering future debt service payments and controlling annual rate revenue increases. Including the proposed FY16 defeasance, MWRA has defeased \$527.6 million in debt service since 2006. The chart below shows the annual impact of those defeasances.



The application of these defeasances have had a significant impact on the estimated rate increases. The chart below shows the estimated rate increase without the application of the defeasances.



Staff reviewed all available defeasance candidates, and have identified the 2021 and 2022 maturities of the 2005 Series A bonds as the most advantageous defeasance candidates. The proposed defeasance reduces debt service by a total of \$44.8 million between FY18 and FY22.

Series	Maturity Date	Principal	Defeasance Cost *	Budget Reduction by Fiscal Year				
				2018	2019	2020	2021	2022
2005A	8/1/2021	\$ 14,000,000	\$ 14,000,000	\$ 735,000	\$ 735,000	\$ 735,000	\$ 14,735,000	\$ -
2005A	8/1/2022	\$ 22,250,000	\$ 22,250,000	\$ 1,112,500	\$ 1,112,500	\$ 1,112,500	\$ 1,112,500	\$ 23,362,500
	Total	\$ 36,250,000	\$ 36,250,000	\$ 1,847,500	\$ 1,847,500	\$ 1,847,500	\$ 15,847,500	\$ 23,362,500

*Escrow cost is only anticipated funds from surplus and does not include current year deposits. Assumes no interest earned on escrow.

The total debt service reduction attributable to the defeasance is approximately \$8.5 million higher than the defeasance cost because the 2005 Series A bonds are currently callable on August 1, 2017. The payment of these bonds on the call date will yield interest savings, as a result of paying off the bonds prior to maturity without interest accruing. Increasing the defeasance by \$5.0 million will provide an additional \$272,500 in savings in FY18-FY20, \$4.3 million in FY21, and \$1.3 million in FY22.

Staff anticipate using funds to purchase governmental securities in an amount sufficient to make the remaining interest and principal payments on the bonds to be defeased, offset by the interest earned on the Treasury securities. In order to provide the CEB savings in FY18, the defeasance must be completed prior to June 30, 2017.

The governmental securities purchased are deposited with an escrow agent (bond trustee). Once established, an escrow is irrevocable, replacing any future debt service payments due for the bonds being escrowed, and therefore reducing the rate revenue requirement. Establishing an escrow reduces debt service requirements for each fiscal year from the time it is executed until the defeased bonds mature or are called.

Establishing an escrow to defease debt requires that MWRA's bond counsel draft an agreement to this effect and an independent verification agent must certify that the funds in the escrow are sufficient to pay the remaining debt service. Bonds that are escrowed to maturity are not included in MWRA's debt cap or debt service coverage calculations. Staff will continue to monitor market conditions and the maturities available to be defeased to ensure that the bonds selected provide MWRA with the highest available debt service savings.

If the FY17 surplus is less than the amount necessary to complete the defeasance, staff are requesting authorization to use Bond Redemption as supplemental funding for the escrow. If the FY17 surplus is greater than the \$25.0 million needed for the proposed defeasance, staff will present options to the Board for its utilization after the close of the fiscal year.

BUDGET/FISCAL IMPACT:

The defeasance of these bonds will decrease the FY18 through FY22 debt service requirement by \$44.8 million. The cost associated with bond counsel and financial advisory services will be paid out of the Treasury Department's professional services budget.



MASSACHUSETTS WATER RESOURCES AUTHORITY

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

Frederick A. Laskey
Executive Director

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TTY: (617) 788-4971

WASTEWATER POLICY & OVERSIGHT COMMITTEE MEETING

Chair: P. Flanagan
Vice-Chair: J. Walsh
Committee Members:
A. Blackmon
J. Carroll
J. Foti
A. Pappastergion
B. Peña
H. Vitale

to be held on

Monday, May 8, 2017

Location: 100 First Avenue, 2nd Floor
Charlestown Navy Yard
Boston, MA 02129

Time: Immediately following AF&A Comm.

AGENDA

A. Information

1. Progress of Cambridge-Implemented CSO Projects and Projected Financial Assistance through September 2017

B. Approvals

1. Financial Assistance Agreement with BWSC for Dorchester Interceptor Inflow Removal

C. Contract Awards

1. Electrical Testing and Technical Services – Metropolitan Boston: Infra-Red Building and Power Service Co., Inc., Contract OP-345

D. Contract Amendments/Change Orders

1. Valve and Piping Replacements, Various Facilities – Deer Island Treatment Plant: Carlin Contracting Co., Inc., Contract 7275, Change Order 6
2. Caruso Pump Station Improvement: Waterline Industries Corp., Contract 7362, Change Order 6

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Wastewater Policy and Oversight Committee

April 12, 2017

A meeting of the Wastewater Policy and Oversight Committee was held on April 12, 2017 at the Authority headquarters in Charlestown. Member Pappastergion presided. Present from the Board were Ms. Wolowicz and Messrs. Blackmon, Carroll, and Vitale. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Dave Duest, Ethan Wenger, Nava Navanandan, Meredith Norton, Pat Smith, Dave Pottle, and Bonnie Hale. The meeting was called to order at 11:05 a.m.

Approvals

***Approval of One New Member of the Wastewater Advisory Committee**

The Committee recommended approval of the addition of Dr. Karen Heinze to the Wastewater Advisory Committee (ref. agenda item A.1).

Contract Awards

***Grit and Screenings Hauling and Disposal: W.L. French, Contract S564**

The Committee recommended approval of the contract award (ref. agenda item B.1).

***Technical Assistance Consulting Services - Surveying: Bryant Associates, Inc., Contract 602TA**

The Committee recommended approval of the contract award (ref. agenda item B.2).

***Reading Extension Sewer and Metropolitan Sewer Rehabilitation (Sections 73/74/75/46): Green Mountain Pipeline Services, Inc., Contract 7164**

Staff gave a presentation on the project, and there was general discussion and question and answer. The Committee recommended approval of the contract award (ref. agenda item B.3).

* Approved as recommended at April 12, 2017 Board of Directors meeting.

*Sole-Source Extended Warranty, Service and Maintenance Agreement for the Process Information and Control System (PICS) - Deer Island Treatment Plant: ABB Automation, Inc.

Staff described the complex PICS system and the details of the agreement. The Committee recommended approval of the sole source contract award (ref. agenda item B.4).

Contract Amendments/Change Orders

*Alewife Brook Pump Station Rehabilitation: Stantec Consulting Services, Inc., Contract 7034, Amendment 3

Staff gave a presentation on the project and the additional work to be performed. The Committee recommended approval of Amendment 3 (ref. agenda item C.1).

The meeting adjourned at 11:30 a.m.

* Approved as recommended at April 12, 2017 Board of Directors meeting.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 8, 2017
SUBJECT: Progress of Cambridge-Implemented CSO Projects and Projected Financial Assistance through September 2017

COMMITTEE: Wastewater Policy & Oversight

Anandan Navanandan, P.E., Chief Engineer
David A. Kubiak, P.E., Sr. Program Manager
Preparer/Title

INFORMATION
VOTE


Michael J. Hornbrook
Chief Operating Officer

While Cambridge completed all of the federal court mandated CSO control work by December 2015, in compliance with Schedule Seven, it will continue to perform eligible road, sidewalk and other surface restoration work in the CAM004 project area as well as project close-out procedures, through June 2018.

RECOMMENDATION:

For information only. This staff summary presents the status of the projects in the Long-Term CSO Control Plan that are funded in part by MWRA and implemented by the City of Cambridge. Staff plan to transfer \$4,496,366 into the City of Cambridge CSO account to cover MWRA's cost share of eligible work scheduled by Cambridge in the period April 2017 through September 2017, bringing the total amount of MWRA funds transferred into the Cambridge CSO account to \$98,791,052, of the total award amount of \$100,178,755.

DISCUSSION:

Pursuant to the terms of the CSO Memorandum of Understanding and Financial Assistance Agreement ("MOU" and "FAA"), Cambridge is responsible for implementing four of the six projects that comprise the MWRA's long-term control plan for Alewife Brook, as well as a project Cambridge completed in 2007 that eliminated CSO discharges or provided floatables control for remaining discharges at the City's CSO outfalls along the Charles River. The MOU and FAA were originally executed in 1996, and the total award amount in the agreements through Amendment 13, executed on January 26, 2017, is \$100,178,755. Table 1, on the following page, has descriptions and completion dates for the court-ordered work of each of the Alewife CSO projects implemented by Cambridge or MWRA.

CAM004 Sewer Separation Progress

Of the four Alewife Brook CSO projects implemented by Cambridge, the CAM004 Sewer Separation project is the only project with remaining eligible work and funding. While

Cambridge completed all of the federal court mandated CSO control work by December 2015, in compliance with Schedule Seven, it continues to perform road, sidewalk and other surface restoration work in the CAM004 project area, including Huron and Concord Avenues and intersecting streets. Work performed in the last six months in the Cambridge Contract 8B and Contract 9 areas included street restorations and final paving (including porous pavement), curb and sidewalk installations and replacement of traffic signals.

Table 1: Alewife Brook CSO Control Plan Projects and Status

Project	Cambridge Contract	Benefit	Status of Court-Ordered Work
CAM004 Stormwater Outfall and Wetland Basin	12	Convey stormwater flows to wetland system for attenuation and treatment.	Completed Apr 2013
CAM004 Sewer Separation	8A, 8B, 9 & Concord Lane	Remove large quantities of stormwater from the sewer system; Close Outfall CAM004.	Completed Dec 2015
CAM400 Manhole Separation	4/13	Remove stormwater from the sewer system; eliminate CSO at Outfall CAM400.	Completed Mar 2011
Interceptor Connection Relief and Floatables Control at CAM002 and CAM401B and Floatables Control at CAM001		Upgrade connections between Cambridge and MWRA systems to provide relief; add floatables control.	Completed Oct 2010
MWR003 Control Gate and Rindge Ave. Siphon Relief	MWRA Contracts	Optimize hydraulic conveyance; minimize overflows while controlling system flooding in large storms.	Completed Oct 2015
Interconnection Relief and Floatables Control at Outfall SOM01A		Upgrade connection and provide floatables control	Completed Dec 2013

MWRA Oversight and Financial Assistance

The FAA establishes eligible and ineligible costs. Generally, all reasonable force account and contract costs incurred by Cambridge as a direct result of implementing the CSO projects are funded by MWRA. The FAA calls for MWRA to disburse grant funds to Cambridge semiannually, based on a detailed, documented estimate of work progress and eligible costs for each projected six-month period. MWRA's review and acceptance of the spending estimate is required prior to disbursement of funds to the Cambridge CSO account.

Staff continue to review the scope and costs of engineering and construction contracts that are issued by Cambridge, including amendments and change orders. Staff also maintain regular contact with Cambridge staff, hold monthly coordination meetings, and routinely review the progress of the Cambridge projects and expenditures. Cambridge submits semi-annual reports that describe actual work progress and expenditures (force account and contract-related) for each project.

MWRA's Internal Audit Department reviews Cambridge's compliance with the terms and conditions of the FAA. The latest audit, completed in April 2017, reviewed whether force

account costs claimed by the City for years 2012 through 2015 were supported by the records of the City and were eligible for MWRA funding under the terms of the FAA.

Funding and Eligible Expenditures through March 2017

Cambridge pays the eligible costs of the project from a general city account and periodically reimburses its general account from the CSO account into which MWRA transfers funds. Since execution of the MOU and FAA in 1996, MWRA has transferred a total of \$94,294,686 to Cambridge's CSO account to cover eligible design and construction costs through March 2017. In addition, the FAA allows Cambridge to use accumulated interest in the account to fund eligible costs.

The estimated eligible cost incurred by Cambridge from MOU/FAA inception through March 2017 is \$96,048,348. Cambridge's eligible work and cost in the period October 2016 through March 2017 exceeded its projection and the MWRA transfer amount for that period. The estimated available balance in the Cambridge CSO account as of the end of March 2017 is (\$1,620,509), which is net \$133,153 interest earned through March 2017.

Staff are closely monitoring Cambridge's spending and regularly coordinating the review with Cambridge staff to ensure that spending (and the work) remain on schedule. That schedule calls for all work to be complete by December 2017. The MOU and FAA terms end on June 30, 2018.

MWRA Funding through September 2017

Cambridge recently submitted a projected work progress report and estimate of eligible contract and force account spending for the period April 2017 through September 2017. Over this period, Cambridge will continue with construction and construction supervision services for contracts 8B, 9 and Concord Lane.

Remaining work to be performed under Contracts 8B, 9 and Concord Lane includes curbing and sidewalks, raising of castings, and final paving (including porous pavement), installation of bio-basins, landscaping and plantings, miscellaneous repairs, and punchlist items.

Staff plan to transfer \$4,496,366 into the Cambridge CSO account to cover eligible costs through September 2017. This transfer amount includes Cambridge's estimate of \$2,875,857 for eligible work in the period April 2017 through September 2017, and it also covers the estimated negative balance in the account as of March 31 of \$1,620,509.

BUDGET/FISCAL IMPACT:

The FY17 CIP includes \$98,239,026 for design and construction of the Cambridge CSO projects. Amendment 13, executed on January 24, 2017 increased the total award amount of the MOU and FAA with the City of Cambridge to \$100,178,755. The increased award amount will be included in the Final FY18 CIP.

MBE/WBE PARTICIPATION:

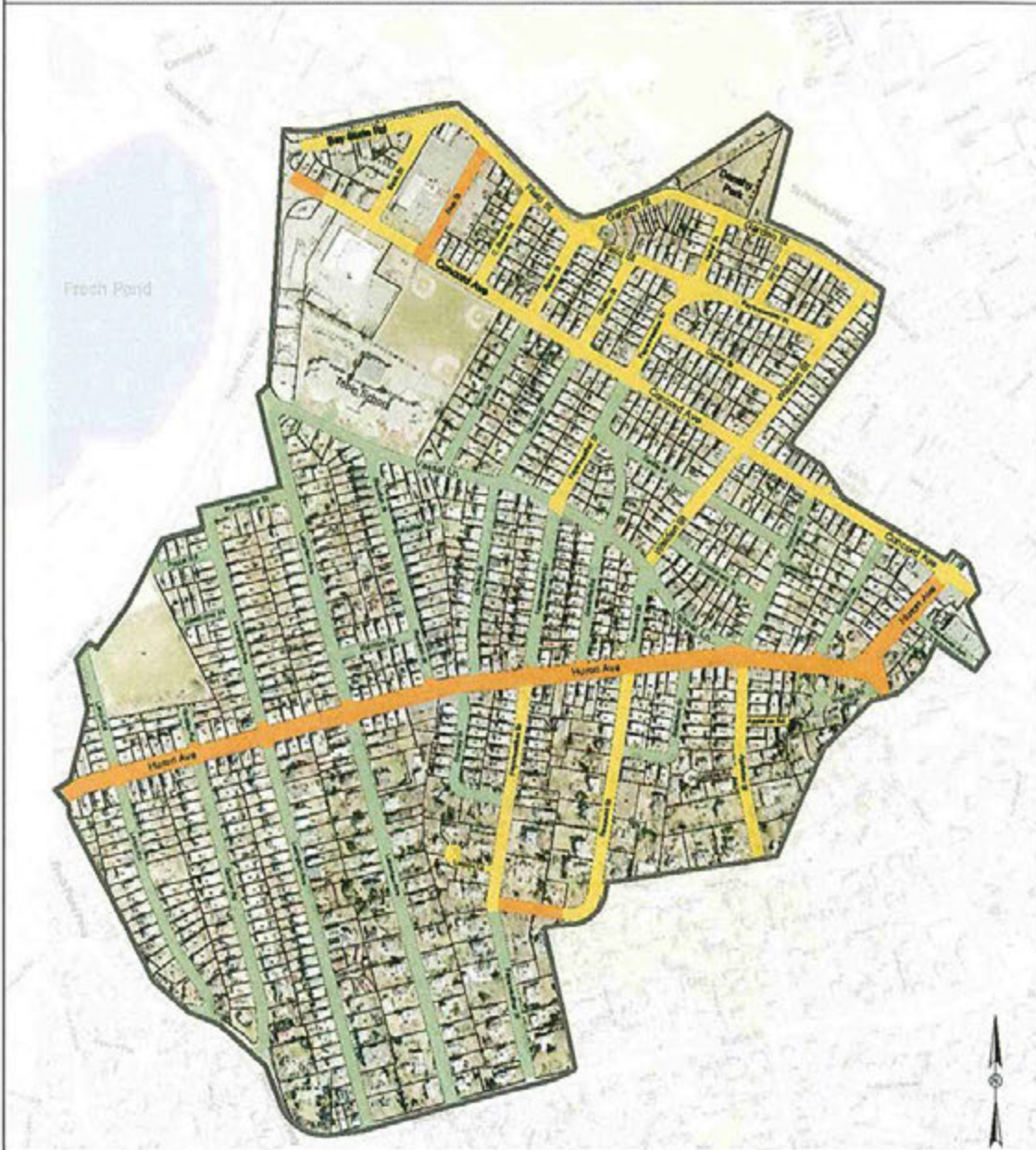
In accordance with the MOU, MBE and WBE participation in the Cambridge Sewer Separation and Floatable Controls projects will comply with DEP requirements and City of Cambridge policy.

ATTACHMENTS:

Attachment 1 – Map of completed and remaining CAM004 Sewer Separation surface restoration work as of March 16, 2017

Attachment 1

CAM 004 SEWER SEPARATION, STORMWATER MANAGEMENT AND SURFACE IMPROVEMENTS PROJECT




PROJECT STATUS
MARCH 2017

UPDATED: 3/16/2017

Legend

- WORK SUBSTANTIALLY COMPLETE
- FINAL PAVING TO BE COMPLETED
- SUBSTANTIAL ROADWAY AND SIDEWALK REMAINING
- CAM 004 PROJECT AREA

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 8, 2017
SUBJECT: Financial Assistance Agreement with BWSC for Dorchester Interceptor Inflow Removal

COMMITTEE: Wastewater Policy & Oversight

Anandan Navanandan, P.E., Chief Engineer
David A. Kubiak, P.E., Sr. Program Manager
Preparer/Title

INFORMATION

VOTE


Michael J. Hornbrook
Chief Operating Officer

In 1996, MWRA and BWSC entered into a Memorandum of Understanding and financial assistance agreement ("MOU/FAA") by which BWSC assumed responsibility for implementing nine of the 35 projects in MWRA's Long-Term CSO Control Plan. Included in the scope of the MOU/FAA and the authorized award amount was additional work to provide hydraulic relief of the BWSC owned Dorchester Interceptor in large storms following completion of the South Dorchester Bay Sewer Separation project and the permanent closing of related CSOs. With all court-mandated project work complete and the term of the MOU/FAA set to end on June 30, 2017, and because BWSC work to remove inflow and relieve its interceptor will take an additional four years to complete, staff recommend moving the remaining approved CSO Dorchester Interceptor relief funds, \$3,763,054, from the MOU/FAA to a separate, four-year agreement with BWSC, and closing out the existing MOU/FAA in June. BWSC concurs with this approach.

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to execute the *Financial Assistance Agreement between Massachusetts Water Resources Authority and Boston Water and Sewer Commission for Dorchester Interceptor Inflow Removal*, by which BWSC agrees to remove additional stormwater inflow from its Dorchester Interceptor system following the completion of the South Dorchester Bay Sewer Separation project and closing of related CSO outfalls in MWRA's Long-Term CSO Control Plan, and MWRA agrees to provide funding for eligible inflow removal costs at a total amount not to exceed \$3,763,054 and a term of 48 months from July 1, 2017 through June 30, 2021, substantially in the form as attached.

DISCUSSION:

In 1996, MWRA and Boston Water and Sewer Commission (BWSC) executed a Memorandum of Understanding (MOU) and Financial Assistance Agreement (FAA) for the implementation of combined sewer overflow (CSO) control projects, by which and as amended BWSC assumed

responsibility for implementing nine of the 35 projects in MWRA's Long-Term CSO Control Plan. BWSC attained substantial completion and beneficial use of all of these projects by December 2015 in compliance with the Federal District Court Order. The total award amount in the agreements through Amendment 16, executed on January 18, 2017, is \$296,305,787. To date, MWRA has transferred \$290,306,641 into the BWSC CSO account to cover eligible design and construction related costs, and BWSC's estimated total cost to complete the scope of work included in the MOU/FAA is approximately \$293.8 million.

The award amount of \$296,305,787 in the MOU/FAA includes \$5,368,973 for the removal of additional stormwater inflow or other actions that can provide adequate hydraulic relief to BWSC's Dorchester Interceptor and control flooding in large storms. The need for this relief work and the estimated cost noted above were recommended by BWSC and authorized by MWRA during preliminary design of the South Dorchester Bay Sewer Separation project nearly two decades ago. The MOU/FAA award amount and MWRA's Capital Improvement Program (CIP) budgets have included the estimated cost for this work ever since.

The need for additional hydraulic relief follows the permanent closing of the CSO outfalls associated with MWRA's former Fox Point and Commercial Point CSO treatment facilities that had provided hydraulic relief of the Dorchester Interceptor in large storms. During preliminary design, BWSC and MWRA recognized that stormwater removal with the sewer separation project, which BWSC completed in 2007, would not provide sufficient hydraulic relief.

To date, BWSC has spent, and MWRA has funded, \$1,605,919 in eligible cost for the Dorchester Interceptor relief work, including field investigations of remaining inflow sources, hydraulic evaluations of system performance for various relief alternatives, and a construction contract that removed initially identified inflow sources. BWSC plans to use the remaining \$3,763,054 of the award amount to remove additional inflow sources. BWSC is currently performing flow metering and will soon commence a Sewer System Evaluation Survey (SSES), neither of which is eligible for funding under the MOU and FAA. BWSC will use the results of these efforts to further identify priority inflow sources for removal in Dorchester.

MWRA Funding and Oversight

The proposed Dorchester Interceptor Inflow Removal Agreement (the "Agreement") will provide the oversight and funding mechanisms by which MWRA will make funds available to BWSC to pay eligible construction costs associated with removal of inflow sources in Dorchester, and meet specified performance objectives for long-term hydraulic conditions in the Dorchester Interceptor. The proposed Agreement includes a total award amount of \$3,763,054 and a term of 48 months, from July 1, 2017 through June 30, 2021.

The proposed Agreement includes the following provisions:

- MWRA shall reimburse BWSC for eligible expenses incurred during implementation of the inflow removal measures recommended by BWSC and authorized by MWRA.
- BWSC shall submit quarterly reports to MWRA documenting the progress of the inflow removal work, tasks initiated and completed, and related costs for which reimbursement is

requested. Reimbursement will be made only for the actual cost of improvements and only after verification of the work.

- MWRA may inspect/monitor the progress of the BWSC work to verify it is proceeding in a manner which will substantially produce the quantitative inflow reduction results estimated to be achieved.
- BWSC shall provide MWRA with documentation of completed projects, including as-built plans and photographs.

