



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: A. Pappastergion
Committee Members:
A. Blackmon
J. Carroll
K. Cotter
J. Foti
B. Peña
J. Walsh

to be held on

Wednesday, October 12, 2016

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

Time: 10:00 a.m.

AGENDA

A. Information

1. Delegated Authority Report - September 2016
2. FY17 Year-to-Date September Financial Update and Summary

B. Approvals

1. Delegation of Authority to Execute a Contract for the Purchase and Supply of Electric Power for MWRA's Profile Accounts

C. Contract Awards

1. Automated Vehicle Locator Tracking System: Networkfleet, Inc. Contract A606

D. Contract Amendments/Change Orders

1. Dental Insurance: Delta Dental of Massachusetts, Contract A591, Amendment 3

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Administration, Finance and Audit Committee

September 14, 2016

A meeting of the Administration, Finance and Audit Committee was held on September 14, 2016 at the Authority headquarters in Charlestown. Chairman Vitale presided. Present from the Board were Messrs. Carroll, Cotter, Flanagan, Foti, Pappastergion, Peña, and Walsh; Mr. Blackmon joined the meeting in progress. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Mike Hornbrook, Steve Estes-Smargiassi, Brian Rozowsky, Godfrey Ezeigwe, Michele Gillen, Carolyn Francisco Murphy, Tom Durkin, Nava Navanandan, Andrew Hildick-Smith, and Bonnie Hale. The meeting was called to order at 10:20 a.m.

Information

FY 2016 Fourth Quarter Orange Notebook

Staff described various components of the report.

Staff individually summarized the remaining information items, and there was general discussion and question and answer on each of them:

- Internal Audit Annual Activities Report – FY2016
- Delegated Authority Report – July and August 2016
- FY16 Year-end Capital Improvement Program Spending Report
- FY16 Year-end Financial Update and Summary.

Approvals

*Memorandum of Agreement and Financial Assistance Agreement with the City of Somerville

There was general discussion and Mr. Foti requested that MWRA ensure its right to this storage forever by including language to that effect in the agreement. The Committee recommended approval of the agreement (ref. agenda item B.1).

*Bond Defeasance of Future Debt Service

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

* Approved as recommended at September 14, 2016 Board of Directors meeting.

(Mr. Blackmon joined the meeting.)

Contract Amendments/Change Orders


***Security Equipment Maintenance and Repair Services: Viscom Systems, Inc., Contract EXE-034, Change Order 2**

Staff described the components of the change order and there was general discussion. The Committee recommended approval of Change Order 2 (ref. agenda item C.1).

The meeting adjourned at 11:05 a.m.

* Approved as recommended at September 14, 2016 Board of Directors meeting.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 12, 2016
SUBJECT: Delegated Authority Report – September 2016

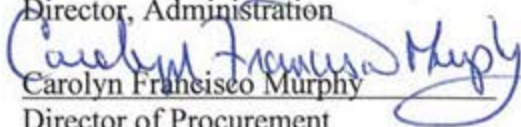
COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE

Barbie Aylward, Administrator A & F
Joanne Gover, Admin. Systems Coordinator
Preparer/Title


Michele S. Gillen

Director, Administration


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 September 1 – 30 , 2016.

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 SEPTEMBER 1 - 30, 2016

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMEND/CO	COMPANY	FINANCIAL IMPACT
C-1.	09/01/16	METROPOLITAN OPERATIONS PAVING PERFORM AN ADDITIONAL 9,889 SQUARE YARDS OF COLD PLANNING ON AN AS-NEEDED BASIS; PERFORM AN ADDITIONAL 2,360 LINEAR FEET OF PAINTED TRAFFIC MARKING ON AN AS-NEEDED BASIS.	OP-288	1	NEWPORT CONSTRUCTION CORP.	\$160,135.00
C-2.	09/12/16	THERMAL AND HYDRO POWER PLANT MAINTENANCE DEER ISLAND TREATMENT PLANT DECREASE ESTIMATED QUANTITIES TO REFLECT ACTUAL QUANTITIES USED FOR THE FOLLOWING BID ITEMS: NON-EMERGENCY AND EMERGENCY MAINTENANCE AND REPAIR SERVICES, REPLACEMENT PARTS, MARK-UP ON REPLACEMENT PARTS, AUTHORIZED FACTORY SERVICE REPRESENTATIVE, FIRE DEPARTMENT SERVICES.	5526	1	O'CONNOR CORPORATION	(\$297,544.58)
C-3.	09/02/16	CLINTON WASTEWATER TREATMENT PLANT PHOSPHORUS REDUCTION FINAL DESIGN, CA/REI SERVICES PERFORM ADDITIONAL ADMINISTRATION AND MANAGEMENT SERVICES ASSOCIATED WITH THE PROTRACTED DISCUSSIONS WITH NATIONAL GRID TO OBTAIN GAS SERVICE TO THE CLINTON PLANT; PERFORM ADDITIONAL FINAL DESIGN SERVICES FOR THE CHEMICAL BUILDING WATER HEATER, DISK FILTER PERFORMANCE BOND DOCUMENTATION, ON-SITE GAS PIPE AND METER CHANGES; FOURTH 100% DESIGN PROGRESS SUBMISSION PRIOR TO FINAL BID DOCUMENTS FOR ALEWIFE PUMP STATION REHABILITATION PROJECT; MODIFY R1 DOCUMENTS, SECURE MASSACHUSETTS DEP WP68 PERMIT FOR MAJOR MODIFICATION TO A TREATMENT WORKS; EXTEND CONTRACT TERM BY 86 CALENDAR DAYS FROM JUNE 28, 2018 TO SEPTEMBER 22, 2018.	7377	2	STANTEC CONSULTING SERVICES, INC.	\$107,424.72
C-4.	09/30/16	QUABBIN POWER AND SECURITY IMPROVEMENTS FURNISH AND INSTALL 5,400 LINEAR FEET OF BURIED CONDUIT AND A FIBER OPTIC CABLE IN LIEU OF A MULTI-PORT LABEL SWITCHING SERVICE CONNECTION SYSTEM; REMOVAL, HANDLING, TRANSPORTATION OF ADDITIONAL 200 CUBIC YARDS OF ROCK AND BOULDER EXCAVATION.	7338	1	EWING ELECTRICAL COMPANY, INC.	\$241,319.90

PURCHASING DELEGATED AUTHORITY ITEMS - September 1 - 30, 2016

NO.	TITLE AND EXPLANATION	CONTRACT #	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-1. 9/7/16	TWO SELF PRIMING CENTRIFUGAL PUMPS WITH MOTOR ASSEMBLIES AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR TWO CENTRIFUGAL SELF PRIMING PUMPS FOR THE DEER ISLAND TREATMENT PLANT. THE NEW CENTRIFUGAL PUMPS WILL REPLACE ORIGINAL EQUIPMENT NOW IN OPERATION FOR MORE THAN 20-YEARS OF CONTINUOUS SERVICE AND NEAR THE END OF THEIR USEFUL LIFE EXPECTANCY.	WRA-4232Q		HAYES PUMP, INC.	\$29,884.00
P-2. 9/7/16	OFFICE FURNITURE AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR OFFICE FURNITURE FOR THE SOUTHBOROUGH WATER QUALITY LABORATORY. THE SOUTHBOROUGH LABORATORY WAS CONSTRUCTED IN 1981. A REHABILITATION OF THE BUILDING IS NEARING COMPLETION, INCLUDING A NEW ROOF, NEW HVAC, WINDOWS AND FLOORING. ALONG WITH THE REHABILITATION, THE OFFICE FURNITURE IS ALSO IN NEED OF REPLACEMENT, INCLUDING CHAIRS, DESKS, FILE CABINETS, LOCKERS AND BOOKSHELVES.	WRA-4262Q		STAPLES ADVANTAGE	\$40,292.18
P-3. 9/20/16	MAINTENANCE AND SUPPORT OF DATA DOMAIN AND NETWORKER AWARD OF A ONE YEAR PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR THE MAINTENANCE AND SUPPORT OF DATA DOMAIN AND NETWORKER. IN AUGUST 2013, THE EXECUTIVE DIRECTOR APPROVED THE PURCHASE OF EMC DATA DOMAIN STORAGE SYSTEMS AND EMC NETWORKER SOFTWARE TO ENHANCE MWRA'S BACKUP AND RECOVERY SOLUTION AS PRESENTED AND APPROVED UNDER THE MIS FIVE YEAR STRATEGIC PLAN. THE DATA DOMAIN STORAGE SYSTEMS REDUCE THE AMOUNT OF DISK STORAGE NEEDED TO RETAIN AND PROTECT DATA, MAKING IT POSSIBLE TO COMPLETE MORE BACKUPS IN LESS TIME. THE NETWORKER SOFTWARE INTEGRATES WITH THE DATA DOMAIN STORAGE SYSTEM TO STREAMLINE THE BACKUP AND RECOVERY PROCESS. RENEWING THE MAINTENANCE AND SUPPORT AGREEMENT FOR 1 YEAR ENSURES THAT THE MWRA CONTINUES TO RECEIVE 24X7 SUPPORT FOR BOTH DATA DOMAIN AND NETWORKER. MAINTENANCE AND SUPPORT TO BE PROVIDED FOR THE PERIOD OF SEPTEMBER 30, 2016 THROUGH SEPTEMBER 30, 2017.	WRA-4273Q ITC47		SHI INTERNATIONAL CORP.	\$95,429.00
P-4. 9/28/16	UPGRADE OF PROFILING WATER QUALITY BUOY, ASSOCIATED HARDWARE AND SOFTWARE AWARD OF A SOLE SOURCE PURCHASE ORDER FOR THE UPGRADE OF AN EXISTING PROFILING WATER QUALITY BUOY, ASSOCIATED HARDWARE, SOFTWARE, AND SERVICES. MWRA FIRST BEGAN USING BUOYS IN THE WACHUSETT RESERVOIR TO SUPPORT WATER QUALITY MONITORING, TREATMENT, AND RESERVOIR OPERATIONS IN 2002. OVER THE YEARS, ADDITIONAL BUOYS HAVE BEEN PURCHASED AND OLDER MODELS RETIRED. CURRENTLY, THREE BUOYS ARE OPERATING ON THE WACHUSETT RESERVOIR PROVIDING DATA FROM THREE DIFFERENT LOCATIONS ACROSS THE RESERVOIR. OF THOSE THREE BUOYS, TWO WERE PURCHASED IN 2015, THE THIRD WAS PURCHASED IN 2008. WHILE THE FLOAT PLATFORM, PROFILING SYSTEM, AND TRAILER ON THIS THIRD BUOY ARE SOUND, THE TECHNOLOGY USED BY THE DATA COLLECTION, TELEMETRY, AND SONDE SENSORS ARE BOTH DATED AND DIFFERENT FROM THE TWO NEWER UNITS. THIS UPGRADE WILL PROVIDE CONSISTENT TECHNOLOGY AMONG ALL THREE BUOYS.			YSI INCORPORATED	\$48,155.90
P-5. 9/28/16	TWO NEW DIESEL POWERED FRONT END LOADERS AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR TWO NEW DIESEL POWERED FRONT END LOADERS TO REPLACE WRA-825 WHICH HAS ONGOING ELECTRICAL ISSUES AND THE PLANETARY GEARS NEED TO BE REBUILT, AND WRA-456 WHICH IS A SIXTEEN YEAR OLD BACKHOE THAT IS PLAGUED WITH PROBLEMS. BOTH OF THE EXISTING UNITS MEET THE AUTHORITY'S GUIDELINES FOR REPLACING EQUIPMENT OF THIS CLASS, WHICH IS TEN YEARS OF AGE AND/OR WARRANTED BY MECHANICAL CONDITION. STAFF HAVE DETERMINED THAT CONTINUED REPAIRS TO WRA-825 AND WRA-456 ARE NO LONGER COST EFFECTIVE AND RECOMMENDED REPLACEMENT.	WRA-4265		EQUIPMENT EAST	\$271,650.00
P-6. 9/29/16	8-INCH AUTOMATIC SELF-CLEANING STRAINER AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR AN 8-INCH AUTOMATIC SELF-CLEANING STRAINER FOR THE PRISON POINT COMBINED SEWER OVERFLOW (CSO). THE AUTOMATIC SELF-CLEANING STRAINER WAS INSTALLED IN LINE WITH THE RIVER WATER SUPPLY LINE, SUPPLYING COOLING WATER TO DIESEL ENGINES WHICH DRIVE PUMPS DURING THE PRISON POINT CSO ACTIVATION. THE SELF-CLEANING STRAINER WHICH REMOVES DIRT AND SEDIMENT FROM THE RIVER WATER WAS TAKEN OUT OF SERVICE FOR INSPECTION AND CLEANING. DURING INSPECTION, DAMAGE INSIDE THE STRAINER WAS DISCOVERED. THIS DAMAGE WAS CAUSED BY CORROSION DUE TO THE AGE OF THE UNIT. THE STRAINER COULD NOT BE REPAIRED AND IT WAS DETERMINED NECESSARY TO PURCHASE A REPLACEMENT STRAINER.	WRA-4271Q		S.P. KINNEY ENGINEERS, INC.	\$34,250.00
P-7. 9/29/16	TEMPORARY FLOW MONITORING AND DATA COLLECTION AWARD OF A ONE-YEAR PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR TEMPORARY FLOW MONITORING AND DATA COLLECTION AT VARIOUS MWRA WASTEWATER SITES. SINCE MWRA BEGAN INSTALLING WASTEWATER FLOW METERS IN 1988, AN INTEGRAL COMPONENT OF ITS QUALITY ASSURANCE/QUALITY CONTROL EFFORTS HAS BEEN UTILIZING A SEPARATE MONITORING AND DATA COLLECTION CONTRACT TO RUN COMPARATIVE TESTS AT KEY METER LOCATIONS, UTILIZING TEMPORARY WASTEWATER FLOW METERS. INCLUDED IN THE SCOPE OF SERVICES FOR THIS PURCHASE ORDER CONTRACT IS THE COLLECTION OF SHORT-TERM FLOW MEASUREMENTS AND INSTANTANEOUS, ONE-TIME FLOW MEASUREMENTS AT UP TO NINETY KEY LOCATIONS IDENTIFIED BY PROJECT STAFF OVER A PERIOD OF EIGHTY-FIVE WEEKS. MWRA'S METERING STAFF WILL INTERPRET AND ANALYZE ALL DATA GENERATED BY THE TEMPORARY FLOW METERS. MWRA'S SPECIFICATIONS REQUIRE VENDOR FIELD STAFF TO BE EQUIPPED WITH CURRENT AND APPROPRIATE SAFETY EQUIPMENT FOR MANHOLE WORK AND CONFINED SPACE ENTRY.	WRA-4270		EST ASSOCIATES, INC.	\$147,750.00
P-8. 9/30/16	ANNUAL LABORATORY INFORMATION MANAGEMENT AWARD OF A SOLE SOURCE PURCHASE ORDER FOR MAINTENANCE AND SUPPORT OF MWRA'S LABORATORY INFORMATION MANAGEMENT SYSTEM. ON OCTOBER 17, 2007, THE BOARD APPROVED THE AWARD OF CONTRACT 6509A TO LAB WARE, INC., IN AN AMOUNT NOT TO EXCEED \$1,224,435 AND FOR A TERM OF EIGHTY-ONE MONTHS, TO DEVELOP AND IMPLEMENT A NEW LABORATORY INFORMATION MANAGEMENT SYSTEM (LIMS). BEGINNING IN FY15 WHEN THE ORIGINAL LIMS CONTRACT EXPIRED, THE EXECUTIVE DIRECTOR, UNDER DELEGATED AUTHORITY, APPROVED ONE-YEAR SOLE SOURCE CONTRACTS EACH YEAR WITH LAB WARE TO PROVIDE LIMS SYSTEM MAINTENANCE AND SERVICE. THE CONTRACT INCLUDES TECHNICAL ASSISTANCE, TELEPHONE SUPPORT, ON-LINE WEB-BASED SUPPORT, AND ACCESS TO LAB WARE DEVTRACT, LAB WARE LAB TRACK, AND LAB WARE KNOWLEDGE TRACK. CONTRACT IS FOR THE PERIOD FROM NOVEMBER 1, 2016 TO OCTOBER 31, 2017.			LAB WARE, INC.	\$64,830.50

PURCHASING DELEGATED AUTHORITY ITEMS - September 1 - 30, 2016


NO.	TITLE AND EXPLANATION	CONTRACT #	AMENDMENT	COMPANY	FINANCIAL IMPACT	
P-9.	9/30/16	<p>PRETREATMENT INFORMATION MANAGEMENT SYSTEM ANNUAL SOFTWARE MAINTENANCE AND SUPPORT AWARD OF A SOLE SOURCE PURCHASE ORDER FOR MAINTENANCE AND SUPPORT OF MWRA'S PRETREATMENT INFORMATION MANAGEMENT SYSTEM. MWRA'S TOXIC REDUCTION AND CONTROL UNIT (TRAC) OPERATES AN EPA-APPROVED PRETREATMENT PROGRAM PURSUANT TO MWRA'S NATIONAL POLLUTANT DISCHARGE ELIMINATING SYSTEM (NPDES) PERMIT AND EPA REGULATIONS. TRAC STAFF REQUIRE A PRETREATMENT INFORMATION MANAGEMENT SYSTEM (PIMS) TO KEEP TRACK OF CURRENT AND HISTORICAL PERMITTING, SAMPLING, INSPECTION, AND ENFORCEMENT INFORMATION. PIMS ALLOW TRAC STAFF NEEDED ACCESS TO CARRY OUT THEIR PRETREATMENT PROGRAM RESPONSIBILITIES ON A DAILY BASIS. THIS MAINTENANCE RENEWAL WILL PROVIDE MIS AND OPERATIONS STAFF THE TIME NEEDED TO MAKE AN INFORMED DETERMINATION ON HOW TO PROCEED WITH ITS CURRENT PIMS APPLICATION. CONTRACT IS FOR THE PERIOD OF NOVEMBER, 1, 2016 THROUGH OCTOBER 31, 2017.</p>			INFLECTION POINT SOLUTIONS, LLC	\$115,000.00

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 12, 2016
SUBJECT: FY17 Financial Update and Summary




COMMITTEE: Administration, Finance & Audit


Kathy Soti, Budget Director
Louise L. Milley, 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 for the first quarter of Fiscal Year 2017, comparing actual spending to the budget.

DISCUSSION:

Total year-to-date expenses were lower than budgeted by \$3.2 million or 1.9%. Total revenues were lower than budgeted by \$175,000 or 0.1% for a total FY17 year-to-date budget variance of \$3.0 million.

FY17 Current Expense Budget

The expense variances for the first quarter of Fiscal Year 2017 by major budget category were:

- Net Lower Direct Expenses of \$56,000 for lower spending on Other Services, Worker's Compensation, Fringe Benefits, Wages and Salaries, Overtime, and Professional Services. This is offset by higher spending for Maintenance, Energy and Utilities, Chemicals, and Other Materials.
- Lower Indirect Expenses of \$129,000 for lower Insurance cost and Watershed reimbursements.
- Lower Debt Service expenses of \$3.0 million mostly related to the favorable short-term variable interest rate and the impact of the August 2016 refunding.

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

	FY17 Budget YTD	FY17 Actual YTD	\$ Variance	% Variance
Direct Expenses	\$50.9	\$50.9	-\$0.1	-0.1%
Indirect Expenses	\$11.7	\$11.6	-\$0.1	-1.1%
Debt Service	\$104.2	\$101.2	-\$3.0	-2.9%
Total	\$166.9	\$163.7	-\$3.2	-1.9%

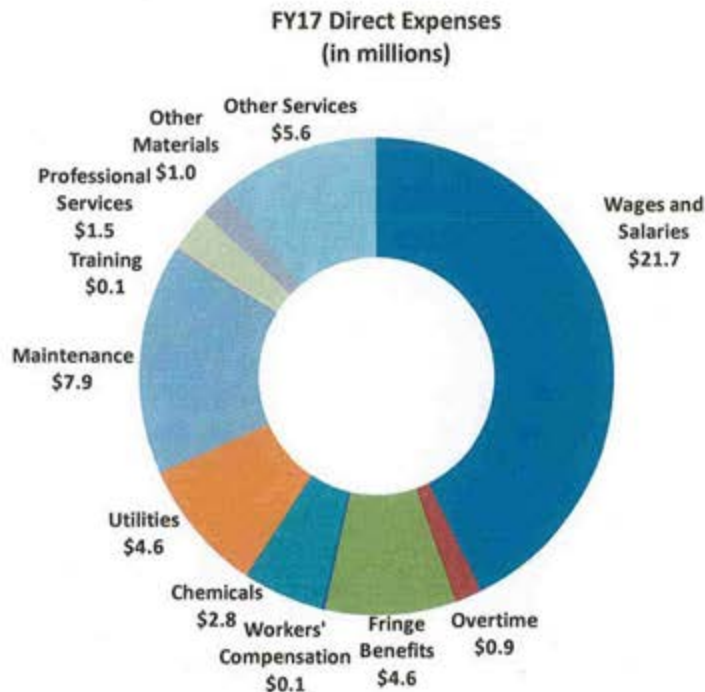
Totals may not add due to rounding.

Revenues were \$175,000 lower than budget driven by lower Investment Income of \$237,000 for unanticipated calls re-invested at lower rates. This is offset by higher Other Revenue of \$72,000.

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

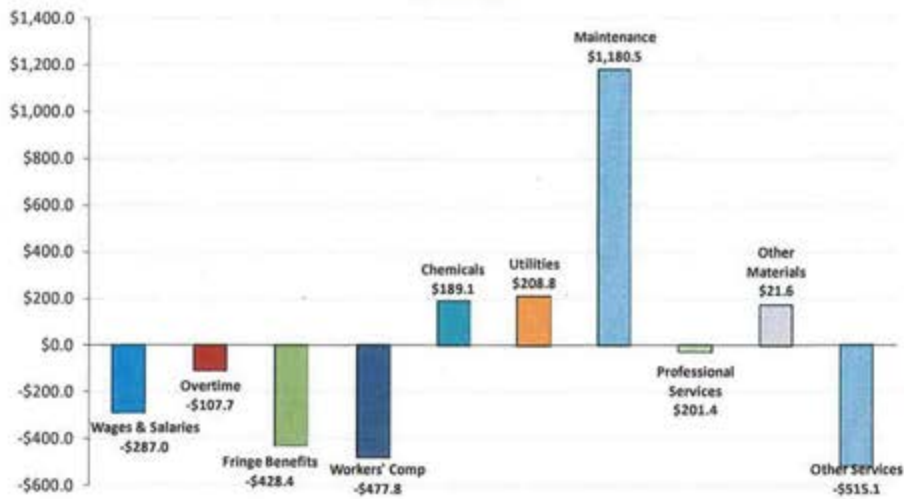
Direct Expenses

Year-to-date direct expenses totaled \$51 million, \$56,000 or 0.1% less than budgeted.



The underspending on direct expenses is related to Other Services, Worker's Compensation, Fringe Benefits, Wages and Salaries, Overtime, and Professional Services; offset by overspending for Maintenance, Energy and Utilities, Chemicals, and Other Materials.

**FY17 Direct Expense Variance
(in 000's)**



Other Services

Other Services spending was lower than budget by \$515,000 or 8.4% due to lower spending of \$248,000 for sludge pelletization services because of lower year to date quantities; \$92,000 for Membership/Dues/Subscriptions in Operations due to timing; \$91,000 for Grit and Screenings disposal services primarily due to lower quantities; and \$60,000 for Other Services primarily for timing of community lead testing assistance.

Workers' Compensation

Workers' Compensation expenses were lower than budget by \$478,000 or 81.5% based on lower medical expenses of \$246,000 and compensation payments of \$240,000 and medical expenses of \$39,000. In September, actual spending was \$75,000 under budget. The majority of lower expenses are due to reserve decreases associated with a few cases.

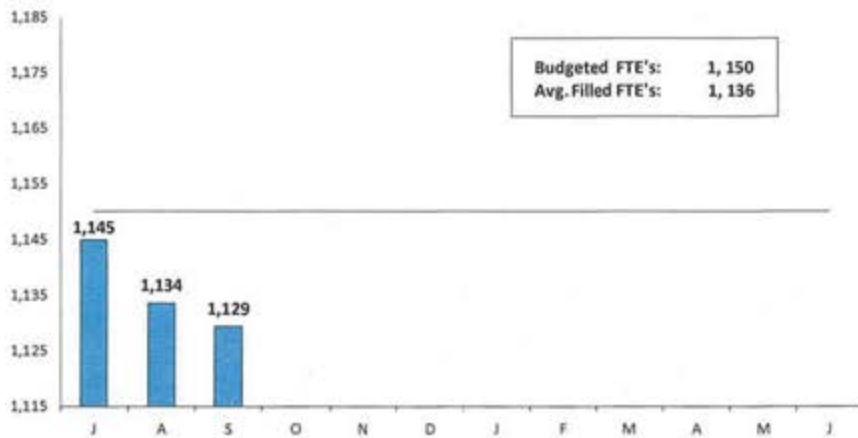
Fringe Benefits

Fringe Benefits spending was lower than budgeted by \$428,000 or 8.6% for Health Insurance of \$407,000 due to fewer than budgeted filled positions and one week of under-accrual.

Wages and Salaries

Wages and Salaries were underspent by \$287,000 or 1.3% 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 September were 1,136, which was 14 positions lower than the 1,150 FTEs budgeted.

FY17 MWRA Full Time Equivalent (FTE) Position Trend



Overtime

Overtime was lower than budgeted by \$108,000 or 10.5% due to lower spending in Wastewater Operations, Deer Island, Treatment & Transmission Operations, and Wastewater Pipe Maintenance.

Professional Services

Professional Services were lower than budget by \$28,000 or 1.9% due to lower spending for Lab Testing & Analysis of \$50,000 primarily in EnQual Wastewater; \$23,000 for Resident Inspection; \$16,000 for Security services; \$10,000 for Audit services. This is offset by higher spending in Legal services of \$55,000 in Law; and Engineering Services of \$22,000 primarily for FY17 Nut Island fire remediation.

Maintenance

Maintenance expenses were higher than budgeted by \$1.2 million or 17.5%. \$397,000 is associated with FY17 remediation efforts for the Nut Island fire incident. The rest is primarily related to timing of the expenditures of funds budgeted in later months. Some projects include sewer system manhole rehabilitation, paving of in-house maintenance projects, spare assembly for DeLauri Pump Station raw wastewater pump, and maintenance under the Deer Island cryogenic contract.

Energy and Utilities

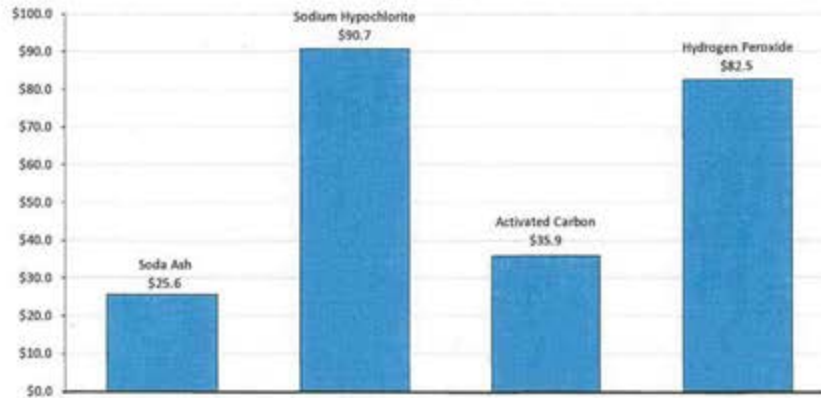
Energy and Utilities were overspent by \$209,000 or 4.8%, due to higher electricity costs of \$221,000, primarily for an over accrual at Deer Island.