Staff will continue to work cooperatively with BWSC and hold regular coordination meetings to review the progress of the BWSC work and expenditures.

BUDGET/FISCAL IMPACT:

The FY17 CIP Budget includes \$5,368,973 for additional inflow removal as part of the South Dorchester Bay Sewer Separation (Commercial Point) project.

MBE/WBE PARTICIPATION:

For the BWSC-implemented projects funded by MWRA, MBE/WBE participation requirements are included in compliance with DEP requirements and in accordance with BWSC policy.

ATTACHMENTS:

Attachment 1 – Proposed Dorchester Interceptor Inflow Removal Agreement

FINANCIAL ASSISTANCE AGREEMENT
BY AND BETWEEN
MASSACHUSETTS WATER RESOURCES AUTHORITY
AND
BOSTON WATER AND SEWER COMMISSION
FOR
DORCHESTER INTERCEPTOR INFLOW REMOVAL

This Financial Assistance Agreement ("Agreement") is made by and between Massachusetts Water Resources Authority, a body politic and corporate and public instrumentality, existing under Chapter 372 of the Acts of 1984, with its principal place of business at 100 First Avenue, Charlestown, MA 02129 ("MWRA"), and Boston Water and Sewer Commission, a body politic and corporate and public instrumentality established pursuant to Chapter 436 of the Acts of 1977, with its principal place of business at 980 Harrison Avenue, Boston, MA 02119 ("BWSC" or "Awardee"), (collectively, the "Parties");

WHEREAS, the purpose of this Agreement is to ensure the timely completion of the inflow removal projects that provide hydraulic relief to the Dorchester Interceptor, as identified by BWSC and approved by MWRA;

WHEREAS, in 1996, MWRA and BWSC executed a Memorandum of Understanding (MOU) and Financial Assistance Agreement (FAA) for the implementation of combined sewer overflow (CSO) control projects, by which and as amended BWSC assumed responsibility for implementing nine of the 35 projects in MWRA's Long-Term CSO Control Plan. BWSC attained substantial completion and beneficial use of all of these projects by December 2015 in compliance with the Federal District Court Order;

WHEREAS, the MOU/FAA included funding for the removal of additional stormwater inflow or other actions that can provide adequate hydraulic relief to BWSC's Dorchester Interceptor and control flooding in large storms. The need for this relief work and the estimated cost were recommended by BWSC and authorized by MWRA during preliminary design of the South Dorchester Bay Sewer Separation project in 1998. The MOU/FAA award amount and MWRA's Capital Improvement Program (CIP) budgets have included the estimated cost for this work ever since. The need for additional hydraulic relief follows the permanent closing of the CSO outfalls associated with MWRA's former Fox Point and Commercial Point CSO treatment facilities that had provided hydraulic relief of the Dorchester Interceptor in large storms. During preliminary design, BWSC and MWRA recognized that stormwater removal with the sewer separation project, which BWSC completed in 2007, would not provide sufficient hydraulic relief;

WHEREAS, BWSC is currently performing flow metering and will soon commence a Sewer System Evaluation Survey (SSES). BWSC will use the results of these efforts to further identify priority inflow sources for removal in Dorchester for the aforementioned purpose and goals;

WHEREAS, the Awardee agrees to remove additional stormwater inflow from its Dorchester Interceptor system following its completion in 2007 of the South Dorchester Bay Sewer Separation project and closing of related CSO outfalls in MWRA's Long-Term CSO Control Plan;

WHEREAS, the MWRA is willing to provide the Awardee financial assistance to reduce additional stormwater inflow to the Dorchester Interceptor to meet MWRA's CSO control objectives, including the long-term hydraulic performance of the sewer system where CSO outfalls have been closed;

NOW THEREFORE, in consideration of the foregoing and the promises contained herein, the Parties agree that MWRA will provide and Awardee will accept financial assistance under the following terms and conditions:

I. FINANCIAL ASSISTANCE

A. MWRA shall provide financial assistance ("Award") to Awardee in the form of reimbursement for eligible expenses incurred during implementation of inflow removal measures recommended by Awardee and approved by MWRA and in accordance with this agreement. The total amount of the Award ("Total Award Amount") over the term of this Agreement is a not-to-exceed amount of three million, seven hundred sixty three thousand, and fifty-four dollars (\$3,763,054). Revision of the Total Award Amount requires MWRA Board of Directors approval and amendment of this Agreement. The actual amount of the Award at the termination of this Agreement shall be the summation of all eligible costs incurred by Awardee to complete its inflow removal projects up to the Total Award Amount. The dollars estimated for the Total Award Amount shall not be construed as an obligation on MWRA's part either to fund or reimburse, in whole or in part, the Total Award Amount.

B. It is expressly understood that Awardee is solely responsible for the complete and timely performance of the Scope of Services to the extent that the work and schedule are reasonably within its control.

II. ELIGIBILITY

A. Financial assistance provided by MWRA pursuant to this Agreement shall be for the purposes of funding the actual, reasonable, eligible costs associated with construction of the inflow removal projects that will be implemented by Awardee, up to the Total Award Amount and as defined in the Agreement. Eligible project costs shall include those related expenses incurred by Awardee in the implementation of the projects in accordance with the Scope of Services.

B. Costs which are eligible under this Agreement include, but are not limited to:

1. General

- a. All reasonable costs necessary to construct the inflow removal projects in accordance with and to the limits of the project descriptions in the Scope of Services in this Agreement.
 - b. Costs to obtain permits, including street opening permits, and regulatory approvals required to construct the projects.
 - c. Fees payable by Awardee under local by-law or ordinance as a direct result of the project, including payments to the City of Boston for the occupation of metered parking spaces during construction.
 - d. Project costs that are associated with the mitigation of construction impacts are eligible only if the mitigation measures are consistent with the "Statement of Mitigation Principles," adopted by the MWRA Board of Directors on October 26, 1988, and the "Guidelines for Engineering and Construction Practices," adopted by the MWRA Board of Directors on March 9, 1994 and the MWRA Advisory Board on May 19, 1994 and revised December 17, 1997, copies of both included in Attachment 1.
 - e. Other reasonable costs that arise and are approved in writing by MWRA as eligible costs.
2. Construction
- a. Police details that are directly related to the eligible construction activities.
 - b. Relocation and/or replacement by the Awardee of publicly owned utilities and other surface or subsurface structures that are in direct conflict with proposed structures only to the extent necessary to avoid the structure. Utilities perpendicular to the trenchwork will be supported in place or, if required, replaced to the nearest joint beyond each side of the trench or to 4 feet beyond the trench, whichever is less.
 - c. Pavement - permanent trench patch or reduced depth trench patch with curb to curb overlay; restoration of sidewalks disturbed by project construction.
- C. Costs which are ineligible under this Agreement include, but are not limited to:
1. General
 - a. Costs incurred outside the scope of the projects.
 - b. Costs in excess of the Total Award Amount established in Article I A.
 - c. Project-related costs incurred later than one year following the completion of construction of the respective project.

- d. Ordinary operating expenses of Awardee.
 - e. Costs for which funding has been or will be received under any other MWRA, state or federal funding assistance program.
 - f. Costs for development or printing of operation and maintenance manuals.
 - g. Costs for development of or revisions to sewer use ordinance, sewer use rules and regulations, or sewer user charge systems.
 - h. Costs for purchase, rental, installation or operation of equipment for permanent or temporary monitoring of flow in sewer or storm drain systems.
 - i. Costs for purchase of sewer cleaning and/or internal TV inspection equipment.
 - j. Bonus payments to contractors for completing construction earlier than contracted completion date.
 - k. Personal injury compensation, claims related to wrongful deaths, or property damage arising out of the project, however determined.
 - l. Costs of services, equipment or materials procured in violation of state or federal law.
 - m. Fines and penalties.
 - n. Any cost not listed as an eligible cost and not pre-approved in writing by MWRA.
 - o. Costs incurred through errors, omissions or negligence on the part of Awardee, its consultants and/or contractors.
2. Design
- a. Services and purchases, under force account or contract, for preparation of design plans, specifications, cost estimates and other construction bid documents.
 - b. Services to supervise or manage project construction activities.
 - c. Field inspections, internal system inspections including internal television inspections, sewer system cleaning and temporary flow metering.
 - d. Subsurface investigations, including test pits, borings and soils and groundwater testing.
 - e. Surveying services.

f. Police details directly related to any of the work listed above.

3. Construction

- a. Construction costs incurred by a third party unless pre-approved by MWRA.
- b. Rehabilitation, relocation and/or replacement of publicly owned utilities or other subsurface structures not in direct conflict with the project.
- c. Rehabilitation, relocation and/or replacement of privately owned utilities or other subsurface structures within a public right-of-way.
- d. Replacement of curbing, sidewalks, trees, streetlights, traffic signs, signalization and other surface features not in direct conflict with the project.
- e. Implementation of mitigation plans that do not conform to the MWRA mitigation policy (see Article II(B)(1)(d)), unless required through or by federal or state regulatory review and approved by MWRA.

D. Financial assistance will not be provided for the costs of owning, operating and maintaining facilities owned by Awardee, including those facilities to be constructed or modified under the inflow removal project. It is expressly understood that such costs shall be borne entirely by Awardee.

III. EXPENDITURE VERIFICATION AND REIMBURSEMENT

A. Throughout the completion of the Scope of Services, Awardee shall submit to MWRA a quarterly progress report on or about the fifteenth day of the month following the close of the previous quarter. The report shall be in a form established and/or approved by MWRA and shall include the progress of each project, Project tasks initiated and completed that quarter, and quarterly costs for which reimbursement is requested.

B. The Awardee shall append to each quarterly progress report all documentation necessary to justify the eligible project costs for which reimbursement is sought, including, but not limited to contractor invoices; awardee equipment, materials and other costs; and ancillary expenses.

C. MWRA reserves the right to defer reimbursement for any materials purchased under this program until such time as said materials have been deemed to be satisfactorily installed or otherwise incorporated into the work as designed.

IV. SCOPE OF SERVICES

A. Projects to be implemented by Awardee

Awardee shall provide MWRA with a description of all construction projects to be undertaken as part of this Agreement. The description shall include anticipated activities and costs as well as an estimate of inflow removal. All inflow removal projects will be approved by MWRA prior to implementation.

B. General Requirements

1. The following activities are considered to be part of the scope of each project, as applicable:
 - a. Oils and hazardous material (OHM) contamination in soil and groundwater may be encountered during construction of the inflow removal projects. Assessment of OHM contamination prior to construction shall be conducted by Awardee in conformance with the MWRA White Paper, *Property Acquisition: MWRA Site Assessment for Identifying Hazardous Material*. A copy of the White Paper is included in Attachment 2.
 - b. Provisions for handling OHM during construction will be incorporated into the plans and specifications addressing procedures for identifying OHM and conducting URAMs (Utility-related Abatement Measures), guidelines for stoppage of work to control costs and/or prevent exacerbating existing conditions, and notification of URAM activities.
 - c. Relocation of utilities and other subsurface structures that conflict with the alignment of the proposed facilities. Relocation of existing structures should be avoided where possible by evaluating appropriate alternatives.
 - d. Acquisition of construction permits, including regulatory approvals.
 - e. Work necessary to comply with federal, state and local law and permit conditions, including full compliance with Americans with Disabilities Act.
 - f. Acquisition of necessary police details during construction.
 - g. Acquisition of sewer connection permits, including MWRA connection permits, for new connections to public sewer systems
 - h. Reconstruction and/or replacement of surface features disturbed by the construction activities.
2. The scope does not include:

- a. Improvements outside the area tributary to the former BOS088, BOS089 and BOS090 outfalls.
- b. Cleaning and/or rehabilitation of existing conduits and structures solely to improve hydraulic capacity and/or structural integrity.
- c. Removal of illegal sanitary connections to existing, public storm drain systems.

C. Changes to the Scope of Services

The Parties acknowledge that changes to the Scope of Services may be warranted by new information that arises during project implementation and/or by additional regulatory requirements placed on the project(s) or by other reasons. Either Party may request a change to the Scope of Services; all such requests must be in writing. Changes to the Scope of Services may be made only after consultation between the Parties and approval by MWRA. Any change will be formally incorporated into this Agreement by amendment if such formal incorporation is requested by either Party.

D. MWRA Technical Assistance

In addition to financial reimbursement of eligible expenditures, MWRA will also provide technical assistance to BWSC, if requested, to assist with the implementation of the proposed inflow removal projects.

E. As-Built Drawings

BWSC must provide to MWRA as-built drawings of completed inflow removal projects.

V. PROJECT SCHEDULE

A. Awardee agrees to implement the projects on a Schedule defined by Awardee and approved by MWRA. The Schedule at a minimum shall include the anticipated start and end dates for each construction package. The Schedule and any Schedule changes shall be subject to review and approval by MWRA.

B. The Schedule shall include an end date for all construction activities no later than June 30, 2021.

VI. PROJECT REVIEW AND INSPECTION

Awardee agrees to routinely apprise MWRA of project progress and to make the project sites and all project records available to MWRA for review during the course of the projects. MWRA will routinely monitor the progress of work to insure that the project is: (1) proceeding substantially as defined in the Scope of Services; (2) proceeding substantially within the Project

Schedule (3) proceeding in a manner which will produce the quantitative inflow reduction results estimated to be achieved.

VII. PROJECT CLOSEOUT PROVISIONS

Upon completion of the Project, the Awardee shall notify MWRA that the Project is complete and shall certify, on a form provided by MWRA, that all work included in the Scope of Services has been completed and performed in accordance with this agreement.

VIII. PROJECT RECORDKEEPING AND AUDIT PROVISIONS

A. Awardee, and its Contractors shall maintain books, records, and other documents that pertain to and involve transactions related to this Agreement in accordance with generally accepted professional practice and generally accepted accounting principals. Awardee, and its Contractors shall also maintain the financial information and data used by Awardee, and its Contractors in the preparation or support of all invoices and progress reports. MWRA and any other duly authorized person, shall have access to such books, records, documents, and other evidence for inspection, audit, and copying during normal business hours, at MWRA's expense and upon reasonable notice to Awardee. Awardee, and its Contractors shall provide proper facilities for such access and inspection. All documents shall be kept for at least seven (7) years after either the final payment to the Contractor or closeout of the Project, whichever is later.

B. Awardee agrees to include the wording of Article VIII A., above, in all contracts and subcontracts hereafter awarded to third party Contractors, vendors and service providers related to this Agreement.

C. Audits conducted by MWRA, or its duly authorized representatives, shall be in accordance with generally accepted government auditing standards and established procedures and guidelines of MWRA. Such audits shall be conducted at the expense of MWRA.

D. Awardee agrees to provide MWRA with a copy of Awardee's annual audited financial statements within a reasonable time after the issuance thereof, together with a certificate of Awardee stating that Awardee is in compliance with its obligations under this Agreement.

IX. INTERACTION WITH OTHER PROGRAMS OF ASSISTANCE

The Awardee certifies that it has not and will not receive financial assistance under the State Revolving Fund (SRF), the MWRA I/I Local Financial Assistance Program, or any other state, federal, or other program of funding assistance for any Project costs for which financial assistance has been provided by the MWRA under this Agreement.

X. EFFECTIVE DATE OF AGREEMENT

This Agreement is in effect as of July 1, 2017.

XI. TERM

This Agreement shall remain in effect until June 30, 2021.

XII. AUTHORITY TO EXECUTE AGREEMENT

Prior to the execution of this Agreement, Awardee shall take all steps necessary to authorize it to properly execute this Agreement and such authorization shall be documented by Awardee's execution of Attachment 3, Authority to Execute Agreement.

XIII. GOVERNING LAW

This Agreement shall be governed by and construed and enforced in accordance with the laws of the Commonwealth of Massachusetts.

XIV. COMPLIANCE WITH LOCAL LAWS

Awardee shall comply with all applicable laws, ordinances, and codes of the state and local governments, and shall commit no trespass on any public or private property in performing any of the work embraced by this Agreement.

XV. INVALIDITY OF PARTICULAR PROVISIONS

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

XVI. CONTRACTING/SUBCONTRACTING

A. Awardee shall, in accordance with its own competitive procurement practices and procedures, enter into contracts with Contractors qualified to perform the Scope of Services or portions thereof. Awardee shall have no capacity to involve MWRA in any contract nor to incur any obligation or liability on the part of MWRA.

B. Awardee shall be as fully responsible to MWRA for the acts and omissions of its Consultants and/or its contractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.

C. Awardee agrees to include, in all contracts and subcontracts hereafter awarded to third party Contractors, vendors and service providers related to this Agreement, the requirement that MWRA shall be named as an additional insured on policies providing coverage for general liability, automobile liability, and valuable papers.

D. Contract change orders that increase a contract amount by \$100,000 or more or 10% or more of the original contract amount, whichever is less, and all change orders that increase the contract amount to a new total contract amount that exceeds the original contract amount by \$100,000 or more or 10% or more, whichever is less, must be approved by MWRA prior to incurring the associated additional cost.

XVII. PERSONNEL

A. Awardee represents that it has, or will secure at its own expense, all personnel required in monitoring and managing delivery of services under this Agreement. Such personnel shall not be employees of or have any contractual relationship with MWRA.

B. All monitoring and managing of delivery of services required hereunder will be performed by Awardee or under its supervision and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under state and local law to perform such services.

XVIII. EQUAL EMPLOYMENT OPPORTUNITY

Awardee shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, handicap status or national origin. Awardee, its engineer(s), and its contractor(s) shall comply with all applicable laws and regulations pertaining to nondiscrimination, equal opportunity and affirmative action, including without limitation executive orders and rules and regulations of federal, state and local agencies of competent jurisdiction.

XIX. INDEMNIFICATION

Awardee, at its expense, shall defend and shall indemnify and hold harmless MWRA, its members, officers and employees, from and against any and all claims, causes of action, suits, losses, damages and expenses, including attorneys' fees, arising out of or resulting from any acts, errors or omissions or breach of contractual duties by Awardee and anyone employed by it (including Contractors, Subcontractors and/or Consultants and their employees) in performance of this Agreement to the extent permitted by law. Such obligation shall not be construed to negate or abridge any other obligation of indemnification running to MWRA which would otherwise exist.

XX. MEMBERS, EMPLOYEES NOT LIABLE

No member or employee of MWRA shall be charged personally or held contractually liable by or to Awardee under any term or provision of this Agreement or because of any breach thereof or because of its execution or attempted execution.

XXI. INTEREST OF AWARDEE

Awardee covenants that its Contractors, Subcontractors and/or Consultants presently have no interest and shall not acquire any interest, direct or indirect, in the property to which this

Agreement pertains or any parcels therein or any other interest which would conflict in any manner or degree with the performance of its services hereunder. Awardee further covenants that no person having any such interest shall be employed in the performance of this Agreement.

XXII. INTEREST OF EMPLOYEES; M.G.L.C. 268A

A. Neither Awardee, nor its Contractors, Subcontractors and/or Consultants shall, during the term of this Agreement, hire or employ on either a full-time or part-time basis any person or persons so long as such person shall be employed by MWRA.

B. Awardee acknowledges that MWRA is a state agency for the purposes of Chapter 268A of the Massachusetts General Laws (the Massachusetts Conflict of Interest statute). Awardee agrees to take actions and to forbear from taking actions, as circumstances require, so as to be in compliance at all times with said statute.

XXIII. ASSIGNABILITY

Awardee shall not assign any interest, in whole or in part, in this Agreement and shall not transfer any interest in the same, whether by assignment or novation, without the prior written approval of MWRA.

XXIV. PAYMENT NOT A WAIVER

A. MWRA's payment to Awardee under this Agreement or its review, approval or acceptance of any actions by Awardee under this Agreement shall not operate as a waiver of any rights under this Agreement and Awardee shall remain liable to MWRA for all damages incurred by Awardee's failure to perform in accordance with the terms and conditions of this Agreement.

B. The rights and remedies of MWRA provided for under this Agreement are in addition to any other rights or remedies provided by law. MWRA may assert a right to recover damages by any appropriate means, including but not limited to set-off, suit, withholding, recoupment, or counterclaim either during or after performance of this Agreement.

XXV. TERMINATION OF THE AGREEMENT FOR CAUSE

A. If, through any cause, Awardee shall fail to fulfill in a timely and proper manner its obligations under this Agreement (including performance of the Scope of Services and maintenance of the Project Schedule); or if Awardee has failed to comply with the terms and conditions of this Agreement; MWRA shall hereupon have the right to terminate this Agreement by giving written notice to Awardee of such termination and specifying the effective date thereof.

XXVI. ATTACHMENTS

Attachments to this Agreement are incorporated herein and are as follows:

Attachment 1	MWRA Mitigation Guidelines
Attachment 2	MWRA White Paper, <i>Property Acquisition: MWRA Site Assessment for Identifying Hazardous Material</i>
Attachment 3	Authority to Execute Agreement

IN WITNESS WHEREOF, the parties have executed this Agreement this _____ day of _____, 2017.

MASSACHUSETTS WATER RESOURCES AUTHORITY

BY: _____
 Frederick A. Laskey, Executive Director

AWARDEE: Boston Water and Sewer Commission

BY: _____
 Henry F. Vitale, Executive Director/Chief Financial Officer

Approved to Form: _____
 Bonita M. Gottschalk, General Counsel

Attachment 3

AUTHORITY TO EXECUTE AGREEMENT

I hereby certify that the (name of governing body) Board of the (City, Town, or Commission) Boston Water and Sewer Commission (hereinafter referred to as the "Awardee"), at a meeting noticed and conducted in accordance with all applicable legal requirements, duly voted, at a meeting of the governing body held on the _____ day of _____, 20____ and duly recorded in my office, to authorize (title of official) to act on behalf of the Awardee, as its agent, in executing agreements and performing any or all other actions necessary to secure for the Awardee financial assistance in the form of annual grant disbursements for the construction of Dorchester Interceptor Inflow Removal projects as may be made available to the Awardee from the Massachusetts Water Resources Authority.

I hereby certify that (name of official)
is the present incumbent of the position referenced above, and do hereby certify:

1. that said meeting noted above was duly convened and held in all respects in accordance with law and to the extent required by law, due and proper notice of such meeting was given; and a legal quorum was present throughout the meeting, and a legally-sufficient number of members of the governing body voted in the proper manner and for the adoption of said authorization; that all other requirements and proceedings under the law incident to the proper adoption or passage of said authorization, including publication, if required, have been duly fulfilled, carried out, and otherwise observed; and that I am authorized to execute this certificate:

2. that if an impression of a seal has been affixed below, it constitutes the official seal of the Awardee and this certification is hereby executed under such official seal; but if no seal has been affixed, the Applicant does not have an official seal:

IN WITNESS WHEREOF, this _____ day of _____, 20__.

(Signature of Officer)

(Print name of officer)

(Print title)



Massachusetts Water Resources Authority
Charlestown Navy Yard • Boston, MA 02129 • Telephone: (617)242-6000 • Fax (617) 241-6175



MWRA Advisory Board

11 Beacon Street • Suite 1010 • Boston, MA 02108-3002 • Telephone (617)742-7561 • Fax (617)742-4614

March 4, 1998

Dear Colleague:

In 1994 the MWRA and the MWRA Advisory Board developed a standardized approach to addressing the impacts of MWRA construction projects on communities. An important piece of that approach is a set of guidelines for engineering and construction practices. Since 1994, MWRA staff have consistently used the guidelines to complete the design and construction of MWRA projects at the least possible cost to ratepayers, while ensuring that the community is fairly treated.

One of the guidelines adopted in 1994 provided that the MWRA may either provide a permanent patch of limited area or resurface a street from curb to curb. In recent years, such resurfacing has led to the MWRA bringing sidewalks and curbs into compliance with the Federal Americans with Disabilities Act (ADA) and state regulations, including instances in which the MWRA's work did not damage the sidewalks or curbs.

During 1997, the Advisory Board and MWRA staff worked together to review the Guidelines to ensure that the MWRA not be required to assume responsibility for bringing municipal sidewalks and curb cuts into compliance with the ADA, except when the MWRA work actually impacts curbs and/or sidewalks.

As a result of this review, the Guidelines regarding "roadway pavement for trench construction" and "sidewalks and curbs" have been revised to generally avoid the resurfacing of streets by the MWRA. Under the new guidelines, either a permanent patch or a payment to the community for a curb-to-curb overlay will be provided.

The revised guidelines have been approved by both the MWRA Advisory Board and the MWRA Board of Directors. We now transmit them to you, the customer communities, in the hope that they will continue to be used as a tool during project planning and design to outline for the impacted community what steps the MWRA will take to restore construction sites following construction.

Thank you for your continued interest and cooperation. Please call your community relations coordinator at the MWRA at 242-6000 or the Advisory Board office at 742-7561 with any questions you may have.

Sincerely,

Handwritten signature of Douglas B. MacDonald in black ink.

Douglas B. MacDonald
Executive Director, MWRA

Handwritten signature of Joseph C. Foti in black ink.

Joseph Foti
Chairman, MWRA Advisory Board

Enclosure

GUIDELINES FOR ENGINEERING AND CONSTRUCTION PRACTICES

As adopted by the Board of Directors on March 9, 1994 and
the MWRA Advisory Board on May 19, 1994 and revised December 17, 1997.

GOAL: The MWRA's primary goal in project design and construction is to ensure that all projects satisfy the intended purpose at the least possible cost to MWRA ratepayers.

POLICY: It is the MWRA's policy to replace "in-kind" any of the affected community's infrastructure that is removed or severely impacted by construction. This will not include any betterment to the community's infrastructure, unless such improvements are the inevitable result of the project.

In order to minimize the costs of MWRA construction projects, the following guidelines should be followed during the design stage of projects.

GUIDELINES:

Roadway pavement for trench construction:

Either a permanent patch, based on established community standards, or a payment to the community for a reduced depth patch over a properly compacted trench backfill with curb-to-curb overlay will be provided. The payment will be for an overlay that would extend to the back of the sidewalks on the intersecting streets with seams cut in at an angle.

Roadway pavement for non-trench, point excavations:

A permanent patch based on established standards will be provided.

Sidewalks and curbs:

In accordance with established community standards, replace, in kind, only that which is damaged by the MWRA.

Trees:

Replace only trees that are disturbed by the construction, utilizing an established criteria (i.e. MDC's formula, equal shade, etc.).

Parks:

Replace, in kind, items disturbed within the limits of the construction.

Community's underground utilities parallel to the trench:

Replace utilities completely exposed, if required, with the same size and with suitable material, as determined by the community and MWRA, in compliance with applicable regulations.

Community's underground utilities perpendicular to the trench:

Utilities completely exposed in the trench will be replaced, if required, to the nearest joint beyond each side of the trench or 4 feet beyond the trench, whichever is less, unless special conditions encountered justify further replacement (such as lead water services, which will be replaced from the main to the property line).

Water system valves:

Valves on the community's distribution system that must be operated in order to complete the construction project and are demonstrated to be inoperable will be either repaired (if possible) or replaced (only if necessary).

CONSTRUCTION IMPACT REVIEW BOARD (CIRB)

Three Advisory Board Members (and one alternate) and two MWRA staff members will comprise the CIRB. The CIRB will evaluate requests that MWRA staff go beyond the established guidelines. *The CIRB's role is strictly advisory.* The MWRA Executive Office and Board of Directors will continue to make final decisions and enter into agreements regarding mitigation to communities impacted by construction of major facilities.

STATEMENT OF MITIGATION PRINCIPLES

Adopted by the Board of Directors on October 26, 1988.

INTRODUCTION:

The Massachusetts Water Resources Authority (MWRA) was established to provide high quality, efficiently delivered water and sewer service to 61 communities in the Commonwealth. To carry out this task, the agency owns and operates hundreds of miles of pumping stations, headworks, and treatment plants. To continue to provide water and sewerage services to the communities dependent upon it for these services, the MWRA must site, construct and maintain new facilities. These mitigation principles will guide the MWRA in its relationships with communities affected by its new construction projects.

The MWRA is committed to providing every reasonable assurance to the communities affected by its projects that it will attempt to minimize the disruption to those communities during the construction or maintenance phase and provide appropriate restoration of disrupted property at the conclusion of the project. In addition, the MWRA is committed to designing and operating its pump stations, headworks, treatment plants and residuals management facilities such that they are not disruptive or offensive to the communities in which they are located. Collectively, these activities are termed mitigation of impacts.

MWRA construction projects are subject to a wide range of environmental review through the Commonwealth's MEPA process. Through that process, areas requiring mitigation are identified and methods for mitigating the impacts of construction are defined. While the Board of Directors of the MWRA retains final authority to approve any mitigation measures, the principles of mitigation set forth below are intended to provide a framework to guide the staff of the Authority during the planning and design stages of new projects, in a manner meant to complement and be consistent with MEPA requirements.

PRINCIPLES OF MITIGATION:

The MWRA intends to be a good neighbor to the communities it serves. It recognizes the impacts it has on these communities and is committed to mitigating those impacts through appropriate design of its facilities, through carefully coordinated construction procedures, and through restoration of areas following construction.

The MWRA recognizes that the communities may have conflicting plans or expectations for the areas in which its facilities must be built. The MWRA respects the opinions of local officials and the general public and will work with communities to try to resolve any differences in a manner which will benefit all parties and confirm a close working relationship. Specifically, the MWRA is committed to the following mitigation principles:

- The MWRA will work closely with host communities to determine the best routes for its interceptors or water pipelines, and, where consistent with the needs of the Authority, will site such facilities in a way which will tend to enhance the local sewer or water system. In no event will the MWRA build a facility that would cause the degradation of local water or sewerage systems, unless it also takes action to restore the local systems to their original capability.
- The MWRA will restore all roads or property disturbed by the construction process to the state in which they were found or, to the extent it is cost effective to do so, will improve them in a manner consistent with the desires of the host community.
- The MWRA will work closely with the host community and other affected communities to schedule construction activities and to alter traffic flow where necessary to meet the needs of residents while not jeopardizing the safe and efficient operation of MWRA facilities or service to other communities.
- In those rare situations where the extent of the impact of the project on community is so great and for such an extended period of time that restoring the area to its pre-project state is insufficient to relieve the stress of the MWRA's presence during the project, the Authority will consider other methods of compensating that community for these impacts. Compensation that will be considered by the MWRA includes: (1) improvements to impacted areas of the community or to facilities which serve the impacted areas, and (2) contributions to community projects which serve those individuals impacted by the MWRA's presence.
- To the extent it is environmentally sound and cost-effective to do so, the design of MWRA facilities will incorporate noise, dust and odor controls to conform to pre-existing levels in the immediate vicinity of the facilities.
- Consistent with the State and Federal law and wherever feasible, every effort will be made to establish a job recruitment and training program with communities that are impacted by the MWRA.
- All mitigation practices must be proportional to the impacts caused by the MWRA.

WHITE PAPER

PROPERTY ACQUISITION:
MWRA SITE ASSESSMENT PROCESS
FOR
IDENTIFYING HAZARDOUS MATERIAL

Prepared By:

Trudy Reilly, Associate General Counsel
Leon Lataille, Environmental Manager
Elizabeth A. Nicklas, Senior Staff Counsel

PROPERTY ACQUISITION: MWRA SITE ASSESSMENT PROCESS FOR IDENTIFYING HAZARDOUS MATERIAL

Table of Contents:

- I. Introduction and Purpose
- II. Statement of Applicable Law
- III. Scope of Property Acquisitions Contemplated by the Authority
- IV. Objectives of the Site Assessment Process
- V. Implementation of the Site Assessment Process
 - A. Level I Analysis: In House Survey
 - B. Level II Analysis: Preliminary Site Assessment
 - C. Level III Analysis: Limited Site Investigation
 - D. Level IV Analysis: Comprehensive Site Investigation
- VI. Conclusion

Appendices:

- Appendix A: Flow Chart of Property Acquisition: MWRA Environmental Site Assessment Process
- Appendix B: Checklist for Items to Be Included in Level I Analysis
- Appendix C: Scope of Services for Level II Analysis
- Appendix D: Scope of Services for Level III Analysis
- Appendix E: Scope of Services for Level IV Analysis
- Appendix F: Statement of Applicable Law

PROPERTY ACQUISITION: MWRA SITE ASSESSMENT PROCESS FOR IDENTIFYING HAZARDOUS MATERIAL

I. INTRODUCTION AND PURPOSE

The Massachusetts Water Resources Authority (the "Authority") has acquired and will continue to acquire real property interests to support its mission of providing efficient and modern water supply and sewage treatment systems. Prior to and during the course of such acquisition efforts, oil and/or hazardous material has been discovered at a number of sites, and such discoveries will likely occur again. The remediation of contaminated sites, required by law, can prove to be a costly undertaking.

This document (i) examines the legal basis and the practical need for a consistent policy, to be adopted by all divisions within the Authority, to evaluate sites for possible contamination prior to making any decision to acquire a real property interest in such site, and (ii) describes a proposed procedure for such evaluation, which should be initiated at the beginning of a project's planning process and which should be knitted into the fabric of the existing planning process.

The site assessment process proposed herein is intended to be embedded into the Authority's current planning process. Its adoption will minimize the probability of acquiring a heavily contaminated site without any advance knowledge, but it will not guarantee that the Authority will avoid unanticipated remediation expenditures in the future.

In many of the Authority's projects, property acquisition alternatives may be limited by both scarcity of available land and by the requirement that the Authority's new or replacement facilities must lie adjacent to or reasonably near to its existing facilities. Thus, the Authority may find itself attempting to choose among contaminated sites rather than having the option of selecting a pristine site.

In those cases, every effort must be made to (a) become aware of the full extent and cost of remediation of the site, in advance of acquisition; (b) minimize the exposure of the Authority to legal liability for the costs of recovery by involving the law division early in the project's planning, and jointly developing a strategy with which to approach the seller; (c) notify the Massachusetts Department of Environmental Protection to negotiate and establish an acceptable construction protocol for testing, classification and disposal of the contaminants; and (d) investigate potential recovery from the responsible party.

II. STATEMENT OF APPLICABLE LAW

Property contaminated by hazardous material may be investigated and remedied by federal and state governmental authorities respectively under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") and the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, also known as Chapter 21E.

Under both CERCLA and Chapter 21E, any past and present owner or operator of property at which there was a release or threatened release of hazardous material, persons who generated hazardous material and arranged for its disposal at another location, and persons who transported hazardous material will each be held "strictly liable" for the total "response costs" to any contamination which results.

The term "strictly liable" means that the owner is held responsible, regardless of whether the owner is at fault in the matter. Strict liability is also "joint and several", meaning that even if an owner were to demonstrate to a court that his property were only one contributing factor to a larger contamination problem, that owner could be held liable for all the damage resulting from the contamination. "Response costs" include any costs involved in assessment, containment, and removal of oil and hazardous materials.

An "owner" of property includes any ownership interest in real estate whether it be in fee or in easement. Therefore, there is no special advantage to being an easement holder, since an easement holder as well as a fee holder may be held strictly liable, jointly and severally, for total response costs.

Because of the stringent legal requirements imposed upon owners or operators of contaminated property, the Authority should establish formal procedures for site investigations and cleanups. For a more detailed discussion of legal implications, see Appendix F.

III. SCOPE OF PROPERTY ACQUISITIONS CONTEMPLATED BY THE AUTHORITY

The Authority is currently planning property acquisitions in connection with the following projects:

(a) Combined Sewer Overflow Project: Property acquisitions will include workshaft sites, drop shaft locations, and subsurface easement interests in hundreds of land parcels located in the combined sewer communities;

(b) Water Line to Deer Island: Project plans include the purchase of various parcels in Winthrop and Revere to provide a water line to Deer Island;

(c) Residuals Site: A portion of the Cedar Junction prison property located in Walpole has been designated for the residuals site;

(d) New Neponset Valley Relief Sewer: Many supplemental permanent and temporary construction easements will be acquired along the length of the existing sewer easement;

(e) Framingham Extension Sewer: This project will involve the acquisition of hundreds of property interests, primarily easement interests, along the length of the proposed extension sewer;

(f) Braintree-Weymouth Interceptor: This project will involve the acquisition of many permanent and temporary easements along the length of the proposed new gravity sewer;

(g) Sudbury Aqueduct Reconstruction: Property acquisitions will include workshaft sites and easements along the proposed route; and

(h) Water Filtration Plant for Wachusett Reservoir: This project will require the acquisition of a site for the proposed water filtration plant serving the Wachusett Reservoir.

This list comprises a sampling of projects currently in the planning process and will be expanded as future Authority projects require property acquisition.

IV. OBJECTIVES OF THE SITE ASSESSMENT PROCESS

The strict liability standard imposed by the federal and Massachusetts Superfund laws upon owners of real property combined with the large volume of sites required by the Authority for its projects requires the Authority to be conservative in its real property acquisition policy. Accordingly, this document proposes the following objectives to be adopted by the Authority.

A. Gather Information, Identify Sites with Hazardous Material and Prioritize

This objective is to provide staff with sufficient information regarding the presence of hazardous materials on a particular site at each level of planning and development of a project so that informed decisions can be made on how to prioritize sites, while maintaining flexibility in the project's choice of sites.

(1) During the planning and design stages, environmental information should be gathered simultaneously and in comparable detail with other information sources. This procedure will ensure that project staff are fully informed about all the relevant factors, including environmental.

at the appropriate time in the decision-making process.

(2) Identify contaminated sites as early as possible during the planning process for any project.

(3) Prioritize all alternative sites by considering all available information, including the type and degree of contamination and the reasonably foreseeable costs of remediation thereon.

B. Standardize Site Assessment Process

The information regarding hazardous materials should be gathered in a methodical manner, according to a Authority-adopted standardized procedure, which incorporates the current best industry practices, and which retains sufficient flexibility to be modified as industry practice and Authority experience dictates.

By standardizing the site assessment process, the Authority is also implementing a quality control and assurance measure for its site assessment consultants. By describing in detail the scope of investigation, documentation and methodologies to be used, and the level of reporting at each level of the site assessment process, the Authority should achieve economies in the bidding and consultant selection process and be assured that a report of reliable quality will be generated.

The Authority's site assessment process will be able to answer the following questions: (i) what is the cost of cleanup; (ii) what is the impact on the construction schedule and the cost of construction; and (iii) in the event a site has obvious hazardous material problems, should the site assessment process be accelerated to assess better the extent and the cost of the problem or should the site be deleted from the facilities planning process without further acceleration. The specifics for implementing a standardized site assessment process at its various levels is addressed fully in Section V. of this document.

C. Screen Sites

Keep alternative site options open during the earliest stages of the evaluation, while obtaining true costs of the preferred but contaminated site. As the site evaluation proceeds through subsequent levels, there should be a concurrent narrowing of the number of sites which are evaluated.

The Authority's proposed site assessment process should be used as an "early warning" system for highly contaminated sites. If, during the initial level of site evaluation an otherwise preferred site is found to be clearly contaminated or if it has a significant potential to be a highly contaminated site, this fact should cause the Authority to both (i) continue to research

alternative sites, and (ii) research the contaminated site further, to determine the true cost of using that site. True costs will include site investigation, remediation, and additional facility design and construction components related to the contamination. Once these true costs are estimated with a greater degree of certainty, the project staff will be able to compare its findings with that of alternative sites which the staff will have continued to examine.

D. Estimate Costs

Adopt the state-of-the-art approach to estimating all related costs of remediation (while acknowledging that cost estimating is an art as well as a science). Cost estimates should become more all-inclusive and more reliable as the levels of site evaluation increase.

The success of any site evaluation process depends in part on the reliability of cost estimates related to remediation. Preliminary costs can be estimated on information which consists of only site histories, file reviews, and initial examination of the site. For example, identification of petroleum contamination on a site having measurable cubic yards of soil to be excavated can be translated into a cost estimate for soil disposal. However, such preliminary cost estimates have limited usefulness, (primarily during the initial site evaluation stage) since they do not take into account a final remedial response, which would incur additional costs, nor alternative design options (such as moving the excavation out of the contamination zone). Accordingly, project staff should not use the preliminary cost estimate for the removal of hazardous waste as a significant determining factor in prematurely narrowing the site alternatives for a project.

During later stages of planning and design of a project, the site evaluation process should include more developed cost estimates for the remediation or removal of hazardous materials than at the preliminary stage. Project staff should consider the impact of varying construction techniques on the cost of final remediation.

E. Coordinate Construction with Massachusetts Contingency Plan

In the event of construction on a contaminated site, the information obtained from the site assessment process during planning, design and acquisition can be utilized to coordinate the scheduling of construction with compliance with the Massachusetts Contingency Plan ("MCP"), the regulations implementing the Massachusetts Superfund statute, also known as Chapter 21E.

For example, historically construction schedules have moved ahead of the MCP process with the result that excavation of contaminated soil and dewatering activities in contaminated groundwater areas have been

conducted under "interim measures", usually negotiated with the Massachusetts Department of Environmental Protection ("DEP") on a short term basis. This sequence can result in the costly disposal of contaminated soils excavated from the construction site at landfills, together with the continuing liability attached to landfilling as opposed to on-site remediation or incineration.

By contrast, if feasible, completion of the MCP process prior to construction may provide a remedial response plan which prescribes capping of contaminated soil or other in-situ measures which may prove cost-effective.

F. Conduct Site Assessment Process to Effectuate Cost Recovery Action

The site evaluation process must be accomplished in accordance with applicable laws and regulations, and the methodology should support later legal efforts of cost recovery.

V. IMPLEMENTATION OF THE SITE ASSESSMENT PROCESS

In order to accomplish the objectives discussed above, a phased site assessment process comprised of four levels is outlined in the following pages. Each level is described as follows: (1) a listing of the major features/elements of the respective level of analysis; (2) the proposed product to be generated from the respective level; (3) the estimated cost of the work per 2-acre site; and (4) a short discussion of considerations relevant to that particular level. How this proposed site assessment process is integrated with the existing sequence of planning and design for Authority projects is summarized in the flow chart attached as Appendix A.

In summary, Level I consists of an in-house survey intended to identify on a preliminary basis potential areas of contamination; Level II consists of a Preliminary Site Assessment; Level III includes installing monitoring wells and identifying sensitive receptors; and Level IV is a Comprehensive Site Investigation which includes a risk assessment. Refer to the appendices attached to this document to specify in detail the scope of investigation required for each level.

Cost estimates for each level of effort are based on a site size of two acres and are not cumulative (e.g. cost estimates for each level pertain to that particular level and do not represent the estimated cost for all levels up to and including that level).

The two-acre size was selected based on the fact that the estimated total area requirements for CSO facilities (including staging area during construction) have a mean of approximately 1.8 acres. The cost of site assessments for cut and cover and tunneling alignments will be somewhat different because of the special nature of the "site" geometry.

LEVEL I ANALYSIS: In-House Survey

Elements

- **Identify contaminated sites listed by DEP and EPA that are within 1/2 mile of the site or alignment**
- **Identify site/land uses: aerial photos, databases**
- **Limited site reconnaissance**
- **Compile institutional knowledge, both for immediate use and to use as leads for follow-up investigations.**

Proposed Products from this Level of Analysis

A preliminary report, listing sites with confirmed or possible contamination. This report would become part of the initial facilities planning effort. Rank order the sites by the contamination potential.

Estimated Cost

Use MWRA staff for this level: estimated 24 person hours for the "generic" 2-acre site.

Discussion

During a Level I analysis, project staff should take care not to prematurely narrow the list of alternate sites. At this stage, contamination concerns should trigger accelerated sampling and testing of soil and groundwater.

Level I analysis should routinely be performed for all sites under consideration.

Use the services of an in-house team comprised of staff designated by the project manager, the Law Division, and the Development Department.

LEVEL II ANALYSIS: Preliminary Site Assessment

Elements

- * Identify the location of the site (UTM, longitude and latitude)
- * Identify physical characteristics of the site (geology, etc.)
- * Identify past use of the site including information regarding former owners and operators.
- * Review local/state/federal files
- * Site reconnaissance, complete walkover
- * Identify oil and hazardous material on the site.
- * Similar to the MCP "Preliminary Assessment"¹

Proposed Products from this Level of Analysis

A report describing known or suspected contaminants identified based on previous investigations of contaminants at the project site and/or nearby sites, or previous site use. Describe contaminant occurrence by media and depth. Rank alternative sites based on potential impact on project schedule and cost, and potential cost of final remediation.

Estimated Cost

Assume 2-acre site, no sampling or analysis; review files; conduct interview; visit site; prepare report. Estimated 65-110 person hours (\$7,500 - \$12,000).

Discussion

First opportunity for detailed review of known contaminant occurrence. Decisions to be reviewed include elimination of undesirable alternatives, accelerated testing schedule on potentially contaminated but otherwise desirable sites.

¹Many elements of the proposed site assessment process are similar to the Massachusetts Contingency Plan for hazardous waste site cleanups. To the extent that sites are identified as contaminated and are still acquired, compliance with the MCP process will be required.

LEVEL III ANALYSIS: Limited Site Investigation

Elements

- **Screening level testing (soil vapor surveys, geophysical surveys), soil and groundwater testing associated with geotechnical borings; additional borings and monitoring well installation.**
- **Identify Sensitive Receptors.²**
- **Provide groundwater flow direction.**
- **Prepare Health and Safety Plan.**
- **Prepare a base map with surveyed well locations and identify geographical location and present location conditions.**
- **Similar to MCP Phase I - Limited Site Investigation.**

Proposed Products from this Level of Analysis

Report summarizing findings from the field investigation and lab testing. Results may confirm earlier information or be first indication of contaminants. Based on knowledge of contaminant concentrations and distribution, preliminary estimates of remediation costs can be presented.

Estimated Cost

Assume 2-acre site, 4 groundwater wells, limited additional sampling points. Receptor identification. Prepare report with all documentation of field activities. Estimated 90-175 person hours (\$25,000 - \$35,000).