Chemicals

Chemical expenses were higher than budgeted by \$189,000 or 7.1% mainly because of higher than budgeted spending on Sodium Hypochlorite of \$91,000 at Deer Island due to timing and

John Carroll Water Treatment Plant and Brutsch Water Treatment Facility due higher prices for chemicals contract; and Hydrogen Peroxide of \$82,000 due to increased need for pretreatment of hydrogen sulfide gas due to low plant flows a Deer Island.

**FY17 Chemical Expense Variances Greater than +/- \$25,000
(in 000's)**



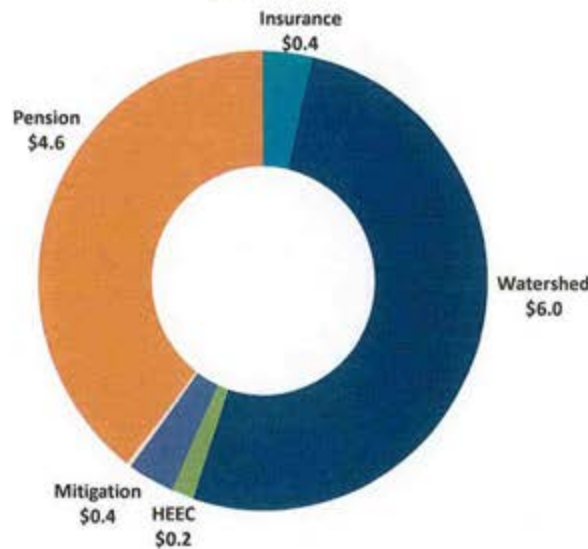
Other Materials

Other Materials were higher than budget by \$171,000 or 20.8% mainly due to timing of Vehicle Purchase of \$131,000; Other Materials of \$54,000 for gravel at the Clinton Landfill; and Computer Hardware of \$52,000. This is offset by lower Vehicle Expenses of \$87,000 due to low fuel prices.

Indirect Expenses

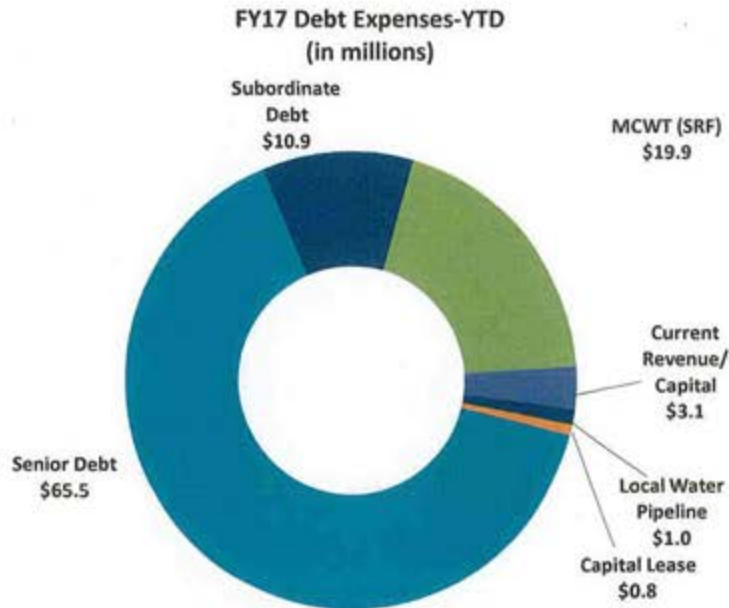
For the fiscal year, Indirect Expenses totaled \$11.6 million, \$0.1 million or 0.1% lower than budget.

**FY17 Indirect Expenses-YTD
(in millions)**



Debt Service

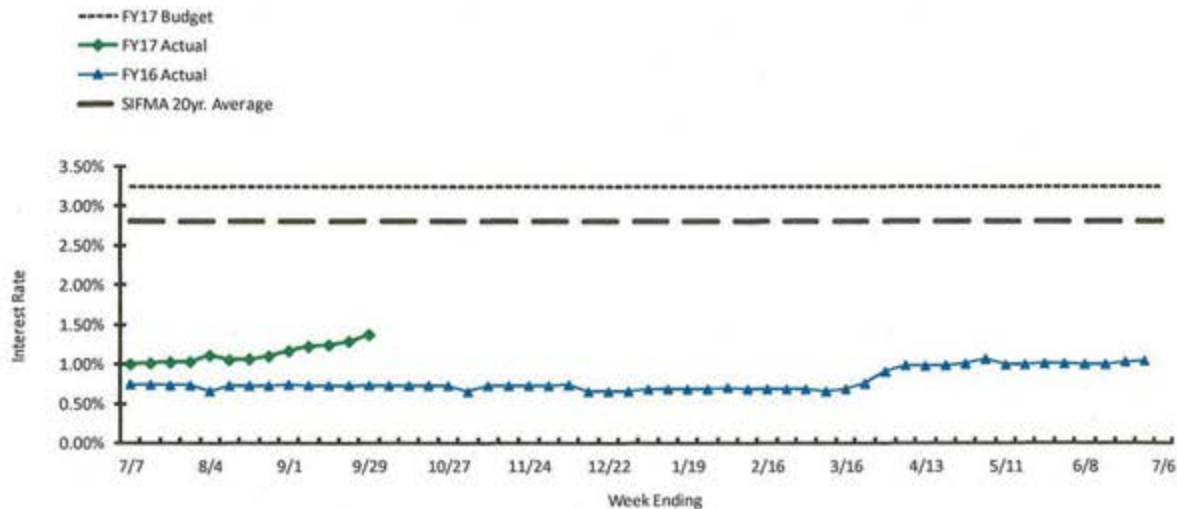
Debt Service expenses include the principal and interest payment for fixed debt, the variable subordinate debt, and the Massachusetts Clean Water Trust (MCWT) obligation, the commercial paper program for the local water pipeline projects, current revenue for capital, and the Chelsea facility lease payment.



Debt Service expenses for the fiscal year totaled \$101.2 million, which was \$3.0 million or 2.9% lower below budget, reflecting lower variable rate of \$2.8 million, and \$218,000 for the impact of the August 2016 refunding.

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

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



Revenue & Income

Revenue for the fiscal year totaled \$179.0 million which was \$175,000 or 0.1% lower than budget.

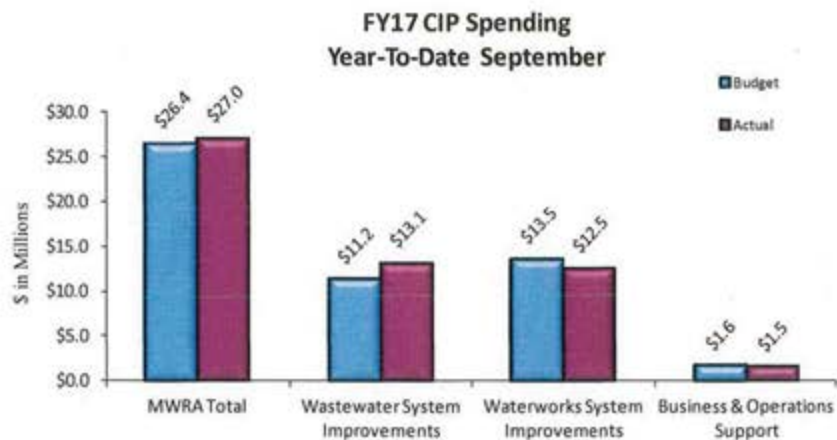
The less than budget non-rate Revenue is driven by lower Investment Income of \$237,000 for unanticipated calls re-invested at lower rates. This is offset by higher Other Revenue of \$72,000.

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

FY17 Capital Improvement Program

Capital expenditures in FY17 total \$27.0 million through the end of September, \$0.7 million or 2.4% higher 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, total capital spending was \$22.4 million, \$0.4 million or 1.7% under budget.



Overall underspending reflects the combined underspending of Waterworks Improvements of \$2.0 million and Business and Operations Support of \$0.2 million which was nearly matched by overspending of \$1.9 million reported Wastewater Improvements.

Spending By Program:

\$ in Millions	Budget	Actuals	\$ Var.	% Var.
Wastewater System Improvements				
Interception & Pumping	4.2	4.7	0.5	11.1%
Treatment	3.3	4.7	1.3	39.1%
Residuals	0.0	0.0	0.0	N/A
CSO	5.7	5.8	0.1	1.4%
Other	-2.0	-2.0	0.0	0.0%
Total Wastewater System Improvements	\$11.2	\$13.1	\$1.9	16.5%
Waterworks System Improvements				
Drinking Water Quality Improvements	0.6	0.2	-0.4	-61.2%
Transmission	6.9	4.9	-2.0	-28.8%
Distribution & Pumping	4.3	4.9	0.5	12.3%
Other	1.7	2.5	0.8	N/A
Total Waterworks System Improvements	\$13.5	\$12.5	-\$1.0	-7.5%
Business & Operations Support	\$1.6	\$1.5	-\$0.2	-11.2%
Total MWRA	\$26.4	\$27.0	\$0.7	2.5%

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

Waterworks Transmission: Net underspending of \$2.0 million

- \$1.4 million for Long Term Redundancy primarily due to less than anticipated progress due to construction issues for the Wachusett Aqueduct Pump Station Construction
- \$0.5 million caused by less than anticipated progress for the Sudbury/Weston Aqueduct Repairs

Wastewater Treatment: Net overspending of \$1.3 million

- \$1.0 million for Deer Island Fuel System Upgrades, \$0.5 million for Digester Sludge Pump Replacement Phase 2, \$0.3M Cryogenics Plant Chillers Replacement, and \$0.4 million for Clinton Phosphorus Reduction Construction due to contractor progress
- The overspending was partially offset by underspending on Butterfly Valve Replacement of \$1.0 million due to equipment delivery delays.

Interception & Pumping: Net overspending of \$0.5 million

- \$1.3 million for Alewife Brook Pump Station Rehab Construction and \$0.5 million for Chelsea Screenhouse Upgrades due to contractor progress
- The overspending was partially offset by underspending on Caruso Pump Station Improvements Construction of \$1.2 million due to construction delays.

Water Distribution and Pumping: Net overspending of \$0.5 million

- \$1.4 million for Spot Pond Supply Mains due to additional work for Webster Avenue Pipeline Construction

- The overspending was partially offset by underspending on Weston Aqueduct Supply Mains Section 36/C/S9-A11 Valve of \$0.8 million due to timing of work.

Contract Awards

41 Contracts totaling \$241.6 million are planned for FY17. Contract awards are the primary driver of future capital expenditures. Though the end of the first quarter, 6 of 14 planned contracts have been awarded totaling \$80.6 million or 77.7% of the \$103.8 million planned for the first quarter. This includes the award of Chelsea Creek Upgrades for \$72.9 million.



Construction Fund Balance

The construction fund balance was at \$97.9 million as end of September. Commercial Paper availability was at \$222.0 million to fund construction projects.

- Attachment 1 – Variance Summary September 2016
- Attachment 2 – Current Expense Variance Explanations
- Attachment 3 – Capital Improvement Program Variance Explanations

ATTACHMENT 1

	September 2016 Year-to-Date					
	Period 3 YTD Budget	Period 3 YTD Actual	Period 3 YTD Variance	%	FY17 Approved	% Expended
EXPENSES						
WAGES AND SALARIES	\$ 22,026,185	\$ 21,739,199	\$ (286,986)	-1.3%	\$ 101,588,897	21.4%
OVERTIME	1,021,966	914,231	(107,735)	-10.5%	4,192,676	21.8%
FRINGE BENEFITS	5,002,091	4,573,719	(428,372)	-8.6%	20,242,323	22.6%
WORKERS' COMPENSATION	586,048	108,277	(477,771)	-81.5%	2,344,190	4.6%
CHEMICALS	2,652,427	2,841,517	189,090	7.1%	9,110,407	31.2%
ENERGY AND UTILITIES	4,389,287	4,598,064	208,777	4.8%	21,541,077	21.3%
MAINTENANCE	6,754,180	7,934,632	1,180,452	17.5%	31,080,642	25.5%
TRAINING AND MEETINGS	65,990	103,736	37,746	57.2%	435,481	23.8%
PROFESSIONAL SERVICES	1,484,364	1,456,676	(27,688)	-1.9%	6,531,939	22.3%
OTHER MATERIALS	822,308	993,751	171,443	20.8%	6,219,630	16.0%
OTHER SERVICES	6,118,260	5,603,209	(515,051)	-8.4%	22,974,855	24.4%
TOTAL DIRECT EXPENSES	\$ 50,923,106	\$ 50,867,011	\$ (56,093)	-0.1%	\$ 226,262,117	22.5%
INSURANCE	\$ 499,474	\$ 427,968	\$ (71,506)	-14.3%	\$ 1,997,898	21.4%
WATERSHED/PILOT	6,072,817	6,017,497	(55,320)	-0.9%	24,291,268	24.8%
BEC _o PAYMENT	193,465	194,994	1,529	0.8%	773,859	25.2%
MITIGATION	389,500	385,700	(3,800)	-1.0%	1,558,000	24.8%
ADDITIONS TO RESERVES	(41,936)	(41,936)	-	0.0%	(167,742)	25.0%
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	\$ 11,745,944	\$ 11,616,847	\$ (129,097)	-1.1%	\$ 37,961,957	30.6%
STATE REVOLVING FUND	\$ 19,880,426	\$ 19,880,426	\$ -	0.0%	\$ 86,971,915	22.9%
SENIOR DEBT	65,712,028	65,493,958	(218,070)	-0.3%	268,472,556	24.4%
CORD FUND	-	-	-	---	-	---
DEBT SERVICE ASSISTANCE	-	-	-	---	(873,804)	---
CURRENT REVENUE/CAPITAL	3,050,000	3,050,000	-	0.0%	12,200,000	25.0%
SUBORDINATE MWRA DEBT	13,704,926	13,704,926	-	0.0%	69,997,992	19.6%
LOCAL WATER PIPELINE CP	1,037,310	1,037,310	-	0.0%	4,149,242	25.0%
CAPITAL LEASE	804,265	804,265	-	0.0%	3,217,060	25.0%
DEBT PREPAYMENT	-	-	-	---	10,994,960	0.0%
VARIABLE DEBT	-	(2,768,995)	(2,768,995)	---	-	0.0%
DEFEASANCE ACCOUNT	-	-	-	---	-	---
TOTAL DEBT SERVICE	\$ 104,188,956	\$ 101,201,891	\$ (2,987,065)	-2.9%	\$ 455,129,921	22.2%
TOTAL EXPENSES	\$ 166,858,006	\$ 163,685,749	\$ (3,172,256)	-1.9%	\$ 719,353,995	22.8%
REVENUE & INCOME						
RATE REVENUE	\$ 173,719,625	\$ 173,719,625	\$ -	0.0%	\$ 694,878,500	25.0%
OTHER USER CHARGES	2,271,527	2,260,982	(10,545)	-0.5%	8,752,834	25.8%
OTHER REVENUE	979,548	1,051,829	72,281	7.4%	6,519,171	16.1%
RATE STABILIZATION	-	-	-	---	-	---
INVESTMENT INCOME	2,196,173	1,959,620	(236,553)	-10.8%	9,473,490	20.7%
TOTAL REVENUE & INCOME	\$ 179,166,873	\$ 178,992,056	\$ (174,817)	-0.1%	\$ 719,623,995	24.9%

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY17 Budget YTD September	FY17 Actuals YTD September	FY17 YTD Actual vs. FY17 Budget		Explanations
			\$	%	
Direct Expenses					
Wages & Salaries	22,026,185	21,739,200	(286,985)	-1.3%	Underspending is mainly the result of lower average Full Time Equivalent positions (FTEs) than budgeted and 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 1,136, which was 14 positions lower than the 1,150 FTEs budgeted. Additionally, the Authority had four temporary employees.
Overtime	1,021,966	914,231	(107,735)	-10.5%	Underspending in Wastewater Ops, DITP, T&T Operations, & Wastewater Pipeline Maintenance.
Fringe Benefits	5,002,091	4,573,719	(428,372)	-8.6%	Lower than budget mainly due to Health Insurance of \$407,000, due to fewer than budgeted filled positions and one week of under accrual.
Worker's Compensation	586,048	108,277	(477,771)	-81.5%	Underspending due to lower compensation payments of \$240,000 and medical payments of \$246,000. In September actual spending was \$76,000 under budget. It is important to note that spending on this line item can change significantly depending on future claims and severity of cases.
Chemicals	2,652,427	2,841,517	189,090	7.1%	Higher year-to-date spending primarily due to higher than budgeted spending on Sodium Hypochlorite of \$91,000 at DITP due to timing and JCWTP and BWTF due to the higher prices for new contract; and Hydrogen Peroxide of \$82,000 due to increased need for pretreatment of hydrogen sulfide gas due to lower plant flows.

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY17 Budget YTD September	FY17 Actuals YTD September	FY17 YTD Actual vs. FY17 Budget		Explanations
			\$	%	
Utilities	4,389,287	4,598,064	208,777	4.8%	Overspending in Electricity of \$221,000 primarily in waterworks attributed to pumping more water to Bedford and higher demand charges at the new Spot Pond Pump Station than anticipated; and DITP for due to an over accrual. This is offset by lower spending at Wastewater facilities partially for not using wet scrubbers at NI and lower flows throughout the system.
Maintenance	6,754,180	7,934,632	1,180,452	17.5%	Services were overspent by \$880,000 and Materials were overspent by \$301,000. Nut Island fire remediation efforts have costs \$397,000 in FY17 for both materials and services. The rest is primarily related to timing of the expenditures of funds budgeted in later months. Some projects include sewer system manhole rehab, paving of in-house maintenance projects, spare assembly for DeLauri Pump Station raw wastewater pump, and maintenance under the Deer Island cryo contract.
Training & Meetings	65,990	103,736	37,746	57.2%	Overspending primarily in Operations.
Professional Services	1,484,364	1,456,676	(27,688)	-1.9%	Lower spending on Lab Testing & Analysis of \$50,000 primarily in EnQual-Wastewater; \$23,000 for Resident Inspection; \$16,000 in Security; and \$10,000 for Audit Services. This is offset by higher spending for Legal Services of \$55,000 primarily in Law; and \$22,000 for Engineering Services primarily for FY17 Nut Island fire remediation.
Other Materials	822,308	993,751	171,443	20.8%	Higher than budget spending of \$131,000 due to timing of Vehicle Purchases/ Replacements; \$54,000 for Other Materials for gravel for Clinton landfill; and \$52,000 for Computer Hardware in MIS. This is offset by underspending of \$87,000 in vehicle expenses primarily due to lower fuel prices.
Other Services	6,118,260	5,603,209	(515,051)	-8.4%	Lower than budgeted spending of \$248,000 for sludge pelletization services for lower year to date quantities; \$92,000 for Membership/Dues/Subscription in Operations due to timing; \$91,000 for Grit and Screenings disposal services primarily due to lower quantities; and \$60,000 for Other Services primarily for timing of community lead testing assistance.
Total Direct Expenses	50,923,106	50,867,012	(56,094)	-0.1%	

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY17 Budget YTD September	FY17 Actuals YTD September	FY17 YTD Actual vs. FY17 Budget		Explanations
			\$	%	
Indirect Expenses					
Insurance	499,474	427,968	(71,506)	-14.3%	Lower Claims of \$76,000.
Watershed/PILOT	6,072,817	6,017,497	(55,320)	-0.9%	Lower Watershed Reimbursement due to over accrual at the end of FY16 as compared to actual invoiced paid.
HEEC Payment	193,465	194,994	1,529	0.8%	
Mitigation	389,500	385,700	(3,800)	-1.0%	
Addition to Reserves	(41,936)	(41,936)	-	0.0%	
Pension Expense	4,632,624	4,632,624	-	0.0%	
Post Employee Benefits	-	-	-		
Total Indirect Expenses	11,745,944	11,616,847	(129,097)	-1.1%	
Debt Service					
Debt Service	104,188,956	101,201,891	(2,987,065)	-2.9%	Lower variable rate of \$2.8 million.
Debt Service Assistance	-	-	-		
Total Debt Service Expenses	104,188,956	101,201,891	(2,987,065)	-2.9%	
Total Expenses	166,858,006	163,685,750	(3,172,256)	-1.9%	
Revenue & Income					
Rate Revenue	173,719,625	173,719,625	-	0.0%	
Other User Charges	2,271,527	2,260,982	(10,545)	-0.5%	
Other Revenue	979,548	1,051,829	72,281	7.4%	
Rate Stabilization	-	-	-		
Investment Income	2,196,173	1,959,620	(236,553)	-10.8%	Investment Income is under budget for unanticipated calls re-invested at lower rates.
Total Revenue	179,166,873	178,992,056	(174,817)	-0.1%	
Net Revenue in Excess of Expenses	12,308,867	15,306,306	2,997,439		

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

	FY17 Budget YTD September	FY17 Actuals YTD September	YTD Actuals vs. Budget		Explanations
			\$	%	
Wastewater					
Interception & Pumping (I&P)	\$4,203	\$4,669	\$466	11.1%	<u>Overspending</u> Alewife Brook Pump Station Rehab Construction: \$1.3M (project progress) Chelsea Screenhouse Upgrades: \$0.4M (equipment installed, tested and accepted at the same time) <u>Offset Underspending</u> Caruso Pump Station Improvements Construction: \$1.2M (delay in receipt of equipment.)
Treatment	\$3,348	\$4,657	\$1,309	39.1%	<u>Overspending</u> Power System Improvements - Construction: \$1.0M (project progress) Digester Sludge Pump Replacement Phase 2: \$0.5M (project progress) Clinton Wastewater Treatment Plant Phosphorus Removal - Construction: \$0.4M (project progress) <u>Offset Underspending</u> Butterfly Valve Replacement: \$1.0M (longer than anticipated lead time for equipment)
Residuals	\$0	\$0	\$0	-	
CSO	\$5,695	\$5,776	\$81	1.4%	
Other Wastewater	(\$2,019)	(\$2,019)	\$0	0.0%	
Total Wastewater	\$11,227	\$13,082	\$1,855	16.5%	

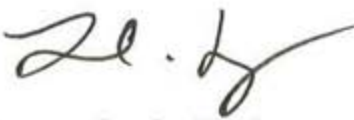
ATTACHMENT 3
Capital Improvement Program Variance Explanations
(000's)

	FY17 Budget YTD September	FY17 Actuals YTD September	YTD Actuals vs. Budget		Explanations
			\$	%	
Waterworks					
Drinking Water Quality Improvements	\$575	\$223	(\$352)	-61.2%	
Transmission	\$6,887	\$4,902	(\$1,985)	-28.8%	<u>Underspending</u> Wachusett Aqueduct Pump Station: \$1.7M (pending redesign of work adjacent to City of Marlborough water pipe and progress less than anticipated at the pump station) Rosemary Brook Building Repair: \$0.5M (progress less than anticipated. Contractor anticipates meeting November 2016 substantial completion date.
Distribution & Pumping	\$4,327	\$4,859	\$533	12.3%	<u>Overspending</u> Section 4 Webster Ave Bridge Pipe Rehab - Construction: \$1.4M (additional change order work) <u>Offset Underspending</u> Weston Aqueduct Supply Mains Section 36/C/S9 - A11 Valve of \$0.8M (anticipated credit change order for work not being performed.)
Other Waterworks	\$1,727	\$2,514	\$787	45.6%	<u>Overspending</u> Quabbin Power, Communication & Security - Construction: \$0.4M (project progress) <u>Offset Underspending</u> Beacon Street Line Repair - Construction: \$0.5M (delay due to trees relocation and MBTA permits)
Total Waterworks	\$13,516	\$12,498	(\$1,017)	-7.5%	

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

	FY17 Budget YTD September	FY17 Actuals YTD September	YTD Actuals vs. Budget		Explanations
			\$	%	
Business & Operations Support					
Total Business & Operations Support	\$1,645	\$1,460	(\$185)	-11.2%	
Total MWRA	\$26,388	\$27,041	\$653	2.5%	

STAFF SUMMARY



TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 12, 2016
SUBJECT: Delegation of Authority to Execute a Contract for the Purchase and Supply of Electric Power for MWRA's Profile Accounts
Contract OP-337

COMMITTEE: Administration, Finance & Audit

 INFORMATION

 X VOTE

John P. Vetere, Deputy Chief Operating Officer
Kristen Patneau, Program Manager, Energy
Preparer/Title


Michele S. Gillen
Director of Administration

Michael J. Hornbrook
Chief Operating Officer

MWRA has been competitively procuring electricity since 2001. In the competitive bid process, the challenge is to determine the level of risk/certainty that MWRA is willing to assume, and to estimate the potential budget impacts for a variety of options. The current contract for MWRA's Profile Accounts expires at the end of March 2017. Staff traditionally take electricity bids in spring and fall because the energy market historically takes a downward trend during these seasons.

In a commodity market where prices change within a very short period of time, MWRA must be prepared to award each contract almost immediately after bids are received to lock in the pricing. The exact bid opening date for this power procurement is not yet established. However, on the day bids are received, staff will evaluate the bids based on market conditions and pricing received. To ensure that MWRA is prepared to execute replacement power contract if the pricing received is favorable, staff recommend that the Board authorize the Executive Director to award a contract to the successful bidder. Staff will report to the Board on the bid results and on any new contract that is executed for electric power supply for these accounts.

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to execute Contract OP-337 for the purchase and supply of electric power for MWRA's Profile accounts, with the lowest responsive and responsible bidder, for a period and pricing structure selected, as determined by staff to be in MWRA's best interest, and for a contract term not to exceed 38-months. This delegation of authority is necessary because MWRA will be required to notify the selected

bidder within a few hours of bid submittal to lock-in the bid prices in a constantly changing market.

BACKGROUND:

Based on MWRA account load profiles, and working in consultation with energy advisors, MWRA has established three distinct electricity supply contracts. The largest contract is for the Deer Island Treatment Plant, which represents 67% of MWRA's total purchased electricity. Deer Island currently self generates approximately 28% of its total plant electrical demand. The next largest contract is for the larger "Interval" Accounts, which include the Carroll Water Treatment Plant, the Nut Island Headworks, and the Clinton Treatment Plant, representing 29% of MWRA's total purchased load. The third contract is for the smaller, non-time-of-use accounts, known as "Profile" Accounts, (e.g., CSOs, pump stations, and the Charlestown Navy Yard), representing the remaining 4% of MWRA's total purchased load. The current contract for the Profile Accounts expires in March 2017, while the contracts for the Deer Island account and the Interval Accounts expires in October 2018 and May 2019, respectively.

The 44 Profile accounts have an approximate annual energy consumption of 5,700,000 kWh in total and the administrative costs of managing these accounts are higher compared to the smaller number of Interval facilities with larger loads. As a result, it is not cost beneficial to add the Profile accounts to the larger accounts due to the additional administrative burden, which impacts the larger accounts' pricing. Therefore, MWRA bids these accounts separate from Deer Island and the Interval accounts in order to ensure MWRA's ability to secure optimal pricing for its larger accounts, providing the best overall value.

Staff most typically bid electricity contracts in spring and fall because the energy market historically takes a downward trend during these seasons, severe weather and geopolitical issues notwithstanding, as compared to the more volatile summer and winter months, which typically have higher energy demand.

DISCUSSION:

When MWRA conducts these power procurements, because of the potential volatility in the market, MWRA must be prepared to notify the selected bidder within a few hours of when bids are submitted to ensure that the pricing is locked in. Therefore, as has been past practice, staff recommend that the Board authorize the Executive Director to execute a contract for the purchase and supply of electric power for MWRA's Profile accounts with the lowest responsive and responsible bidder, for a period and pricing structure selected, as determined by staff to be in MWRA's best interest, and for a contract term not to exceed 38-months.