Discussion

The scope of the field investigation will depend on the site history and the complexity of the soil types. Urban fill with a long industrial history, for example, may be very heterogeneous in contaminant occurrence. Once this type of scenario is identified, additional testing may be required to establish the acceptable level of information.

²Sensitive Receptors include significant exposure points for contaminants such as private and public water supply wells.

LEVEL IV ANALYSIS: Comprehensive Site Investigation

Elements

- * **Identify full extent and source of contamination; characterize oil or hazardous material including identification of background levels.**
- * **Additional shallow wells plus deep and/or bedrock wells.**
- * **Risk Assessment (e.g. characterization of risk of harm to health, safety, public welfare and the environment)**
- * **Identify exposure points and determination of exposure point concentrations.**
- * **Prepare Quality Assurance and Quality Control Plan.**
- * **Similar to MCP Phase II - Comprehensive Site Assessment.**

Proposed Products from this Level of Analysis

Report summarizing findings of the field effort and the risk assessment; alternatively, the report may focus on a review of in-situ testing (preliminary at this point).

Estimated Cost

Assume 2-acre site, 4 additional wells, including 2 deep wells. Evaluate all data. Summarize in a report. Estimated 175-300 person hours (\$55,000 - \$70,000)³.

Discussion

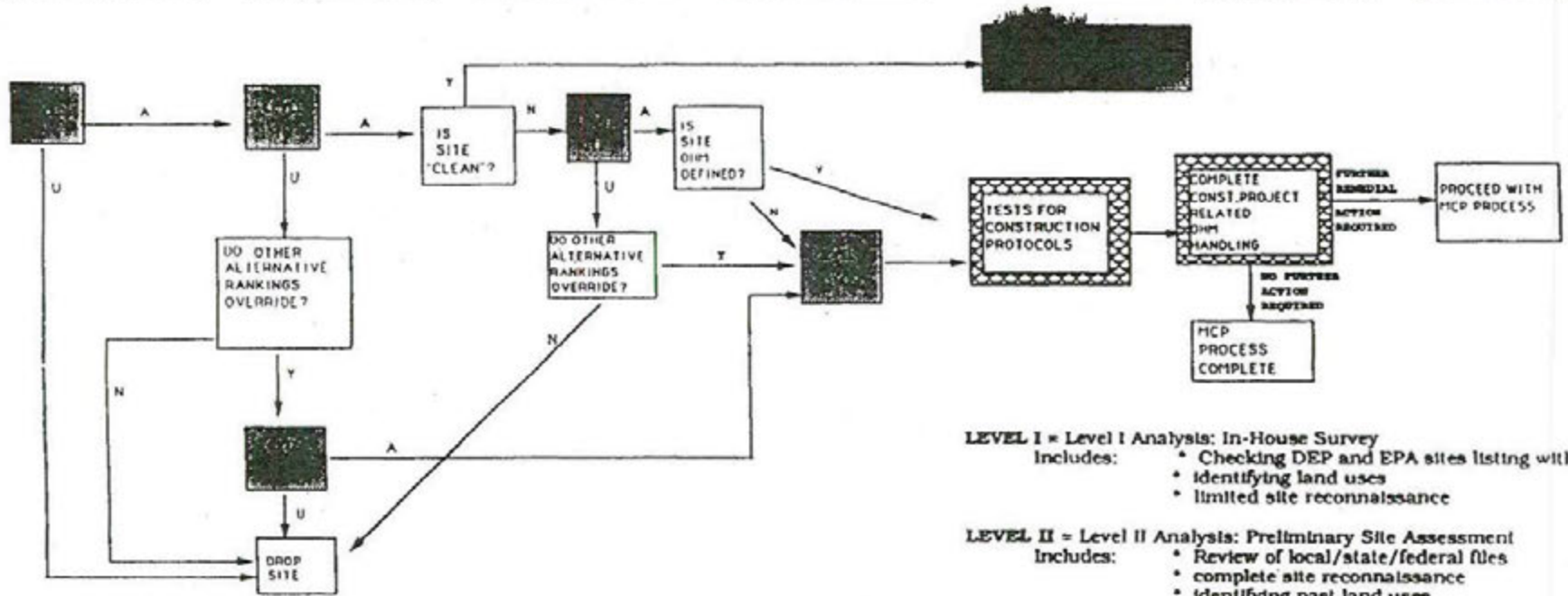
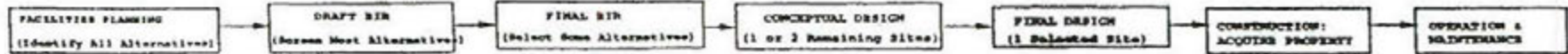
The level of information developed at this level will be used to develop soil handling and dewatering protocols for construction.

³Note: Level IV sampling and analysis costs related to construction protocols could be much greater.

VI. CONCLUSION

The preceding represents an acquisition policy by which a site assessment process for identifying hazardous material is integrated within existing facilities planning. Many aspects of the policy described here are already being employed, in various degrees, in existing projects. It is intended that the scope of services identified at each level of analysis will be refined over time as the process is applied to a variety of Authority projects.

PROPERTY ACQUISITION MWRA ENVIRONMENTAL SITE ASSESSMENT PROCESS



LEGEND

- OIHM = Oil or Hazardous Material
- A = Acceptable OIHM Risk
- U = Unacceptable OIHM Risk: Expensive Cleanup Probable or Confirmed
- Y = Yes
- N = No



= Continuation of Level IV

- LEVEL I = Level I Analysis: In-House Survey**
Includes:
 - Checking DEP and EPA sites listing within 1/2 mile
 - identifying land uses
 - limited site reconnaissance
- LEVEL II = Level II Analysis: Preliminary Site Assessment**
Includes:
 - Review of local/state/federal files
 - complete site reconnaissance
 - identifying past land uses
- LEVEL III = Level III Analysis: Limited Site Investigation**
Includes:
 - Soil and groundwater testing
 - identifying sensitive receptors
 - providing groundwater flow direction
 - preparing a base map with surveyed well locations
- LEVEL IV = Level IV Analysis: Comprehensive Site Investigation**
Includes:
 - Identifying full extent of contamination
 - additional testing wells
 - risk assessment

APPENDIX B

CHECKLIST OF ITEMS TO BE INCLUDED IN LEVEL I ANALYSIS

DATA COLLECTION:

1. List of DEP Confirmed Sites and Locations to be Investigated within one half mile of the subject site/alignment.
2. List of CERCLIS Sites within one half mile.
3. Land use information
 - tax assessors maps.
 - Zoning maps
 - Sanborn Fire Insurance Maps
 - EPA RCRA Generators List
 - Aerial photographs
4. Site reconnaissance
 - sites-visit all sites to confirm land use, general conditions. Take photographs.
 - Alignments-visit sites of concern, do cursory walk/drive to identify obvious problems
5. Institutional knowledge-circulate memorandum to relevant MWRA personnel requesting input on information regarding the project.

DELIVERABLES:

- (1) Tabulate and locate on a base map:
 - DEP sites
 - Industrial/commercial properties and zones
 - Areas of visual contamination
- (2) Summarize in a brief report:
 - Rank order of sites by contamination potential
 - Identification of sites which warrant consideration for immediate followup

OPTIONAL APPROACH:

The use of databases is a possibility for Level I. Among others, consider the use of the following sources to generate the background information at this level:

Geographic Information System (GIS) being developed by MWRA

Environmental Risk Information Center, Alexandria, VA

APPENDIX C

SCOPE OF SERVICES FOR LEVEL II ANALYSIS

DATA COLLECTION:

1. Update DEP sites list if appropriate.
 2. Review files:
 - DEP sites
 - DEP spills
 - DEP miscellaneous file
 - Active/Inactive Landfills
 - Boards of Health
 - Fire Departments
 - Conservation Commissions
 - City/Town Engineers
 - Planning Boards
 3. Review Past use:
 - Historical atlases
 - Municipal directories
 - Town libraries
 - Newspapers
 - Historical societies
 - Historical aerial photographs
 - Title search
 - Interview past/present owners, operators, workers, residents
- NOTE: File review of DEP listed OHM sites and landfills applies to all sites within one half mile: remaining review applies to subject site and abutters.
4. Review geologic conditions:
 - Surface topography
 - Surface water
 - Subsurface soil, bedrock, water
 - Literature survey with field confirmation (surficial)

5. Site reconnaissance: Complete walkover, noting:

- General physical features
- Surface water
- Condition of vegetation
- Soil staining, odors, dumping
- Electrical equipment (PCBs)
- Asbestos
- Areas of fill
- Tanks
- Wells
- Condition of buildings (may be of special concern)
- Utilities

DELIVERABLES:

1. Locate on a base map:

- Known areas of contamination
- Areas requiring investigation (USTs, stains, etc.)

2. Summarize in a report:

- Description of known/suspected contamination and distribution (soil/groundwater/depth)
- Potential impact on construction activities
- Potential cleanup costs
- Rank order of alternatives based on relative potential impact on cost, schedule
- Identify sites which may require accelerated investigation
- Identify test parameters and sampling locations for Level III follow-up

APPENDIX D

SCOPE OF SERVICES FOR LEVEL III ANALYSIS

FIELD INVESTIGATION:

1. Prepare Health and Safety Plan.
2. Consider use of screening techniques (soil vapor, geophysical surveys).
3. Install soil borings/monitoring wells identified in Level II.
4. Implement Item 3 in conjunction with construction related geotechnical borings, if possible.
5. 4 monitoring wells typical for a site at this Level.
6. Additional soil sampling, surface water sampling may be included if site history and observations indicate the need.
7. Survey well locations and elevations, determine groundwater flow direction.
8. Collection and laboratory analysis of samples to be conducted under Quality Assurance/Quality Control Plan approved by the Authority.
9. Identify Sensitive Receptors:
 - Public and private wells within one half mile (public), 500 feet (private)
 - Direct human contact
 - Nearby land use
 - Surface waters used for recreation/potable water supply
 - Food chain exposure pathways
 - Environmentally sensitive areas such as wetlands

DELIVERABLES:

1. For each site, prepare site plans indicating:
 - Groundwater flow
 - Receptors
 - Well locations
 - Contaminant distribution, if possible
 - Proposed construction areas

2. For each site, prepare a report including:

- Findings of field and laboratory work, including standard appendices
- Description of contaminant distribution, potential for migration, relation to applicable standards, disposal and treatment options.
- Determination of priority/nonpriority site status re:MCP
- Preliminary estimates of costs related to OHM management and disposal associated with construction and with final site remediation
- Recommendations for Level IV sampling and analysis, and for immediate follow-up sampling and analysis if needed

3. For all alternatives, prepare a report discussing:

- Rank order of alternatives
- Elimination of selected alternatives
- Acceleration of investigation of selected alternatives
- Review with Law Division re: cost recovery, owner/DEP notification issues
- Review with facility design project manager regarding feasibility of site remediation prior to construction
- Review Level IV options:

MCP- Phase II, under Waiver of Approval

MCP- Phase II, with DEP oversight (work plan approval)

Level IV conducted as construction related Interim Measure (particularly relevant to property with migration of contaminants from off-site sources)

APPENDIX E

SCOPE OF SERVICES FOR LEVEL IV ANALYSIS

FIELD INVESTIGATION/DATA EVALUATION:

1. Prepare a work plan for the field investigation based on the Level III report. The work plan will include sampling and analysis of appropriate media sufficient to determine the full horizontal and vertical extent of contamination. The work plan should indicate whether several iterations of field sampling will likely be necessary to complete the Level IV analysis. In some cases, a round of sampling may be conducted for construction related purposes and need not contribute significantly to the determination of contamination extent.

The scope of the field investigation will be reviewed by the Authority prior to implementation. The scope may include but is not limited to:

2. Sampling of environmental media:
 - Soil vapor survey
 - Test pits
 - Soil borings
 - Monitoring wells, including multilevel and bedrock wells
 - Surface water
 - Air
3. Sample analysis:
 - Prepare list of analytes and methods on the basis of data quality objectives which take into account the following objectives:
 - Identify source(s) of contamination
 - Identify extent of contamination
 - Characterize risk of harm
 - Obtain data needed to develop remedial response options.
 - Identify disposal options for contaminated soil
4. Updated health and safety plan.
5. Quality Assurance/Quality Control Plan.
6. Technical specifications for boring/well installation.

7. Background levels of OHM by sampling, literature search.
8. Identify foreseeable uses.
9. Risk Assessment.

Conduct a risk assessment per the MCP:

- Foreseeable uses, MWRA use and others if relevant
- Background levels of OHM
- Exposure points (before MWRA construction)
- Exposure point concentrations
- Risk characterization

DELIVERABLES:

1. For each site, prepare plans showing:
 - Horizontal extent of contamination
 - Cross section(s) of vertical extent of contamination
 - Contaminant migration pathways and projected extent
2. For each site, prepare a report including:
 - Description of contaminant extent, sources, volumes.
 - Summary of risk levels, determination of need for remedial response
 - Review likely alternatives for remedial response with consideration of construction activities
 - Cost estimates for remedial response alternatives, interim measures during construction
3. For all remaining alternatives, prepare a report discussing:
 - Selection of final site
 - Law Division review re: cost recovery
 - Law Division and Development Department re: property acquisition negotiations
 - Decision re: remedial response timing relative to construction

Appendix F

STATEMENT OF APPLICABLE LAW

In 1980, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §9601 et. seq. as amended ("CERCLA"), also known as the federal Superfund Law, was enacted. In 1983, it was followed in Massachusetts by the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, St. 1983, c. 7, §5, also known as the Massachusetts Superfund Act. In many of its key provisions, the two statutes are quite similar.

Both statutes provide their respective governmental authorities with a broad range of powers to investigate, respond to and remedy property contaminated by hazardous substances, or, under Massachusetts' chapter 21E, by both hazardous materials and oil. Generally speaking, liability is imposed on three categories of persons: past and present owners and operators of property, persons who generated hazardous waste and arranged for its disposal at another location, and persons who transported hazardous waste. In Massachusetts, Chapter 21E creates an additional category of liability for 'any person who otherwise caused or is legally responsible for a release or threat of release of oil or hazardous material'. Federal and state government plaintiffs may recover the costs spent in responding to contamination, and for damages caused by injury to, destruction of, or loss of natural resources. Under chapter 21E, the Commonwealth may also recover for damages caused to real or personal property. Ryan, "The Superfund Dilemma", appearing in Massachusetts Law Review, Fall, 1990, p.131.

Under both CERCLA and the Massachusetts Superfund Act, any owner (or operator) of property at which there was a release or a threatened release of hazardous substances will be held "strictly liable" for the total "response costs" to any contamination which results. The term "strictly liable" means that the owner is held responsible, regardless of whether the owner is at fault in the matter. Further, most courts have concluded that the strict liability under CERCLA is also "joint and several". This concept means that even if an owner were to demonstrate to a court that his property were only one contributing factor to a larger contamination problem, that owner could be held liable for all the damage resulting from the contamination. "Response costs" include any costs involved in assessment, containment, and removal of oil and hazardous wastes.

Both CERCLA and the Massachusetts Superfund Act contain a "treble damages" provision. Under CERCLA, punitive damages totalling three times the costs incurred by the government may be assessed against a party for failure to comply with an abatement order. Under the Massachusetts Superfund Act, a party may be charged up to three times the cost incurred by the Commonwealth in responding to a release or threat of release, regardless of whether or not an order has been issued. Both statutes also provide for additional administrative, civil or criminal penalties, (up to

\$25,000 per day or per violation) for violation of any order.

CERCLA and the Massachusetts Superfund law provide owners of contaminated property with a few limited defenses to lawsuits which seek the recovery of response costs. (See generally, 42 U.S.C. §9607(b)). However, these defenses are very limited, and require stringent evidence requirements in order to be considered. The pursuit of these defenses is often costly and time-consuming.

In addition to cost recovery actions against previous owners of a site, CERCLA and the Massachusetts Superfund Act permit private parties who incur response costs to seek contribution from other liable parties such as operators, tenants and abutters. That time-consuming effort may not always bear fruit, where a contributing liable party does not have available insurance to pay for its share of the response costs, or where that party is in bankruptcy.

An owner of contaminated property may also be exposed to the injunctive and civil penalties of the federal Resource Conservation and Recovery Act, 42 U.S.C. §6901 et. seq. ("RCRA") which deals with the management of hazardous waste. The analogous Massachusetts statute is contained in the Massachusetts Hazardous Waste Management Act, M.G.L. c. 21C.

Under RCRA, private parties have the right to bring a lawsuit


(a) against any person...who is alleged to be in violation of any permit, standard, regulation, condition, requirement, prohibition, or order which has become effective pursuant to [RCRA] or

(b) against any person...who has contributed to or is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent or substantial endangerment to health or to the environment. (see 42 U.S.C. §§ 6972(a)(1)(A) and (B)).

In addition to injunctive relief, civil penalties of up to \$25,000 per day (payable to the federal government) are available under RCRA. 42 U.S.C. §§6972(a), 6928(a),(g). Additionally, §6972(e) of RCRA authorizes the award of attorney's fees and costs to the "prevailing or substantially prevailing party, whenever the court determines such an award is appropriate".

Because of the stringent legal requirements imposed upon persons or entities who become owners or operators of contaminated property, it is important for the Authority to establish formal procedures for site investigations and cleanups.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 8, 2017
SUBJECT: Electrical Testing and Technical Services – Metropolitan Boston
Infra-Red Building and Power Service Co., Inc.
Contract OP-345

COMMITTEE: Wastewater Policy & Oversight

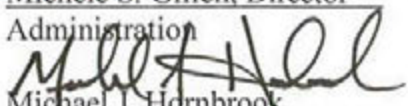
George Bacon, Project Engineer, Process Control
Stephen D. Cullen, Director, Wastewater O&M
Preparer

____ INFORMATION

X VOTE


Michele S. Gillen, Director

Administration


Michael J. Hornbrook

Chief Operating Officer

RECOMMENDATION:

To approve the award of Contract OP-345, Electrical Testing and Technical Services – Metropolitan Boston, to the lowest, responsive bidder, Infra-Red Building and Power Service Co., Inc., and authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$630,512, for a contract term of 1,095 calendar days from the Notice to Proceed.

DISCUSSION:

Contract OP-345 is for periodic testing of low- and medium-voltage electrical equipment, such as switchgear, circuit breakers, motor controls, transformers, surge arrestors, batteries and uninterruptable power supplies, at 32 of MWRA's metropolitan water and wastewater facilities¹ (see Attachment A). Electrical equipment at each facility will be tested and calibrated during this three-year contract. Although MWRA staff perform routine preventive and corrective maintenance of this equipment, the testing and calibration of the equipment must be performed by certified technicians.

Staff have developed the schedule on the following page for testing based on the equipment at each facility. Facilities with medium-voltage equipment will be tested every other year; the other facilities with just low-voltage equipment will be tested once every three years.

¹Electrical testing on Deer Island is performed under a separate three year contract.

	YEAR 1	YEAR 2	YEAR 3
FACILITIES TESTED EVERY TWO YEARS	Gillis PS Chestnut Hill Underground PS Newton St. PS Braintree-Weymouth Replacement PS	Intermediate PS Nut Island Headworks Commonwealth Ave. PS DeLauri PS Prison Point CSO	Gillis PS Chestnut Hill Underground PS Newton St. PS Braintree-Weymouth Replacement PS
FACILITIES TESTED EVERY THREE YEARS	Hough's Neck PS Alewife Brook PS South Boston CSO PS South Boston Vent Bldg. Spot Pond PS	New Neponset PS Framingham PS Hayes PS Ward St. Headworks Columbus Pk. Headworks Quincy PS Squantum PS Somerville Marginal CSO	Lexington St. PS Hingham PS Caruso PS Cottage Farm CSO BOS019 Storage Conduit Loring Rd. Covered Storage Brattle Ct. PS Hyde Pk. PS Belmont PS Spring St. PS

Additionally, at all facilities, main power transformers will be tested every other year, and thirteen uninterruptable power supply batteries will be tested annually.

The contract includes provisions for unscheduled, as-needed electrical testing and technical services at any of the metropolitan water and wastewater facilities, not including Deer Island. If an emergency occurs with the electrical equipment, staff will be able to immediately notify the testing company to perform electrical testing to identify the cause of the electrical issue.

Procurement Process

Contract OP-345 was advertised as a non-professional service contract in the Boston Herald, Goods and Services, El Mundo, Banner Publications, and utilizing MWRA's e-Procurement system (Event 2848). Staff directly solicited seven companies. A Pre-bid meeting was held on March 6, 2017 in Chelsea. Three bids were received on March 22, 2017:

<u>Bidders</u>	<u>Bid Amount</u>
<i>Engineer's Estimate</i>	\$670,000
Infra-Red Building and Power Service Co., Inc.	\$630,512
3C Electrical Company	\$670,710
Electrical Engineering & Service Co., Inc.	\$716,158

Infra-Red Building and Power Service Co. Inc's (Infra-Red) bid price is 6% below the Engineer's Estimate, which was prepared by MWRA staff based on historical data from prior contracts. Infra-Red has been performing electrical testing for the Authority since 2007. Staff reviewed the bid and contacted a representative from Infra-Red to discuss the firm's bid. Infra-Red's pricing is generally consistent with assumptions used in the estimate. The most significant difference is that the firm reduced its profit margin because it anticipated that bidding would be more competitive compared with the previous contract.

Staff are confident that Infra-Red understands the full nature and scope of work under this contract. Staff have determined that the bid price is reasonable and complete.

References were checked and found to be favorable. Staff have been very satisfied with Infra-Red's past performance on prior MWRA electrical testing work.

Staff are of the opinion that Infra-Red possesses the skill, ability and integrity necessary for the successful performance of this work. Therefore, staff recommend the award of this contract to Infra-Red Building and Power Service Co., Inc., as the lowest responsive bidder.

BUDGET/FISCAL IMPACT:

Sufficient funds for this contract will be included in the FY18 CEB for the Operations Division and in subsequent budgets for the duration of the contract.


MBE/WBE PARTICIPATION:

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

ATTACHMENT:

Locations of Metropolitan Water and Wastewater Facilities.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 8, 2017
SUBJECT: Valve and Piping Replacements Various Facilities
Deer Island Treatment Plant
Carlin Contracting Co., Inc.
Contract 7275, Change Order 6

COMMITTEE: Wastewater Policy & Oversight

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

 INFORMATION

 X VOTE


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Change Order 6 to Contract 7275, Valve and Piping Replacements Various Facilities, Deer Island Treatment Plant, with Carlin Contracting Co., Inc., for a lump sum amount of \$108,855.21, increasing the contract amount from \$17,339,691.92 to \$17,448,547.13, and extending the contract term by 90 calendar days from June 22, 2017 to September 20, 2017.

Further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 7275 in an amount not to exceed the aggregate of \$250,000 and 180 days in accordance with the Management Policies and Procedures of the Board of Directors.

BACKGROUND:

Under Contract 7275, the Contractor is replacing aging valves, piping and flow meters at various facilities at Deer Island, including the North Main Pump Station (NMPS), Winthrop Terminal Facility (WTF), South System Pump Station (SSPS), Primary Clarifiers, Secondary Clarifiers and Gravity Thickeners. To accomplish this work, up to fifty eight-hour shutdowns of all pumping at both the NMPS and WTF were planned. These shutdowns have been closely coordinated with staff and scheduled only when flow, precipitation and operating conditions allow. The Contractor is required to install and operate a temporary dewatering system that will pump the Inter-Island Tunnel down to a level that will allow for safe removal and installation of the new valves and flow meters. The Contractor is only allowed to work on one pump at a time throughout the contract term. To date, seven of the ten large pumps at the NMPS and all pumps at the WTF have had the associated valves replaced. In addition, eighty-percent of the primary sludge piping and ten-percent of the scum piping have been replaced. All eight dashpots at the SSPS remain to be replaced.

DISCUSSION:

This Change Order

Change Order 6 consists of the following item:

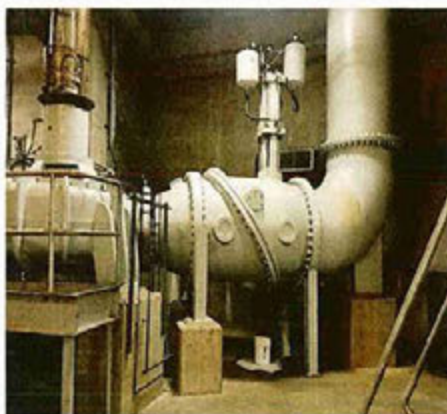
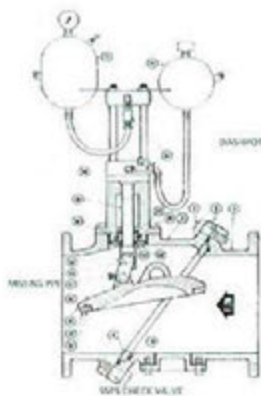
Install Lower Linkage Pins in the Check Valves

\$108,855.21

The contract documents require the Contractor to demolish, furnish and install new dashpots on the check valves that are connected to each SSPS pump (a dashpot is the actuator for the check valve). When the Contractor commenced work, it was found that the lower linkage pins that connect the dashpot to the check valve were missing in Pump No. 1 and Pump No. 3.

The condition of the missing linkage pins was not identified during the design phase due to the difficulty of accessing the valves (valves need to be partially disassembled for inspection purposes). It is very difficult to perform these inspections due to the requirement to isolate half of the SSPS wet-well to access the interior of the valves. This results in a reduction of fifty-percent of the SSPS pumping capacity during the isolation period which takes up to sixteen hours to complete. Staff determined the cause of the missing linkage pins was due to the spring cotter pins that hold the linkage pins in place becoming dislodged, eventually allowing the linkage pin to disconnect from the shaft.

The missing lower linkage pins are required to be replaced in order for the Contractor to complete its work. Staff have subsequently field verified that the remaining check valve linkage pins and spring cotter pins are securely in place.



SSPS Check Valve

The Contractor is required to remove the 54-inch base elbow, provide a temporary support system for the vertical pump riser and replace the linkage pin and spring cotter pins for the two

pumps.

The approved PCO for this item of work has been identified by MWRA staff as an unforeseen condition. MWRA staff and the Contractor have agreed to a lump sum amount of \$108,855.21 for this additional work and increase the contract term 90 calendar days. The Contractor proceeded with this work at its own risk in order to proceed with the remainder of the contract work.

CONTRACT SUMMARY:

	<u>Amount</u>	<u>Time</u>	<u>Dated</u>
Original Contract:	\$16,960,425.00	1,095 Days	06/23/14
Change Orders:			
Change Order 1*	\$7,611.66	0 Days	05/28/15
Change Order 2*	\$18,693.56	0 Days	07/13/15
Change Order 3*	\$74,302.51	0 Days	06/08/16
Change Order 4*	\$141,775.18	0 Days	07/27/16
Change Order 5	\$136,884.01	0 Days	09/19/16
Change Order 6*	<u>\$108,855.21</u>	<u>0 Days</u>	Pending
Total of Change Orders:	\$488,122.13	0 Days	
Adjusted Contract:	\$17,448,547.13	1,095 Days	

*Approved under delegated authority

If Change Order 6 is approved, the cumulative value of all change orders to this contract will be \$488,122.13 or 2.9% of the original contract amount. Work on this contract is approximately 77% complete.

BUDGET/FISCAL IMPACT:

The FY17 Capital Improvement Program includes \$17,211,730 for Contract 7275. Including this change order for \$108,855.21, the adjusted sub-phase total is \$17,448,547.13, or \$236,817.13 over budget. This amount will be covered within the five year CIP spending cap.

MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract were established at 7.24% and 3.60%, respectively. The Contractor will be notified that these requirements are still expected to be met.

STAFF SUMMARY

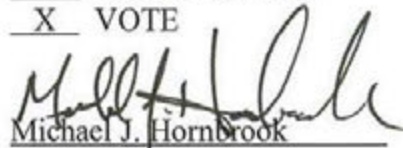
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: May 8, 2017
SUBJECT: Caruso Pump Station Improvements
Waterline Industries Corp.
Contract 7362, Change Order 6



COMMITTEE: Wastewater Policy & Oversight

Jeremiah Sheehan, Construction Coordinator
Corinne M. Barrett, Director, Construction
Preparer/Title

INFORMATION
 VOTE



Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Change Order 6 to Contract 7362, Caruso Pump Station Improvements, with Waterline Industries Corp., Inc., for a lump sum credit amount of (\$64,650), decreasing the contract amount from \$4,331,395 to \$4,266,745, with no increase in contract term.

Further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 7362 in an amount not to exceed the aggregate of \$250,000, in accordance with the Management Policies and Procedures of the Board of Directors.

DISCUSSION:

The Caruso Pump Station in East Boston was constructed in 1991 and has a designed wastewater flow capacity of 125 million gallons per day. The facility receives flow from East Boston, the Chelsea Branch Sewer, and the Revere Extension Sewer via the Chelsea Screen House, as well as wet-weather flow from the Chelsea Creek Headworks. The screened flows are pumped to the Winthrop Terminal Facility via the North Metropolitan Trunk Sewer. After 25 years, several of the pump station's operating systems have reached the end of their useful life and require replacement and/or upgrades.

The existing generator has reliability issues and performing timely maintenance/repairs has been challenging due to the increasing difficulty obtaining parts for this one-of-a-kind generator, with its antiquated compressed-air start system. MWRA investigated the HVAC and fire detection/suppression systems and recommended improvements to these systems based on observations and the numerous repairs required to maintain them. In addition, the existing security system is outdated and does not meet current post-9/11 MWRA requirements.

In 2011, MWRA completed a Preliminary Design Report for the replacement of the standby emergency generator and associated equipment, and improvements to the HVAC, fire and security systems.

Work under Contract 7362 includes replacement of the stand-by emergency generator with a 1,000-kW, diesel-driven, radiator-cooled generator designed to meet emission requirements and station design capacity of 125 mgd; HVAC improvements, including a new control system, air-change compliant air handling units, air conditioning units, exhaust and roof fans, dual-fuel heating, and rehabilitation of a heat recovery unit; fire detection/ suppression replacement of a compliant dry gas system, sensors and detectors, main control panel and breaker; and security system improvements of card readers, intrusion and motion detectors, fencing, and a telecommunications link.

This Change Order

Change Order 6 consists of the following three items:

Remove, Clean and Dispose of Lead Contaminated Materials \$21,178

Prior to bid, the MWRA environmental sub-consultant (Geosphere Environmental Management) tested eighteen interior building material surfaces for the presence of lead and asbestos. The report issued by the subconsultant identified seven samples with positive lead levels above the State threshold of 1.0 mg/cm² and no presence of asbestos. All of the 18 samples were taken in the generator room per direction of the Authority. As a result, the Contract included by addenda a lead paint abatement for materials which exceeded the threshold such as ceramic glazed block, fuel oil supply and return piping, and the fuel tank. The pre-bid testing overlooked identification of the same materials in other rooms inside the facility which also require drilling, coring or demolition. Therefore, it is necessary to amend the Site Specific Safety Plan to address the potential for worker exposure to lead based paint to include other rooms with the same materials, as well as to properly remove, handle and dispose of lead-containing material in accordance with all rules and regulations.



Lead Paint Removal

The approved PCO for this item has been identified by MWRA staff as an omission. MWRA staff, the Consultant, and the Contractor have agreed to a lump sum amount of \$21,178 for this additional work with no increase in contract term. The Contractor proceeded with this work at its own risk in order to proceed with the remainder of the contract work.

Furnish, Install and Insulate HVAC Ductwork on the Pump Station Roof

\$14,172

The contract requires the installation of new ductwork and also utilizing portions of the existing 54-inch x 30-inch HVAC rooftop HVAC ductwork. During demolition, the Contractor discovered that a portion of the existing 54-inch x 30-inch ductwork has deteriorated to the point that water is collecting at the bottom of the ductwork. The accumulation of the water has resulted in rusting of the metal so that it is no longer air tight. As the structural integrity is critical for balancing and operation of the facility air flow system, replacement of this 20 foot portion of rooftop ductwork is required.



HVAC insulation breaking down



HVAC Ductwork

The approved PCO for this item has been identified by MWRA staff as an unforeseen condition. MWRA staff, the Consultant, and the Contractor have agreed to a lump sum amount of \$14,172 for this additional work with no increase in contract term. The Contractor proceeded with this work at its own risk in order to proceed with the remainder of the contract work.

Delete Work by Utilities

(\$100,000)

The work of Contract 7362 requires a new gas main in Chelsea Street and meter by National Grid to feed the Caruso Pump Station because of the new dual burner system which uses fuel or gas. The Authority and National Grid were unable to execute an Agreement prior to the Contract 7362 Bid Date of January 28, 2016. Therefore, Contract 7362 included an allowance for Work by Utilities in the amount of \$100,000.

After commencement of the contract, MWRA staff continued to work with National Grid negotiating agreements required for new gas mains to support the following construction projects: Caruso Pump Station Upgrades, Chelsea Creek Headworks Upgrades and the Clinton Treatment Plant. Since the Caruso Pump Station and Chelsea Creek Headworks are located in the same service district less than a mile apart, National Grid combined both gas services into one Agreement. The Agreement was executed June 16, 2016. The work that was to be performed by National Grid under this Bid Allowance was performed and paid for under this Agreement. Therefore, the allowance carried under Bid Item 1-B is no longer needed and must be decreased in its entirety.

The approved PCO for this item has been identified by MWRA staff as an underrun in quantities. MWRA staff, the Consultant, and the Contractor have agreed to a lump sum credit amount of (\$100,000) for this additional work with no increase in contract term.

CONTRACT SUMMARY:

	<u>Amount</u>	<u>Time</u>	<u>Dated</u>
Original Contract:	\$4,097,097.00	365 Days	03/24/16
Change Orders:			
Change Order 1*	\$10,881.00	0 Days	11/03/16
Change Order 2*	\$221,417.00	10 Days	12/06/16
Change Order 3*	\$2,000.00	0 Days	03/15/17
Change Order 4*	\$0.00	30 Days	03/22/17
Change Order 5*	\$0.00	45 Days	04/27/17
Change Order 6	(\$64,650.00)	<u>0 Days</u>	Pending
Total of Change Orders:	\$169,648.00	85 Days	
Adjusted Contract	\$4,266,745.00	450 Days	

*Approved under delegated authority

If Change Order 6 is approved, the cumulative value of all change orders to this contract will be \$169,648 or 4.1% of the original contract amount. Work on this contract is approximately 87% complete.

BUDGET/FISCAL IMPACT:

The FY17 Capital Improvement Program budget includes \$4,097,097 for Contract 7362. Including this change order for (\$64,650), the adjusted subphase total is \$4,266,745 or \$169,648 over budget. This amount will be absorbed within the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

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



MASSACHUSETTS WATER RESOURCES AUTHORITY

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

Frederick A. Laskey
Executive Director

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

WATER POLICY AND OVERSIGHT COMMITTEE MEETING

Chair: A. Blackmon
Vice-Chair: B. Peña
Committee Members:
J. Carroll
J. Foti
A. Pappastergion
H. Vitale
J. Walsh
J. Wolowicz

to be held on

Monday, May 8, 2017

Location: 100 First Avenue, 2nd Floor
Charlestown Navy Yard
Boston, MA 02129

Time: Immediately following Wastewater Comm.

AGENDA

A. Information

1. Update on Lead and Copper Rule Compliance Testing – Spring 2017

B. Contract Awards

1. Peabody Water Pipeline Project, Section 109 Extension: CDM Smith Inc., Contract 6895

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Water Policy and Oversight Committee

April 12, 2017

A meeting of the Water Policy and Oversight Committee was held on April 12, 2017 at the Authority headquarters in Charlestown. Chairman Blackmon presided. Present from the Board were Ms. Wolowicz and Messrs. Carroll, Pappastergion and Vitale. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Steve Estes-Smargiassi, Andrew Hildick-Smith, Jerry Sheehan, Cori Barrett, Dave Coppes, Jeff Bina, and Bonnie Hale. The meeting was called to order at 11:35 a.m.

Information

Reservoir and Drought Status Update

Staff gave a presentation on current conditions.

Contract Awards

*Emergency Action Plan Updates for Western Dams and Dikes: GZA GeoEnvironmental, Inc., Contract EXE-040

The Committee recommended approval of the contract award (ref. agenda item B.1).

(Mr. Carroll left the meeting.)

Contract Amendments/Change Orders

*Northern Intermediate High Section 110 – Reading and Woburn: Albanese D&S, Inc., Contract 7471, Change Order 10

Staff gave a presentation and described the drain line to be installed. The Committee recommended approval of Change Order 10 (ref. agenda item C.1).

*Section 80 Repair: P. Caliacco Corp, Contract 7532, Change Order 1

Staff gave a presentation on the project. The Committee recommended approval of Change Order 1 (reference agenda item C.2).


* Approved as recommended at April 12, 2017 Board of Directors meeting.

In addition, staff gave a presentation on a related item, an update on an emergency repair performed on Section 80 from April 2nd to April 3rd under Contract No. OP-352. (Both presentations are on file along with the above staff summary.)

The meeting adjourned at 12:00 noon.

* Approved as recommended at April 12, 2017 Board of Directors meeting.

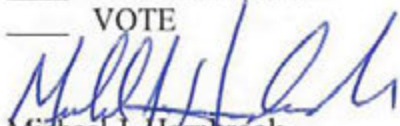
STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 8, 2017
SUBJECT: Update on Lead and Copper Rule Compliance Testing – Spring 2017

COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE

Joshua Das, Project Manager, Public Health
Carl Leone, Senior Program Manager
Stephen Estes-Smargiassi, Director, Planning
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

Two communities: Malden and Quincy were required to sample during the March 2017 sampling round, as their results were over the Action Level in September 2016. Both communities were below the Action Level in the latest sampling round. Both communities provided lead educational materials to all their customers, and are conducting lead service line replacement programs.

RECOMMENDATION:

For information only.

DISCUSSION:

MWRA and its communities conducted the annual system-wide lead and copper monitoring for fully-supplied communities in September 2016. The 90th percentile value for the system as a whole in September was 6.9 ppb, which is below the Lead Action Level of 15 ppb. Two communities had individual results above the Action Level, and were required under the terms of the DEP approved MWRA monitoring protocol to sample in March 2017. The results from the latest sampling round showed that both communities were below the Action Level: Malden with a 90th percentile of 12.1 ppb and Quincy with 7.35 ppb. Both communities were again well below the Copper Action Level. If both communities are below the Lead Action Level again in the September 2017 sampling round, they will go back to once per year sampling. Both communities have been notified.

BACKGROUND:

Under EPA's Lead and Copper Rule, each year MWRA and every fully-supplied community must collect and test tap water in a sample of homes¹ that are likely to have high lead levels. These are usually homes with lead services or lead solder. EPA requires that nine out of ten of the sampled homes must have lead levels at or below the Action Level of 15 ppb.

Starting in 2012, MWRA's fully-supplied communities are only required to sample for lead and copper once per year, as long as their 90th percentile results are below the Action Level. A

¹ In most communities, 15 homes are sampled; the exceptions are Boston, which collects 25 samples, and Lynnfield and Nahant, which collect 10 samples. A total of at least 450 samples are collected.

community that exceeds the lead Action Level can return to once-per-year sampling after it has two consecutive sampling rounds under the Action Level.

MWRA has already formally transmitted these results to DEP. The results were also transmitted to the communities, and, through them, to every individual homeowner that collected a sample for the program.

Communities which are above the lead Action Level are required to conduct a Public Education effort, mailing lead information to every customer. Both communities have done so, using MWRA provided brochures. Communities are also required to begin a lead service replacement program, replacing at least 7 percent of their lead services each year. In line with current understanding of the risks of elevated lead levels from only replacing the portion of the service line in the public way (a so-called partial replacement); DEP is requiring the communities to fully replace any lead service under this effort, from the main all the way to the house.


Quincy has initiated a comprehensive lead service replacement program, and received a \$1.5 million zero-interest loan from MWRA's Lead Service Line Replacement program on December 23, 2016. The city program is replacing the entire lead service line from main to the house at the water department's expense using the MWRA loan, and is thus successfully seeing very high property owner participation rates in the program. Construction began in April 2017. Quincy received a DEP Public Water System Award for their lead service line replacement program on May 9, 2017. The DEP award citation indicated that the "Quincy Water Department has a robust Lead Service Line (LSL) Replacement Program in which the department replaces much more than the 7% of LSL and completes a full service line replacement main-to-house." Quincy will also be recognized by the environmental non-profit advocacy group Clean Water Action for the lead service line program at their May 16, 2017 *Spring for Water* event.

Malden has been replacing lead service lines under a pre-existing administrative consent order with DEP for a number of years. With the new DEP requirement to full replace any lead service, Malden will initially be prioritizing locations where the home owner has already replaced the portion of the service line on their private property. By replacing the remaining portion on public property, Malden will be accomplishing a full replacement, thus reducing the risk of elevated lead levels. Under their agreement with DEP, Malden will be developing a program to manage replacement of the portion of lead service lines on private property over the next year or so.

BUDGET/FISCAL IMPACT:

In FY17, MWRA implemented a \$100 million loan program for lead service line replacement for all member communities, from which the program in Quincy is funded.


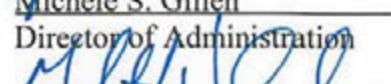
STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 8, 2017
SUBJECT: Peabody Water Pipeline Project, Section 109 Extension
Design, Engineering Services During Construction, and Resident
Engineering/Inspection Services
CDM Smith Inc.
Contract 6895

COMMITTEE: Water Policy & Oversight

Peter Grasso, Project Manager
Frederick Brandon, P.E., Assistant Director, Engineering
A. Navanandan, P.E., Chief Engineer
Preparer/Title

 INFORMATION
 X VOTE


Michele S. Gillen
Director of Administration

Michael J. Flombrook
Chief Operating Officer

RECOMMENDATION:

To approve the recommendation of the Consultant Selection Committee to award Contract 6895, Peabody Water Pipeline Project, Section 109 Extension Design, Engineering Services During Construction, and Resident Engineering/Inspection Services to CDM Smith Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$3,498,857, for a contract term of fifty-one months from the Notice to Proceed.

BACKGROUND:

Peabody is a partially supplied MWRA water community. Peabody's drinking water is mainly supplied by the Coolidge and Winona Water Treatment Plants. Raw water from the Ipswich River is pumped to Suntaug Lake and Winona Pond. Water from Winona Pond is treated at the Winona Water Treatment Plant and water from Suntaug Lake and Spring Pond are treated at the Coolidge Water Treatment Plant. Under the Massachusetts DEP Water Management Act, Peabody is allowed to pump an annual average of 3.87 million gallons per day (MGD) from the Ipswich River and 1.87 MGD from Spring Pond. In addition, Peabody is allowed only to pump the water from the Ipswich River from December 1 to May 31 to fill the Suntaug Lake and Winona Pond reservoirs. Peabody supplements its drinking water through an existing MWRA connection, Meter 168. Currently 5.0 MGD (annual average) is supplied from local sources and 1.2 MGD is supplied by the MWRA.

Peabody's Winona plant, constructed in 1974, has reached the end of its useful life. The City has decided to purchase more water from the MWRA instead of making the capital investment in

rebuilding the aging water treatment plant. A proposed new MWRA pipeline and meter will serve the western side of the City that is currently served by the Winona plant and will also provide a redundant connection to the City's water distribution system. The City estimates that its MWRA water supply would increase from 1.2 MGD to 2.5 MGD.

Peabody's Coolidge plant, built in 1997, was extensively damaged by fire in March of this year. Peabody is currently producing drinking water for the entire city using the Winona plant and the existing MWRA Meter 168. This underscores the need for a redundant MWRA water supply to the City's distribution system.

DISCUSSION:

Contract 6895 is a fifty-one month professional services contract for the design, engineering services during construction and resident engineering /inspection services (21 months for design, 18 months for construction and 12 month warranty period) of an 11,200-linear foot, 24-inch diameter water pipeline that will extend MWRA's Section 109 from the Lynnfield/Saugus town line to the Peabody/Lynnfield line on Route 1 (See Figure 1 attached).



Proposed Pipeline Route in shoulder of Rte. 1 (Looking North)

The scope of services includes confirming the final pipeline alignment; performing a geotechnical and hazardous waste exploration/assessment program along the alignment; evaluating traffic impacts; obtaining all required permits; determining construction control measures for residents, businesses, pedestrians; and development of construction contract documents including drawings and specifications. The scope also includes

engineering services during construction to review submittals, evaluate change orders and respond to contractor questions, as well as providing resident engineering/inspection services.

Procurement Process

On February 11, 2017, MWRA issued a one-step Request for Qualifications Statements/Proposals (RFQ/P) that was publically advertized in the Central Register, Boston Herald, Banner Publication and El Mundo. In addition, notice of the RFQ/P was sent directly to sixteen engineering firms.

The RFQ/P included the following evaluation criteria and points: Cost - 20 points; Qualifications and Key Personnel - 20 points; Past Performance on Authority Projects - 20 points; Technical Approach and Capacity/Organization and Management Approach - 20 points; Experience/Past Performance on Similar Non-Authority Projects - 15 points; MBE and WBE

Participation - 5 points.

On March 22, 2017, MWRA received four proposals from the following firms: CDM Smith Inc., CDR Maguire, Inc., Dewberry Engineers Inc., and Weston & Sampson Engineers, Inc.

The proposed costs and levels of effort are presented below:

PROPOSER	PROPOSED CONTRACT COST	LEVEL OF EFFORT
CDR Maguire, Inc.	\$2,440,716*	21,180 hours
<i>Engineer's Estimate</i>	<i>\$3,100,000</i>	<i>17,800 hours</i>
Dewberry Engineers Inc.	\$3,468,341*	23,101 hours
CDM Smith Inc.	\$3,498,857*	21,094 hours
Weston & Sampson Engineers, Inc.	\$3,584,464*	26,354 hours

*Reflects corrections made due to mathematical errors.