If approved, bids will be sought for a firm, fixed price per kWh to supply 100% of the electricity load requirements for the 44 Profile accounts, 24 hours per day, 7 days per week. In this pricing structure, all ancillary, congestion, and renewable charges are included in the fixed price, which insulates MWRA from all volatility in the electricity market as the supplier assumes all market risk (and thus, the higher costs compared to the other accounts). This "all in" pricing structure is the standard model for retail electricity supply contracts for smaller accounts, which do not have time-of-use meters that read consumption data on an interval basis. To generate the most

competitive bids, the bid date will be set based on an analysis of market conditions and other supplier information. Although the existing power supply contract does not expire until March 2017, staff recommend that MWRA take bids in October/November 2016 (for supply starting March, 2017) in order to take advantage of good market conditions with favorable pricing, prior to the anticipated winter price spikes. Bids may be taken on more than one occasion. If bid pricing is favorable, staff will recommend that the Executive Director execute a contract with the lowest responsive and responsible bidder for a term of up to 38 months. If bid pricing received is unfavorable, MWRA is not obligated to execute a contract and can opt to go on Basic Service with the utility until a new contract is procured with more favorable pricing. Alternatively the MWRA may elect to utilize the Commonwealth's state-wide contract procured by the Operational Services Division (OSD) to obtain a competitive bid for the Profile Accounts.

Staff will report to the Board on the bid results and any new contract that is executed for electric power supply for these Profile facilities.

BUDGET/FISCAL IMPACT:

The FY17 Current Expense Budget contains \$580,000 for the electricity supply for all Profile accounts, not including the transmission and distribution costs charged by the local distribution companies. The authorization staff are recommending today for purchasing the electricity supply will cover approximately 4% of MWRA's demand. As bids will be taken, staff will assess the impact in comparison with the budgeted amounts and update the Board accordingly.

MBE/WBE PARTICIPATION:

There will be no MBE or WBE participation requirements for this contract due to the limited opportunities for subcontracting.

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 12, 2016
SUBJECT: Automated Vehicle Locator Tracking System
Networkfleet, Inc.
Contract A606



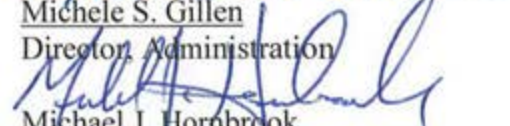
COMMITTEE: Administration, Finance & Audit

Russell J. Murray, Director, MIS
Carlotta Oddi, Safety Program Coordinator
Carolyn M. Fiore, Deputy Chief Operating Officer
Preparer/Title

INFORMATION
 VOTE



Michele S. Gillen
Director, Administration



Michael J. Hornbrook
Chief Operating Officer

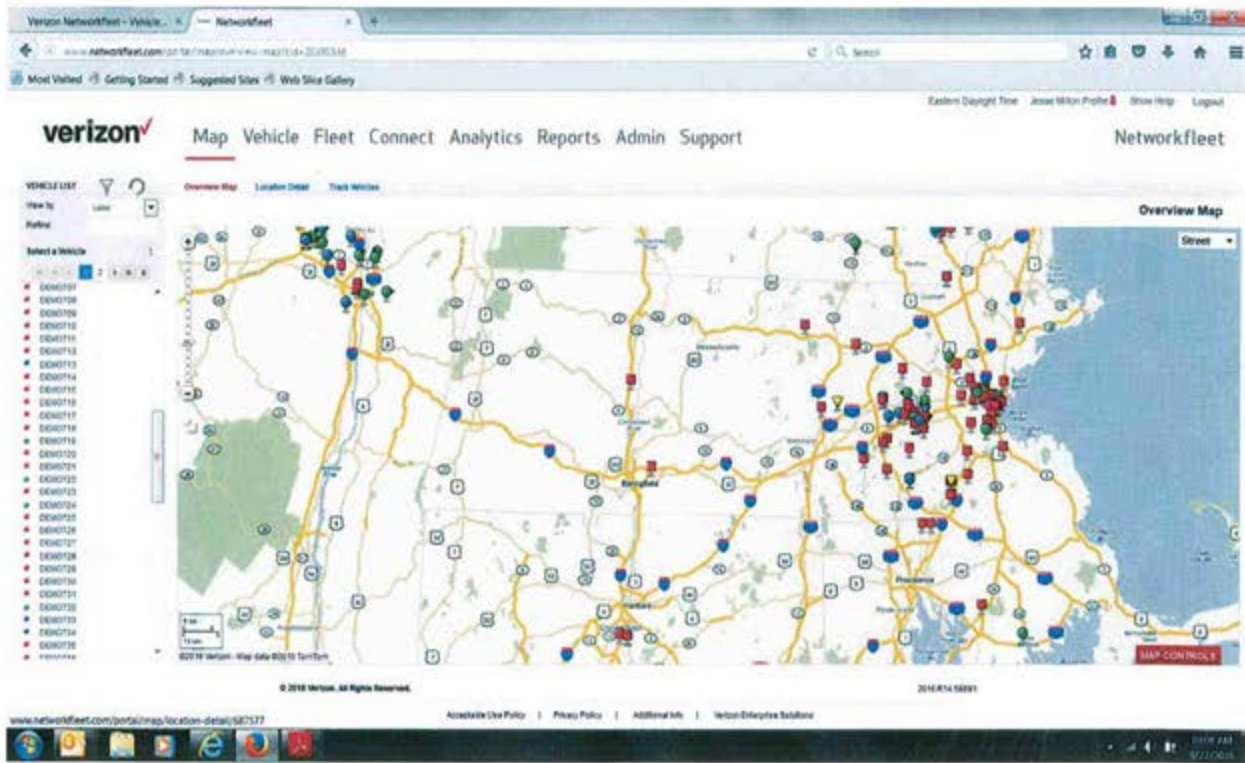
RECOMMENDATION:

To approve the recommendation of the Consultant Selection Committee to award Contract A606, Automated Vehicle Locator Tracking System, to Networkfleet, Inc., conditioned upon agreement on acceptable final contract terms, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$427,490 for a contract term of three years from the Notice to Proceed and with an option to renew for two additional one year periods, each subject to further Board approval.

DISCUSSION:

Contract A606 will provide a web-based Automated Vehicle Locator (AVL) system to electronically track approximately four hundred thirty five Authority vehicles in its service area using a combination of satellite, cellular and/or Wi-Fi networks. The Authority has utilized an AVL system since 2013; and the current contract is due to expire in February 2017.

The AVL system offers near real-time transmission alerts from vehicles utilizing a web-based live mapping system. The AVL system enables the Authority to: accurately pinpoint and track a vehicle's location and route at any time; respond more quickly to emergencies; enhance vehicle maintenance through electronic engine diagnostics, e.g. check engine light codes will be sent by an e-mail and/or text message to Vehicle Maintenance to alert them of an issue with the vehicle; enhance productivity and gain efficiencies in work assignments by optimizing work crew routes; improve driver and vehicle safety, by providing ability to verify traffic complaint events; track odometer readings and mileage electronically; and capture driving statistics.



Procurement Process

On July 9, 2016, MWRA issued a one-step Request for Qualifications Statements/Proposals (RFQ/P). The RFQ/P required that firms meet certain specified Threshold Requirements; and that all proposals meeting those Threshold Requirements would be evaluated based upon the following Evaluation Criteria and points: Cost (40 points); Technical Approach/ Organization and Management and Qualifications of Firms/Key Personnel (40 points); Similar Experience/Past Performance on Authority Projects and Similar Non-Authority Projects (15 points); Schedule and Capacity (5 points).

Twenty-two firms requested the RFQ/P and on August 25, 2016, the Authority received proposals from six firms including from the current vendor, Location Technology, Inc. (LTI). Three of the proposals, including that from LTI, failed to meet the Threshold Requirements of the RFQ/P, and were ultimately eliminated from further consideration. The three remaining proposals meeting the Threshold Requirements were received from: Networkfleet, Inc., (Networkfleet) International Road Dynamics, Inc., (IRD) and CalAmp Radio Satellite Integrators (CalAmp).

The scope in the RFQ/P included furnishing hardware and services for a fully functioning AVL system such as live mapping capability (i.e., the ability to track on a live map the location of MWRA vehicles), standard reports on vehicle data (i.e., idling and speeding) and reports detailing vehicles entering and exiting “geo-fenced” areas (virtual electronic barriers surrounding MWRA facilities and properties). Additionally, the scope included specifications for providing real-time alerts utilizing e-mail and text message technology allowing managers and supervisors to immediately be informed regarding vehicle usage that is outside established parameters. Enhancements to the current AVL system in the scope included: reports detailing odometer readings and fuel efficiency; accelerometer technology (AVL device detects sudden acceleration); vehicle maintenance alerts; power failure warnings; tamper alerts; single sign-on (one sign on to access both reports and live data); the ability to service the vehicle without

removing the AVL hardware; and user customization features such as the ability for staff to create a geo-fence and add to, remove from and re-assign vehicles on the system.

The Selection Committee met on September 8, 2016, to review members' Preliminary Evaluations and scoring of the firms, to hear past performance reports provided by references and financial stability reports, and to discuss each firm's cost and technical proposals against the criteria. As provided in the RFQ/P, the Committee met again on September 20 and 21, 2016 to view demonstrations from each of the three proposers. These demonstrations included the installation of tracking devices from each proposer into MWRA vehicles and the live viewing of the AVL mapping functions required under the scope of services.

The Selection Committee met again on September 22, 2016, to discuss each of the three proposals and review the results of the demonstrations. After discussion, each member completed their "final scoring" evaluating each of the Proposers on the established Evaluation Criteria.

The proposals for AVL Services were scored and ranked as follows:

Proposer	Proposal Cost	Order of Preference Total Score	Total Points	Final Ranking
Networkfleet	\$427,490*	7	564	1
CalAmp	\$450,410*	16	455	2
IRD	\$635,997	19	429	3

Note: Order of Preference Total Score represents the sum of the individual Selection Committee Member's 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.

*Reflects corrections made due to mathematical errors

Networkfleet, which presented the lowest cost proposal, proposed a technically sound approach to addressing AVL functionality at MWRA including the ability to easily establish alerts and a reporting function that was among the best presented at the live demonstration. Networkfleet's live mapping function was also viewed favorably by Committee members. The firm had excellent references from Suez Water, a water utility located in New Jersey, and the City of Virginia Beach Department of Public Works Automated Services. It also provided and introduced highly experienced and qualified key personnel.

CalAmp was ranked second, and presented a very good approach to AVL functionality. However, its ability to deliver on overall functionality was not as strong as Networkfleet's. For example, it is unable to deliver on AVL reporting functions required at MWRA.

IRD was ranked third. IRD presented some excellent AVL functionality, however its cost was substantially higher than the other firms.

Based on the final rankings, the Selection Committee recommends the award of this contract Networkfleet in an amount not to exceed \$427,490. This will be a conditional award as staff are still negotiating legal terms and conditions with Networkfleet.

BUDGET/FISCAL IMPACT:

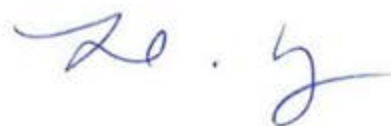
There are sufficient funds in the FY17 CEB for this contract.

MBE/WBE REQUIREMENTS:

No minimum MBE/WBE requirements were established for this procurement.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 12, 2016
SUBJECT: Dental Insurance
Delta Dental of Massachusetts
Contract A591, Amendment 3



COMMITTEE: Administration, Finance & Audit


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

INFORMATION

VOTE


Michele S. Gillen
Director, Administration

RECOMMENDATION:

To approve Amendment 3 to Contract A591, with Delta Dental of Massachusetts, exercising the third option to renew, increasing the contract amount by \$391,000, from \$1,083,889 for a total not-to-exceed amount of \$1,474,889, and extending the term for twelve months from January 1, 2017 to December 31, 2017 for a total contract term of 48 months.

DISCUSSION:

The Authority has been providing dental insurance to all Non-Union employees since July 1, 1985. This benefit also covers a number of union employees who were accreted into collective bargaining units in 1994. The remaining MWRA union employees receive dental coverage through the Health and Welfare plans of their respective unions.

In November 2013, the Board of Directors approved a contract with Delta Dental of Massachusetts to provide dental insurance to eligible employees for a period of twelve months (Calendar Year 2014) with further options to renew the contract for up to three additional twelve-month periods subject to Board approval. A summary of the contract follows.

This amendment is for the third extension covering Calendar Year 2017 and would maintain the level of coverage currently offered to eligible employees in the areas of diagnostic, preventive, basic and major restorative services as well as limited orthodontic coverage.

Contract Summary			
	Amount	Term	Dated
Original Contract	\$355,556	One Year	01/01/2014
Amendment 1	\$373,333	One Year	01/01/2015
Amendment 2	\$355,000*	One Year	01/01/2016
Amendment 3	\$391,000	One Year	01/01/2017

*The second amendment should have been in the amount of \$383,535. Staff calculated the total amendment amount based on the existing premium rather than the new premium. However, total funds spent to date have not exceeded Board authorization.

BUDGET/FISCAL IMPACT:

This contract covers the second half of FY17 and the first half of FY18. The FY17 Current Expense Budget includes the cost of the dental insurance for eligible employees. The total cost of the plan is dependent upon the number of employees enrolled. The remaining cost of the dental insurance program will be budgeted for FY18.



MASSACHUSETTS WATER RESOURCES AUTHORITY

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

Frederick A. Laskey
Executive Director

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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

Wednesday, October 12, 2016

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

Time: Immediately following AF&A Comm.

AGENDA

A. Information

1. MWRA Industrial Waste Report #32: Industrial Pretreatment Program Annual Report to EPA for FY16
2. 2015 Deer Island Outfall Monitoring Overview

B. Contract Awards

1. Supply and Delivery of Sodium Hypochlorite to the Deer Island Treatment Plant: Borden & Remington Corp., Bid WRA-4269

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Wastewater Policy and Oversight Committee

September 14, 2016

A meeting of the Wastewater Policy and Oversight Committee was held on September 14, 2016 at the Authority headquarters in Charlestown. Chairman Flanagan presided. Present from the Board were Messrs. Blackmon, Carroll, Cotter, Foti, Pappastergion, Peña, Vitale and Walsh. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Dave Duest, Nava Navanandan, Kathleen Cullen, Margery Johnson, John Vetere, Rick Adams, and Bonnie Hale. The meeting was called to order at 11:05 a.m.

Approvals

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

The Committee recommended the approval of the appointment of Mr. James Guidod to the Wastewater Advisory Committee (ref. agenda item A.1).

Contract Awards

***Struvite, Scum, Sludge, and Grit Removal Services at the Deer Island Treatment Plant: Clean Harbors Environmental Services, WRA-4257**

There were questions and answers regarding the small number of bidders on this contract. The Committee recommended approval of the contract award (ref. agenda item B.1).

***Cambridge Branch Sewer: Hazen and Sawyer, Contract 7511**

Staff gave a presentation on this project, and there was general discussion and question and answer. The Committee recommended approval of the contract award (ref. agenda item B.2).

***Chelsea Creek Headworks Upgrade: BHD/BEC JV, A Joint Venture, Contract 7161**

Staff gave a presentation on this 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 September 14, 2016 Board of Directors meeting.

Contract Amendments/Change Orders

***Remote Headworks Upgrades: Arcadis US, Inc., Contract 7206, Amendment 4**

Staff gave a presentation on the project and the components of the proposed amendment, and there was a brief discussion. The Committee recommended approval of Amendment 4 (ref. agenda item C.1).

***Caruso Pump Station Improvements: Dewberry Engineers Inc., Contract 7037, Amendment 3**

The Committee recommended approval of Amendment 3 (ref. agenda item C.2).


***Valve and Piping Replacement: Carlin Contracting Co., Contract 7275, Change Order 5**

Staff gave a presentation on the project and the change order. The Committee recommended approval of Change Order 5 (ref. agenda item C.3).

The meeting adjourned at 11:35 a.m.

* Approved as recommended at September 14, 2016 Board of Directors meeting.

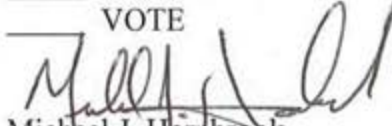
STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 12, 2016
SUBJECT: MWRA Industrial Waste Report #32: Industrial Pretreatment Program Annual Report to EPA for FY16

COMMITTEE: Wastewater Policy & Oversight

X INFORMATION
VOTE

Carolyn M. Fiore, Deputy Chief Operating Officer
John A. Riccio, Director, TRAC
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

For information only. MWRA is required by its NPDES Permits and EPA regulations (40 CFR 403.12(i)) to submit an annual report to EPA each year that describes the activities and accomplishments of MWRA's Industrial Pretreatment Program. Staff will be submitting the FY16 Annual Report (Industrial Waste Report #32) to EPA on or before October 31, 2016, the required submittal deadline. This staff summary discusses some of the highlights from the report. A draft copy of the report will be available in the Board lounge.

DISCUSSION:

Industrial Waste Report #32 documents MWRA's efforts to control current permitted sewer users during FY16. MWRA's Toxic Reduction and Control (TRAC) section operates the Industrial Pretreatment Program to control the level of toxic substances discharged into the sanitary sewer system from commercial and industrial sources. Through permits, inspections, sampling, and enforcement, the program keeps excessive levels of toxics out of the sanitary sewer system to: protect worker health and safety; protect municipal and MWRA infrastructure; prevent interference at the Deer Island and Clinton Wastewater Treatment Plants; prevent the pass-through of pollutants into receiving waters; and enable MWRA to beneficially reuse its residuals for the production of fertilizer.

Staff estimate that approximately 3% of the total flow to the treatment plants comes from permitted facilities, but this flow represents a significantly higher proportion of toxics discharged to the system. TRAC currently oversees approximately 1,180 permitted sewer users. There were 204 facilities that met MWRA's definition of Significant Industrial User (SIU) during FY16. SIUs require substantial oversight due to the nature of the pollutants they discharge and/or the volume of their flows. Some of the highlights included in the report are described in the following pages.

Significant Industrial Users

As mentioned above, there were 204 industries designated as Significant Industrial Users in MWRA's sewer service areas during FY16 (an SIU is a sewer user subject to Federal Categorical standards such as metal plater, or has a flow above 25,000 gallons per day, or has reasonable potential to violate MWRA's regulations). By the end of Fiscal Year 16, the number of SIUs in the District dropped to 199. The number of SIUs can vary during the year as a result of companies going out of business, a change in their pretreatment process, or a new company being added. TRAC met EPA's requirements for inspections and sampling in FY16, inspecting all of the 204 SIUs and sampling 175 SIUs. In FY16, 29 SIUs were not sampled because they did not discharge during the year¹, were re-categorized as non-SIUs before they could be sampled, had infrequent discharges or sample sites that were not ready for sampling.

EPA requires TRAC to issue permits to 90% of MWRA's SIUs within 120 days of the industries' current permit expiration dates, or MWRA's receipt of a Sewer Use Discharge Permit Application, and 100% within 180 days. TRAC issued 96% of SIU permits within 120 days and 97% of permits within 180 days. The three SIU permits that exceeded 180 days were delayed pending the issuance of draft surface water discharge permits which may affect discharges to the sanitary sewer from the permittees. TRAC issued sewer use discharge permits to these companies prior to the issuance of the surface water discharge permits and will revise the sewer use discharge permits, if necessary, after the surface water discharge permits are issued. Facilities remain covered by their existing permits while their renewal permits are pending. There are typically a few permits every year that are not renewed within required time frames due to these timing issues.



TRAC staff complete documentation after collecting wastewater samples at a permitted industry.

This year, the total number of SIUs in Significant Noncompliance² was 22, which was lower than 31 in FY15. MWRA continues to hold annual educational meetings with SIUs to review and reinforce methods for staying in compliance. The FY16 meetings were held at MWRA's Deer Island Treatment Plant in May 2015. Attendees heard presentations on topics of interest in toxic reduction and control from MWRA staff and toured the Deer Island facility. Credits for attending the seminar were DEP-approved for Operator License training. A total of 114 people from 57 of MWRA's SIUs attended the meeting over two days.

¹ Non-discharging facilities include those that operate a federally-regulated process with a discharge that is either hauled or evaporated on site. Such facilities are permitted by MWRA as Category 4 SIUs. MWRA annually inspects these facilities but does not sample wastewater that is not discharged to its sewer system.

² MWRA is required to annually update EPA regarding Significant Industrial Users that meet EPA's definition of Significant Noncompliance. Each industrial user is evaluated for Significant Noncompliance four times during the year. MWRA evaluates each SIU based on discharge and reporting requirements.

Inspections and Monitoring Programs

In addition to paying close attention to the SIUs, TRAC staff are responsible for permitting, inspecting and monitoring a variety of other types of facilities to minimize the discharge of toxics to the sewer and assist other MWRA programs. In FY16, TRAC staff conducted an additional 683 industrial/commercial facility inspections of other regulated industries, 237 inspections associated with the septage program, including inspections of haulers and septage receiving sites, and 685 inspections of oil/water separators. There are 11 septage receiving sites and more than 4,500 gas/oil separators within MWRA's district.

TRAC's monitoring staff conducted an additional 1,762 sampling events to characterize wastewater flow from non-SIU permitted facilities, to support MWRA's NPDES permits and other MWRA projects, and to evaluate discharges to the sewer in response to emergencies.

Enforcement Program

In FY16, TRAC issued a total of 273 early enforcement actions (Notices of Violations and Traps Warning Letters) to industrial and commercial facilities (compared to 206 in FY15), and 53 higher-level enforcement actions (Orders and Penalty Assessment Notices) were issued in response to a variety of persistent discharge and reporting violations, compared to 47 in FY15.

TRAC assessed a total of \$162,100.00 in penalties in FY16 against permitted sewer users (compared to \$166,125.00 assessed in FY15); one SIU was assessed a penalty in the amount of \$143,000.00 and one SIU was assessed stipulated penalties totaling \$19,000.00. MWRA collected a total of \$661,600.00³ (compared to \$91,675.00 collected in FY15). The amount of penalties assessed and collected can vary significantly from year to year as a result of the timing of the penalty issuance, assessment of the penalty, negotiations and collection.

Program Cost Recovery

MWRA's Incentive and Other Charges Program continues to recover a substantial portion of MWRA's costs of inspecting, monitoring, and permitting industrial sewer users. The total adjusted amount billed under the program in FY16 was \$2,136,028.00, a slight increase from \$2,111,972.00 in FY15. As of September 2016, collections for FY16 bills were at \$2,135,179.00 (compared to \$1,992,633.00 in FY15), approximately a 99% recovery of the adjusted amount invoiced.



TRAC staff inspect an oil/water separator at an auto repair facility.

³ Only a portion of the penalties assessed in FY16 were actually settled and collected during FY16. Some amounts collected are from penalties or settlements from prior years, while other amounts are still outstanding due to ongoing administrative enforcement procedures and settlement discussions.

FY16 Initiatives

Staff will complete the required regulatory review of the local limits applicable to the facilities in the Clinton service area and expect to undertake a similar review for the Deer Island service area when final permits are issued. These reviews will be required under the National Pollution Discharge Elimination System (NPDES) permit renewals for the Clinton and Deer Island Wastewater Treatment Plants.


TRAC staff continue to utilize the Pretreatment Information Management System (PIMS) software to schedule and track work, as well as to draft permits and track permit requirements. Sampling required by permits is entered into the PIMS system through a PIMS reporting portal by permittees' contract laboratories. This electronic reporting system is subject to EPA's Cross Media Electronic Reporting Rule (CROMERR) and as such, needs to be upgraded to meet the requirements of the rule. TRAC staff are working closely with MWRA's MIS staff to have the system upgraded to meet these requirements. The approach will need to be approved by EPA.

BUDGET/FISCAL IMPACT:

TRAC's FY16 Current Expense Budget was \$3.9 million, approximately 71% (\$2,796,779) of which was recovered through permit charges and penalty collections, compared to 57% in FY15.

TRAC FY16 charges remain at the FY12 rates (after three years of Board-approved 4.5% across-the-board increases in each of Fiscal Years 2010, 2011, and 2012). Charges will remain at the 2012 rates until modified by changes to MWRA's regulations.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 12, 2016
SUBJECT: 2015 Deer Island Outfall Monitoring Overview

COMMITTEE: Wastewater Policy & Oversight

INFORMATION
 VOTE

Carolyn M. Fiore, Deputy COO, PP&P
Kenneth E. Keay, Program Manager
Betsy Reilley, Ph.D., Director, Environmental Quality
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

The Outfall Monitoring Overview is an annual report that summarizes the results of MWRA's monitoring of the environmental effects of the effluent discharges from the Deer Island Treatment Plant outfall. MWRA monitors the effluent, as well as the water, sediment, and health of fish and shellfish in Massachusetts and Cape Cod Bays. 2015 was the fifth year that monitoring was conducted according to a more streamlined plan. For the fifteenth year of outfall monitoring no adverse impacts in the discharge area were found in 2015.

Under its current National Pollutant Discharge Elimination System (NPDES) permit for Deer Island, MWRA must submit this report to federal and state regulatory agencies by November 15. This staff summary provides the Board with the highlights of MWRA's Outfall Monitoring Overview for calendar year 2015. It takes approximately a year for MWRA's consultants to compile and analyze all of the data from the previous year's outfall monitoring, and finalize the report.

RECOMMENDATION:

For information only.

DISCUSSION:

Monitoring the environment around MWRA's Massachusetts Bay outfall is a requirement in Deer Island's NPDES permit. Key monitoring results are compared to 96 thresholds contained in MWRA's Contingency Plan.¹ Required monitoring includes measurements of the Deer Island Treatment Plant's effluent quality, and environmental measurements of water, sediments, and fish and shellfish. Other studies include modeling water quality and continuous monitoring of water quality using instruments on a buoy in Massachusetts Bay.

¹ The Contingency Plan is a requirement of MWRA's NPDES discharge permit for the Deer Island Treatment Plant. It contains a series of more than 20 effluent thresholds and more than 70 numeric thresholds (for example, annual average chlorophyll levels near the outfall) calculated from MWRA's environmental monitoring data. An exceedance of a threshold requires rapid notification of EPA, DEP, the Science Advisory Panel, and the public.

MWRA has been monitoring Boston Harbor, Massachusetts Bay, Cape Cod Bay and the outfall area since the early 1990s, and discharge monitoring began in 2000 when the outfall came on-line. One way potential effects are evaluated is to compare results collected after outfall start-up to results collected before the outfall went on-line (baseline conditions).

2015 was the fifteenth year of monitoring since the outfall came on-line and was yet another year with no adverse effects from the discharge in the areas monitored. Meanwhile, Boston Harbor continues to see substantial improvements.