The proposed costs of three of the proposers, being within 12%-16% of the Engineer's Estimate and within 3% of each other, gives the Authority a high level of confidence in the overall cost of the project. It also underscores the Committee's conclusion that the lowest proposal cost from CDR Maguire, being \$1,000,000 below the next lowest proposal cost and 21% below the Engineer's Estimate, is inadequate to complete the project because there were major portions of subcontracted work (geotechnical borings and laboratory services) omitted from its cost. The other three proposers included an average of \$625,000 more than CDR Maguire in subcontracted costs. These subcontracted costs are in addition to the level of effort for each of the proposals.

The five voting members on the Selection Committee reviewed, scored and ranked the proposals as follows:

PROPOSER	TOTAL POINTS	ORDER OF PREFERENCE* TOTAL SCORE	FINAL RANK
CDM Smith Inc.	415.5	5	1
Weston & Sampson Engineers, Inc.	366.5	10	2
Dewberry Engineers Inc.	285.7	15	3
CDR Maguire, Inc.	220.5	20	4

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

CDM Smith was unanimously ranked first by the Selection Committee. The Selection Committee determined that CDM Smith's was the best proposal and included an appropriate level of effort and distribution of work, as well as key personnel with excellent qualifications and experience, and a very strong technical approach and capacity. CDM Smith received the most points in 4 of the 6 scoring categories (Qualifications and Key Personnel; Past

Performance on Authority Projects; Technical Approach and Capacity/Organization and Management Approach; Experience/Past Performance on Similar Non-Authority Projects) and the second most points in two other categories (Cost and MBE/WBE Participation). Its project team includes Green International Affiliates, Inc. for surveying and mapping, Geologic Earth Exploration, Inc. for drilling and Corrosion Probe Inc. for corrosion analysis.

References on CDM Smith's past MWRA and non-MWRA project performance were excellent. The firm recently completed a project for the Town of Saugus, which included the construction of water pipelines in Route 1 very similar to MWRA's proposed pipeline. Saugus provided an excellent reference for CDM Smith. All references said they would hire CDM Smith again for future projects. CDM Smith's many years of experience in pipeline design and construction administration makes it well suited for this project. The firm's most recent MWRA experience was ranked excellent and includes the Sudbury Aqueduct Pressurization Alternatives Analysis and MEPA Review, Owner's Representative Spot Pond Water Storage Facility, Section 36 Replacement, the Rosemary Brook Siphon Buildings Repair and Stabilization Project, Section 80 Repair, WASM 3 Design and Construction Services, and numerous Deer Island projects including the Deer Island Clarifier Rehabilitation project. CDM Smith proposed 21.55% MBE and 9.31% WBE participation.

Weston & Sampson was ranked second overall by the Committee. Weston & Sampson's costs were the highest of all the proposers, exceeding CDM Smith's costs by \$86,000 and Dewberry's by more than \$116,000. The Selection Committee concluded that although Weston & Sampson's overall level of effort was higher, its cost was also higher with no significant advantage over the proposal by CDM Smith. Weston & Sampson also had lower MBE/WBE participation.

Dewberry was ranked third overall by the Committee. Dewberry received the most points in the Cost and MBE/WBE Participation criteria, but received the least amount of points in the Past Performance on MWRA Projects criteria. This was primarily due to its performance on two recent projects.

CDR Maguire was ranked fourth overall by the Committee. It received the least amount of points in all but one of the selection criteria. CDR Maguire's cost proposal had many errors and significant portions of work appeared to be omitted. The firm's proposed level of effort was highest for project administration and 50% lower than the other firms for final design. Staff believe that the level of effort for design is inadequate and would likely lead to cost overruns. CDR Maguire's Technical Approach was a generic "sample" approach that included very little project-specific information. The proposal also did not identify the team's proposed geotechnical engineer and did not provide verifiable references as required in the RFQ/P.

Based on final rankings, and for the reasons set forth above, the Selection Committee recommends the award of this contract to CDM Smith in an amount not to exceed \$3,498,857. In accordance with MWRA's procurement procedures, staff entered into discussions with CDM Smith to confirm costs, level of effort and project management. Based on those discussions, staff believe CDM Smith can successfully complete the project for the proposed cost.

BUDGET/FISCAL IMPACT:

The FY17 CIP does not include a budget for Contract 6895. Funds have been included in the Proposed FY18 CIP for this project. Any impacts will be absorbed within the five-year CIP spending cap.

MBE/WBE/PARTICIPATION:

The minimum MBE and WBE participation requirements for this project were established at 7.18% and 5.77% respectively. CDM Smith has committed to 21.55% MBE and 9.31% WBE participation.

ATTACHMENT:

Figure 1- Conceptual Alignment



Figure 1 - Contract 6895 - Peabody Water Pipeline, Section 109 Extension
Conceptual Alignment



Date: 4/25/2017

Security Operational - For MWRA use ONLY

1 inch = 1,500 feet





MASSACHUSETTS WATER RESOURCES AUTHORITY

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

Frederick A. Laskey
Executive Director

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PERSONNEL & COMPENSATION COMMITTEE MEETING

Chair: J. Wolowicz
Vice-Chair: K. Cotter
Committee Members:
J. Carroll
P. Flanagan
J. Foti
A. Pappastergion
H. Vitale
J. Walsh

to be held on

Monday, May 8, 2017

Location: 100 First Avenue, 2nd Floor
Charlestown Navy Yard
Boston, MA 02129

Time: Immediately following Water Comm.

AGENDA

A. Approvals

1. Appointment of Associate General Counsel, Litigation, Law Division
2. Appointment of Deputy Contracts Manager, Procurement Department, Administration Division
3. Appointment of Program Manager Engineering & Construction, Operations Division

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

1. Authority Accountability and Transparency Act Compliance

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Personnel and Compensation Committee

April 12, 2017

A meeting of the Personnel and Compensation Committee was held on April 12, 2017 at the Authority headquarters in Charlestown. Chair Wolowicz presided. Present from the Board were Messrs. Blackmon, Carroll, Pappastergion and Vitale. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Brian Rozowsky, and Bonnie Hale. The meeting was called to order at 12:00 noon.

Approvals


*Appointment of Assistant Director, Internal Audit

Staff discussed the work history and qualifications of the candidate. The Committee recommended approval of the appointment of Ms. Cheryl King (ref. agenda item A.1).

The meeting adjourned at 12:05 p.m.

* Approved as recommended at April 12, 2017 Board of Directors meeting.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 8, 2017
SUBJECT: Appointment of Associate General Counsel, Litigation

COMMITTEE: Personnel & Compensation

INFORMATION
 VOTE

Karen Gay-Valente, Director, Human Resources
Preparer/Title


Steven A. Remsberg
General Counsel

RECOMMENDATION:

That the Board approve the appointment of Meghan L. McNamara to the position of Associate General Counsel, Litigation, Law Division (Non-union, Grade 15) at an annual salary of \$130,000 commencing on a date to be determined by the Executive Director.

DISCUSSION:

A vacancy has been created in the position of Associate General Counsel, Litigation in the Law Division as a result of the retirement of the incumbent. The position is a key one for the agency as virtually every matter of either defensive or affirmative litigation involving MWRA as a party is placed under the responsibility of and handled to completion by staff of the Law Division either under the supervision of the Associate General Counsel (AGC) or by assignment directly to the AGC. This position requires extensive trial and litigation experience in a wide variety of matters including disputes arising out of construction projects, design contracts, personal injury suits and other tort claims, employment law issues which reach the state or federal courts, and an occasional eminent domain proceeding.

The position was posted internally and externally. Forty-one applicants responded, of which seven candidates were selected to be interviewed. The interviews were conducted by the AGC, the General Counsel, the Director of the Affirmative Action and Compliance Unit and the Deputy Chief Operating Officer for Programs, Policy & Planning. At the conclusion of the interviews, Ms. McNamara was recommended for selection as the best candidate for the position based on her qualifications and experience.

Ms. McNamara began her legal and trial practice as an Assistant District Attorney in the Plymouth County District Attorney's Office where she conducted scores of jury and bench trials and appeared before judges in criminal sessions on a variety of motions where she honed her advocacy skills. She then joined the firm of Donovan Hatem LLP, where she practiced for approximately three years. Her litigation and trial background were used in civil matters including construction claims, matters involving the professional liability of architects and design professionals, motor vehicle negligence, product defects and employment matters – each of which are at the heart of the areas of practice most often needed by the Law Division.

Attorney McNamara's experience in state and federal construction law, personal injury and a wide variety of other matters continued for six additional years at the firm of McNamara & Flynn. She then worked at Gordon & Rees, where she continues to represent contractors, design professionals in procurement and construction contract disputes and other matters.

Ms. McNamara is a 2002 graduate of Holy Cross College where she earned a Bachelor of Arts degree and a 2005 graduate of the Suffolk University Law School from which she earned a Juris Doctor degree. While in law school, Ms. McNamara participated in a number of litigation and moot court activities and earned a number of awards for trial and appellate advocacy, including the First Year Best Oral Advocate Award and the Goodwin Advocate Award. She was also a semi-finalist in Suffolk's annual Tom Clark Appellate Competition. Ms. McNamara is admitted to practice in the Massachusetts state and federal courts where virtually all of MWRA's litigation is conducted.

BUDGET/FISCAL IMPACT:

There are sufficient funds in Law Division's FY17 CEB to fund this position.

ATTACHMENTS:

Resume of Meghan L. McNamara
Position Description
Law Division's Organization Chart

MEGHAN L. MCNAMARA

LEGAL EXPERIENCE

GORDON & REES SCULLY MANSUKHANI, SENIOR COUNSEL

2016 – PRESENT

Meghan McNamara is a trial and appellate attorney with extensive experience in construction law, commercial litigation, complex tort, and professional malpractice matters in state and federal courts. Meghan's practice focuses on the resolution of complex commercial and construction disputes through negotiation, litigation and ADR, and Meghan has been lead counsel in dozens of trials, bid protests, administrative hearings and mediations. Meghan regularly advises her clients, which include both public and private owners, insurance companies, contractors and design professionals, on all wide range of matters from procurement and negotiation of construction contracts and commercial leases to payment bond claims and disputes over employment matters.

MCNAMARA & FLYNN, P.A., ATTORNEY

2010 – 2016

(McNamara & Flynn was a multi-practice civil litigation firm with a focus on state and federal construction law.)

Representative Experience includes but is not limited to:

- Successful representation and defense of clients who are the subjects and/or targets of investigations of fraud by the United States Department of Justice;
- Obtained full recovery on behalf of a contractor at mediation before the Civilian Board of Contract Appeals on a termination for convenience claim against the Veterans Administration;
- Obtained trial victory as second chair trial counsel on behalf of the MBTA in a \$12 million dollar lawsuit by a contractor for payment of Chapter 21E remediation costs – Trial Court awarded the MBTA over \$1 million dollars on its counterclaim; successfully affirmed judgment in the Appeals Court;
- Defeated anti-SLAPP motions to dismiss in an action for abuse of process and defamation on behalf of business owner – successfully argued before Appeals Court obtaining affirmation of trial court's decision and obtained favorable settlement for client prior to trial;
- Obtained favorable settlement on behalf of a public housing authority in a breach of contract action against contractor on a subsidized housing project despite expiration of statute of limitations;
- Obtained favorable settlement on behalf of a contractor against a subcontractor on a Miller Act claim after cross-examining subcontractor during the first day of jury trial in federal court;
- Obtained Not Guilty trial verdicts and dismissals for clients in various criminal matters; and
- Argued criminal appeals before the Appeals Court on behalf of indigent defendants as part of the Appellate Board of the Committee for Public Counsel Services.

DONOVAN HATEM LLP, ASSOCIATE

2008 – 2010

Practice areas: Claims Management and representation of clients in complex, multi-party matters in state and federal courts, focusing on commercial law, contract disputes, complex tort and professional liability claims involving general negligence, product defects, premises liability, motor vehicle negligence, construction defects and employment torts.

Representative Experience includes but is not limited to:

- Management of all aspects of case strategy including: drafting and arguing all types of motions; taking and defending depositions, expert witnesses; settlement negotiations; and successfully representing clients in all types of hearings, mediations, arbitrations and trials;

- Served as second chair trial counsel on a month long jury trial representing a general contractor in a multimillion dollar wrongful death suit arising out of the stabbing death of a restaurant employee by a subcontractor; successfully and favorably settling the suit while the jury was in deliberation;
- Performed assessment of liability, damages exposure and settlement valuation on high exposure, complex tort and construction cases nationwide.
- Obtained summary judgment of a multimillion dollar subrogation claim against an architect of a large condominium complex.

PLYMOUTH COUNTY DISTRICT ATTORNEY'S OFFICE, ASSISTANT DISTRICT ATTORNEY

2005 – 2008

Duties: Criminal prosecution of domestic violence, larcenies, sexual offenders, narcotics violations, firearms violations, and operating under the influence cases. Special assignment to Domestic Violence Unit (2007-2008).

Representative Experience: Case preparation and trial practice in the jury session where Meghan obtained victories in dozens of jury and bench trials resulting in convictions of violent criminals, often despite non-cooperation and non-appearance of victims. Experience also includes bail, detention, pre-trial, and probable cause hearings in addition to arraignments, motions to suppress, discovery motions, and interlocutory appeals.

EDUCATION

SUFFOLK UNIVERSITY SCHOOL OF LAW (J.D., 2005)

Honors: Dean's List (2003-2005); Moot Court Honors Board; First Year Best Oral Advocate Award; Journal of Trial and Appellate Advocacy; Recipient of the Goodwin Advocate Award Winner - 3rd Year Day/4th Year Evening Trial Competition; Semi-Finalist - Tom Clark Appellate Competition

Activities: National Trial Team; American Trial Lawyers Association Trial Team; Daniel Invitational Trial Team; Suffolk Advocates; Co-Director, Tom Clark Appellate Competition; Co-Writer, McLaughlin Competition Brief

COLLEGE OF THE HOLY CROSS (B.A., English, 2002)

Activities: American Mock Trial Association Trial Team (Nationals '01); Student Government Association

BAR ADMISSIONS & DISTINCTIONS

- Massachusetts (2005)
- U.S. District Court of Massachusetts (2009)
- Super Lawyers® Rising Star – Business Litigation (2013-2015)

INTERESTS & MEMBERSHIPS

- Appellate Board of the Committee for Public Counsel Services
- American Heart Association Volunteer
- Running (BAA Boston Marathon '11, '13, '14 and '15 for Tedy's Team/American Stroke Association)
- Volunteer judge for the Holy Cross Mock Trial Team and Suffolk Law School Trial Competitions

**MWRA
POSITION DESCRIPTION**

POSITION: Associate General Counsel -- Litigation

DIVISION: Law

DEPARTMENT: Law

BASIC PURPOSE:

Handling all litigation issues, provides advice and manages the staff in the areas of responsibilities described below.

SUPERVISION RECEIVED:

Works under the general supervision of the General Counsel.

SUPERVISION EXERCISED:

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

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Supervises a staff of attorneys, a paralegal and a secretary involved in the handling of all litigation issues in the following areas:
- Handles case preparation, alternative dispute processes and trial work on behalf of MWRA in affirmative and defensive litigation in federal and state courts in a wide range of matters including personal injury, property damage, environmental eminent domain, employment, insurance and construction litigation.
- Supervises outside counsel where required in major cases beyond the expertise or resources of the Law Division.
- Apprises the Board of Directors, Executive Director and General Counsel of issues and developments in areas of responsibility.
- Manages MWRA's response to subpoenas, Public Record Act requests, and other legal notices in a timely, well-organized manner within the requirements of law.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Analytical and writing skills as normally attained through a four (4) year college program. A JD from an accredited law school is required; and
- (B) Understanding of substantive legal areas such as labor and employment, contracts, public works procurement and eminent domain. Candidate should have direct in-court experience as a trial attorney, including jury trial experience acquired by seven (7) to ten (10) years of related experience; and
- (C) Any combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Strong supervisory skills are preferred.
- (B) Strong analytical, organizational and writing skills are required.

SPECIAL REQUIREMENTS:

Admission to the bar to practice law in the state and federal courts in Massachusetts and in good standing in all jurisdictions where candidate has been admitted to practice.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

is required to stand and walk.

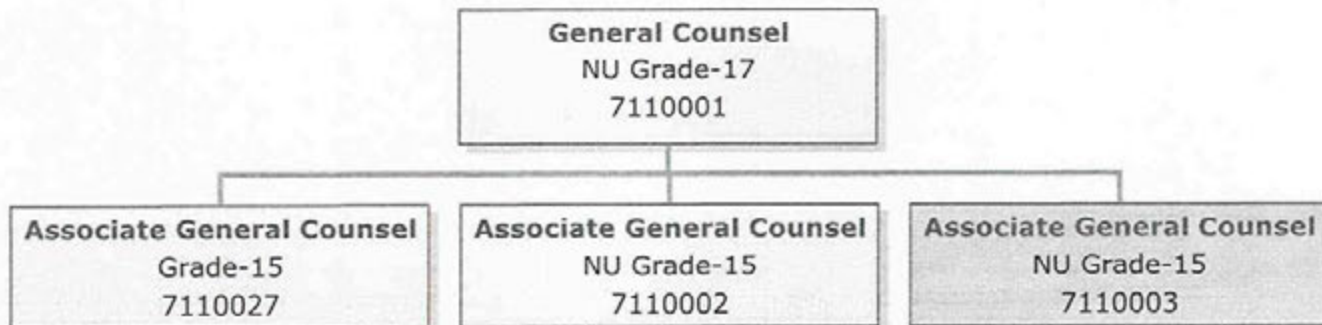
There are no requirements that weight be lifted or force be exerted in the performance of this job. Specific vision abilities required by this job include close vision, and the ability to adjust focus.

WORK ENVIRONMENT:


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

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

Law Department
May 2017



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 8, 2017
SUBJECT: Appointment of Deputy Contracts Manager, Administration Division

COMMITTEE: Personnel & Compensation

VOTE
 INFORMATION

Karen Gay-Valente, Director, Human Resources
Carolyn Francisco Murphy, Director, Procurement
Preparer/Title


Michele S. Gillen
Director of Administration

RECOMMENDATION:

To Board approve the appointment of Mr. Tsuyoshi Fukuda to the position of Deputy Contracts Manager, Administration Division (Unit 6, Grade 13) at an annual salary of \$116,034.69 commencing on a date to be determined by the Executive Director.

DISCUSSION:

At the March 15, 2017 meeting, the Board approved a title and grade change for a Deputy Contracts Manager (Unit 6, Grade 13) to address the needs of the Procurement Department. Organizationally, this position reports to the Director of Procurement.

The Deputy Contracts Manager works closely with all staff to facilitate the procurement of construction and professional and non-professional service contracts. The Deputy Contracts Manager implements Authority-wide policies and procedures, and applicable laws, for all elements of contracting, including the creation, review and/or evaluation of contract documents, RFQs, RFPs, proposals and bids, and the review and analysis of amendments, change orders and contract close-out documents. The Deputy Contracts Manager assists the Director of Procurement in the defense of contract claims and the dispute resolution process, advises the Law Division and Authority senior staff on contract matters as required, and represents the Authority before the Commonwealth's Attorney General's Office. The Deputy Contracts Manager reviews, drafts and/or negotiates contract terms and conditions, oversees the preparation and updating of standard forms and other contract provisions and participates in the close-out and final payment stages of contracts. The Deputy Contracts Manager directs Assistant Contract Managers in the performance of similar duties and functions.

Selection Process

This position was posted internally and externally. One internal and sixty-three external candidates applied. Seven qualified candidates, including the internal candidate, were referred

for an interview. The Director of Administration, Director of Procurement, Special Assistant for Affirmative Action and Deputy Chief Engineer conducted the interviews. At the end of the interviews Tsuyoshi Fukuda was selected as the most qualified candidate based on his experience, abilities, knowledge and education.

Mr. Fukuda is the Assistant General Counsel of the Massachusetts Department of Conservation and Recreation (DCR) where he represents the DCR as its in-house counsel, focusing on construction related matters. Among other duties, Mr. Fukuda reviews contract documents for both Chapter 30 and Chapter 149 construction projects and advises the Planning and Engineering staff and the Director of Contracts and Procurement, both before and after award, on various issues to ensure compliance with applicable laws. Mr. Fukuda also advises staff on bid issues, represents the DCR before the Office of the Attorney General (OAG) at bid protest proceedings and serves as liaison to the OAG on construction related litigation matters. In addition, Mr. Fukuda is responsible for direct payment issues, working with contractors and subcontractors to address payment issues in accordance with statutory law, and advises staff on environmental compliance and land acquisition matters.

Prior to his position at the DCR, Mr. Fukuda served as Labor Counsel at the Commonwealth of Massachusetts Human Resources Division where he represented the Commonwealth in labor and employment matters before the Department of Labor Relations, Civil Service Commission and Massachusetts Commission Against Discrimination. Mr. Fukuda served as staff counsel to the Boston Police Department where he handled employment matters including FMLA, ADA and discrimination cases and as Assistant Corporation Counsel for the City of Boston where he represented the City in all phases of civil litigation. Finally, Mr. Fukuda clerked for Justices on the Connecticut Appellate Court and Massachusetts Appeals Court.

Mr. Fukuda holds a BA in Religious Studies from the College of Holy Cross and a JD from the University of Connecticut School of Law.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the FY17 CEB for this position.

ATTACHMENTS:

Tsuyoshi Fukuda Resume
Position Description
Procurement Department Organization Chart

Tsuyoshi Fukuda

EMPLOYMENT:

COMMONWEALTH OF MASSACHUSETTS

Boston, Massachusetts

Department of Conservation and Recreation

Assistant General Counsel

Feb. 2013 - Present

Represent the DCR as its in-house counsel focusing on construction contract related matters. Specific experience includes: review horizontal (M.G.L. c. 30) and vertical (M.G.L. c. 149) construction contracts and work directly with DCR's contract administration staff on ensuring compliance with applicable law; advise DCR's Planning and Engineering Divisions on construction contract related issues pre-award and post-award; represent DCR at Office of Attorney General's Bid Protest Unit; handle direct demand payment issues; work directly with the DCR's Director of Contracts and Procurement on any related issues; and serve as liaison to the Office of the Attorney General on construction related litigation matters. Other duties include handling employment and labor matters, environmental compliance and land acquisition.

Human Resources Division

Labor Counsel

Dec. 2007 - Feb. 2013

Represented Commonwealth agencies in labor and employment matters at the Department of Labor Relations, Civil Service Commission, Massachusetts Commission Against Discrimination and labor arbitrations. Specific experience: successfully represented management in labor grievance arbitrations involving matters such as employee discipline, promotions, and classifications, as well as negotiated settlement agreements with unions representing Commonwealth employees; advised management in all areas of state and federal labor and employment law, including USERRA, FMLA, CORI, civil service, and Chapters 150E and 151B and the correct implementation of various collective bargaining agreements; and served as an editor of the Commonwealth's Labor & Employment Law Reporter.