Summary of Effluent Quality Monitoring

- Deer Island Treatment Plant earned a Platinum 9 Peak Performance Award for 2015 from the National Association of Clean Water Agencies for nine years of 100% permit compliance;
- 2015 was a very dry year, the third driest since 1990. Mean effluent flow from Deer Island in 2015 was similar to the record low flow observed in 2012.
- Virtually all flow (99.7%) received full primary and secondary treatment;
- Total Suspended Solids loads from effluent were 12.4 tons/day in 2015, less than 8% of the solids load discharged in the early 1990s (see Figure 1 below);

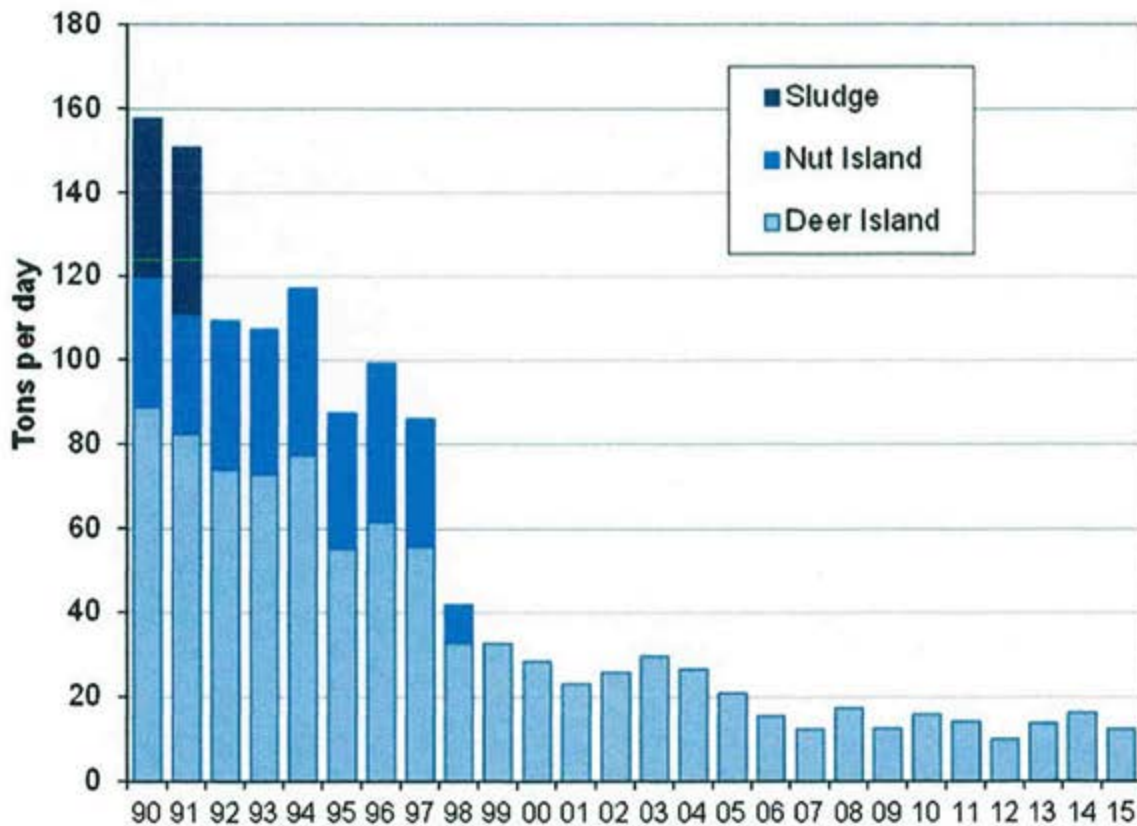


Figure 1. Annual solids discharges. Solids discharges remained extremely low during 2015.

- Metals loads in Deer Island's effluent also remained low in 2015;
- Sustained low solids and metals loadings in the Deer Island effluent are mainly due to treatment process improvements in 2005 made possible by the ability to pump sludge to the Pelletizing Plant (completion of the Braintree-Weymouth Tunnel), and record low flows; and
- The total effluent nitrogen load in 2015 (11,622 metric tons) was below its caution threshold in 2015 and was about at the 1999-2015 average (See Figure 2). Field monitoring confirms that MWRA's nitrogen discharge has not had an adverse environmental impact in Massachusetts Bay.

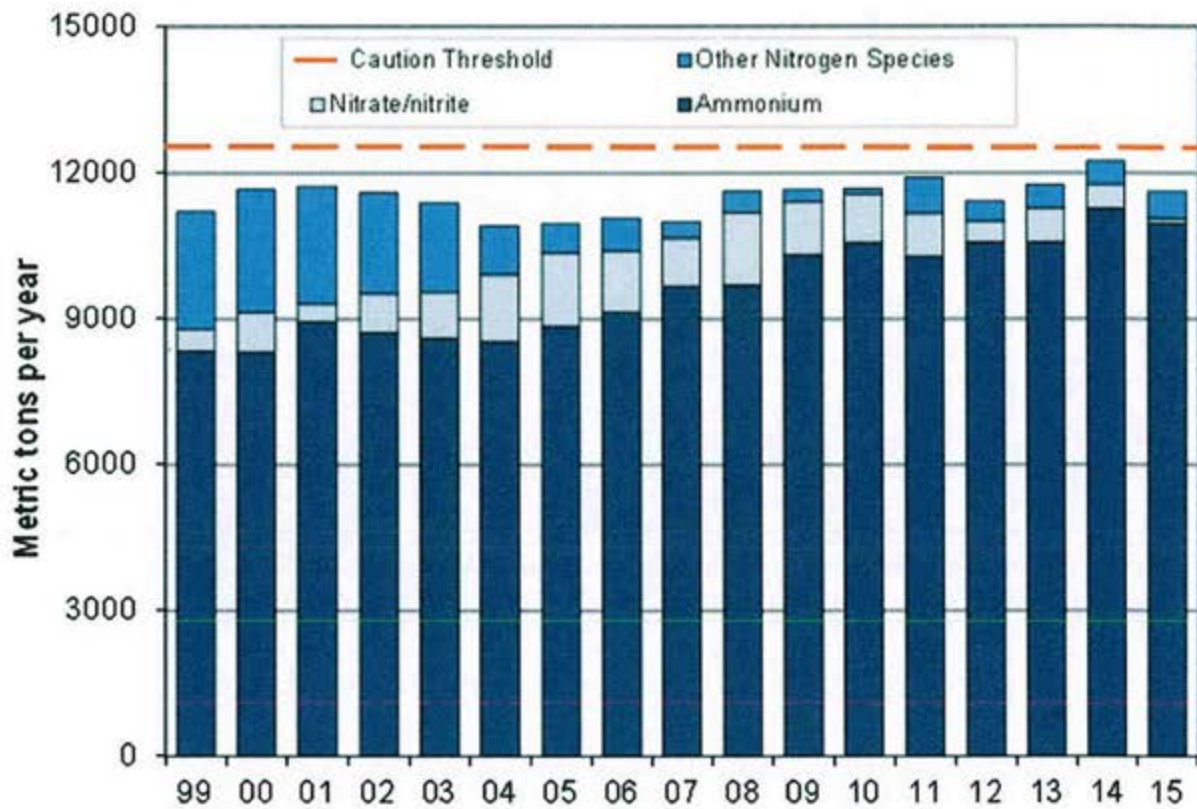


Figure 2. Annual nitrogen discharges. Effluent nitrogen loads were about average during 2015.

Summary of Outfall Monitoring Plan Results

2015 Monitoring results from the areas shown in Figure 3 to the right found that:

- No adverse impacts of the outfall discharge on water quality were identified in Massachusetts or Cape Cod Bays;
- Plankton communities remain diverse and normal;
- Flounder liver disease remains low;
- Contaminants in flounder, mussel, and lobster tissues from animals caught or deployed near the outfall remain low; and
- The bottom animal community is healthy and diverse.
- The extremely cold winter of 2014-2015 caused the coldest ocean temperatures in February since monitoring started, delaying the start of the winter-spring algae bloom in Mass. Bay.
- In contrast, warm and dry weather in the second half of 2015 led October-December to be the warmest since 1989.

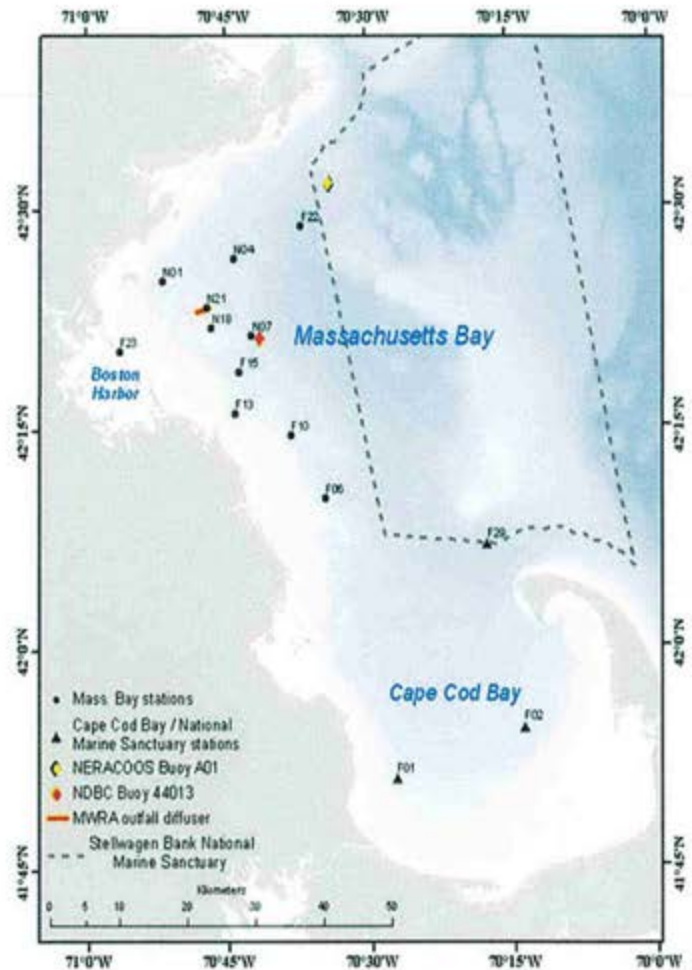


Figure 3. Locations of MWRA's water quality monitoring stations

Water Quality Monitoring

Monitoring in the water column (Figure 4) focuses on the potential impact of nitrogen discharged by the outfall because only 10% of nitrogen is removed during treatment. The monitoring was designed to address concerns about whether nitrogen could increase blooms of harmful algal



Figure 4. Sampling in Massachusetts Bay, March 2015

species, change the types or amount of plankton (adversely impacting the food web), or whether excess algal growth could decrease the amount of oxygen in the water.

In 2015, plankton communities in the bays were normal, with no red tide or large phytoplankton blooms observed in many years. As mentioned above, the cold weather in late winter delayed spring growth by several weeks. There was a small bloom in 2015 of a nuisance alga normally observed in March and April. The delayed growth meant this species was observed in May, when the species is normally absent. This caused a Contingency Plan threshold exceedance, with no evidence the occurrence was related to the outfall discharge.

Dissolved oxygen levels in the water (See Figure 5) were healthy, and by the end of the season in October were close to the long-term average at the surface, and slightly above it near the seafloor.

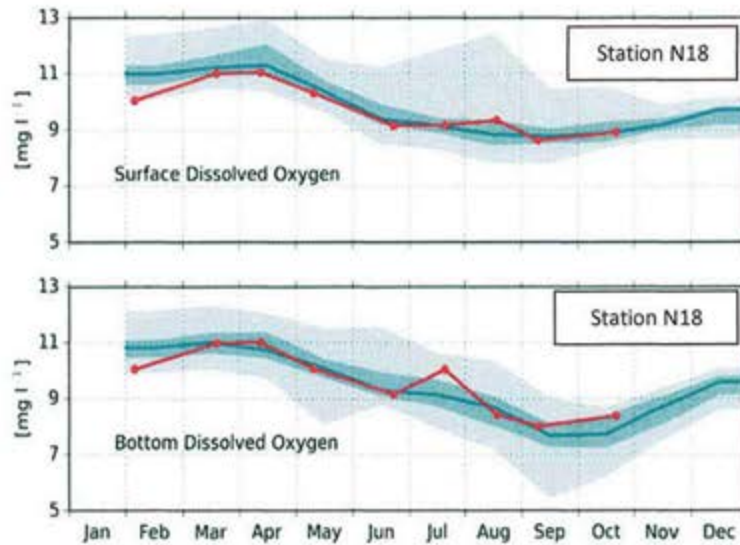


Figure 5. Dissolved oxygen (DO) in 2015 (red line) in the vicinity of MWRA’s outfall, compared to data since 1992. Results from 1992-2014 are in blue; blue line is the 50th percentile, the darker blue shading spans the 25th to 75th percentiles, and the lighter blue shading spans the range. Sampling now ends in October; under the old Monitoring Plan it continued through December.

The Center for Coastal Studies in Provincetown is collaborating with MWRA to monitor nutrients and plankton in Cape Cod Bay. The Center’s data showed that frigid conditions in early 2015 delayed the arrival of right whales in Cape Cod Bay, and fewer individual whales were observed in the Bay than in some recent years (See Figure 6).

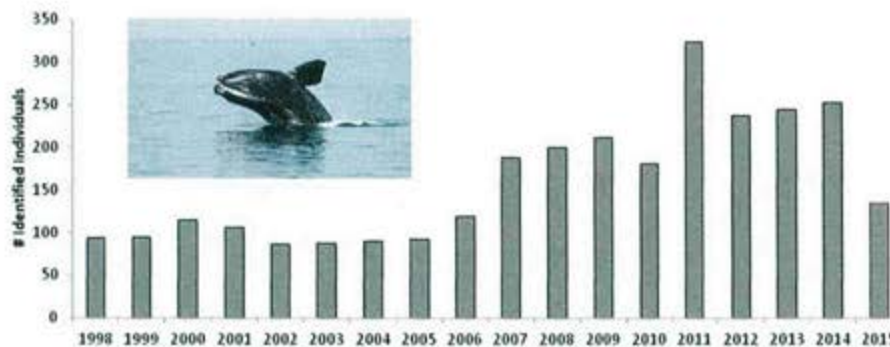


Figure 6. Right Whale sightings in Cape Cod Bay, 1998-2015. Figure from the Center for Coastal studies. Bars represent the number of different whales observed in Cape Cod Bay each year

Bacterial water quality monitoring in Massachusetts Bay

MWRA has been monitoring bacterial water quality in Massachusetts Bay since 1999 (See Figure 7), under a Memorandum of Understanding with the Massachusetts Division of Marine Fisheries. Sampling occurs monthly or when large storms result in substantial amounts of flow receiving only primary treatment.

Results of this monitoring document that treatment and disinfection at DITP, coupled with effective dilution at the outfall, result in sewage tracer bacterial levels well below the stringent water quality standards applied to shellfish growing beds (See Figure 8, below).

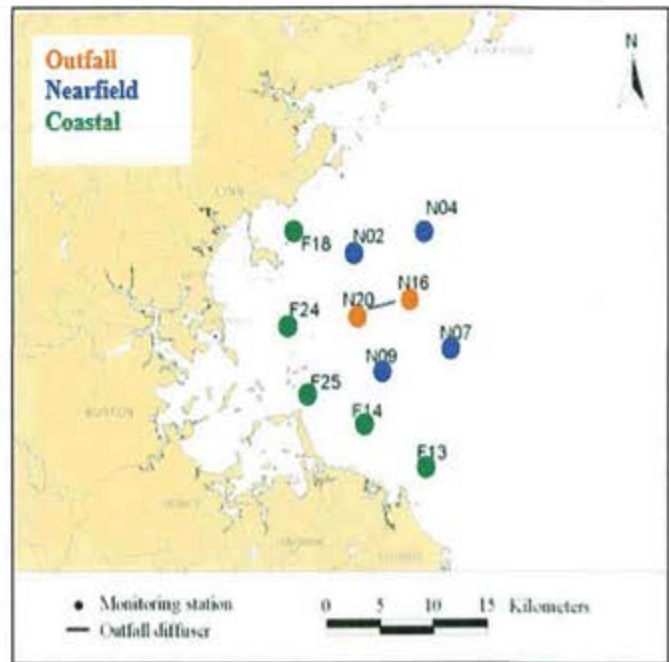


Figure 7. Massachusetts Bay Stations monitored for sewage-indicator bacteria

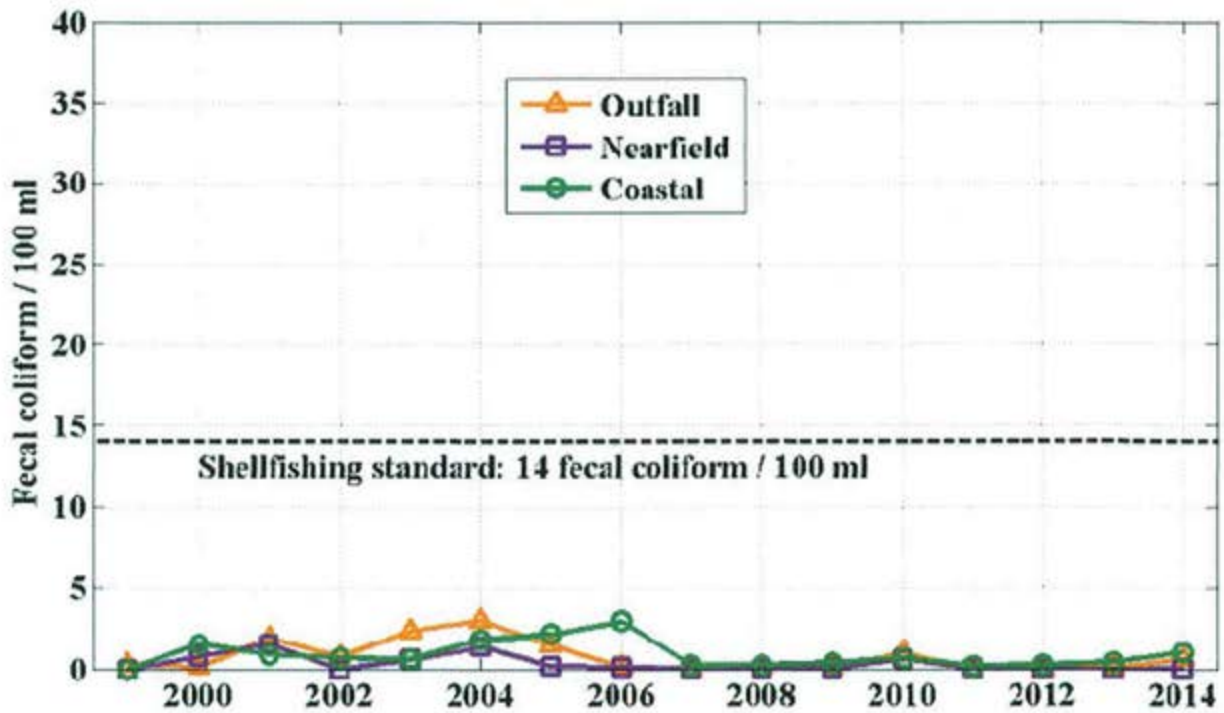


Figure 8. Fecal coliform bacteria in Massachusetts Bay , 1999–2014, compared to the shellfishing standard of a geometric mean not exceeding 14 organisms/100 ml.

Bacterial water quality in Boston Harbor

MWRA has been monitoring bacterial water quality in Boston Harbor and its tributary rivers since the late 1980s. At the time, inadequate treatment and an aging infrastructure led to widespread violations of bacterial water quality standards in the Harbor and its tributaries. Since 2010, when the Deer Island Treatment Plant and outfall were operational and most CSO related projects were complete, water quality in most of Boston Harbor and its tributaries meets swimming standards most of the time, even during wet weather (See Figure 9, below). Remaining areas where water quality exceedances occur are smaller and the exceedances much less severe than in the past.

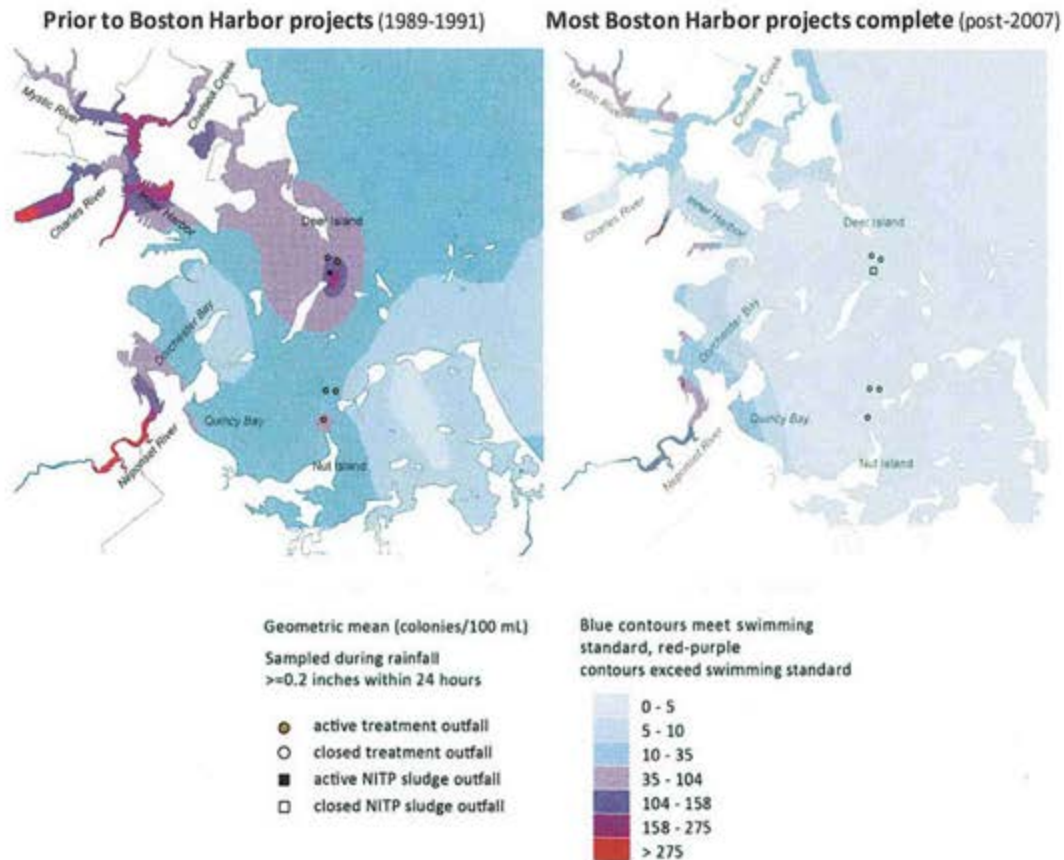


Figure 9. Bacterial water quality in Boston Harbor 1989-91 and 2007-2015. Contours are based on wet weather geometric means of the bacterial water quality indicator, *Enterococcus*

Monitoring Sediments near the Outfall

Sea-floor habitat (the benthos) is a major component of a healthy marine ecosystem and is of particular interest in studies of pollutant effects because contaminants ultimately end up on the bottom. MWRA's sea floor monitoring (see Figure 10) assesses the health of animal communities and concentrations of toxic contaminants in sediments. Studies of the animal communities living in mud found healthy, diverse groups of animals (worms, mollusks, crustaceans) normal to New England.

Long term, the abundance and diversity of animals at stations near the outfall (the nearfield) and at reference sites distant from the outfall appear to follow a cyclical pattern that is likely to be driven by large-scale climatic factors and ecological interactions within the benthos.

Prior to 2015, higher than expected biodiversity in the benthic community sampled in the nearfield resulted in exceedances of the Contingency Plan threshold over five consecutive years (2010 – 2014). Regulators and their Outfall Monitoring Science Advisory Panel agreed with MWRA’s evaluation that these resulted from a regional fluctuation, did not represent an adverse effect, and was not caused by the outfall. Also, increased diversity is not normally considered an impact of concern, but these sediment thresholds were established to detect substantial changes from baseline conditions, either increases or decreases.

While biodiversity in the nearfield remained high in 2015, levels were slightly below the Contingency Plan threshold, and an exceedance was not triggered.

Healthy benthic communities mix oxygenated water deep into sediments, while this irrigation is much slower in communities stressed by pollution (see Figure 11, next page). In stressed communities, bacterial activity in the sediments outpaces mixing with oxygenated waters, and the depth where darker, anoxic sediments are found approaches the sediment surface. Another indication that the discharge is having no effect on the sediment communities in the nearfield is that the depth of oxidized sediments in 2015 was the deepest yet measured (see Figure 12, next page).

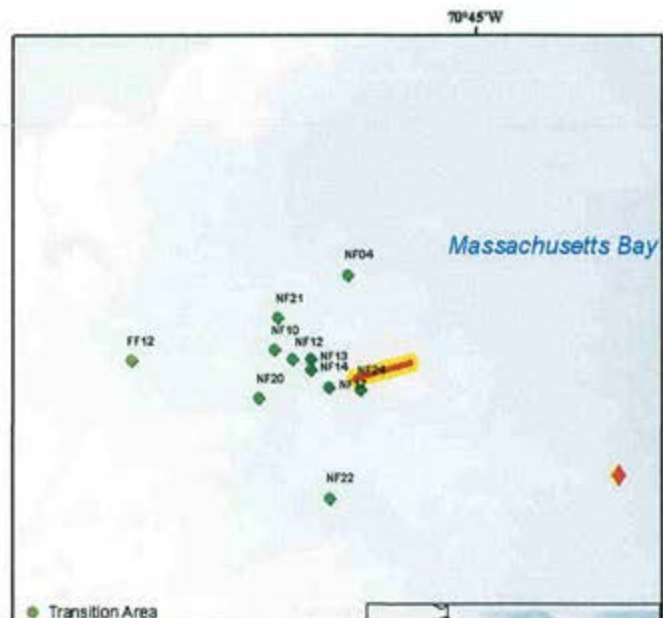


Figure 10. MWRA's stations for monitoring the animal communities that live in bottom sediments in Massachusetts Bay

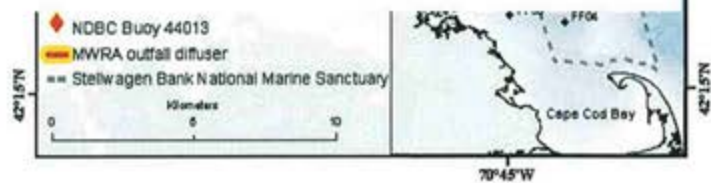




Figure 11. Collecting cross-section photos of the sea-floor to determine depth of oxygenation, and a sediment cross section from a station close to the outfall. Light brown and tan sediments are well oxygenated. Hash marks are at 1 centimeter intervals.

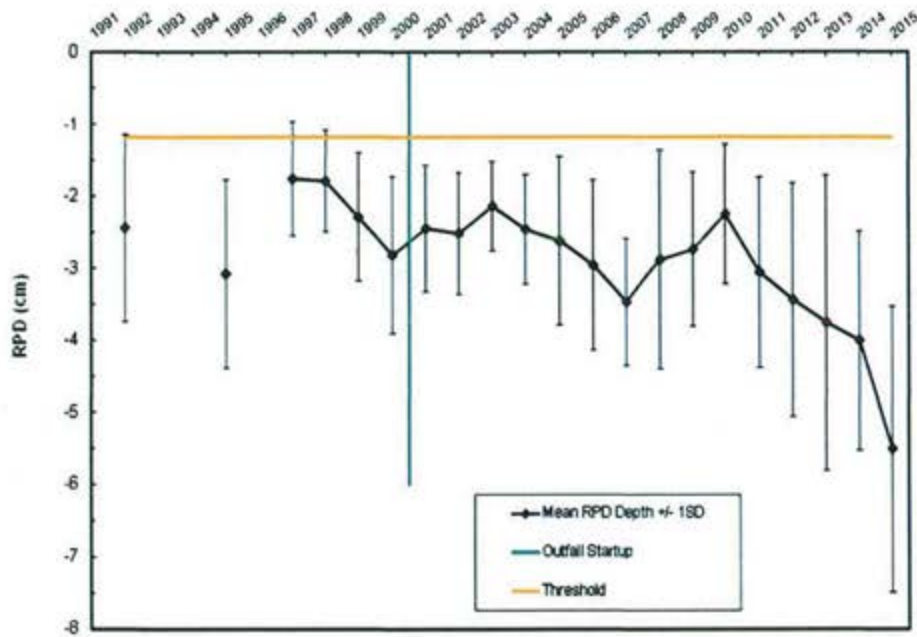


Figure 12. Annual average depth of oxygenated sediments (Mean RPD) in nearfield sediments, 1992-2015. The orange line is the Contingency Plan threshold,. RPD = Redox Potential Discontinuity, the depth at which sediments change from oxic (oxygen present) to anoxic (no oxygen present).

Flounder Monitoring

Because flounder live in close contact with the bottom sediments, their health, especially rates of liver disease, is an indication of the effects of contaminants in the sea floor. During the 1970s and 1980s, pollutant-related external abnormalities (for example, fin rot) and liver disease were common in winter flounder taken from Boston Harbor. That sampling program, adopted by MWRA (see Figure 13), has continued, documenting substantial declines in tumor precursors as the flounder population recovered in Boston Harbor, with no increases observed in fish caught near the Mass Bay outfall (See Figure 14, below).



Figure 13. Flounder sampling near the outfall

Tumor precursors increased in flounder from Deer Island Flats in 2015 and remained relatively consistent elsewhere (Figure 14.) to the highest levels seen since 2001. Fluctuations like the Deer Island Flats 2015 results have been seen before, and the reasons are unclear, but it is important to note that actual liver tumors have not been observed in flounder from Boston Harbor since 2004, and tumors have never been observed in flounder caught near the outfall.

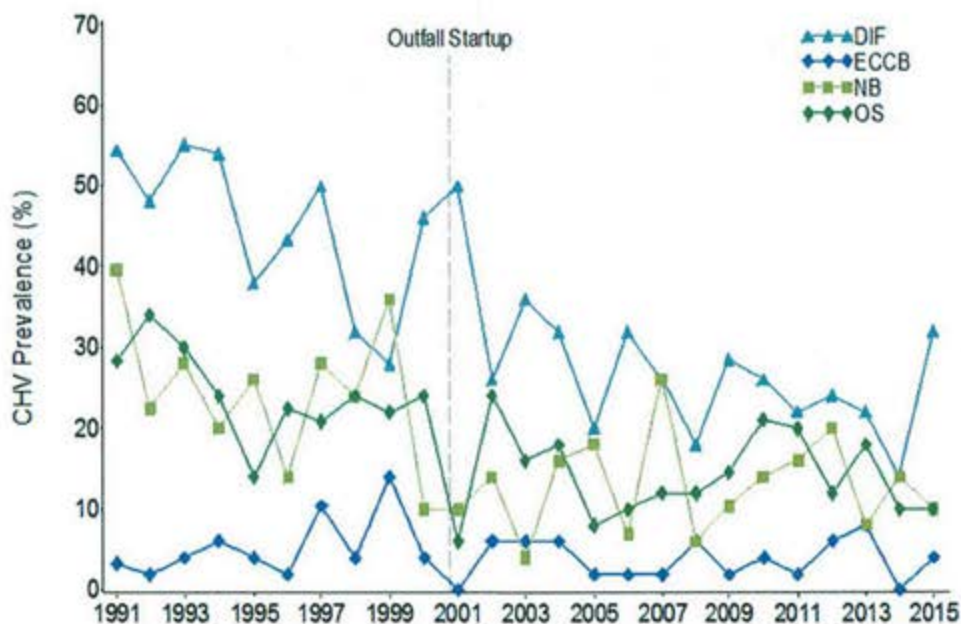


Figure 14. Prevalence of liver tumor precursors 1991-2015 in winter flounder from Deer Island (DIF), eastern Cape Cod Bay (ECCB), off Nantasket Beach (NB) and near MWRA's outfall (OS).

Contaminant monitoring in fish and shellfish

Measurements of priority pollutant contaminants, in flounder and lobster caught near MWRA's outfall, provide another strong indication that the discharge is having no effect on animals living in the vicinity of the outfall. Sampling is conducted every third year, including 2015. Concentrations of most contaminants in flounder and lobster are decreasing in Boston Harbor and are either remaining stable or decreasing in the nearfield, as shown for chlordane in flounder filet (See Figure 15, below). Contaminant bioaccumulation in blue mussels deployed for two months at the edge of the initial mixing zone of the outfall was below Contingency plan thresholds for all contaminants.

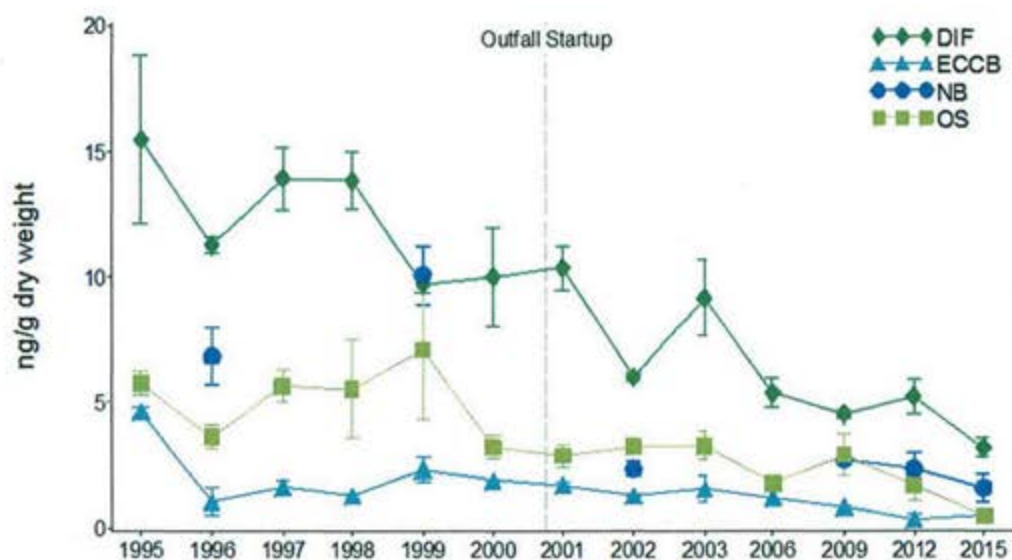


Figure 15. Total chlordane in flounder filet (1995-2015) from Deer Island (DIF), eastern Cape Cod Bay (ECCB), off Nantasket Beach (NB) and near MWRA's outfall (OS).

Contingency Plan Thresholds

Except for the nuisance algae (*Phaeocystis pouchetii*) observed in May, all other Contingency Plan thresholds were met in 2015; this includes all effluent quality thresholds. The ambient monitoring measurements of algae biomass, dissolved oxygen, sediment oxygenation, and flounder liver disease and contaminants in flounder, lobster, and blue mussels deployed in the zone of initial dilution near the outfall were all normal.

BUDGET/FISCAL IMPACT:

In FY10, before the changes to the monitoring plan were implemented, the cost of professional services for a year of outfall monitoring was \$2.35 million. ENQUAL's FY17 Current Expense Budget for required harbor and outfall monitoring, including the water column, sediment, fish and shellfish, instrumented buoys, and water quality modeling, is \$1.4 million, reflecting the savings resulting from changes to the monitoring requirements.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director *F. A. Laskey*
DATE: October 12, 2016
SUBJECT: Supply and Delivery of Sodium Hypochlorite to the Deer Island Treatment Plant
Borden & Remington Corporation
Bid WRA-4269

COMMITTEE: Wastewater Policy & Oversight

 INFORMATION
 X VOTE

Michele S. Gillen
Michele S. Gillen

Director of Administration

David Duest, Director, DIWWTP
Carolyn Francisco Murphy, Director of Procurement
Preparer/Title

Michael J. Hombrook
Michael J. Hombrook

Chief Operating Officer

RECOMMENDATION:

To approve the award of Purchase Order Contract WRA-4269, a one-year contract for the supply and delivery of sodium hypochlorite to the Deer Island Treatment Plant, to the lowest responsive bidder, Borden & Remington Corporation, and to authorize the Executive Director, on behalf of the Authority, to execute said purchase order contract in an amount not to exceed \$1,208,337.39 for a period of one year, from November 17, 2016 through November 16, 2017.

DISCUSSION:

MWRA uses sodium hypochlorite, which is a combination of chlorine and caustic soda, at the Deer Island Treatment Plant primarily to disinfect the plant's effluent. It is also used in the plant's odor control systems.

Sodium hypochlorite is stored in three above ground tanks, each 30 feet high and 40 feet in diameter, with a capacity to hold 250,000 gallons per tank.

Sodium hypochlorite is generally manufactured in different strengths, including 15%, 19%, and 20% solution. The differing strengths do not affect the treatment processes in any way; the only differences between them are unit cost and



availability. The most common and widely available strength is the 15% grade solution. In previous contracts, MWRA has purchased both 15% and 19% solution. Under the existing contract, also with Borden & Remington Corporation, MWRA is purchasing solely a 19% grade solution. Although the unit cost for 19% is slightly higher, the net result is less volume is needed to achieve the desired treatment results. In addition, the 19% has proven to be more cost-effective when comparing actual total chlorine purchased.

Procurement Process

Bid WRA-4269 was advertised in the following publications: Boston Herald, Goods and Services Bulletin, El Mundo, and Banner Publications. In addition, bids were made available for public downloading on MWRA's e-procurement system (Event 2576), and seven potential bidders were solicited through the e-Portal.

On August 25, 2016, Event 2576 closed, with the following results:

Borden & Remington Corporation	Estimated Gallons	Percentage Solution	Unit Price Per Gallon	Extended Bid Price
	2,200,000	15% Solution	\$0.5928	\$1,304,160.00
	1,750,199	19% Solution	\$0.6904	\$1,208,337.39
	1,650,000	20% Solution	No Bid	No Bid
Univar USA, Inc.	Estimated Gallons	Percentage Solution	Unit Price Per Gallon	Extended Bid Price
	2,200,000	15% Solution	\$0.6383	\$1,404,260.00
	1,750,199	19% Solution	No Bid	No Bid
	1,650,000	20% Solution	No Bid	No Bid
H. Krevitt & Company, Inc.	Estimated Gallons	Percentage Solution	Unit Price Per Gallon	Extended Bid Price
	2,200,000	15% Solution	\$0.8154	\$1,793,880.00
	1,750,199	19% Solution	\$0.9885	\$1,730,071.71
	1,650,000	20% Solution	No Bid	No Bid
Kuehne Chemical Corporation	Estimated Gallons	Percentage Solution	Unit Price Per Gallon	Extended Bid Price
	2,200,000	15% Solution	\$1.20	\$2,640,000.00
	1,750,199	19% Solution	\$1.50	\$2,625,298.50
	1,650,000	20% Solution	\$1.60	\$2,640,000.00

Vendors were given the option to provide a unit bid price for any number of the three available grades of sodium hypochlorite. Under the current contract with Borden & Remington Corporation, which expires on November 16, 2016, MWRA is paying a fixed price of \$0.6285 per gallon for 19% solution, for an annual cost of \$1,091,605.20. Compared to the existing contract, the proposed fixed price is \$0.6904 per gallon, for an annual cost of \$1,208,337.39. The not to exceed amount of the contract is not a firm commitment of cost or a guarantee of purchase to the vendor; MWRA will only pay for product delivered and received.

Although during recent years the caustic soda market has been moderate and stable, the market has historically been one of extreme volatility. The Purchasing Unit contacted Borden & Remington Corporation and they attributed this year's cost increase to an overall market tightening, with United States, Europe, and South America all cutting back on production. In addition, they stated a return to higher caustic prices and volatility is likely to continue for the next few years.

Staff have reviewed Borden & Remington Corporation's bid and have determined that it meets all of the requirements of the bid specifications. Therefore, staff recommend the award of this one-year purchase order contract to Borden & Remington Corporation, as the lowest responsive bidder.

BUDGET/FISCAL IMPACT:

There are sufficient funds available for the first portion of this contract in the approved FY17 Current Expense Budget. Appropriate funding will be included in the Proposed FY18 Current Expense Budget request for the remaining term of the contract.

MBE/WBE/PARTICIPATION:

Borden & Remington Corporation is not a certified Minority- or Women-owned business.



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

Wednesday, October 12, 2016

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

Time: Immediately following Wastewater Comm.

AGENDA

A. Information

1. Metropolitan Tunnel Redundancy (placeholder for possible discussion)
2. Reservoir and Drought Status Update

B. Approvals

1. Emergency Water Supply Agreement with the Town of Burlington

C. Contract Amendments/Change Orders

1. Watertown Section Rehabilitation, Waltham and Watertown: J. D'Amico, Inc., Contract 7222
2. Quabbin Power & Security Improvement: Ewing Electrical Co., Inc. Contract 7338, Change Order 2

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Water Policy and Oversight Committee

September 14, 2016

A meeting of the Water Policy and Oversight Committee was held on September 14, 2016 at the Authority headquarters in Charlestown. Chairman Blackmon presided. Present from the Board were Messrs. Carroll, Cotter, Flanagan, Foti, Pappastergion, Peña, Vitale and Walsh. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Steve Estes-Smargiassi, Dave Coppes, Pam Heidell, and Bonnie Hale. The meeting was called to order at 11:35 a.m.

Information

Staff gave presentations on each of the information items, and there was general discussion and question and answer:

- MWRA Reservoirs Status/Drought Report
- Update on Lead Programs
- Chestnut Hill Emergency Pump Station – Southern High Service Area Redundancy

Approvals

*Emergency Water Supply Agreement with the Town of Ashland

It was noted that the Advisory Board Executive Committee had voted in favor of the agreement and that it would be brought to the full Advisory Board the following date. The Committee recommended approval of the six-month emergency water supply agreement (ref. agenda item B.1).

The meeting adjourned at 12:25 p.m.

* Approved as recommended at September 14, 2016 Board of Directors meeting.

STAFF SUMMARY

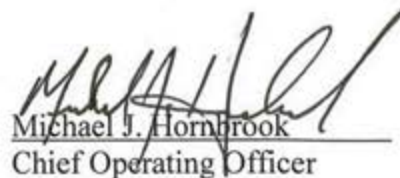
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 12, 2016
SUBJECT: Reservoir and Drought Status Update



COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE

Carolyn Fiore, Deputy Chief Operating Officer
Daniel Nvule, Senior Program Manager
David Coppes, Director of Waterworks
Stephen Estes-Smargiassi, Director, Planning
Preparer/Title



Michael J. Hornbrook
Chief Operating Officer

At the last Board Meeting on September 14, 2016, staff provided a comprehensive report on the ongoing drought and its impacts. Quabbin Reservoir fell from 84.4% to 82.3% full, and is still within its normal operating range for this time of the year. Even if the drought were to continue for several years, adequate supply exists in Quabbin and Wachusett Reservoirs to meet the needs of MWRA fully and partially supplied water communities and also, if needed, to augment the supplies of some of the adjacent stressed communities. While no water use restrictions are required for MWRA fully supplied customers, MWRA is urging consumers to use water wisely and continues to provide conservation information.

RECOMMENDATION:

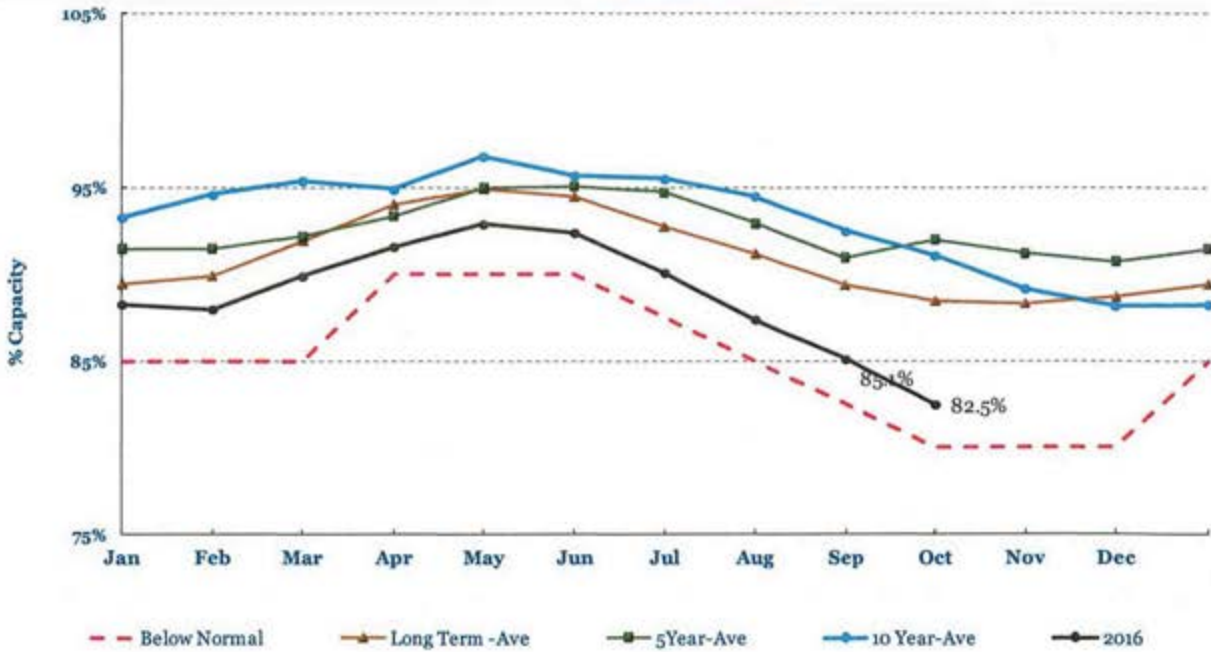
For information only.

DISCUSSION:

MWRA Supply Outlook

Quabbin Reservoir is 82.5% full as of October 1st, which is within its normal operating range for this time of the year, as shown on Figure 1 on the following page. Even if the drought continues for several more years, adequate supply exists in Quabbin and Wachusett Reservoirs to fully meet the needs of MWRA water communities and also, if needed, to augment the supplies of some of the adjacent stressed communities.

**Figure 1 : Quabbin Reservoir Volume
First of the Month**



Modeling of the reservoir system indicates the level will stay in its Normal Operating range if precipitation returns to average conditions. If, however, the state experiences the driest conditions, similar to those experienced during the three months that started in October 2001, Quabbin will end up 'Below Normal' before the end of those three months. Quabbin was last 'Below Normal' in 2002.

**Table 1 – Quabbin Reservoir Modeled Drought Status
Looking Forward from October 1, 2016**

	1-Month	3-Months	6-Months	12-Months
Median Yield	Normal	Normal	Normal	Normal
Dry (75th Percentile)	Normal	Normal	Below Normal	Normal
Driest (of Record)	Normal	Below Normal	Below Normal	Below Normal

Staff have been running the drought simulations each month, and will continue to do so until conditions no longer warrant.

Change in Community Status Since Last Meeting

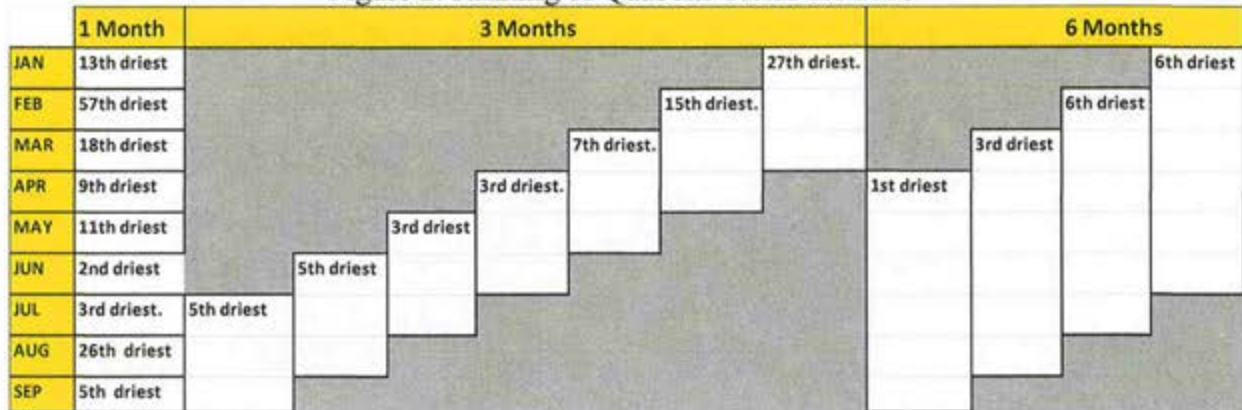
Ashland began taking water through Southborough in September and Worcester has been taking approximately 15 mgd since September 14th. Depending on near term weather conditions, Cambridge and Burlington may start taking water shortly. Lynn’s supplies have dropped to

below 45 percent which is their trigger for initiating discussion with MWRA about opening emergency connections. Increased use in partially supplied communities hasn't subsided with September use up 23.4% compared to last year. Even with the increased use by partials and emergency customers, total demand has begun to drop off: demand the last two weeks of September was 20 mgd lower than the last two weeks of August.

Dry Trend Has Continued

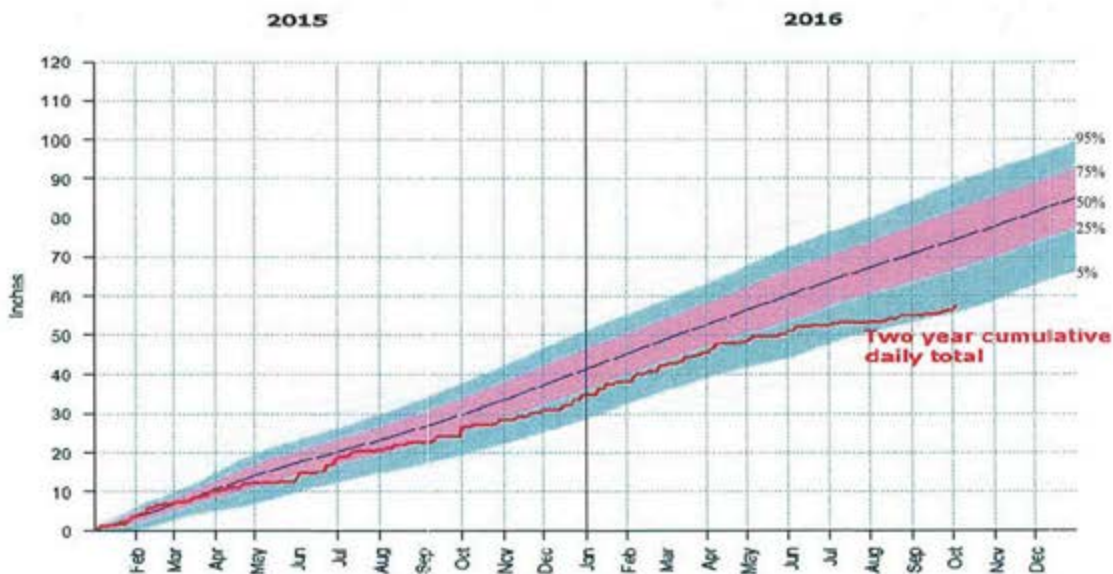
The 6 month period (April to September) had the lowest Quabbin yields on record.

Figure 2: Ranking of Quabbin Yields for 2016



In terms of rainfall in the service area, it has continued to be dry. Figure 3 shows actual rainfall at Logan Airport as of October 3rd, compared to the long term two-year average beginning in January of 2015. As seen on Figure 3, had there been not some rain towards the end of September, the cumulative total would have crossed the 5th percentile threshold.

Figure 3: Logan Airport Precipitation




Next Steps

MWRA staff will continue to participate in the state Drought Management Task Force, including its most recent meeting on October 5th, will coordinate with other state agencies to periodically assess the status of the drought and the ongoing needs of the partial users and emergency connections, and will report to the Board of Directors if conditions worsen.

BUDGET/FISCAL IMPACT:

Worcester will pay the prevailing wholesale rate for water taken at Shaft 3. Any emergency users will also pay either the prevailing rate directly to MWRA or will be billed by the community that they are interconnected to, plus a surcharge if applicable. Additional use by all other MWRA fully or partially supplied communities will be through the normal assessment process based on their proportionate share of water usage.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 12, 2016
SUBJECT: Emergency Water Supply Agreement with the Town of Burlington

COMMITTEE: Water Policy & Oversight

Carolyn M. Fiore, Deputy Chief Operating Officer
Pamela Heidell, Policy & Planning Manager
Preparer/Title

INFORMATION

VOTE


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to execute a six-month Emergency Water Supply Agreement with the Town of Burlington, substantially in the form attached hereto.

DISCUSSION:

On September 30, 2016, the Town of Burlington Department of Public Works submitted a request to MWRA for emergency withdrawal under MWRA's Operating Policy OP#.05, Emergency Water Supply Withdrawals.

Burlington's drinking water sources include both wells in the Vine Brook Aquifer as well as surface water pumped from the Shawsheen River to the Mill Pond Reservoir in Burlington. Production from the Vine Brook aquifer is now limited to 2 mgd since the Town removed three of its seven wells from service in 2013 for water quality reasons. At the same time, the operating capacity of the Mill Pond Treatment Plant is currently approximately 2.5 mgd versus its 4.5 design capacity due to two factors: the volume of stored water and Mill Pond operating maintenance needs. The Town indicates that if drought conditions continue, the Town will be unable to replenish the Mill Pond Reservoir, which now is at the middle intake and has less than 66 mgd of storage remaining. Burlington's typical fall daily demand is 2.8 mgd, while winter demand is 2.5 mgd.

Burlington would receive MWRA water via Burlington's existing interconnection with Lexington. The ability of Lexington to supply Burlington, even during periods of high demand, was established in flow tests in September.

This is Burlington's first Emergency Water Supply Withdrawal Request to MWRA. Pursuant to OP#.05 and the Enabling Act, six-month emergency water supply periods require the approval of Board of Directors. In accordance with OP#.05, a premium charge of 10% of the prevailing rate will be assessed for all water provided under the emergency.

Emergency Water Supply Approval Criteria and Requirements

OP#.05 sets forth emergency withdrawal criteria and requirements. Compliance with key criteria/requirements associated with Burlington's request is addressed below:

- *There must be no negative impact on MWRA's system and member communities.* Burlington's withdrawal would have no negative impact on the MWRA system. Water would be supplied via Lexington. Lexington has four meter connections to MWRA in the Northern Extra High pressure zone that are ample to meet anticipated demand. Should Burlington or Lexington or MWRA encounter unforeseen impacts, Burlington also has emergency interconnections with Billerica.
- *DEP must declare that an emergency exists.* DEP issued a six-month Emergency Declaration on September 30, 2016, to remain in effect until March 29, 2019 or until such time as MassDEP determines that emergency conditions no longer exist, whichever is sooner. Burlington has assured MWRA that it has discussed potential water quality impacts associated with a change in water supply source with DEP.
- *A long-term plan to remedy supply deficiencies must be developed.* Drought conditions precipitated Burlington's request to MWRA, rather than an existing chronic supply deficiency. That said Burlington is developing a long-term plan to address future water needs and has engaged a consultant to evaluate options to meet long term supply and treatment requirements: MWRA supply is one option under evaluation.
- *The applicant community does not use MWRA water supply as a chronic emergency back-up supply without equitable contribution for the fair asset value of the MWRA waterworks system.* This is the first 6-month emergency supply withdrawal period for Burlington. Since the first withdrawal period does not represent chronic use of MWRA as a back-up water supply, there is no fair asset value contribution associated with it. Should Burlington desire emergency withdrawals beyond the six month period indicated in the Agreement that would constitute Period 2: period 2 and beyond require annual payments associated with asset value contribution.
- *The Community must submit a detailed description of water conservation and water accountability programs undertaken.* The Town has instituted a number of water conservation programs:
 - Leak detection and completion of a meter replacement program: Burlington's Unaccounted for Water is less than 10%;
 - Outdoor water use restrictions: since July, Burlington imposed water use restrictions, limiting lawn watering to one-day a week. To reinforce the need for conservation, Burlington has used sign boards, TV and newspaper announcements, and press releases. The Town has enforced its restrictions, and has issued over 500 warnings and 25 citations.
 - Public education; and

- Availability of conservation kits

Contents of Emergency Water Supply Agreement

The Agreement limits water withdrawals to a maximum rate of 0.7 mgd. Pursuant to the Agreement, all withdrawals must be metered. The proposed emergency water supply agreement will be for the period from September 30, 2016 to March 29, 2017, coinciding with the time period of DEP's Declaration. (Burlington expected to begin withdrawals on or about October 10, under the Short-term approvals provisions of OP#.05, which provides authorization for the Executive Director or Chief Operating Officer to approve withdrawals for periods of 30 days or less). The Agreement also requires Burlington to adhere to all conditions and requirements contained in the DEP Declaration of Water Supply Emergency. The Agreement reflects MWRA's charges for emergency withdrawals, including a 10% premium charge added to the prevailing rate.