GALLAGHER & CAVANAUGH

Lowell, Massachusetts

Attorney

July 2007 - Dec. 2007

Represented clients in all stages of the civil litigation process. Practice focused on products liability, construction litigation, and premises liability defense.

CITY OF BOSTON

Boston, Massachusetts

Office of the Legal Advisor, Boston Police Department

Attorney

Aug. 2006 - July 2007

Represented the BPD as its in-house counsel. Specifically assigned to work with HR on legal issues, including FMLA, ADA and discrimination cases. Handled all recruit hiring issues, such as, provided legal advice to the recruit investigations unit as a member of the hiring team, litigated bypass cases and worked with the state Human Resources Division. Also handled internal disciplinary hearings, drafted MOU's and general BPD policy. Experience at the MCAD, Civil Service Commission, State and Federal Courts. Successfully managed and prioritized a considerably large caseload in a fast paced environment.

Tsuyoshi Fukuda

Corporation Counsel, Boston City Hall

Assistant Corporation Counsel

Sept. 2002 – Aug. 2006

Represented the City of Boston in every phase of civil litigation, including discovery, depositions, motion practice, negotiation, settlements and trials. One of four attorneys in the Tax Title Department responsible for representing the city in its 1700 open tax foreclosure cases. Experience in District Court, Land Court, Superior Court, Federal Court and MCAD. Practice areas included negligence, employment discrimination, civil rights and tax foreclosure law.

THE MASSACHUSETTS APPEALS COURT

Boston, Massachusetts

Law Clerk for The Honorable David A. Mills

Sept. 2001 – Aug. 2002

Researched, edited and drafted Appeals Court opinions in all areas of the law with Judge Mills. Wrote legal memoranda to assist Judge Mills prepare for oral argument. Discussed complex legal issues raised in argument with judges and other law clerks.

THE CONNECTICUT APPELLATE COURT

Hartford, Connecticut

Law Clerk

Aug. 2000 – Aug. 2001

Researched, edited and drafted Appellate Court opinions in all areas of the law for several former Connecticut Supreme Court Justices (Healey and Shea) and former Connecticut Appellate Court Judges (Hennessy, Daly and Stoughton). Wrote and edited legal memoranda to assist judges prepare for oral argument. Discussed complex legal issues raised in argument with judges and other law clerks.

BAR ADMISSIONS: Massachusetts, 2001; Connecticut, 2001; US District Court, Massachusetts, 2004

OTHER EMPLOYMENT:

SystemSoft Corporation, Program Manager, 1995-1996

Natick, Massachusetts

Bishop Feehan High School, Teacher/Hockey Coach, 1993-1995

Attleboro, Massachusetts

EDUCATION:

University of Connecticut School of Law

Hartford, Connecticut

Juris Doctor, 2000

Awards: CALI Excellence for the Future Award (Torts)
West Publishing Company Corpus Juris Secundum Award (Torts)

Journal: Connecticut Journal of International Law
Editor-in-Chief, Spring 2000; Managing Editor, 1999-2000; Member, 1998-1999

College of the Holy Cross

Worcester, Massachusetts

Bachelor of Arts, Religious Studies, 1993

Activities: Men's Varsity Ice Hockey, Team Member 1989-1992
Women's Ice Hockey, Coach, 1992-1993

MWRA
POSITION DESCRIPTION

POSITION: Deputy Contracts Manager

DIVISION: Administration

DEPARTMENT: Procurement

BASIC PURPOSE:

Manages all aspects of construction and professional and non-professional service contracts from initial submission of contract documents through contract closeout.

SUPERVISION RECEIVED:

Works under the general supervision of the Director, Procurement.

SUPERVISION EXERCISED:

Exercises close supervision of assigned Assistant Contracts Manager(s).

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Under the direction of the Director, Procurement, develops and implements Authority-wide policies and procedures for all elements of the contract function, including creation, review and/or evaluation of RFQs, RFPs, proposals, bids and contracts as well as the negotiation of contracts and terms and the review of contract amendments, change orders, contract close-out and final payment.
- Reviews bids, contract processes and documents for format and substance as well as compliance with Authority standards and applicable law, especially MGL Chapters 149 and 30; directs assigned Assistant Contracts Manager(s) in performance of these same functions.
- Oversees and administers advertising programs and systems to open bids and award and execute contracts in compliance with Authority standards and Commonwealth law; works with administrative staff on these issues.
- Assists the Director, Procurement in the defense of contract claims and the dispute resolution process; participates in and directs Assistant Contract Manager(s) in similar activities as appropriate.
- Advises Law Division and Senior Authority staff on contract matters as required; represents Authority before Commonwealth Attorney General's Office; directs Assistant Contracts Manager(s) in performance of these functions.

- Directs Assistant Contracts Manager(s) in the review and evaluation of consultant proposals, emphasizing compensation analysis and cost control.
 - Participates with administrative staff in the establishment and maintenance of a contract database that tracks progress through the advertising, bidding and award stages as well as through the life of the contract.
 - Reviews, drafts and helps negotiate contract terms and conditions; oversees the preparation and updating of standard forms and other contract provisions; supervises Assistant Contracts Manager(s) and directs and assists Authority staff in performance of these functions.
 - Reviews contract amendments and change orders; participates in contract close-out and final payment stages; directs Assistant Contracts Managers in performance of these same functions.
 - Participates in Consultant/Contractor Selection Committees as required.
 - Participates with technical personnel in presentations to the Board.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year college program in business administration or a related field; and
- (B) A masters degree in a related field or a degree in law is strongly preferred; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Understanding of contract administration as acquired through six (6) to eight (8) years contract management experience, of which at least two (2) years should be in a supervisory capacity.
- (B) Knowledge of and experience with MGL Chapters 149 and 30 and with design and other professional and nonprofessional service contracts required; governmental contract experience preferred.
- (C) Excellent written and oral communication skills are required.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Operators License.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

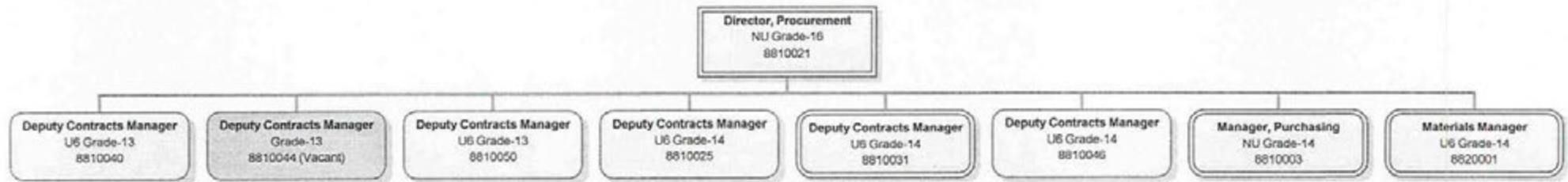
WORK ENVIRONMENT:

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

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

Procurement Department

May 2017



STAFF SUMMARY

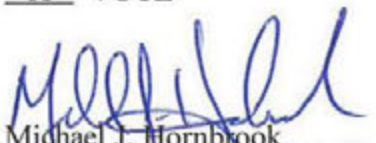
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: May 8, 2017
SUBJECT: Appointment of Program Manager
Engineering & Construction Department
Operations Division



COMMITTEE: Personnel & Compensation

INFORMATION
 VOTE

Karen Gay-Valente, Director, Human Resources
John P. Vetere, Deputy Chief Operating Officer
A. Navanandan, P.E., Chief Engineer
Preparer/Title



Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of Ms. Kathleen M. Cullen, P.E. to the position of Program Manager in the Engineering & Construction Department (Unit 9/Grade 29), at an annual salary of \$108,599.56, commencing on a date to be determined by the Executive Director.

DISCUSSION:

The position of Program Manager in the Engineering & Construction Department became vacant upon the retirement of the incumbent. This position provides supervision and technical oversight to engineering staff and will be responsible for managing projects within the Engineering section including the Metropolitan Redundancy Interim Improvements and other water and wastewater engineering projects as assigned. In addition, this position will be responsible for project scheduling and prioritization, CIP budget preparation, and coordination with Metropolitan and Western Operations, communities and outside agencies.

Selection Process

This Program Manager position was posted internally and externally. A total of nineteen candidates applied for this position. Eight candidates were determined to be qualified (six internal and two external) and were interviewed for the position. The Assistant Director, Engineering, Senior Program Manager, Engineering, and a representative from the Affirmative Action and Compliance Unit interviewed the eight candidates. Upon completion of the interviews, Ms. Kathleen M. Cullen was identified as the most qualified candidate based on education, experience, and knowledge of the requirements of the position.

Ms. Cullen has twenty-two years of engineering experience including 19-years at the MWRA serving in progressively responsible positions and currently holds the position of Project Manager. She has experience working on studies and design contracts, including Heath Hill Water Main Section 52 Phase II Rehabilitation, Cambridge Branch Sewer Study, Upgrades to Chelsea Screen House, Cottage Farm Brookline Connection Inflow Controls and Braintree-Weymouth Relief Facilities. She has demonstrated her experience managing professional services contracts and has successfully supervised and provided technical support to staff. Prior to her employment at MWRA, Ms. Cullen worked for 3 years on environmental engineering projects for a leading manufacturing firm.

Ms. Cullen earned a Bachelor of Science degree in Mechanical Engineering (cum laude) from the University of Massachusetts, Amherst and a Master of Science degree in Civil Engineering from University of Massachusetts, Lowell. She also is a registered Professional Engineer in Massachusetts.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the FY17 CEB for this position.

ATTACHMENTS:

Resume of Kathleen Cullen
Position Description
Organization Chart

KATHLEEN MCCUE CULLEN, P.E.

EXPERIENCE

MASSACHUSETTS WATER RESOURCES AUTHORITY

Project Manager, Engineering & Construction, 2006-present

Senior Engineer, Engineering & Construction, 1999-2006

Staff Engineer, In-House Design, Engineering & Construction, 1998-1999

Coordinate bidding of Chapter 30 and 149 projects. Administer and review the work of professional engineering consultants for quality, budget, schedule, and conformance to contract terms. Prepare scope and cost estimates for professional and construction contracts. Participate in consultant selection procedures and contract negotiations. Perform technical reviews of consultant submittals, including designs, hydraulic evaluations, permits, and easement plans. Coordinate activities and reviews with field operations staff. Meet with public officials, other agencies, and project abutters to present and discuss project. Supervise junior MWRA staff on various activities. Representative projects include:

Cambridge Branch Sewer Study and Sections 4, 5, 6, and 186 Study – Project Manager

Responsible for overall project management of two sewer interceptor studies from development of consultant scope of services through final reports and recommendations. Both projects include physical inspections of structures, sediment analysis, corrosivity evaluation, traffic and permitting assessments, hydraulic capacity evaluation; an evaluation of rehabilitation methods; and a recommendation for future rehabilitation needs including limits of work, bypass procedures and access needs. Total Professional Services Value (two contracts): \$1,900,928

Upgrades to Chelsea Screen House – Project Manager

Responsible for overall project management of the consultant design from development of consultant scope of services through substantial completion of the construction contract. Project includes replacement of two climber screens, seven sluice gates, exhaust fan, floor grating, eleven flow monitoring devices, and adding flood protection to the building including isolation gates, retaining wall, and stop logs. Design Value \$415,026; Construction Value \$4,885,180

Cottage Farm Brookline Connection Inflow Controls – Project Manager

Responsible for overall project management of the consultant design from development of consultant scope of services through substantial completion of the construction contract. The project included modeling of the Cottage Farm CSO Facility, optimization of the Cottage Farm influent gates, and a construction project connecting the upstream overflow chambers, raising weirs within the overflow chambers, and activating the unused Brookline Connection 54-inch pipeline beneath the Charles River, in order to reduce activations at the Cottage Farm CSO Facility.

Design Value \$1,259,704; Construction Value \$1,976,000

KATHLEEN MCCUE CULLEN, P.E. (CONTINUED)

Heath Hill Water Main Section 52 Phase II Rehabilitation – Project Manager

Responsible for the overall project management of the consultant design from preliminary design through award of construction contract. The project included rehabilitation of 11,500 feet of 54-inch steel water main and associated appurtenances. Project tasks included Hydraulic Analysis, Survey, Permitting, Preliminary and Final Design, Bidding Services, Construction Administration and Resident Inspection. Design Value \$2,407,964; Construction Value \$7,593,250

Sluice Gate Rehabilitation Phase II – Senior Engineer

Assisted in project management of the consultant design from final design through bidding services. The project included rehabilitation of nine historic gatehouses and twenty-nine sluice gates contained within the gatehouses.

Braintree-Weymouth Relief Facilities – Senior Engineer

Assisted with bidding of Contract 5316 (Intermediate Pump Station), assisted in management of the consultant design from final design through construction award of Contract 5303 (North Weymouth Relief Interceptor) and Contract 5373 (Fore River Siphon), and final design of Contract 5375 (Replacement Pump Station).

GE PLASTICS

Environmental Engineer, 1995-1998

Graduated from GE Technical Leadership Program (TLP) in 1997. Received General Electric Corporate TLP Recognition Award, 1997. Led wastewater characterization for Grangemouth, Scotland chemical plant. Led WWTP polymer optimization project and managed hazardous waste program for IL chemical plant. Submitted annual hazardous waste reports, signed DOT shipping manifests, brought site into compliance with new RCRA regulations, profiled waste streams, led personnel training, supervised site remediation activities, and performed environmental audits of chemical plants in NY, MS, and IN.

EDUCATION

UNIVERSITY OF MASSACHUSETTS, LOWELL

Master of Science, Civil Engineering, 2005

UNIVERSITY OF MASSACHUSETTS, AMHERST

Bachelor of Science, Mechanical Engineering (cum laude), 1995

PROFESSIONAL REGISTRATION AND AFFILIATIONS

Registered Professional Engineer (Civil), MA#45694

New England Water Environment Association (NEWEA)

Co-Presented "MWRA Hurricane Preparedness at Chelsea Screen House", NEWEA Collection Systems Conference, September 10, 2014

**MWRA
POSITION DESCRIPTION**

POSITION: Program Manager
DIVISION: Operations
DEPARTMENT: Engineering and Construction

BASIC PURPOSE:

Supervises project teams in the department to oversee professional engineering and design projects related to the rehabilitation and capital improvement of waterworks and wastewater facilities and infrastructure from conceptual planning through construction. Additionally, manages engineering and design projects related to the rehabilitation and capital improvement of water and wastewater facilities and infrastructure.

SUPERVISION RECEIVED:

Works under the general supervision of a senior manager in the Engineering and Construction Department.

SUPERVISION EXERCISED:

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

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Oversees projects, including the planning and design of rehabilitation and capital engineering projects for waterworks and wastewater facilities and pipelines. Additionally, manages the planning and design phases of assigned water and wastewater engineering and or maintenance projects including, feasibility and environmental impact reports, detailed plans and specifications, permitting, project schedules, technical assistance, progress review and evaluation.
- Oversees the work of professional engineering consultants, including all work products for quality of work, budget, schedule, and compliance with contractual terms and MWRA objectives and policies.
- Supervises and manages professional staff, including assignment of projects, 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 of new and rehabilitation water and wastewater projects, development of maintenance and operations procedures and working closely with MWRA Safety staff, development of safety procedures.

- Supervises professional multi-discipline engineering work of substantial difficulty and importance, requiring application of professional engineering principles and the exercise of independent engineering judgment.
- Oversees and 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.
- Participates in consultant selection procedures and contract negotiations for projects. Additionally, oversees all phases of consultant selection for assigned projects including development of scope of services, specifications, cost estimates, work schedules, negotiations, and preparations of contract award recommendations. Ensures compliance with contract budgets, schedules and terms.
- Prepares annual and supplementary budget requests for the projects in the Capital Improvement Program. Oversees and reviews projects' budgets and schedules for compliance with established department, division, and MWRA program goals.
- Ensures compliance with MWRA procedures and policies, regulatory requirements and applicable engineering standards. Ensures all project activities are coordinated with MWRA divisions and departments, outside regulatory and permitting agencies and communities, as appropriate.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Completion of a four (4) year college program in civil or related engineering field; and

- (B) Seven (7) to nine (9) years of civil engineering experience of which three (3) years must be in a supervisory capacity and three (3) years in project management; or
- (C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of principles and practices of engineering.
- (B) Understanding of issues related to design, construction and operation of water and wastewater facilities and infrastructure.
- (C) Demonstrated ability to work effectively as part of a project team and also to function independently with minimal supervision.
- (D) Knowledge of Massachusetts bidding laws, including M.G.L Chapter 30 and Chapter 149 construction bidding regulations.
- (E) Familiarity with computer software such as Word and Excel
- (F) Proven interpersonal, managerial, written and oral communications skills are required.

SPECIAL REQUIREMENTS:

Registered Massachusetts Professional Engineer preferred.

TOOLS AND EQUIPMENT USED:

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

to finger, handle, feel or operate objects, tools or controls. The employee is frequently required to talk or hear. The employee is occasionally required to stand, walk, and reach with hands and arms.

The employee must occasionally lift and/or move up to 10 pounds. There are no special visual requirements for this job.

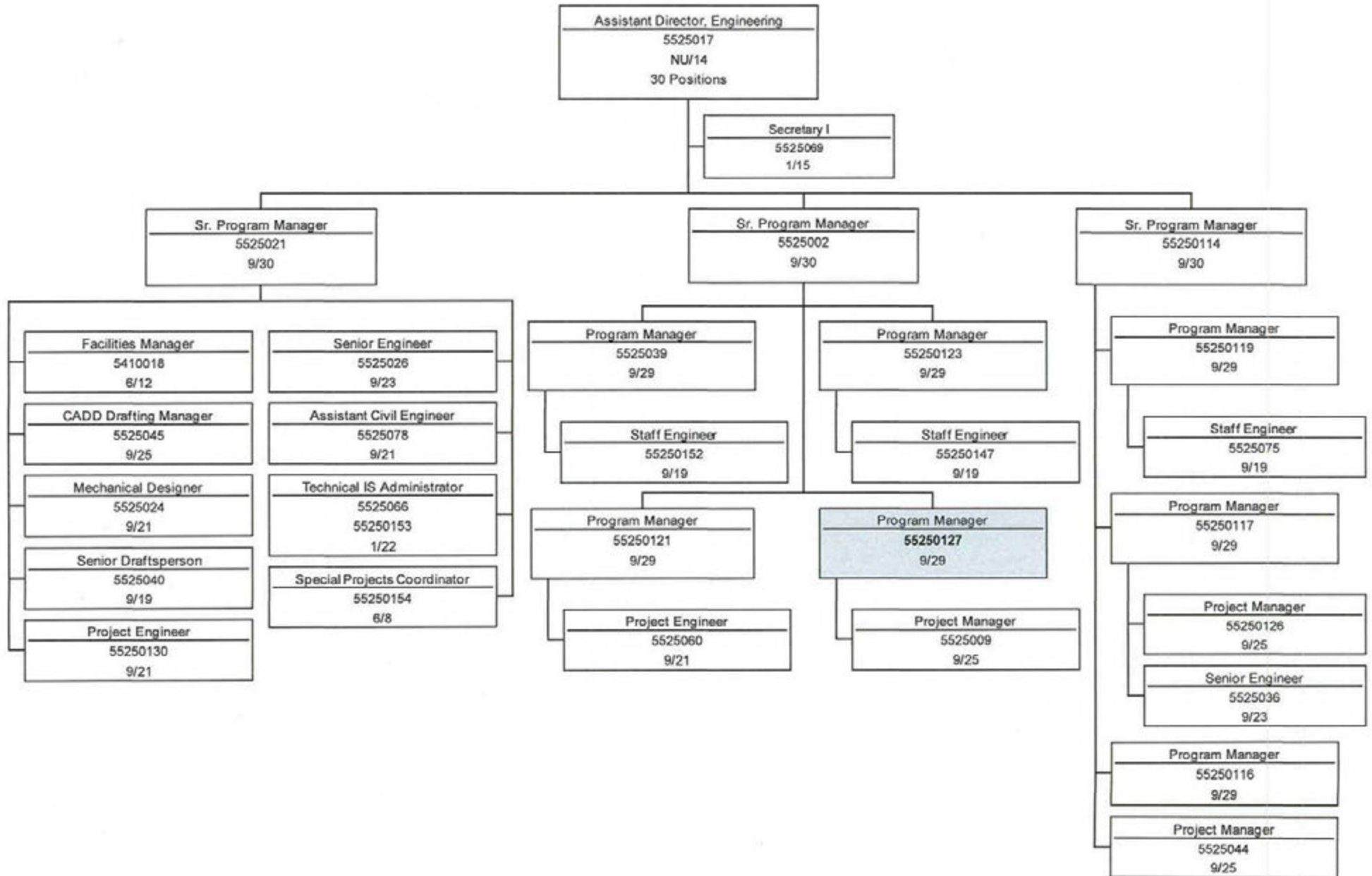
WORK ENVIRONMENT:

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 is not exposed to any unusual environmental conditions.

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

Engineering & Construction
Water/Wastewater Engineering
 May 2017




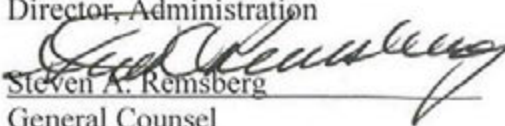
STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 8, 2017
SUBJECT: Authority Accountability and Transparency Act Compliance

COMMITTEE: Personnel and Compensation

X INFORMATION
VOTE


Karen Gay-Valente, Director, Human Resources
Preparer/Title


Michele S. Gillen
Director, Administration

Steven A. Reinsberg
General Counsel

As required by the 2011 Authority Accountability and Transparency Act, the Personnel and Compensation Committee must meet independently of management at least once a year to establish and evaluate executive compensation, and analyze and assess comparable compensation for positions with similar functions and responsibilities at state agencies and authorities, and for-profit and non-profit private sector employers. This meeting will occur at the end of the May 8, 2017 Personnel and Compensation meeting. Analyses of comparable salaries are attached to facilitate the Committee's review.

RECOMMENDATION:

For information only.

DISCUSSION:

The Authority Accountability and Transparency Act (G.L. c. 29, §29K) became law in July 2011 and required the Executive Office for Administration and Finance (A&F) to adopt regulations governing accountability and transparency for state authorities. As applicable to MWRA, the statute requires the Board to review executive compensation based on an analysis of comparable public and private-sector compensation; and to prepare an annual report of all Authority expenditures including disclosure of salaries of highly compensated employees who earn more than the Governor's salary. It also prohibits the Commonwealth from subsidizing the health insurance, pension, and other post-employment benefits of employees and retirees of authorities that participate in the state retirement system or the Group Insurance Commission. A&F filed interim emergency regulations in July 2011, and in 2013, A&F promulgated the permanent regulation.