BUDGET/FISCAL IMPACT:

Pursuant to OP #.05, water taken for the first six-month emergency withdrawal period is charged at the prevailing rate plus a 10% premium. MWRA will review monthly use information to determine and assess the surcharge amounts. The volume of emergency withdrawals and therefore the amount of revenue MWRA will receive cannot be projected at this time.

ATTACHMENTS:

Draft Burlington Emergency Water Supply Agreement
DEP Emergency Declaration

EMERGENCY WATER SUPPLY AGREEMENT
BETWEEN
THE MASSACHUSETTS WATER RESOURCES AUTHORITY
AND
THE TOWN OF BURLINGTON

Parties.

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

Recitals.

- R.1. The MWRA was created by the Massachusetts legislature in December, 1984 to operate, regulate, finance, and modernize the waterworks and sewerage systems servicing the greater metropolitan Boston area. Operating pursuant to the terms of Section 8(d) of its Enabling Act, chapter 372 of the Acts of 1984 (the "Act"), and pursuant to the Policies and Procedures for Emergency Water Supply Connections of its Board of Directors, the MWRA may enter into arrangements to provide emergency supplies of water to any local body of the Commonwealth, provided certain conditions are met.
- R.2. Burlington is a duly constituted municipal corporation of the Commonwealth of Massachusetts ("Commonwealth").
- R.3. Lexington is supplied by the MWRA and Burlington has an emergency interconnection through Lexington to the MWRA water supply system.
- R.4. Burlington's drinking water sources include both wells in the Vine Brook Aquifer as well as surface water pumped from the Shawsheen River to the Mill Pond Reservoir in Burlington. The ground and surface water sources are served by the Vine Brook Treatment Plant and the Mill Pond Treatment plant, respectively. Water quality factors have required the removal of some of Burlington's wells from service and drought conditions have reduced reservoir storage, and Burlington's ability to meet water demand with its local sources alone.
- R.5. On September 30, 2016, the Town of Burlington Department of Public Works, in a letter to MWRA, notified MWRA that due to lower than normal precipitation and other

operational considerations, it had concerns about water levels and an emergency connection for a six-month period was desired.

- R.6 On September 30, 2016 the MA Department of Environmental Protection (MassDEP) issued a Declaration of Water Supply Emergency to Burlington, to remain in effect until March 29, 2017 or until such time as MassDEP determines that emergency conditions no longer exist, whichever is sooner. The Declaration of Water Supply Emergency is included as Attachment A to this Agreement.
- R.7 On October 11, 2006, the MWRA's Board of Directors adopted a revised Policy for Emergency Water Supply Withdrawals, OP#.05 (the "Policy") which includes criteria and a process for approving requests for emergency withdrawals.
- R.9. Burlington has applied to the MWRA to use emergency interconnections to the MWRA system through Lexington to supplement Burlington's local water supply sources on an as-needed basis.
- R.10. The MWRA has determined that it can supply Burlington with an emergency water supply for a period not exceeding six months under this Agreement without jeopardizing its ability to supply its member communities and without exceeding the safe yield of its water supply system.
- R.11. Burlington must comply with all applicable legal and regulatory requirements.
- R.12. Pursuant to the MWRA Policy, this Agreement is considered an Emergency Water Supply Agreement Period One.

AGREEMENT

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

- 1. The proposed emergency water supply agreement will extend from September 30 to March 29, 2017 in accordance with the terms of this Agreement, subject to termination in accordance with numbered paragraph 11 below.
- 2. Burlington may take water from the emergency interconnection at a maximum rate of 700,000 gallons per day over the six month period.
- 3. The transfer of water from the MWRA through Lexington to Burlington shall not extend beyond a period of six months, unless Burlington submits an application for an additional emergency water supply withdrawal and the MWRA's Board of Directors and Advisory Board approve the additional emergency water supply withdrawal. Any withdrawals beyond the DEP Emergency Declaration six-month period will also require an extension of DEP's Water Supply Emergency Declaration. In considering withdrawals beyond six months, the MWRA will consider Burlington's efforts to reduce consumption, to implement its long range plans and comply with DEP orders, and to implement a water conservation program.

4. During the six month term of this Agreement, Burlington shall institute and continue all practicable conservation measures including, but not limited to, a water conservation public education program; 100% metering; leak detection surveys and rehabilitation programs; conservation pricing for water services; and a local by-law governing outdoor water use with appropriate enforcement measures such as fines and water shut-off for non-compliance. Burlington shall actively administer and enforce such local by-law.
5. Burlington shall submit to MWRA a monthly report on water use, and the status of the emergency.
6. Burlington shall comply with all the conditions of any DEP Declaration of Water Supply Emergency.
7. During the term of this Agreement, the MWRA shall bill Lexington for the total volume of water used by Burlington as metered by Lexington, and will bill Burlington directly for the 10% surcharge over the prevailing rate mandated by the Policy. Lexington shall bill Burlington for water used in accordance with the terms of the agreement between Lexington and Burlington, which is incorporated by reference. Burlington shall remit its payments to Lexington for the total volume of water used. Burlington will remit its payments for the 10% surcharge to MWRA directly.
8. The parties agree that the emergency withdrawal authorized under this Agreement is not appropriate for or intended to provide a permanent water supply to Burlington. Any request by Burlington for a permanent partial water supply from MWRA shall require full consideration of all alternatives, including effective water conservation and leak detection, and shall be subject to all approvals required under Section 8 (d) of Chapter 372 of the Acts of 1984, MWRA policies, and under applicable state law and regulations.
9. The MWRA provides potable water in compliance with federal and state drinking water standards at the revenue meters of its waterworks communities. The parties agree that MWRA assumes no liability for the compliance of water delivered pursuant to this Agreement with those state and federal drinking water standards once the water has entered the water distribution system of the Town of Lexington.
10. Any dispute arising between the MWRA and Burlington under the terms of this Agreement shall be resolved in accordance with the dispute resolution process set forth at 360 C.M.R. 1.00.
11. The term of this Agreement shall extend from September 30, 2016, the day in which Burlington could begin to take water ("start date") through and including the six-month anniversary of the Start Date. During the term, MWRA reserves the right to terminate this Agreement at any time due to unforeseen circumstances such as inadequate supply, insufficient hydraulic capacity and other conditions related to the safe supply of existing users and operational requirements of the MWRA's waterworks system.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed on this _____ day of _____, 2016 by their duly authorized representatives.

MASSACHUSETTS WATER
RESOURCES AUTHORITY

By:

Frederick A. Laskey
Executive Director

TOWN OF BURLINGTON

By:

John D. Petrin
Town Administrator



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

September 30, 2016

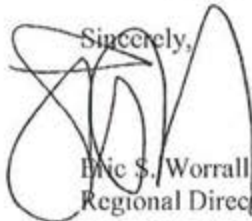
VIA Certified Mail No.: 7014 1920 0001 3561 1527

John D. Petrin, Town Administrator
Town of Burlington
Town Hall
29 Center Street
Burlington, MA 01803

City/Town: Burlington
PWS Name: Burlington Water and Sewer
PWSID: 3048000
WMA Registration No. 3-15-048.01
WMA Permit No. 9P3-15-048.01
Emergency Declaration No. UAO-NE-16-F005

Dear Administrator Petrin:

The Massachusetts Department of Environmental Protection ("MassDEP") received a petition from the Town of Burlington (the "Town"), dated September 29, 2016, requesting an Emergency Declaration under the provisions of the Water Management Act, M.G.L. c. 21G, §15 (the "petition"). According to the petition, the Town is unable to pump water to the Mill Pond reservoir due to drought conditions and the current level at the reservoir does not allow for continued supply needed for the next few months. Attached is the MassDEP's Declaration of State of Water Supply Emergency, No. UAO-NE-16-F005. If you have any questions regarding this letter, please contact me at (978) 694-3225.

Sincerely,

Eric S. Worrall
Regional Director

cc: John G. Sanchez, P.E., Director
Town of Burlington-Department of Public Works
25 Center Street
Burlington, MA 01803

Town of Burlington Board of Health
Human Services Building



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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

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Commissioner

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

**In the Matter of)
Town of Burlington)**

UAO-NE-16-F005

EMERGENCY DECLARATION

The Parties

1. The Massachusetts Department of Environmental Protection ("MassDEP") is a duly constituted agency of the Commonwealth of Massachusetts established pursuant to M.G.L. c. 21, § 7. MassDEP has its principal office located at One Winter Street, Boston, Massachusetts 02108, and its Northeast Regional Office located at 205B Lowell Street, Wilmington, Massachusetts 01887.
2. The Town of Burlington (the "Town") is a Municipality within the Commonwealth of Massachusetts having a principal place of business and a mailing address at 29 Center Street, Burlington, MA 01803.

Statement of Facts and Law

3. The Town operates a public water system with MassDEP Registration number 3-15-048.01 and Permit Number 9P-3-15-048.01. The Town, by and through its Water Department, operates and maintains two water treatment facilities, one is the Vine Brook Treatment Facility, which treats groundwater from seven groundwater wells in the Vine Brook aquifer, and the second is the Mill Pond Treatment Facility, which treats surface water that is pumped from the Shawsheen River in Billerica to the Mill Pond Reservoir in Burlington. To meet the Massachusetts Drinking Water Guideline level for 1,4-dioxane, the Town took out of operation wells 3, 4, and 5 at the Vine Brook Treatment Facility in 2013, limiting the amount of water supplied from that location.

4. On Thursday, September 29, 2016, the Town sent an email to MassDEP staff, petitioning MassDEP for a declaration of a state of water emergency pursuant to M.G.L. c. 21G, § 15 and seeking to open its emergency connection with the Town of Lexington as soon as possible. The Town states that it seeks the Emergency Declaration “[i]n order to meet the immediate water demand while maintaining an emergency supply volume at the Mill Pond reservoir (to be used in case of failure at the Vine Brook treatment facility)....”
5. The Town instituted initial water use restrictions on April 22, 2016, further imposed further restrictions on July 18, 2016, and, finally, made a full outdoor water ban compulsory by vote of the Board of Selectmen on September 28, 2016.
6. The Water Management Act, M.G.L. c.21G, § 15, and the Water Management Regulations, specifically the section set out at 310 CMR 36.40(1), authorize any water system to petition MassDEP for a Declaration of a State of Water Supply Emergency if it finds that there exists or impends a water supply shortage of a dimension which endangers the public health, safety or welfare.
7. Pursuant to M.G.L. c.21G, § 15, and the Water Management Regulations set out at 310 CMR 36.40(2), MassDEP may declare a state of water emergency if it finds that there exists or impends a water supply shortage of a dimension which endangers the public health, safety or welfare. Further, in response to a petition for a Declaration of a State of Water Supply Emergency and pursuant to this statutory section, MassDEP may require the water supplier to submit for its review and approval a plan for restraining the use of water by whatever means it deems appropriate and feasible. The statute limits any Declaration of a State of Water Supply Emergency to no more than six months in the aggregate in any twelve month period, unless MassDEP determines that a longer state of emergency is required to protect the public health.
8. Furthermore, the Water Management Regulations at 310 CMR 36.40(2) provides:

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

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

distribution of water, to distribute water to certain users as specified by MassDEP, and to require the implementation of specific water conservation measures.

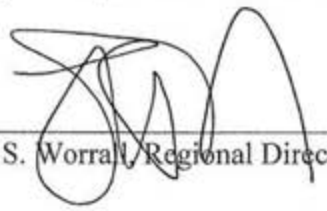
Determination and Order

10. For the reasons set forth above and pursuant to the Water Management Act, M.G.L. c.21G, § 15, MassDEP hereby determines that a water supply emergency exists and that it endangers the public health, safety or welfare of the citizens of the Town. Unless extended by MassDEP, this Emergency Declaration shall remain in effect until March 29, 2017 or until such time as MassDEP determines that emergency conditions no longer exist, whichever is sooner.
11. By issuing this Emergency Declaration, MassDEP hereby grants the Town authority to use its emergency connection to the Town of Lexington, subject to the following specific condition:
 - a. The Town shall maintain records of any water pumped from these sources as required under the Regulations during the duration of this Declaration and provide those records to the Department on request.
12. Effective immediately, the current town-wide ban on non-essential outside water use shall remain in place for the duration of this Emergency Declaration. For purposes of this Emergency Declaration, the term "nonessential outside water use" is defined to include those uses that do not have health or safety impacts, are not required by regulation, and are not needed to meet the core functions of a business or other organization.
13. Within seven (7) days of the date of issuance of this Emergency Declaration, the Town shall provide MassDEP with the written text of the Reverse-911 messages sent by the Town to its users on September 28 and September 29, 2016. The Town shall further notify customers by any additional means, including but not limited to sign boards, notices on web site and social media, as deemed necessary. If the Town has published notice in a local newspaper and/or on the Town's website or by any other means, then the Town shall also submit a copy of the public notice to MassDEP within ten (10) business days of publication of the notice.
14. On or before November 1, 2016, the Town shall submit to MassDEP a written report documenting all efforts taken by the Town to implement and enforce the ban on nonessential outside water use required herein, including all actions taken by the Town to inform the public of the ban and to enforce the ban, including the assessment of penalties or imposition of fines. The report shall describe water use trends over the period of the emergency and describe progress and the status of all other conservation programs being implemented by the Town, including any efforts to limit the use of private wells. The Town shall submit copies of all materials and notices prepared to inform the public of the need to conserve water and comply with the ban on nonessential outside water use.

15. The Town shall comply with all the remaining terms and conditions of its MassDEP Registration number 3-15-048.01 and Permit Number 9P-3-15-048.01 that remain unchanged by this Emergency Declaration.
16. If the Town fails to comply with the provisions of this Emergency Declaration, MassDEP may assess a civil administrative penalty as provided in M.G.L. c.21A, § 16 and M.G.L. c.21G, § 14. MassDEP may also seek civil judicial penalties as provided in M.G.L. c.21G, § 14. Each day of continued violation shall constitute a separate offense. In addition, MassDEP may ask the Attorney General to bring an action in the superior court to compel compliance with this Declaration.

Issued by the Department of Environmental Protection this 30th day of September 2016.

By


Eric S. Worrall, Regional Director

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 12, 2016
SUBJECT: Watertown Section Rehabilitation, Waltham and Watertown
J. D'Amico, Inc., Inc.
Contract 7222, Change Order 6



COMMITTEE: Water Policy and Oversight

 INFORMATION
 X VOTE

Terrence Flynn, P.E., Construction Coordinator
Corinne M. Barrett, Director, Construction
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Change Order 6 to Contract 7222, Watertown Section Rehabilitation, Waltham and Watertown, with J. D'Amico, Inc., for an amount not to exceed \$150,000, increasing the contract amount from \$2,668,297.59 to \$2,818,297.59, with no increase in contract term.

DISCUSSION:

Under Contract 7222, the Contractor slip-lined 5,400 feet of the Watertown Section pipeline with 24-inch-diameter, high-density polyethylene (HDPE) pipe, installed 300 feet of 24-inch-diameter and 30-inch-diameter HDPE pipe by open-cut construction, and replaced approximately 65 feet of the City of Cambridge's 30-inch, 36-inch, and 48-inch raw water main at the intersection of Clark Street and River Street where it passes over the Watertown Section pipeline.

Contract 7222 was declared substantially complete on December 3, 2013; however, on December 8, 2013 the pipeline experienced a leak at the corner of River Street and Newton Street in Waltham. The Contractor immediately returned to the site and repaired that leak. While the pipe was being filled, an additional leak at the same intersection was identified. This second leak was also immediately repaired.

The pipeline was operational until a third leak occurred on March 7, 2014 at the intersection of River Street and Willow Street in Waltham. That leak, also at a mechanical coupling was also immediately repaired by the Contractor. These three leaks were all at locations where the HDPE pipe had appeared to pull out of the mechanical couplings. For this contract, the HDPE pipe was fused above ground and pulled through the existing steel pipe. At access pits where these long lengths of pipe meet, mechanical couplings join the pipe. Since HDPE pipe has the characteristic of shrinking and expanding over time and with changes in temperature pressure, flexible restraints were fused to the pipe and embedded in concrete anchor block account for these forces since mechanical couplings have no restraint. There are a tot

seventeen mechanical couplings spread over nine separate locations along the rehabilitated Watertown Section.

MWRA Contract 7222 - Watertown Section



Because all three of the leaks had mechanical couplings and flexible restraints in common, the MWRA notified the Designer, Green International Associates, and the Contractor, J. D'Amico, Inc., of potential responsibility. The MWRA also negotiated with J. D'Amico, Inc. to extend the correction period from December 3, 2014 to April 1, 2017.



Typical coupling locations with flex restraints being fused on (before concrete block poured)



Failed flex restraint

Approximately 8 months later, a fourth leak surfaced at the same coupling at River and Willow Streets on November 24, 2014. This time, the Authority hired Simpson Gumpertz & Heger, Inc. to investigate the cause of the leak and ensure the proper repair was undertaken. J. D'Amico, Inc. repaired the leak while SGH, Green International, the pipe manufacturer and flex restraint

manufacturer were on site. SGH submitted a letter that indicated they believe that the cause of the leak was most likely improper preparation of the HDPE pipe before the flexible restraints were fused to the pipe.

All four leaks discussed above were repaired by the Contractor at no cost to the Authority.

On January 26, 2016, a fifth leak surfaced at a major intersection. This leak was at the intersection of River Street and Seyon Street. MWRA isolated the pipeline and J. D'Amico, Inc. cleaned up the site and restored the pavement. J. D'Amico, Inc. was asked for a repair plan and also notified that the MWRA considered these leaks to be a systemic problem and required a repair plan for all of the remaining coupling locations. J. D'Amico, Inc. responded with a letter stating they felt this was a design issue rather than the Contractor's responsibility. That letter was forwarded to Green International, who responded that, based on SGH's investigation, all of these leaks were the Contractor's responsibility.

SGH will be brought in to investigate the cause of the latest leak, and based on the results of this investigation and the previous investigation, staff will seek cost recovery against either or both the designer or construction contractor for the cost of this latest repair, and the cost of repairing the remaining seven locations where flexible restraints and mechanical couplings are utilized. It is believed that by investigating one of the originally constructed mechanical coupling locations, rather than the re-worked coupling at River and Willow, the Authority will have more information to go forward with cost recovery.



Pipe appears to have pulled out of coupling



Pavement damage at River and Seyon

This Change Order

Investigate and Repair Leak at River Street and Seyon Street

NTE \$150,000

This change is for a leak repair at the existing blow-off tee at River and Seyon Streets in Waltham, Massachusetts that surfaced on January 26, 2016. The MWRA, Contractor, and Design Engineer will enter into a tolling agreement to retain the Authority's rights while more information is gathered regarding the cause of the numerous leaks that have occurred at mechanical couplings along the 24-inch HDPE pipeline. The tee and couplings will be exposed, the cause of the leak investigated and documented, and the pipeline will be put back together and brought back into service. Because of the heavy traffic through this intersection, all work will

have to be completed during nighttime hours.

The approved PCO for this item has been identified by MWRA staff as an unforeseen condition. MWRA Staff and the Contractor have agreed to an amount not to exceed \$150,000 for this additional work. The Contractor has not begun the work.

Extend the Correction Period to April 1, 2018 \$0.00

The original contract specifies a one year correction period. Change Order 5, executed on November 6, 2014, extended the correction period from December 3, 2014 to April 1, 2017 at no additional cost. The Watertown Section pipeline has been out of service intermittently for large portions of the existing warranty period while the last two leaks were being investigated and repaired. Staff would like to gain more information as to the causes of the numerous leaks to pursue cost recovery and a complete repair of the pipe so that the Watertown Line can be brought back into continuous service to serve Waltham and Watertown. This change will extend the correction period for one additional year until April 1, 2018.

The approved PCO for this item has been identified by MWRA staff as an unforeseen condition. MWRA staff and the Contractor have agreed to extend the correction period for one year at no additional cost to the Authority.

CONTRACT SUMMARY:

	AMOUNT	TIME	DATED
Original Contract:	\$2,580,900.00	214 Days	05/03/13

CHANGE ORDERS

Change Order 1*	\$40,504.41	0 Days	10/15/13
Change Order 2*	\$110,891.14	0 Days	11/18/13
Change Order 3*	\$19,447.00	0 Days	03/18/14
Change Order 4*	(\$133,444.96)	0 Days	05/06/14
Change Order 5*	\$50,000.00	0 Days	11/06/14
Change Order 6	<u>\$150,000.00</u>	<u>0 Days</u>	Pending
Total Change Orders:	\$237,397.59	0 Days	
Adjusted Contract:	\$2,818,297.59	214 Days	

*Approved under delegated authority

If Change Order 6 is approved, the cumulative total value of all change orders to this contract will be \$237,397.59 or 9.2% of the original contract amount.

BUDGET/FISCAL IMPACT:

The FY17 CIP includes a budget of \$2,668,298.00 for Contract 7222. Including this change order for a not to exceed amount of \$150,000, the adjusted subphase total will be \$2,818,297.59 or \$149,999.59 over budget. This amount will be covered within the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

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

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 12, 2016
SUBJECT: Quabbin Power and Security Improvements
Ewing Electrical Company, Inc.
Contract 7338, Change Order 2



COMMITTEE: Water Policy & Oversight

Jami Walsh, P.E., Construction Coordinator
Corinne M. Barrett, Director, Construction
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 2 to Contract 7338, Quabbin Power and Security Improvements, with Ewing Electrical Company, Inc. for an amount not to exceed \$30,000, increasing the contract amount from \$3,440,319.90 to \$3,470,319.90, with no increase in contract term.

Further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 7338 in an amount not to exceed the aggregate of \$250,000 in accordance with the Management Policies and Procedures of the Board of Directors.

BACKGROUND:

The work under this contract includes upgrading 9,000 linear feet of an existing overhead power line from Winsor Power Station to the Quabbin Lookout Tower, which powers existing radio communication equipment at the Quabbin Lookout Tower. The project also includes construction of 14,300 linear feet of new overhead power and communication lines that will serve the Boat Cove area of the Quabbin Reservoir and the Shaft 12 Service Building and Intake Structure. These power and communications improvements will support new security and lighting equipment at these locations. Tree clearing for the new power and communications lines will be performed by DCR and has been integrated into their established Plan of Operations for Timber Sales and will meet all standards used for operations on drinking water watersheds.

This Change Order

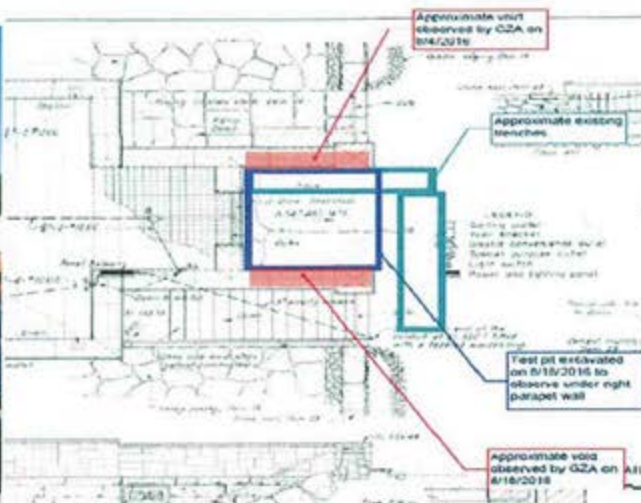
Change Order 2 consists of the following item:

Perform Three Test Pits and Furnish and Install Non-Shrink Cementitious Grout \$30,000

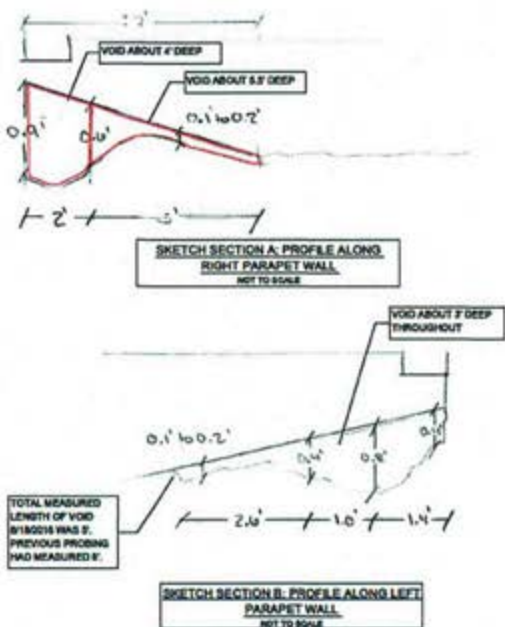
While excavating to install a duct bank, the Contractor encountered a void at the eastern corner of the parapet wall adjacent to the Chicopee Valley Aqueduct (CVA) Intake Structure. The CVA Intake Structure is located on Windsor Dam. A dam safety consultant reviewed the void and determined three additional test pits were required in order to evaluate the extent of the voids. The test pits revealed an additional void. The voids were investigated using a camera and the dam safety consultant determined that the cause of the void was strictly settlement of the soil beneath the parapet walls. Based on this, a remedial action plan to install a non-shrink cementitious grout in the voids to stabilize the duct bank and fill the void was developed and implemented.



CVA Intake Structure



Locations of voids at CVA Intake Structure



Profile sketch of the voids



Photo shows the void under the right parapet wall.

The approved PCO for this item has been identified by MWRA staff as an unforeseen condition. MWRA staff and the Contractor have agreed to a not to exceed amount of \$30,000 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.

CONTRACT SUMMARY:

	<u>Amount</u>	<u>Time</u>	<u>Dated</u>
Original Contract:	\$3,199,000.00	424 Days	02/11/16
Change Orders:			
Change Order 1*	\$241,319.90	0 Days	Pending
Change Order 2	<u>\$30,000.00</u>	<u>0 Days</u>	Pending
Total Change Orders:	\$271,319.90	0 Days	
Adjusted Contract:	\$3,470,319.90	424 Days	

*Approved under delegated authority

If Change Order 2 is approved, the cumulative total value of all change orders to this contract will be \$271,319.90 or 8.5% of the original contract amount. Work on this contract is approximately 50% complete.

BUDGET/FISCAL IMPACT:

The FY17 CIP includes a budget of \$3,199,000 for Contract 7338. Including this change order for an amount not to exceed \$30,000 the adjusted subphase total will be \$3,470,319.90 or \$271,319.90 over budget. This amount will be covered within the five year CIP spending cap.

MBE/WBE PARTICIPATION:

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



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

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

Wednesday, October 12, 2016

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

Time: Immediately following Water Comm.

AGENDA

A. Approvals

1. PCR Amendments – October 2016
2. Appointment of Area Manager, Deer Island Treatment Plant
3. Appointment of Program Manager, Process Monitoring, Deer Island Treatment Plant
4. Appointment of Deputy Contracts Manager, Procurement

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Personnel and Compensation Committee

September 14, 2016

A meeting of the Personnel and Compensation Committee was held on September 14, 2016 at the Authority headquarters in Charlestown. Vice-Chair Cotter presided. Present from the Board were Messrs. Blackmon, Carroll, Flanagan, Foti, Pappastergion, Peña, Vitale and Walsh. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Karen Gay-Valente, Mike Hornbrook, and Bonnie Hale. The meeting was called to order at 12:25 pm.

Approvals

*PCR Amendments – September 2016

Staff described the strategy of creating new positions to hire entry level employees, who can then be trained for and promoted into more technically specialized positions for which there are a large number of vacancies. Mr. Foti objected to the high estimated costs of these hires. There was general discussion and question and answer. The Committee recommended approval (with Mr. Foti opposed) of the amendments to the Position Control Register (ref. agenda item A.1).

Upon an omnibus motion, the Committee recommended approval of the following appointments:

*Appointment of Assistant Manager, Employment

Appointment of Ms. Susan Carter (ref. agenda item A.2)

*Appointment of MBE/WBE Program Manager

Appointment of Ms. Sharon Ward (ref. agenda item A.3)

*Appointment of Warehouse Manager

Appointment of Mr. Richard Martino (ref. agenda item A.4)

*Appointment of Systems Administrator III, MIS

Appointment of Mr. Andrew Richlieu (ref. agenda item A.5)

* Approved as recommended at September 14, 2016 Board of Directors meeting.

*Appointment of Project Manager, SCADA Technicians

Appointment of Mr. Ernest Navarro (ref. agenda item A.6)

*Appointment of Project Manager, SCADA Technicians

Appointment of Mr. David Smith (ref. agenda item A.7)

*Appointment of Construction Coordinator, Engineering & Construction

Appointment of Mr. Jeffery Bina (ref. agenda item A.8)

*Appointment of Regional Manager – TRAC

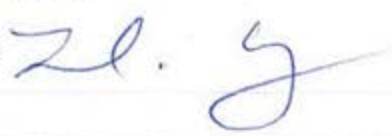
Appointment of Mr. Thomas Coffey (ref. agenda item A.9).

The meeting adjourned at 12:40 p.m.

* Approved as recommended at September 14, 2016 Board of Directors meeting.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 12, 2016
SUBJECT: October PCR Amendments



COMMITTEE: Personnel and Compensation

 INFORMATION

 X VOTE

Karen Gay-Valente, Director of Human Resources
Joan C. Carroll, Manager Compensation
Preparer/Title


Michele S. Gillen, Director Administration
Division Director Approval

RECOMMENDATION:

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

DISCUSSION:

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

October PCR Amendments to Existing Positions

There is one PCR amendment related to a change in staffing needs in the Operations Division.

The amendment is:

1. A change in title and grade to a vacant position in the Water Quality Assurance Department in Southboro, Senior Instrument Technician, Unit 2, Grade 16 to Communication & Control Technician, Unit 2, Grade 18. This position amendment is needed to ensure staff have proper certifications and skills within the department necessary to keep up with new technologies and maintain system reliability.

This amendment requires approval by the Board after review by the Personnel and Compensation Committee.

BUDGET/FISCAL IMPACT:

The annualized budget impact of this PCR amendment will result in a savings of \$14,982 to a cost of \$6,916 depending on the individual selected for the vacant position upon the completion of the hiring process. Staff will ensure that any cost increase associated with this PCR amendment will not result in spending over the approved FY17 Wages and Salaries budget.

ATTACHMENTS:

New/Old Job Descriptions

**MASSACHUSETTS WATER RESOURCES AUTHORITY
POSITION CONTROL REGISTER AMENDMENTS
FISCAL YEAR 2016**

PCR AMENDMENTS REQUIRING PERSONNEL & COMPENSATION COMMITTEE APPROVAL -October 12, 2016

Number	Current PCR #	V/F	Type	Current Title	UN	GR	Amended Title	UN	GR	Current/Budget Salary	Estimated New Salary	Estimated Annual \$ Impact	Reason For Amendment	
PERSONNEL & COMP COMMITTEE TOTAL =											0	SUBTOTAL:		\$0 - \$0

PCR AMENDMENTS REQUIRING BOARD APPROVAL - October 2016

Number	Current PCR #	V/F	Type	Current Title	UN	GR	Amended Title	UN	GR	Current/Budget Salary	Estimated New Salary	Estimated Annual \$ Impact	Reason For Amendment
B21	Operations Water Quality Assurance 3370016	V	T,G	Senior Instrument Technician	2	16	Communication & Control Technician	2	18	\$70,342	\$55,360 - \$77,258	-\$14,982 - \$6,916	To align title and grade with increase in job responsibilities.
BOARD TOTAL =					1	SUBTOTAL:					-\$14,982 - \$6,916		
GRAND TOTAL =					1	TOTAL ESTIMATED COSTS:					-\$14,982 - \$6,916		



MWRA
POSITION DESCRIPTION

POSITION: Senior Instrument Technician

DIVISION: Operations

DEPARTMENT: Environmental Quality

BASIC PURPOSE:

Supervises and participates in the installation, calibration, maintenance and repair of water instrumentation and equipment.

SUPERVISION RECEIVED:

Works under the supervision of the Project Manager, CMS.

SUPERVISION EXERCISED:

May supervise individual Technicians or crews of Instrument Technicians.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Supervises and participates in precision shop and fieldwork calibrating, troubleshooting, installing, repairing and maintaining electronic equipment and instrumentation.
- Supervises a crew of technicians, records work completed, equipment and parts utilized, time spent on job and summarizes in daily and weekly reports.
- Utilizes Maximo to input and extract data.
- Examines malfunctioning instruments, tests sensors and circuitry for defects. Troubleshoots equipment and replaces or repairs defective parts, reassembles the instrument and adjusts all levels and signals to ensure accurate data.
- Supervises the safe and orderly maintenance of all tools, materials, equipment, vehicles and facilities.
- Works from blueprints and site drawings. Reads wiring diagrams, PID and schematic

drawings to locate and troubleshoot circuit problems.

- Orders and maintains all necessary supplies.
- Follows all MWRA safety policies and procedures to ensure a safe work environment.
- May be required for on-call duties and response to WQ alarms.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A two (2) year college program in electronics or related field; and
- (B) One (1) to three (3) years of experience in electronics, electricity, mechanics and hydraulics with at least one (1) year as a supervisor in a work order-driven environment; or
- (C) Three (3) years of experience in the electronics field may be substituted for supervisory experience; or
- (D) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Familiarity with the care and use of electronic test equipment as well as various other hand and power tools.
- (B) Understanding of the operation of water transmission and treatment systems is preferred.
- (C) Ability to read, interpret and work from schematics, wiring and P & I diagrams as well as detail record drawings.
- (D) Ability to plan and schedule crew activities.
- (E) Excellent oral and written communication skills. Ability to understand and follow written and oral instructions.
- (F) Working knowledge of computers.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License.

Complete competency based training program related to **ESSENTIAL DUTIES AND RESPONSIBILITIES** as outlined above and successfully demonstrates required competencies.

Successful completion of Confined Space training with MWRA certification within six (6) months of employment may be required.

Must have the ability to raise a 180-pound co-worker from a metering sewer or water manhole in a reasonable amount of time using a DBI/SALA tripod/winch system.

TOOLS AND EQUIPMENT USED:

Electronic test equipment, programmable logic computers, climbing and fall retrieval equipment, personal computer including word processing and other software, hand tools, mobile radio, copy and fax machines.

PHYSICAL DEMANDS:

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

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

The employee must frequently lift and/or move up to 10 pounds and occasionally lift and/or move up to 100 pounds. Specific vision abilities required by this job include close vision, distance, color vision, peripheral vision, depth perception, and the ability to adjust focus.

WORK ENVIRONMENT:

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

While performing the duties of this job, the employee occasionally works in outside weather

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

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

January 2016

MWRA
POSITION DESCRIPTION

NEW

POSITION: Communications & Control Technician (Contaminant Monitoring System)

PCR#:

DIVISION: Operations

DEPARTMENT: Environmental Quality - Water

BASIC PURPOSE:

Participates in the development, installation and maintenance of the Authority's Contaminant Warning System, Reservoir Monitoring System, and other Water Quality Monitoring Systems. Required to be on-call for emergencies 24 hours per day, 7 days a week (in a rotation).

SUPERVISION RECEIVED:

Works under the general supervision of the Project Manager, CMS.

SUPERVISION EXERCISED:

Exercises close supervision of vendors and support staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Assists with the development, installation, enhancement and maintenance of monitoring systems.
- Installs, repairs and services monitoring sensors and subsystems.
- Works with the phone company and other vendors to achieve data line installations and repairs.
- Performs precision calibration and maintenance on primary instrumentation devices utilized for the monitoring and transmission of data from Authority facilities.
- Performs water quality sampling and testing as required to support calibration and verify performance of water quality instrumentation.
- Installs, repairs and services sondes, profilers, data logging and transmission systems.
- Installs, repairs and services local telecommunication routers and modems as directed.

- Works with monitoring systems interface screens, monitoring PCs and laptops, network equipment, Telog, programmable logic controllers, and remote terminal units as directed.
- Performs preliminary communication testing for proposed monitoring locations.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) An Associates Degree in Electronic Engineering from an accredited college or ISA Control Systems Technician Certification required.
- (B) One (1) year experience maintaining and servicing water quality monitoring systems and computer controlled programmable logic controllers (PLCs) and/or other types of automated process control.
- (C) Experience in the calibration, repair and maintenance of instrumentation and data communication equipment required.
- (D) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Ability to troubleshoot to the board level utilizing a variety of electronic test equipment as well as computer driven diagnostics is required.
- (B) Ability to install, repair and service monitoring equipment, associated interface devices, wired and cellular telecommunications, yagi and Omni directional antennas.
- (C) Familiarity with windows-based monitoring application software is desired.
- (D) Familiarity with Auto-CAD, or other equivalent CAD design programs is desired.
- (E) Familiarity with field sampling and test procedures is preferred.
- (F) Working knowledge of Windows Operating Systems.
- (G) Strong initiative/work ethic and excellent interpersonal, oral and written communication skills required.

SPECIAL REQUIREMENTS:

FCC General Radiotelephone Operator License (or ability to obtain license within six months.)
Pass Confined Space Entry Training within six months.
Valid Massachusetts Class D motor vehicle license.

TOOLS AND EQUIPMENT USED:

Electronic test equipment, PLC's climbing and fall retrieval equipment, personal computer including word processing and other software, hand tools, mobile radios and copy and fax machines.

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:


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

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

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


September 2016

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 12, 2016
SUBJECT: Appointment of Area Manager, Deer Island Treatment Plant
Operations Division

COMMITTEE: Personnel and Compensation

Karen Gay-Valente, Director, Human Resources
Edward Regan, Deputy Director, Maintenance
David F. Duest, Director, DIWWTP
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of William J. Carter to the position of Area Manager (Unit 6, Grade 12), at an annual salary of \$113,341, commencing on a date to be determined by the Executive Director.

DISCUSSION:

The position of Area Manager became open upon the retirement of the previous incumbent. The Area Manager reports to the Maintenance Manager at the Deer Island Wastewater Treatment Plant and is responsible for directing a multi-discipline trade staff of up to 30. This position is responsible for implementing industry best management practices to increase staff productivity, monitor asset performance indicators, and implement programs to maximize asset life while reducing equipment downtime. Deer Island Treatment Plant is approaching twenty-two years in service and the Area Manager position is critical to ensure all assets are replaced and repaired as necessary to maintain the effective operation of the plant.

Selection Process

The position was posted internally and six qualified candidates applied and were referred for interviews. The Deer Island Deputy Director of Maintenance, Maintenance Manager and Program Manager, Monitor and Compliance AACU interviewed all of the candidates. Upon completion of those interviews, Mr. William Carter was unanimously identified as the most qualified candidate to fill this position based on his education, knowledge, engineering and maintenance skills, experience with public procurement practices, and his understanding of the Area Manager's roles and responsibilities.

Mr. Carter holds the position of Project Manager, Mechanical at Deer Island. Mr. Carter regularly consults with Deer Island's Operations and Maintenance groups with problem

identification and providing solution recommendations for rotating assets at Deer Island. Furthermore, Mr. Carter provides engineering assistance to the Maintenance group with equipment replacement budget estimates, creating technical bid specifications for Procurement, conducting bid reviews and assists with writing Staff Summaries for Maintenance. Mr. Carter is familiar with Maximo, MWRA's Enterprise Asset Management (EAM) system and is a regular contributor to Job Plan development, plant notification/shutdown coordination, best maintenance practices and providing documentation for assets he consults on. Mr. Carter has project Management experience, supervising consultants and contractors developing contract specifications or performing work on Deer Island.

In the period of almost 5 years of his employment with the MWRA, Mr. Carter has become familiar with Deer Island Maintenance personnel and the expectations of an Area Manager through direct involvement with equipment replacement upgrades. In addition, Mr. Carter has excelled in his current position and has become an essential resource for the Deer Island Maintenance group. In his previous employment, Mr. Carter directed staff consisting of designers and drafters for AECOM, formerly Metcalf and Eddy, centering on rotating assets in the water/wastewater collection, distribution and treatment industries.

Mr. Carter has an Associate Degree and a Bachelor of Science Degree in Mechanical Engineering Technology from Wentworth Institute of Technology; he also has an Engineering-in-Training certification in the state of New Hampshire. In addition, Mr. Carter serves on the Deer Island Safety Committee and is trained in Permit-Required Confined Space Entry.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the Deer Island FY17 Current Expense Budget to fund this position.

ATTACHMENTS:

- Resume of William Carter
- Position Description
- Organization Chart

WILLIAM J. CARTER

TECHNICAL SKILLS:

- Proficient with the following software: Microsoft Word, Excel, and PowerPoint; AutoCAD, Adobe Acrobat Pro

PROFESSIONAL EXPERIENCE:

- **Massachusetts Water Resources Authority**, Deer Island Treatment Plant, Winthrop, MA; April 2012 to Present
 - Member of DITP Safety Committee
 - Develop professional services scopes for proposal requests
 - Prepare engineer estimates for work to be completed
 - Support maintenance and operations staff by providing engineering evaluations, recommendations, and designs
 - Investigate issues with current process equipment and systems and identify viable solutions
 - Develop technical specifications for equipment purchases
 - Develop construction sequence plans and establish lock-out/tag-out lists
 - Coordinate with multiple technical disciplines to achieve a unified solution.
 - Communicate with consultants and contractors to monitor project progress and budget
 - Review and monitor work activities of contractors for compliance with contract documents.
 - Witness field testing of equipment
 - Provide field notes to aid in updating record drawings
 - Maintain positive working relationships with operations and maintenance personnel as well as consultants, contractors, and vendors.
- **AECOM** (formerly Metcalf & Eddy), Wakefield, MA; August 2005 to April 2012
 - Developed technical specifications and design drawings for mechanical process and plumbing disciplines using sound engineering practices and ensuring applicable code compliance
 - Maintained files in accordance with an ISO 9001 certified Quality Management System
 - Supervise designers and drafters in the development of design drawing packages
 - Perform engineering calculations including pipe and duct sizing, as well as pump calculations
 - Created calculation spreadsheets to streamline the design process
 - Assess existing conditions of treatment facilities and pump stations

EDUCATION:

- Wentworth Institute of Technology, Boston, MA; 2001-2005
 - Bachelor of Science in Mechanical Engineering Technology, 2005
 - Associates of Applied Sciences, Mechanical Engineering Technology, 2004

LICENSE:

- Engineer-in-Training, New Hampshire Serial Number 4457
- Candidate for Professional Engineering License

CURRENT TRAINING/CERTIFICATIONS:

- Tower Climber Competent Person, December 2014
- Permit-Required Confined Space trained, June 2015

PROFESSIONAL AFFILIATIONS:

- New England Water Environment Association, June 2015

**MWRA
POSITION DESCRIPTION**

POSTION: Area Manager

DIVISION: Operations

DEPARTMENT:

BASIC PURPOSE:

Manages maintenance activities (labor, materials, services) and monitors performance against operational needs and requests.

SUPERVISION RECEIVED:

Works under general supervision of the Maintenance Manager.

SUPERVISION EXCERCISED:

Exercises close supervision of assigned operations/maintenance staff.

ESSENTIAL DUTIES AND RESPONSIBILITES:

- Manages a group of maintenance personnel who perform tasks related to maintenance and construction.
- Coordinates with other managers, supervisors, work coordination staff and others for optimal functioning of assigned staff.
- Monitors "Work-In-Progress" by coordinating with Maintenance Supervisors, Operations Managers and Planner Schedulers, and also monitors backlog with object of minimization.
- Prepares budget for assigned cost center and monitors performance against approved budget. Approves and tracks spending, justifies variances from budget, and provides support documentation as requested.
- Reviews, monitors, evaluates work performed, and recommends appropriate improvements on equipment, techniques, and procedures.
- Provides project management of outside contract services as assigned.
- Provides technical input for major maintenance projects and reviews new construction proposals to insure maintainability.

- Reviews assigned employee performance according to MWRA procedures as established and maintained by the Human Resources Department.
- Recommends upgrades to plant equipment and facilities to ensure continued optimal operation. Includes tracking major projects and the coordination of outside contractors, as required.
- Promotes the MWRA Safety Policy and Program by participating in and supporting activities as detailed by the Authority Safety Group.
- Acts as liaison between and promotes harmonious relations with other Maintenance Managers, Operations Managers, vendors and MWRA departments.
- Performs supervisory responsibilities of roving field crews and operational personnel located within an operational control center (OCC) as needed.
- Coordinates shutdown and start-up of process equipment in support of maintenance activities.
- Ensures plant cleanliness and makes rounds to ensure plant facility is maintained by staff.
- Schedules and works overtime as required.
- Needs to be available during any emergency.
- Provides training to assigned staff.
- Directs remedial action in all emergencies.
- Assists employee with procurement of tools, parts and materials.
- Operates motor vehicles, such as vans and pick-up trucks, to transport materials to work sites, pick up equipment, etc.
- Generates inspection lists and maintenance reporting through the Computerized Maintenance Management System.
- Inspects and troubleshoots various systems and equipment

SECONDARY DUTIES:

- Assists employees with the preparation of injury and illness reports, safety work orders, and maintenance work order requests, reviews requests for completeness and accuracy.

- Assists in maintaining harmonious labor management relations through proper application of collective bargaining agreement provisions and established personnel policies.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year degree in maintenance management, or any related field; and
- (B) Seven (7) – nine (9) direct experience of principles, procedures, methods, equipment and materials used in the operation, repair and maintenance of a large municipal wastewater or water treatment facility; and
- (C) Two (2) must be in a supervisory capacity; ore
- (D) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) A working knowledge of the methods, techniques, operations, systems, equipment, principles and practices of wastewater or water treatment.
- (B) Ability to plan, organize, direct, train and assign duties to subordinates, as obtained through successful completion of supervisory training program or an approved substitution.
- (C) Extensive knowledge of safety practices and applications in wastewater treatment operations.
- (D) Ability to plan, organize, direct, train and assign duties to subordinates.

SPECIAL REQUIREMENTS:

- A valid Class D Massachusetts Motor Vehicle Operator License.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable

accommodations may be made to enable individuals with disabilities to perform the essential functions.

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

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move more than 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, depth perception, peripheral vision and the ability to adjust focus.

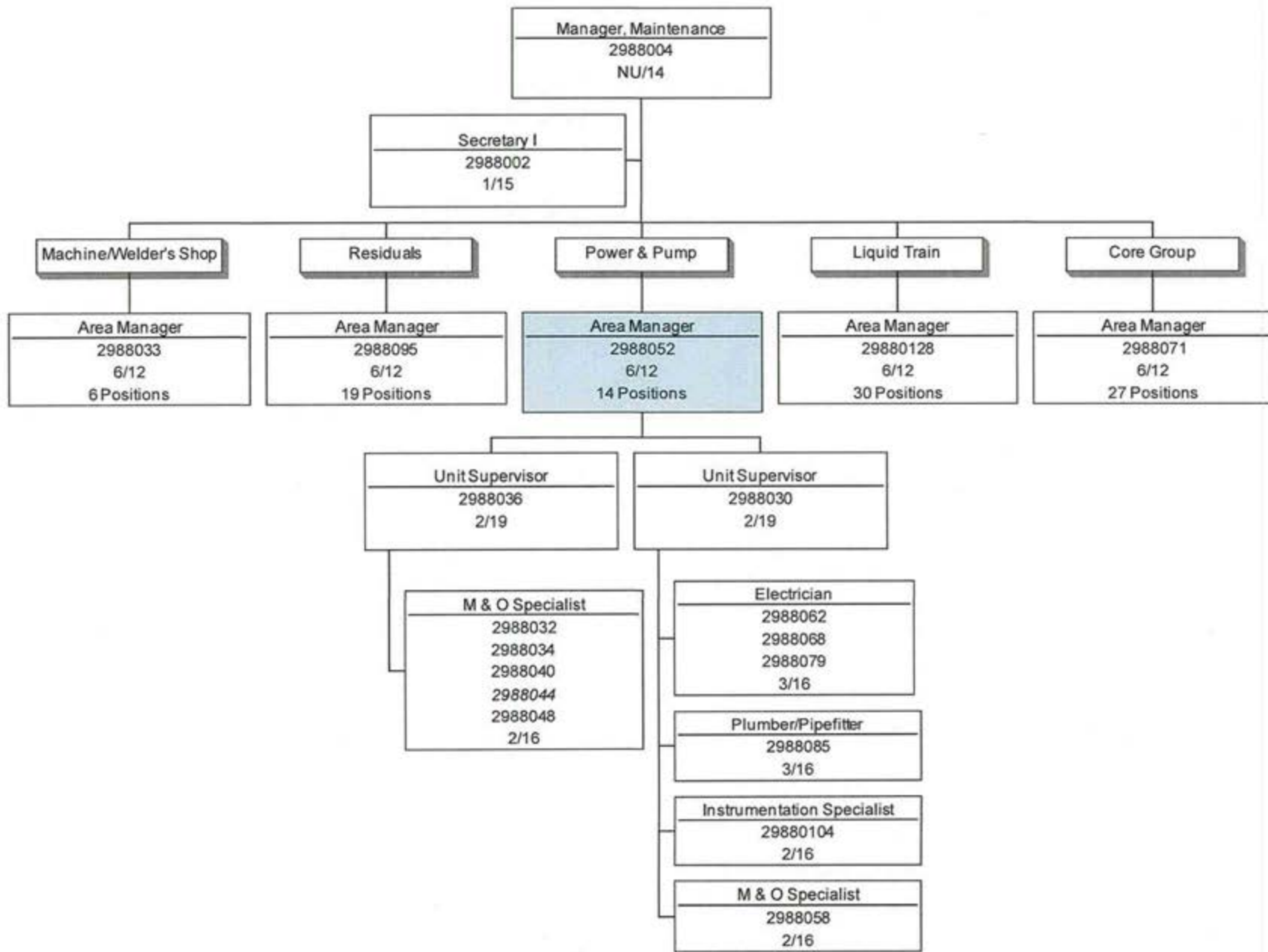
WORK ENVIRONMENT:

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

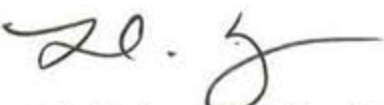
While performing the duties of this job, the employee regularly works in outside weather conditions. The employee occasionally works near moving mechanic parts and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in high, precarious places and is occasionally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

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

Operations-Wastewater Treatment
Deer Island - Trades Maintenance
 October 2016




STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 12, 2016
SUBJECT: Appointment of Program Manager, Process Monitoring, Deer Island Treatment Plant
Operations Division

COMMITTEE: Personnel & Compensation

INFORMATION
 VOTE

Karen Gay-Valente, Director, Human Resources
David F. Duest, Director, DIWWTP
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of Ms. Tracy Survilas to the position of Program Manager, Process Monitoring (Unit 9, Grade 29), at an annual salary of \$106,994.68 commencing on a date to be determined by the Executive Director.

DISCUSSION:

The position of Program Manager, Process Monitoring, became vacant upon the recent promotion of the previous incumbent. This position reports to the Manager, Process Control and will manage all aspects of Process Monitoring including direct supervision of four staff. This position is responsible for directing the technical program for wastewater process data generation, collation, analysis, and presentation at the Deer Island Treatment Plant. The position is also responsible for the process sample collection and testing program at the treatment plant, as well as, providing technical support to the Manager, Process Control on all permit-related issues.

Selection Process:

The Program Manager, Process Monitoring position was posted internally and seven candidates applied. The Manager, Process Control, the Deputy Director, DIWWTP, and a representative from the Affirmative Action and Compliance Unit interviewed all seven candidates. Upon completion of those interviews, Ms. Tracy Survilas was identified as the most qualified candidate to fill this position based on her education, experience, and knowledge of the requirements of the position.

Ms. Survilas currently holds the position of Project Manager, Process Control and has twenty years of experience working at the MWRA with increasing levels of responsibility, including

eighteen years in the Process Control Department. Since 2014, she has been the Project Manager, Process Monitoring, and prior to that she was a Project Engineer for 14 years. In these roles, she analyzed and reported data used for compliance and process control purposes, and more recently is responsible for managing the preparation, review, and distribution of all regulatory process data reporting at the Deer Island Treatment Plant. Ms. Survilas is responsible for managing and maintaining the data within the Deer Island Operations Management System (OMS) database, which stores most of DITP's process monitoring and compliance monitoring data. Ms. Survilas also ensures that the wastewater treatment process is running effectively on a daily basis through evaluation of laboratory and meter data, and has done this effectively. Prior to Process Control, Ms. Survilas worked in Staff Engineer positions in the Water Division and at Deer Island, where she prepared bid specifications and design documents for capital projects, participated in performance testing of newly installed plant equipment, and assisted Plant Operations in process optimization changes, as well as other tasks.

Ms. Survilas has a Bachelor of Science Degree in Civil Engineering from the University of Massachusetts, Amherst and a Master of Science Degree in Environmental Engineering from the Worcester Polytechnic Institute. Ms. Survilas also holds a Massachusetts Grade 6 Full-Active Wastewater Operator's License.

BUDGET/FISCAL IMPACT:

There are sufficient funds for this position in the FY17 Current Expense Budget.

ATTACHMENTS:

Resume of Tracy Survilas
Position Description
Organization Chart

Tracy Ann Survilas

- Employed by the MWRA for the last 20 years, 18 of which have been on Deer Island. Involved in the construction, start-up, optimization, and process monitoring of the Deer Island Wastewater Treatment Plant resulting in a vast understanding of the treatment processes at this facility.
- Proficient in data collection, and the presentation of information in the form of reports and PowerPoint presentations.
- Strong oral and written communication skills.

Professional Experience at the Massachusetts Water Resources Authority

Project Manager - Process Control/Process Monitoring

Deer Island Treatment Plant, Nov 2014 – Present

- Monitor and evaluate plant wide process data for accuracy using the Deer Island Operations Management System (OMS), Process Information and Control System (PICS), OSIsoft PI and PI Process Book.
- Review Central Lab data through Labware to determine its reliability, and then use it as a tool to evaluate the plant's performance and the onset of biological and mechanical issues.
- Compile data for regulatory and non-regulatory operational performance reports including, but not limited to, quarterly and monthly operational summaries, chemical and electricity usage, air emission reports, and performance indicator reports. Ensure that this data is within the limits outlined in the NPDES and DEP Permits.
- Prepare budget projections for future chemical usage.
- Present explanations for budgetary deviations of process chemicals and electricity consumption.
- Notify Operations and Maintenance staff of possible process upsets and mechanical failures discovered during process data reviews.
- Provide process, lab, and chemical data to in-house staff and private consultants as a means to investigate operational performance and energy savings initiatives.
- Conduct scheduling and field sampling for the Deer Island air monitoring program.
- Train new employees on month end data processing for reporting purposes.