The final regulation:

- Defines the statutory term "executive" as the authority's chief executive officer, chief financial

officer, general counsel and others as determined by the authority's compensation committee.

- Defines "highly compensated employees," whose compensation is reported in the annual financial report, as those whose salary exceeds that of the Governor.
- Defines "meet independently of management" to exclude authority managers from statutorily required meetings of the authority's audit and compensation committees.
- Implements the benefits anti-subsidy statute, by requiring each state authority that participates in the state retirement system or the Group Insurance Commission to:
 - contribute the employer share of the cost attributable to that authority of the state retirement system (as determined by the PERAC actuary), and of the state group insurance system (as determined by the GIC);
 - be responsible for the full actuarial value of its liabilities as determined no less often than every 3 years by PERAC and the GIC after consulting A&F, the state Treasurer, and the State Board of Retirement.

At the April 2012 meeting, the Board took several steps in order to comply with the Transparency Act and the emergency regulations: the Board created the Administration, Finance and Audit Committee, as well as the Personnel and Compensation Committee; made adjustments to the sick leave buy back for executives; and made certain minor adjustments to existing employment contracts. At the April 2012, May 2013, May 2014, May 2015 and May 2016 meetings, the Personnel and Compensation Committee met independently of management as required by the regulations. As a result of these actions, MWRA is in compliance with the permanent regulations and Transparency Act. Neither MWRA Board members nor the Administration, Finance and Audit Committee are required to meet independently with respect to the audited financials of the Authority because the statute carves out an exception for state authorities that are otherwise required to retain an outside independent audit firm.

In order to remain in compliance with the statute's requirements, staff recommends that the Personnel and Compensation Committee meet independently of management at this meeting. In order to facilitate the committee's review, comparable salaries analyses are included with this staff summary.

BUDGET/FISCAL IMPACT:

The passage and implementation of section 29K of chapter 29 of the General Laws will not have any impact upon either the FY17 CEB or CIP.

ATTACHMENTS:

- Attachment A: Summary of Compensation Data for State Agencies, Authorities, Non-Profit Organizations and Private Companies
- Attachment B: Survey of Comparable National Water/Wastewater Utilities
- Attachment C: American Water Works Association – 2016 Water Utility Survey

Attachment A

Summary of Compensation Data for State Agencies, Authorities, Non-Profit and Private Companies

April 2017

MWRA Position:		Executive Director		
Organization	Sector	Title	Reporting Period	Annual Salary
Eversource Energy	Private Utility	President and CEO	2016	\$959,690
Citizens Energy, Inc.	Non-Profit	President and CEO	2015	\$663,195
Boston Foundation, Inc.	Non-Profit	President and CEO	2015	\$463,483
Greater Boston Food Bank, Inc.	Non-Profit	President and CEO	2015	\$324,896
City Year, Inc.	Non-Profit	President	2014	\$318,962
Mass Port Authority	Quasi Public	Chief Executive Officer	2017	\$280,749
Mass Convention Center Authority	Quasi Public	Executive Director	2017	\$240,011
Mass Housing Partnership	Quasi Public	Executive Director	2017	\$233,000
Commonwealth Health Insurance Connector Authority	Quasi Public	Executive Director	2017	\$223,000
MWRA	Quasi Public	Executive Director	2017	\$186,426
MBTA	State	Acting General Manager	2017	\$175,000
Mass Department of Revenue	State	Commissioner of Revenue	2017	\$158,000
Commonwealth of Massachusetts	State	Governor	2017	\$151,800
Save the Harbor/Save the Bay	Non-Profit	President	2014	\$150,574
Commonwealth of Massachusetts	State	State Auditor	2017	\$134,952
Commonwealth of Massachusetts	State	Secretary of State	2017	\$130,916
Commonwealth of Massachusetts	State	Attorney General	2017	\$130,582
Conservation Law Foundation	Non-Profit	President	2015	\$129,154
Commonwealth of Massachusetts	State	Treasurer	2017	\$127,917

Attachment A

Summary of Compensation Data for State Agencies, Authorities, Non-Profit and Private Companies

April 2017

MWRA Position:		Chief Operating Officer		
Organization	Sector	Title	Reporting Period	Annual Salary
Eversource Energy	Private Utility	Executive Vice President/COO	2016	\$592,108
Citizens Energy, Inc.	Non-Profit	Chief Executive Officer	2014	\$506,913
Mass Port Authority	Quasi Public	Director, Capitol Programs & Environmental Affairs	2017	\$256,271
City Year, Inc.	Non-Profit	Chief Operating Officer	2014	\$250,041
MBTA	State	Chief Operating Officer	2017	\$210,000
Greater Boston Food Bank, Inc.	Non-Profit	Chief Operating Officer	2015	\$209,837
Commonwealth Health Insurance				
Connector Authority	Quasi Public	Deputy Executive Director and COO	2017	\$199,745
Mass Housing Partnership	Quasi Public	Managing Director	2017	\$192,100
MWRA	Quasi Public	Chief Operating Officer	2017	\$177,943

MWRA Position:		Director, Finance		
Organization	Sector	Title	Reporting Period	Annual Salary
Eversource Energy	Private Utility	Executive Vice President & CFO	2016	\$439,208
Citizens Energy, Inc.	Non-Profit	CFO	2014	\$362,354
Mass Port Authority	Quasi Public	Director, Admin & Finance/Sec-Treasurer	2017	\$270,655
City Year, Inc.	Non-Profit	Chief Financial Officer	2014	\$251,167
Boston Foundation, Inc.	Non-Profit	Chief Financial Officer/Treasurer	2015	\$239,717
Greater Boston Food Bank, Inc.	Non-Profit	Chief Financial Officer	2015	\$189,624
Mass Housing Partnership	Quasi Public	Chief Finance & Admin Officer	2017	\$176,200
Mass Convention Center Authority	Quasi Public	Chief Financial Officer	2017	\$170,019
MBTA	State	Deputy General Manager/CFO	2017	\$165,000
Commonwealth Health Insurance				
Connector Authority	Quasi Public	Chief Financial Officer	2017	\$163,199
MWRA	Quasi Public	Director, Finance	2017	\$159,205
Conservation Law Foundation	Non-Profit	Vice President, Finance and Admin	2015	\$101,039

Attachment A

Summary of Compensation Data for State Agencies, Authorities, Non-Profit and Private Companies

April 2017

MWRA Position:		General Counsel		
Organization	Sector	Title	Reporting Period	Annual Salary
Eversource Energy	Private Utility	General Counsel	2016	\$514,494
Mass Port Authority	Quasi Public	Chief Legal Counsel	2017	\$215,270
Mass Housing Partnership	Quasi Public	Deputy Director & General Counsel	2017	\$194,300
Commonwealth Health Insurance				
Connector Authority	Quasi Public	General Counsel	2017	\$189,766
Mass Convention Center Authority	Quasi Public	General Counsel	2017	\$170,019
MBTA	State	General Counsel	2017	\$158,100
MWRA	Quasi Public	General Counsel	2017	\$157,414
Mass Department of Revenue	State	General Counsel	2017	\$152,107
Conservation Law Foundation	Non-Profit	Sr Counsel	2015	\$128,994

Attachment B
 MWRA Survey of Comparable National Water/Wastewater
 Utilities - March 2017

Executive Director										
Organization	Location	Operating Budget	# Employees	Population Served	Title	Base Salary	Car Allowance	Deferred Comp	2015 Bonuses	Employment Contract
Fairfax Water	Fairfax, Virginia	170 Million	444	2.5 million	General Manager	\$280,000	\$5,823	\$12,500		No
Metropolitan Water District of Southern California	Los Angeles, Ca	1.649 Billion	1,789	19 million	General Manager	\$368,077	car provided			Yes
Washington Suburban Sanitary Commission	Laurel, MD	736.4 Million	1,643	1.8 million	General Manager/CEO	\$257,550	\$11,538			Yes
Seattle Public Utilities	Seattle, WA	840 Million	1,278	1.3 million	General Manager/CEO	\$280,000				No
East Bay Municipal Utility District	Oakland, Ca	547 Million	1,935	1.4 Million	General Manager	\$299,304	\$6,000	\$24,000		Yes
					Average Salary	\$296,986				
MWRA					Executive Director	\$186,426	\$8,400			Yes

Chief Operating Officer										
Organization	Location	Operating Budget	# Employees	Population Served	Title	Base Salary	Car Allowance	Deferred Comp	2015 Bonuses	Employment Contract
Fairfax Water	Fairfax, Virginia	170 Million	444	2.5 million	Deputy General Manager	\$243,000	\$1,526	\$12,500		No
Metropolitan Water District of Southern California	Los Angeles, Ca	1.649 Billion	1,789	19 million	Assistant GM/ Chief Operating Officer	\$288,704	\$8,400			Yes
Washington Suburban Sanitary Commission	Laurel, MD	736.4 Million	1,643	1.8 million	Deputy GM for Operations	\$211,090	\$3,942			Yes
Seattle Public Utilities	Seattle, WA	840 Million	1,278	1.3 million	Deputy Director, Field Operations	\$186,625				No
East Bay Municipal Utility District	Oakland, Ca	547 Million	1,935	1.4 Million	Director, Operations & Maintenance	\$245,184			\$9,807	Yes
					Average Salary	\$234,921				
MWRA					Chief Operating Officer	\$177,943	\$8,400			Yes

Director Finance										
Organization	Location	Operating Budget	# Employees	Population Served	Title	Base Salary	Car Allowance	Deferred Comp	2015 Bonuses	Employment Contract
Fairfax Water	Fairfax, Virginia	170 Million	444	2.5 million	Director, Finance	\$204,144				No
Metropolitan Water District of Southern California	Los Angeles, Ca	1.649 Billion	1,789	19 million	Assistant GM/Chief Financial Officer	\$288,704	\$8,400			Yes
Washington Suburban Sanitary Commission	Laurel, MD	736.4 Million	1,643	1.8 million	Chief Financial Officer	\$190,000	\$1,442			Yes
Seattle Public Utilities	Seattle, WA	840 Million	1,278	1.3 million	Deputy Director, Finance & Admin	\$186,625				No
East Bay Municipal Utility District	Oakland, Ca	547 Million	1,935	1.4 Million	Director, Finance	\$193,392				Yes
					Average Salary	\$212,673				
MWRA					Director, Finance	\$169,205				No

General Counsel										
Organization	Location	Operating Budget	# Employees	Population Served	Title	Base Salary	Car Allowance	Deferred Comp	2015 Bonuses	Employment Contract
Fairfax Water	Fairfax, Virginia	170 Million	444	2.5 million	No Match					
Metropolitan Water District of Southern California	Los Angeles, Ca	1.649 Billion	1,789	19 million	General Counsel	\$270,982	\$8,400			Yes
Washington Suburban Sanitary Commission	Laurel, MD	736.4 Million	1,643	1.8 million	General Counsel	\$165,000	\$288			Yes
Seattle Public Utilities	Seattle, WA	840 Million	1,278	1.3 million	No Match (use city legal services)					
East Bay Municipal Utility District	Oakland, Ca	547 Million	1,935	1.4 Million	General Counsel	\$252,312				Yes
					Average Salary	\$229,431				
MWRA					General Counsel	\$157,414				No

Attachment C:
 American Water Works Association
 2016 Water Utility Compensation Survey

Survey Position:	Top Executive				
MWRA Position:	Executive Director				
Survey Scope:	All utilities serving a population in excess of 1,000,000				
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary	MWRA Salary
	17	17	\$209,387	\$234,768	\$186,426
Survey Scope:	All water utilities serving a population in excess of 1,000,000				
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary	MWRA Salary
	5	5	\$165,939	\$195,353	\$186,426
Survey Scope:	All water/wastewater utilities serving a population in excess of 1,000,000				
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary	MWRA Salary
	12	12	\$217,193	\$251,192	\$186,426

Survey Position:	Top Operations and Maintenance Executive				
MWRA Position:	Chief Operating Officer				
Survey Scope:	All utilities serving a population in excess of 1,000,000				
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary	MWRA Salary
	14	15	\$170,025	\$184,463	\$177,943
Survey Scope:	All water utilities serving a population in excess of 1,000,000				
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary	MWRA Salary
	4	4	No Data Reported	No Data Reported	\$177,943
Survey Scope:	All water/wastewater utilities serving a population in excess of 1,000,000				
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary	MWRA Salary
	10	11	\$170,025	\$182,560	\$177,943

Survey Position:	Top Finance Executive				
MWRA Position:	Director, Finance				
Survey Scope:	All utilities serving a population in excess of 1,000,000				
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary	MWRA Salary
	14	13	\$170	\$175,017	\$159,205
Survey Scope:	All water utilities serving a population in excess of 1,000,000				
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary	MWRA Salary
	3	2	No Data Reported	No Data Reported	\$159,205
Survey Scope:	All water/wastewater utilities serving a population in excess of 1,000,000				
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary	MWRA Salary
	11	11	\$170,000	\$179,307	\$159,205

Survey Position:	Top Legal Executive				
MWRA Position:	General Counsel				
Survey Scope:	All utilities serving a population in excess of 1,000,000				
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary	MWRA Salary
	11	10	\$214,349	\$209,682	\$157,414
Survey Scope:	All water utilities serving a population in excess of 1,000,000				
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary	MWRA Salary
	No Data Reported	No Data Reported	No Data Reported	No Data Reported	\$157,414
Survey Scope:	All water/wastewater utilities serving a population in excess of 1,000,000				
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary	MWRA Salary
	8	8	\$193,934	\$200,933	\$157,414



MASSACHUSETTS WATER RESOURCES AUTHORITY

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

Frederick A. Laskey
Executive Director

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

Chair: M. Beaton
Vice-Chair: J. Carroll
Secretary: A. Pappastergion
Board Members:
A. Blackmon
K. Cotter
P. Flanagan
J. Foti
B. Peña
H. Vitale
J. Walsh
J. Wolowicz

BOARD OF DIRECTORS' MEETING

to be held on

Monday, May 8, 2017

Location: 100 First Avenue, 2nd Floor
Charlestown Navy Yard
Boston, MA 02129

Time: 1:00 p.m.

AGENDA

- I. **APPROVAL OF MINUTES**
- II. **REPORT OF THE CHAIR**
- III. **REPORT OF THE EXECUTIVE DIRECTOR**
- IV. **BOARD ACTIONS**
 - A. **Approvals**

1. Bond Defeasance of Future Debt Service (ref. AF&A B.1)
2. Financial Assistance Agreement with BWSC for Dorchester Interceptor Inflow Removal (ref. WW B.1)
3. Appointment of Associate General Counsel, Litigation, Law Division (ref. P&C A.1)
4. Appointment of Deputy Contracts Manager, Procurement Department, Administration Division (ref. P&C A.2)
5. Appointment of Program Manager Engineering & Construction, Operations Division (ref. P&C A.3)

B. Contract Awards

1. Electrical Testing and Technical Services – Metropolitan Boston: Infra-Red Building and Power Service Co., Inc., Contract OP-345 (ref. WW C.1)
2. Peabody Water Pipeline Project, Section 109 Extension: CDM Smith Inc., Contract 6895 (ref. W B.1)

C. Contract Amendments/Change Orders

1. Valve and Piping Replacements, Various Facilities – Deer Island Treatment Plant: Carlin Contracting Co., Inc., Contract 7275, Change Order 6 (ref. WW D.1)
2. Caruso Pump Station Improvement: Waterline Industries Corp., Contract 7362, Change Order 6 (ref. WW D.2)

V. CORRESPONDENCE TO THE BOARD

VI. OTHER BUSINESS

VII. EXECUTIVE SESSION

A. Litigation

1. Cross Harbor Cable Litigation

B. Real Estate:

1. Watershed Land Acquisition

C. Collective Bargaining:

1. Collective Bargaining Update

VIII. ADJOURNMENT

Meeting of the Board of Directors**April 12, 2017**

A meeting of the Board of Directors of the Massachusetts Water Resources Authority was held on April 12, 2017 at the Authority headquarters in Charlestown. Chairman Beaton presided. Present from the Board were Ms. Wolowicz and Messrs. Blackmon, Carroll, Pappastergion, and Vitale. Messrs. Cotter, Flanagan, Foti, Peña and Walsh were absent. Among those present from the Authority staff were Frederick Laskey, Executive Director, Steven Remsberg, General Counsel, Michael Hornbrook, Chief Operating Officer, Thomas Durkin, Director of Finance, Michele Gillen, Director of Administration, and Bonnie Hale, Assistant Secretary. The meeting was called to order at 1:05 p.m.

APPROVAL OF MINUTES

Upon a motion duly made and seconded, it was

Voted to approve the minutes of the Board of Directors' meeting of March 15, 2017, as presented and filed with the records of the meeting.

REPORT OF THE EXECUTIVE DIRECTOR

Mr. Laskey reported on various matters, including that the annual meeting of the Personnel and Compensation Committee independent of management will be scheduled for May 17, 2017, and asking everyone to join him in wishing Board member Blackmon good luck in running in the upcoming Boston Marathon.

BOARD ACTIONS

APPROVALS

Approval of One New Member of the Wastewater Advisory Committee

Upon a motion duly made and seconded, it was

Voted to approve the addition of one new member, Dr. Karen Heinze, to the Wastewater Advisory Committee.

Appointment of Assistant Director, Internal Audit

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Cheryl King to the position of Assistant Director, Internal Audit (Non-Union, Grade 13), at an annual salary of \$107,880 to be effective on the date designated by the Executive Director.

Memorandum of Agreement with the Town of Stoneham in Connection with the Northern Intermediate High Pipeline Project

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to execute and enter into a Memorandum of Agreement with the Town of Stoneham, substantially in the form presented and filed with the records of the meeting, to make a payment to the Town of Stoneham in the amount of \$429,450 at the mid-point of construction of MWRA Contract 7478 to be used by the Town for the sole purpose of performing final paving and restoration of the street and installation of sidewalks on portions of Oak Street affected by the project; and, further, at the request of Stoneham, MWRA will design and construct a new revenue meter near the intersection of North Street and Forest Street in an effort to improve water distribution and water quality on the northwest side of the Town and provide further redundancy of water supply for the Town.

CONTRACT AWARDS

Maintenance and Support of the Integrated Financial, Procurement and Human Resources/Payroll Management System: Infor Global Solutions

Upon a motion duly made and seconded, it was

Voted to approve the award of a sole source purchase order contract for the annual maintenance and support of the integrated financial, procurement and human resources/payroll management system to Infor Global Solutions (formerly Lawson Associates, Inc.), and to authorize the Executive Director, on behalf of the Authority, to execute said purchase order contract in an amount not to exceed \$402,983.77 for a period of one year, from June 1, 2017 through May 31, 2018.

Grit and Screenings Hauling and Disposal: W.L. French, Contract S564

Upon a motion duly made and seconded, it was

Voted to approve the award of Contract S564, Grit and Screenings Hauling and Disposal, to the lowest eligible and responsible bidder, W. L. French Excavating Corporation, and to authorize the Executive Director, on behalf of the Authority, to execute and deliver said contract in the bid amount of \$3,898,210.00, for a term of 1,096 calendar days from the Notice to Proceed.

Technical Assistance Consulting Services - Surveying: Bryant Associates, Inc., Contract 602TA

Upon a motion duly made and seconded, it was

Voted to approve the recommendation of the Consultant Selection Committee to select Bryant Associates, Inc. to provide surveying technical consulting services, and to authorize the Executive Director, on behalf of the Authority, to execute and deliver Contract 602TA in an amount not to exceed \$100,000, for a term of three years from the Notice to Proceed.

Reading Extension Sewer and Metropolitan Sewer Rehabilitation (Sections 73/74/75/46):
Green Mountain Pipeline Services, Inc., Contract 7164

Upon a motion duly made and seconded, it was

Voted to approve the award of Contract No. 7164, Reading Extension Sewer and Metropolitan Sewer Rehabilitation (Sections 73/74/75/46), to the lowest responsible and eligible bidder, Green Mountain Pipeline Services, Inc., and to authorize the Executive Director, on behalf of the Authority, to execute and deliver said contract in the bid amount of \$2,048,945, for a term of 487 calendar days from the Notice to Proceed.

Sole-Source Extended Warranty, Service and Maintenance Agreement for the Process Information and Control System (PICS) at Deer Island Treatment Plant: ABB Automation, Inc.

Upon a motion duly made and seconded, it was

Voted to approve the renewal of a sole-source extended warranty, service and maintenance contract for the Process Information and Control System at the Deer Island Treatment Plant with ABB Automation, Inc., and authorize the Executive Director, on behalf of the Authority, to execute and deliver said contract in the amount of \$1,095,164, for a term of three years, from July 1, 2017 through June 30, 2020.

Emergency Action Plan Updates for Western Dams and Dikes: GZA GeoEnvironmental, Inc., Contract EXE-040

Upon a motion duly made and seconded, it was

Voted to approve the recommendation of the Consultant Selection Committee to select GZA GeoEnvironmental, Inc. to provide Emergency Action Plan Updates for Western Operations Dams and Dikes and to authorize the Executive Director, on behalf of the Authority, to execute and deliver Contract

EXE-040 with GZA GeoEnvironmental, Inc. in a lump sum amount of \$153,050, for a term of one year from the Notice to Proceed.

CONTRACT AMENDMENTS/CHANGE ORDERS

Alewife Brook Pump Station Rehabilitation: Stantec Consulting Services, Inc., Contract 7034, Amendment 3

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to approve Amendment 3 to increase the amount of Contract 7034 with Stantec Consulting Services, Inc., Alewife Brook Pump Station Rehabilitation, in the amount of \$95,266, with no increase in contract term.

Northern Intermediate High Section 110 – Reading and Woburn: Albanese D&S, Inc., Contract 7471, Change Order 10

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order 10 to increase the amount of Contract 7471 with Albanese D&S, Inc., Northern Intermediate High Section 110 - Reading and Woburn, in an amount not to exceed \$300,000.00, with no increase in contract term; further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 7471 in amounts not to exceed the aggregate of \$250,000, in accordance with the Management Policies and Procedures of the Board of Directors.

Section 80 Repair: P. Caliacco Corp, Contract 7532, Change Order 1

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order 1 to increase the amount of Contract 7532 with P. Caliacco Corporation, Section 80 Repair, for a lump sum amount of \$81,870, and

to extend the term by 335 calendar days from July 22, 2017 to June 22, 2018; further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 7532 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.

EXECUTIVE SESSION

It was moved to enter executive session to discuss litigation and security.

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Blackmon		
Carroll		
Pappastergion		
Vitale		
Wolowicz		
Beaton		

DRAFT

Voted to enter executive session for the purpose of discussing strategy with respect to litigation in that such discussion may have a detrimental effect on the litigating position of the Authority, and to consider the deployment of security personnel or devices, or strategies with respect to security.

It was stated that the meeting would return to open session solely for consideration of adjournment.

EXECUTIVE SESSION

The meeting returned to open session at 1:40 p.m. and adjourned.