Project Engineer - Process Control/Process Monitoring

Deer Island Treatment Plant, May 2000 – Nov 2014

- Compile data for regulatory and non-regulatory operational performance reports including, but not limited to, quarterly and monthly operational summaries, air emission reports, and performance indicator reports.
- Monitor and evaluate plant wide process data for accuracy and possible process upsets and mechanical failures discovered during process data reviews.
- Provide process, lab, and chemical data to in-house staff and private consultants as a means to investigate operational performance and energy savings initiatives.
- Conduct field sampling for the Deer Island air monitoring program and compile weekly reports to plant staff with data results.
- Participated in selection committee meetings during the bidding process of a new human-machine interface for the existing Process Information and Control System database.

Staff Engineer – Engineering & Construction

Water Division, May 1998 – May 2000

- Sized water meter and blow off valve replacements for the MWRA water distribution system as well as associated piping and surface reconstruction meeting ADA standards.
- Created construction design drawings using AutoCAD.
- Prepared design specifications and bid documents for capital projects.

Staff Engineer, Contract Employee – Process Control

Deer Island Treatment Plant, June 1996 – May 1998

- Performance testing of plant equipment to ensure that it was installed correctly and operated as designed according to project design specifications, plans, and instrumentation drawings.
- Worked in conjunction with the Project Management Division to oversee contractor work to rectify any warranty failures during performance testing.
- Initiated in-house maintenance projects to correct problematic design flaws and installation issues that were not effective as designed.
- Assisted Operations with changes in process parameters to optimize plant performance.
- Created Standard Operating Procedures (SOPs) for process equipment.

Summer Intern – Process Control

Deer Island Treatment Plant, June 1995 – August 1995

- Aided in the performance testing of plant equipment to ensure that it was installed correctly and operated as designed according to project design specifications, plans, and instrumentation drawings.
- Conducted field sampling for the Deer Island air monitoring program.
- Attended daily plant construction meetings.

Education

Master of Science Degree, Environmental Engineering

University of Massachusetts – Amherst

Amherst, Massachusetts • 1996

Bachelor of Science Degree, Civil Engineering

Worcester Polytechnic Institute

Worcester, Massachusetts • 1994

Licenses

Grade 6 Massachusetts Wastewater Operators License

Fundamentals of Engineering/Engineer in Training

Computer and Database Skills

Microsoft Office Suite (Excel, Word, PowerPoint, Outlook)

Microsoft Access (DITP Operations Management System)

OSIsoft PI and PI Process Book

Emerson Ovations (PICS)

**MWRA
POSITION DESCRIPTION**

POSITION: Program Manager, Process Monitoring

DIVISION: Operations

DEPARTMENT: Process Control

BASIC PURPOSE:

Manages technical programs for wastewater process monitoring and control, with emphasis on activities relative to the data quality evaluation of treatment plant monitoring data, database management, operational and compliance reporting, and management of all data requests.

SUPERVISION RECEIVED:

Works under the general supervision of the Manager, Process Control.

SUPERVISION EXERCISED:

Exercises close supervision of Process Monitoring and Control staff as assigned

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages all areas of treatment plant and landfill groundwater data for the Operations Department of Deer Island.
- Manages the collection of data from all sources including Central Lab, Operator Logs, Process Labs, PICS, etc.
- Manages the review of all data including all unit process and plant balances.
- Manages the generation of all Operations reports including redesigning reports and generating ad hoc reports as requested. Designs all OMS and PICS reports including location codes and algorithms.
- Delivers process data back to the plant Operators in such time and form as to provide maximum process control value.
- Interfaces Operations data programs with other Deer Island and MWRA departments

such as the Central Lab, ENQUAL, MIS, etc.

- Develops and maintains automated systems for compliance calculations, staff notifications, and data reporting.
- Assists in the preparation of the chemical budget. Oversees the preparation of, and reviews, chemical and energy budget evaluations and variance reports.
- Manages the equipment and supply needs for the process laboratories.
- Is responsible for all sampling programs of the Operations Department including odor control, landfill groundwater monitoring, process chemical quality monitoring, and sampler reliability.
- Is responsible for Operator training (in conjunction with the Training Department) with respect to sampling.
- Is responsible for monitoring compliance of Deer Island Treatment Plant with NPDES permit and DEP air permit.
- Supervises the work of the Project Manager, Project Engineers, Secretary I, and other data personnel.

SECONDARY DUTIES:

- Makes recommendations to the Manager, Process Control for process optimization and improvements.
- Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year college program in environmental, chemical or civil engineering, or related field. A Masters degree in engineering or science is preferred; and
- (B) Seven (7) to nine (9) years of experience in process monitoring and/or control in the water or wastewater treatment field; and
- (C) Three (3) years laboratory experience in wastewater chemistry, microbiology, and/or sample collection; or

- (D) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Outstanding computer skills in the preparation and presentation of treatment plant data. Software experience must include spreadsheets, word processing, database, and graphics. PC and network skills required.
- (B) Demonstrated ability to gather, analyze and present technical information in a clear, concise, and understandable manner.
- (C) Demonstrated knowledge and ability in the areas of wastewater treatment and/or process engineering.
- (D) Demonstrated ability to plan, organize, direct, train, and assign duties to subordinates is required.
- (F) Excellent interpersonal and organizational skills as well as good written and oral communication skills are required. Strong attention to detail is required.

SPECIAL REQUIREMENTS:

Massachusetts registration as professional engineer or eligible through reciprocity preferred.

Massachusetts Wastewater Treatment Plant Operator's Grade VI certification or ability to obtain within one (1) year.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

frequently is required to sit and talk or hear. The employee is occasionally required to stand, walk, climb or balance, stoop, kneel, crouch, or crawl, taste or smell.

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

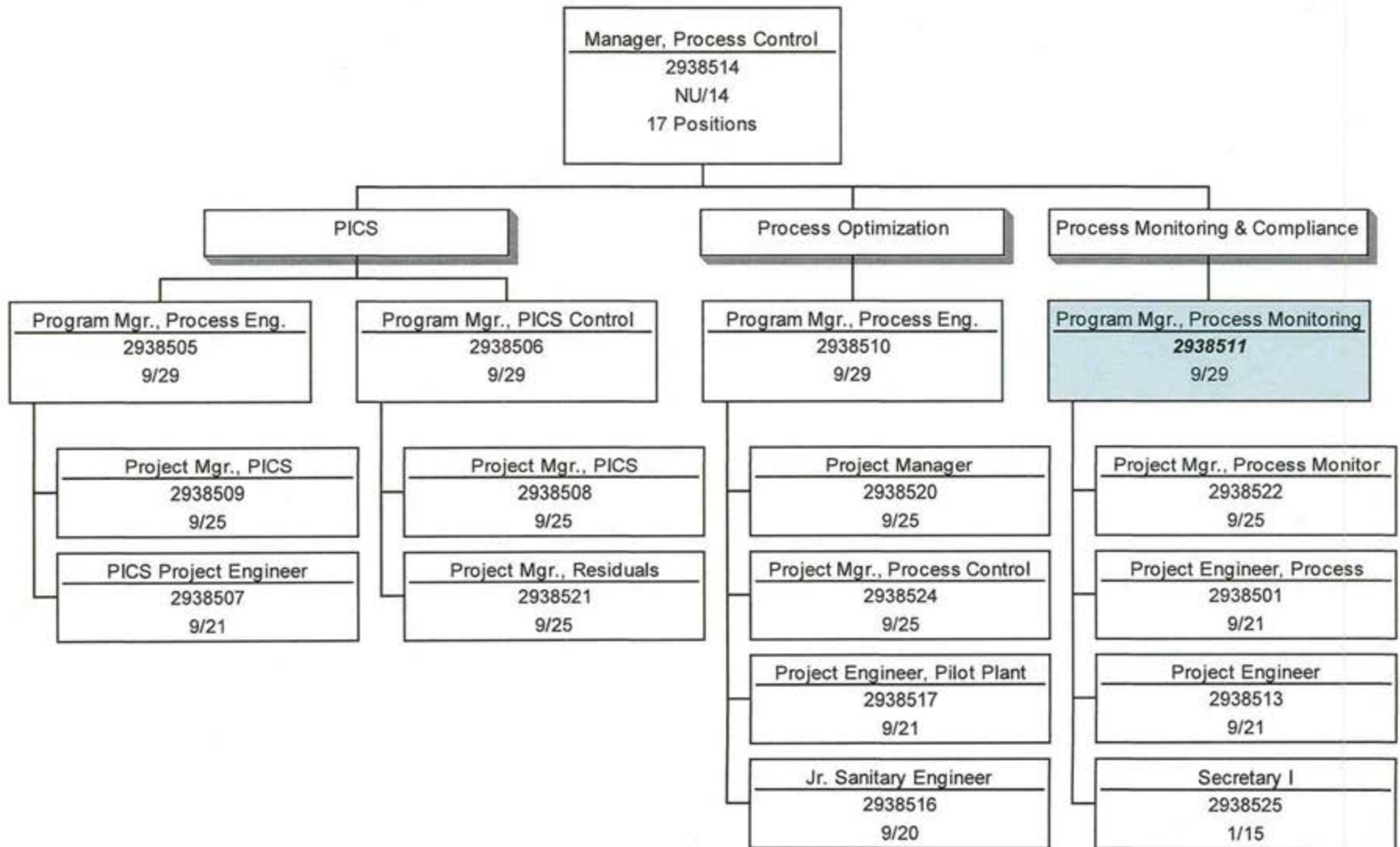
WORK ENVIRONMENT:

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

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

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

Operations - Wastewater Treatment
Deer Island - Process Control
 October 2016




STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 12, 2016
SUBJECT: Appointment of Deputy Contracts Manager, Administration Division

COMMITTEE: Personnel and Compensation

VOTE
 INFORMATION


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


Michele S. Gillen
Director of Administration

RECOMMENDATION:

That the Board approve the appointment of Ms. Yvonne vanOssenbruggen-Hart to the position of Deputy Contracts Manager, Administration Division (Unit 6, Grade 13) at an annual salary of \$118,936.84 commencing on a date to be determined by the Executive Director.

DISCUSSION:

This position became available with the July, 2016 PCR Amendments. 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. Two internal candidates were referred for an interview. The Director of Administration, Director of Procurement, Special Assistant for Affirmative Action and Deputy Chief Engineer interviewed the candidates. The interview team determined that Ms.

Yvonne vanOssenbruggen-Hart was most qualified to fill this position based on her experience, abilities, knowledge, and education.

Ms. vanOssenbruggen-Hart has been employed as an Assistant Contract Manager (ACM) in the Authority's Procurement Department for 26 years. In her role as ACM, Ms. vanOssenbruggen-Hart has worked closely with Deputy Contract Managers, and has managed or assisted in the procurement of professional services, non-professional services, and construction contracts, from initial submission of contract requisition through advertisement, bidding, selection, award, and contract execution. She has worked on over 200 procurements, and has a command of the Authority's policies and procedures. In addition, Ms. vanOssenbruggen-Hart has managed contract negotiations, submissions and amendments, and project close out. Prior to her position at MWRA, Ms. vanOssenbruggen-Hart worked in the private sector for 10 years, including at Ratheon, and held various contract management and administrative positions including Manager of Contracts, Manager of Order Administration and Contract Administrator. While in the private sector, Ms. vanOssenbruggen-Hart managed a contract department, supervised professional and clerical staff, assisted in contract negotiations, drafted contract terms, and developed and implemented company policies and procedures.

Ms. vanOssenbruggen-Hart holds a Bachelors Degree from Wheaton College, and has taken graduate courses at Framingham State College.

BUDGET/FISCAL IMPACT:

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

ATTACHMENTS:

Yvonne vanOssenbruggen-Hart Resume
Position Description
Procurement Department Organization Chart

Yvonne vanOssenbruggen-Hart

PROFESSIONAL EXPERIENCE

MASSACHUSETTS WATER RESOURCES AUTHORITY, Boston, MA

Assistant Contract Manager

April 1990 - Present

Manage the procurement of professional, non-professional and construction services contracts from initial request to successful bidding and award through to contract close-out. Liaise and provide contract management support and expertise to all operating and support divisions and the executive office. Review and approve construction specifications for compliance with M.G.L. Chapters 149 and 30. Draft Requests for Qualifications/Requests for Proposals, contracts, amendments and other related contractual documents. Review and assist in the development of scopes of work. Review technical correspondence, and financial and budget documentation. Develop, modify and implement contract models. Draft cost-effective compensation terms specific to each procurement. Negotiate and resolve contractual, legal and auditing matters. Provide guidance and interpretation on Authority management policy and procedures.

McCORMACK & DODGE CORPORATION, Natick, MA

Manager of Contracts

October 1989 - April 1990

Managed Contracts Department, with authority to enter into and execute contracts and amendments. Supervised and managed professional and clerical staff. Drafted and negotiated contract terms for hardware and software agreements. Assisted staff in negotiations. Provided administrative and business management support to home and field sales offices (domestic and international). Assisted in the development of company-wide policies relating to product development and enhancement. Developed and implemented standardized policies and procedures for the effective and efficient operation of the contracts department.

BYTEX CORPORATION, Southborough, MA

Manager of Order Administration

December 1985 - February 1987

Developed and implemented all associated company policies and procedures for the Order Administration department. Reviewed and accepted/acknowledged all orders. Made booking determinations for approximately \$2.M of orders each month. Responsible for reporting booking and backlog to president. Supervised two employees. Reported revenue recognition issues/problems. Coordinated factory build and ship schedules with manufacturing. Responsible for managing OMAR database (automated order entry/Account receivable system). Managed major OEM contract - approximate annual value of \$8.M. Assisted Manager of Contracts in contract negotiations.

APPLICON, A Division of Schlumberger Systems, Burlington, MA

Contract Administrator

December 1984 - December 1985

Responsible for the administration and business management of all Eastern Region Commercial and

Government Contracts. Provided contracts support to twenty Sales Representatives, three District Managers, and one Regional Director. Responsibilities included proposal preparation, contractual negotiations, booking determinations, order acknowledgments, configuration reviews, managing credit and collection activities, coordinating build and ship schedules with manufacturing, business forecasting, interfacing with customers, managing sales compensation program, financial analysis/risk assessment, and preparing sales instructional presentations for all Eastern Region District offices.

RAYTHEON COMPANY, Missile Systems Division, Lowell, MA

Contract Administrator

June 1982 - November 1984

Responsible for the administration of various multi-million dollar international and domestic contracts. Provided contracts support to three Program Managers. Prepared numerous cost type, firm fixed price and budgetary proposals. Drafted and negotiated International Sales & Technical Assistance Agreements. Secret clearance.

RAYTHEON COMPANY, Lexington, MA

Contracts Management Development Trainee

July 1980 - June 1982

Completed two year corporate training program in government contracts which included four six-month rotational assignments, on-the-job training and formal classroom instruction. Negotiated pricing and contractual terms and conditions of sale; prepared proposals for all commands in the U.S. Department of Defense, the U.S. Civilian Agencies and various foreign military commands. Utilized Federal Acquisition Regulations frequently.

EDUCATION

FRAMINGHAM STATE COLLEGE, Framingham, MA

Graduate courses in Management and Economics, fall 2002 and spring 2003

WHEATON COLLEGE, Norton, MA

B.A., Sociology, 1980

Minors in Psychology and Education

Completed Thesis and received Departmental Honors in Sociology

ADDITIONAL PROFESSIONAL TRAINING

MCPPO, Certified in Public Contracting, Office of the Inspector General, Boston, MA, June 2001

MASSACHUSETTS WATER RESOURCES AUTHORITY, Boston, MA

ASCE: Managing the Design Process, Sept, 2015; Introduction to Wastewater/Water, Feb. 2012; Wind Turbine Vendor Training, Dec. 2011; Team Building, April 1999; Project Management, Jan. 1995; Total Quality Management, July 1992

MASSACHUSETTS WATER RESOURCES AUTHORITY, Boston, MA

Leadership Institute; Management and Team Building Training, 1990 - 1991

REFERENCES

Available upon request.

**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.

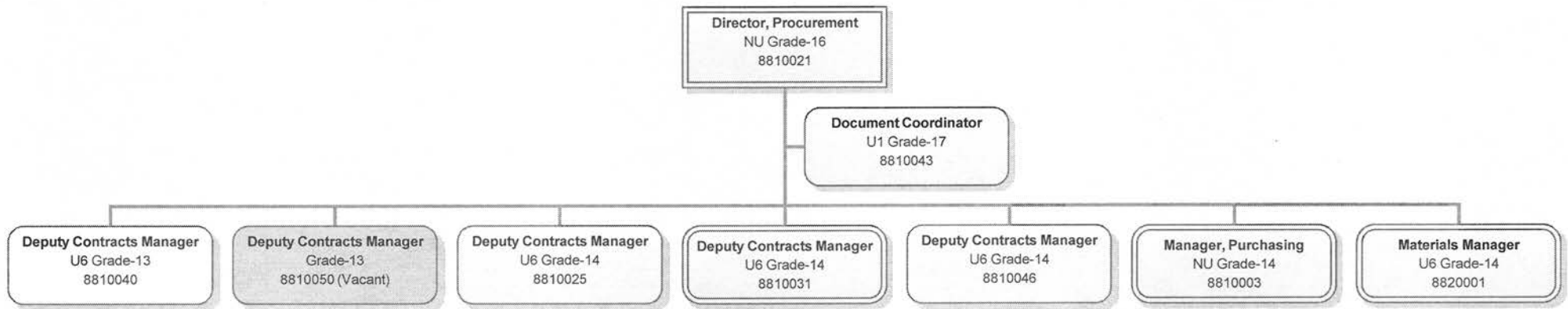
WORK ENVIRONMENT:

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

October 2016





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: J. Foti
Board Members:
A. Blackmon
K. Cotter
P. Flanagan
A. Pappastergion
B. Peña
H. Vitale
J. Walsh
J. Wolowicz

BOARD OF DIRECTORS' MEETING

to be held on

Wednesday, October 12, 2016

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. Delegation of Authority to Execute a Contract for the Purchase and Supply of Electric Power for MWRA's Profile Accounts (ref. AF&A B.1)
2. Emergency Water Supply Agreement with the Town of Burlington (ref. W B.1)
3. PCR Amendments – October 2016 (ref. P&C A.1)
4. Appointment of Area Manager, Deer Island Treatment Plant 2 (ref. P&C A.2)
5. Appointment of Program Manager, Process Monitoring, Deer Island Treatment Plant (ref. P&C A.3)
6. Appointment of Deputy Contracts Manager, Procurement (ref. P&C A.4)

B. Contract Awards

1. Automated Vehicle Locator Tracking System: Networkfleet, Inc. Contract A606 (ref. AF&A C.1)
2. Supply and Delivery of Sodium Hypochlorite to the Deer Island Treatment Plant: Borden & Remington Corp., Bid WRA-4269 (ref. WW B.1)

C. Contract Amendments/Change Orders

1. Dental Insurance: Delta Dental of Massachusetts , Contract A591, Amendment 3 (ref. AF&A D.1)
2. Watertown Section Rehabilitation, Waltham and Watertown: J. D'Amico, Inc., Contract 7222 (ref. W C.1)
3. Quabbin Power & Security Improvement: Ewing Electrical Co., Inc. Contract 7338, Change Order 2 (ref. W. C.2)

V. CORRESPONDENCE TO THE BOARD

VI. OTHER BUSINESS

VII. EXECUTIVE SESSION

A. Real Estate:

1. Watershed Land Acquisition Approval

B. Litigation:

1. Cross-Harbor Cable Update

C. Collective Bargaining:

VIII. ADJOURNMENT

Meeting of the Board of Directors**September 14, 2016**

A meeting of the Board of Directors of the Massachusetts Water Resources Authority was held on September 14, 2016 at the Authority headquarters in Charlestown. Vice-Chair Carroll presided. Present from the Board were Messrs. Blackmon, Cotter, Flanagan, Foti, Pappastergion, Peña, Vitale and Walsh. Ms. Wolowicz and Mr. Beaton 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 1:15 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 July 13, 2016, as presented and filed with the records of the meeting.

REPORT OF THE EXECUTIVE DIRECTOR

Mr. Laskey reported on various matters, including the receipt of a letter from the Latham family of Reading thanking MWRA employees for their efforts in clearing construction materials from their street and making a sign for their lawn prior to a party welcoming their son back from a deployment with the U.S. Navy in Afghanistan. He mentioned plans for a "High Five" award ceremony to be held in the Governor's office for those employees and the Latham family. Mr. Laskey also noted that the annual audit

report, which had no findings, had been distributed to Board members; and that the off-site meeting to discuss the Metropolitan Tunnel System Redundancy alternatives would be held on October 6th.

BOARD ACTIONS

APPROVALS

Memorandum of Agreement and Financial Assistance Agreement with the City of Somerville

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to execute a Memorandum of Agreement with the City of Somerville, substantially in the form presented and filed with the records of the meeting, for the cost sharing and coordination of the rehabilitation of a combined sewer utilized by both the City and MWRA, in an amount for MWRA not to exceed \$1.4 million.

Bond Defeasance of Future Debt Service

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director or his designee, on behalf of the Authority, to enter into, execute and deliver all necessary agreements and other instruments and to take such other actions necessary to effectuate the redemption and defeasance of an aggregate principal amount of approximately \$8,475,000 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 \$9,746,250 in the FY18 through FY20 timeframe.

Approval of New Wastewater Advisory Committee Member

Upon a motion duly made and seconded, it was

Voted to approve the addition of one new member, Mr. James Guid of the MWRA Advisory Board staff, to the Wastewater Advisory Committee.

Emergency Water Supply Agreement with the Town of Ashland

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to execute a six-month Emergency Water Supply Agreement with the Town of Ashland, substantially in the form presented and filed with the records of the meeting, and contingent upon the Advisory Board's approval of a six-month Emergency Water Supply withdrawal.

PCR Amendments – September 2016

Upon a motion duly made and seconded, it was (with Mr. Foti opposed)

Voted to approve the amendments to the Position Control Register (PCR) as presented and filed with the records of the meeting.

Appointment of Assistant Manager, Employment

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Ms. Susan Carter to the position of Assistant Manager, Employment, Human Resources (Grade 11 - Unit 6 Confidential) at an annual salary of \$89,263.84 to be effective on the date designated by the Executive Director.

Appointment of MBE/WBE Program Manager

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Ms. Sharon Ward to the position of MBE/WBE Program Manager (Grade 12 - Unit 6) at an annual salary of \$88,909.75 to be effective on the date designated by the Executive Director.

Appointment of Warehouse Manager

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Mr. Richard Martino to the position of Warehouse Manager (Unit 6, Grade 12) at an annual salary of \$89,367.63 to be effective on the date designated by the Executive Director.

Appointment of Systems Administrator III, MIS

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Mr. Andrew Richelieu to the position of Systems Administrator III (Unit 6, Grade 12), in the MIS Department at an annual salary of \$106,257.51 to be effective on the date designated by the Executive Director.

Appointment of Project Manager, SCADA Technicians

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Mr. Ernest Navarro, to the position of Project Manager, Supervisory Control and Data Acquisition (SCADA) Technicians (Unit 9, Grade 25), at an annual salary of \$91,629.49 to be effective on the date designated by the Executive Director.

Appointment of Project Manager, SCADA Technicians

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Mr. David Smith to the position of Project Manager, Supervisory Control and Data Acquisition (SCADA) Technicians (Unit 9, Grade 25), at an annual salary of \$91,629.49, to be effective on the date designated by the Executive Director.

Appointment of Construction Coordinator, Engineering & Construction

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Mr. Jeffrey Bina to the position of Construction Coordinator in the Engineering & Construction Department (Unit 9, Grade 30) at an annual salary of \$111,492.99 to be effective on the date designated by the Executive Director.

Appointment of Regional Manager – TRAC

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Mr. Thomas Coffey to the position of Regional Manager, Toxic Reduction and Control (Unit 9, Grade 29) at an annual salary of \$106,994.68 to be effective on the date designated by the Executive Director.

CONTRACT AWARDS

Struvite, Scum, Sludge, and Grit Removal Services at the Deer Island Treatment Plant: Clean Harbors Environmental Services, WRA-4257

Upon a motion duly made and seconded, it was

Voted to approve the award of a two-year purchase order contract to provide struvite, scum, sludge and grit removal services at the Deer Island Treatment Plant to the lowest eligible and responsible bidder, Clean Harbors Environmental Services, Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said purchase order contract in an amount not to exceed \$672,300 for a period of two years.

Cambridge Branch Sewer Study: Hazen and Sawyer, P.C., Contract 7511

Upon a motion duly made and seconded, it was

Voted to approve the recommendation of the Consultant Selection Committee to select Hazen and Sawyer, P.C. to provide consulting services to the

Authority for the Cambridge Branch Sewer Study and to authorize the Executive Director, on behalf of the Authority, to execute and deliver Contract 7511 with Hazen and Sawyer, P.C. in an amount not to exceed \$686,953.85, for a term of 15 months from the Notice to Proceed.

Chelsea Creek Headworks Upgrade: BHD/BEC JV, A Joint Venture, Contract 7161

Upon a motion duly made and seconded, it was

Voted to approve the award of Contract No. 7161, Chelsea Creek Headworks Upgrade, to the lowest responsible and eligible bidder, BHD/BEC JV 2015, A Joint Venture (a joint venture of Barletta Heavy Division and Barletta Engineering), and to authorize the Executive Director, on behalf of the Authority, to execute and deliver said contract in the bid amount of \$72,859,000 for a term of 1,460 calendar days from the Notice to Proceed.

CONTRACT AMENDMENTS/CHANGE ORDERS

Security Equipment Maintenance and Repair Services: Viscom Systems, Inc., Contract EXE-034, Change Order 2

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order 2 to increase the price of Contract EXE-034 with Viscom Systems, Inc., Security Equipment Maintenance and Repair Services, in an amount not to exceed \$68,657.60, with no increase in contract term.

Remote Headworks Upgrades: Arcadis US, Inc., Contract 7206, Amendment 4

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to approve Amendment 4 to increase the price of Contract 7206 with Arcadis U.S., Inc., Remote Headworks Upgrades, by \$897,200 and extending the term by 38 months to October 1, 2021.

Caruso Pump Station Improvements: Dewberry Engineers Inc., Contract 7037, 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 extend the term of Contract 7037 with Dewberry Engineers Inc., Caruso Pump Station Improvements, by 283 calendar days to June 21, 2017 with no increase in the contract amount.

Valve and Piping Replacement: Carlin Contracting Co., Contract 7275, Change Order 5

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order 5 to increase the price of Contract 7275 with Carlin Contracting Co., Inc., Valve and Piping Replacements Various Facilities, Deer Island Treatment Plant, for a lump sum amount of \$136,884.01, with no increase in contract term.

It was moved to enter executive session to discuss litigation, collective bargaining, security and real estate.

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		
Cotter		
Flanagan		
Foti		
Pappastergion		
Peña		
Vitale		
Walsh		
Carroll		

Voted to enter executive session for the purpose of discussing strategy with respect to litigation and collective bargaining and to consider the purchase, exchange, lease or value of real property, in that such discussion in open session may have a detrimental effect on the litigating, bargaining, and negotiating positions 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 the consideration of adjournment.

* * * *

EXECUTIVE SESSION

* * * *

Mr. Vitale made the following statement during the collective bargaining discussions in executive session, and requested that it be included in the open session record:

"MWRA is extremely fortunate to have Ms. Karen Gay-Valente as Director of Human Resources, as she is the most knowledgeable and qualified person for that position."

The meeting returned to open session at 2:20 p.m. and adjourned.