



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

to be held on

Wednesday, October 15, 2014

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
2. FY15 Financial Update and Summary as of September 2014

B. Approvals

1. Resolution to Amend and Restate the Sixty-Sixth Supplemental Issuance Resolution
2. Delegation of Authority to Execute a Contract for the Purchase and Supply of Electric Power for MWRA's Profile Accounts, Contract OP-266

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Administration, Finance and Audit Committee

September 17, 2014

A meeting of the Administration, Finance and Audit Committee was held on September 17, 2014 at the Authority headquarters in Charlestown. Member Cotter presided. Present from the Board were Ms. Wolowicz and Messrs. Carroll, Foti, Pappastergion and Walsh; Messrs. Flanagan, Vitale and Swett joined the meeting in progress. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, John Mahoney, Matt Horan, Steve Estes-Smargiassi, Dave Duest, Rachel Madden, Tom Durkin, Dave Whelan, Mike Hornbrook, Bob Donnelly, Russ Murray and Bonnie Hale. The meeting was called to order at 10:25 a.m.

Information

Internal Audit Department Activities Report

Staff summarized the Department's activities over the last year, and there was brief question and answer.

Fourth Quarter FY14 Orange Notebook

Staff gave a presentation highlighting various portions of the report. (Messrs. Flanagan and Vitale joined the meeting.)

Delegated Authority Report – July and August 2014

The report was received without comment.

Staff summarized the following two information items, and there was general discussion and question and answer:

- FY2014 Year-End Financial Update and Summary
- FY2014 Year-End Capital Improvement Program Spending Report.

Approvals

*Approval of the Sixty-Eighth Supplemental Resolution

Staff explained the terms of the resolution and there was general discussion and question and answer. (Mr. Swett joined the meeting.) The Committee recommended approval of the Sixty-Eighth Supplemental Resolution (ref. agenda item B.1).

* Approved as recommended at September 17, 2014 Board of Directors meeting.

(Mr. Pappastergion left the meeting.)

Contract Amendments/Change Orders

*Dental Insurance: Delta Dental of Massachusetts, Contract A591, Amendment 1

The Committee recommended approval of Amendment 1 (ref. agenda item D.1).

Contract Award


*eDiscovery Technical Consulting Services: PeopleSERVE PRS, Inc., WRA-3869Q, State Blanket Contract ITS53 Cat2b

There was general discussion and question and answer on the nature of the contract. The Committee recommended approval of the contract award (ref. agenda item C.1).

The meeting adjourned at 11:25 a.m.

* Approved as recommended at September 17, 2014 Board of Directors meeting.



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 15, 2014
SUBJECT: Delegated Authority Report – September 2014

COMMITTEE: Administration, Finance & Audit

X INFORMATION
VOTE

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


Rachel C. Madden
Director, Administration & Finance

Michele Gillen
Deputy Director, Administration &
Finance

RECOMMENDATION:

For information only. Attached is a listing of actions taken by the Executive Director under delegated authority for the period September 1 through September 30, 2014.

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, 2014

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMEND/CO	COMPANY	FINANCIAL IMPAC
C-1.	09/02/14	SHEA AVENUE CVA LEAK REPAIR, BELCHERTOWN PERFORM ADDITIONAL WORK AND EXTEND BY-PASS PUMPING DUE TO LEAKING DOWNSTREAM LINE-STOP.	6468	1	J. D'AMICO, INC.	\$137,575.73
C-2.	09/24/14	INSTALLATION OF ENERGY EFFICIENT INTERIOR LIGHTING AT SIX PUMP STATIONS AWARD OF ENERGY EFFICIENCY CONTRACT TO NSTAR PREQUALIFIED VENDOR FOR THE REPLACEMENT OF 344 INTERIOR LIGHTS WITH ENERGY EFFICIENT LIGHTS AT THE FOLLOWING SIX PUMPS STATIONS: BRATTLE COURT, CARUSO, DUDLEY STREET, HYDE PARK, LEXINGTON STREET AND RESERVOIR ROAD FOR A TERM OF 120 CALENDAR DAYS. REBATE TOTALING \$16,444 WILL BE RECEIVED FROM NSTAR UPON PROJECT COMPLETION, RESULTING IN A SIMPLE PAYBACK PERIOD OF 3.6 YEARS.	OP-262	AWARD	HORIZON SOLUTIONS LLC	\$53,253.00
C-3.	09/24/14	INSTALLATION OF THREE ENERGY EFFICIENT GAS-FIRED UNIT HEATERS AT BRATTLE COURT PUMP STATION AWARD OF ENERGY EFFICIENCY CONTRACT TO NSTAR PREQUALIFIED VENDOR FOR THE INSTALLATION OF THREE ENERGY EFFICIENT GAS-FIRED UNIT HEATERS AT THE BRATTLE COURT PUMP STATION FOR A TERM OF 120 CALENDAR DAYS. REBATE TOTALING \$16,444 WILL BE RECEIVED FROM NSTAR UPON PROJECT COMPLETION, RESULTING IN A SIMPLE PAYBACK PERIOD OF 5 YEARS.	OP-259	AWARD	HORIZON SOLUTIONS LLC	\$87,053.00
C-4.	09/24/14	INSTALLATION OF ENERGY EFFICIENT INTERIOR AND EXTERIOR LIGHTING AT SIX FACILITIES AWARD OF ENERGY EFFICIENCY CONTRACT TO NSTAR PREQUALIFIED VENDOR FOR THE REPLACEMENT OF 480 INTERIOR AND EXTERIOR LIGHTS WITH ENERGY EFFICIENT LIGHTS AT THE FOLLOWING SIX MWRA FACILITIES: ALEWIFE, DELAURI, FRAMINGHAM, NEW NEPONSET, SPRING STREET PUMP STATIONS AND SOMERVILLE-MARGINAL CSO FOR A TERM OF 120 CALENDAR DAYS. REBATE TOTALING \$30,846 WILL BE RECEIVED FROM NSTAR UPON PROJECT COMPLETION, RESULTING IN A SIMPLE PAYBACK PERIOD OF 3.2 YEARS.	OP-261	AWARD	HORIZON SOLUTIONS LLC	\$98,448.00
C-5.	09/26/14	SECTION 83 AND 89 PIPELINE EASEMENT CLEARING AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER FOR THE PIPELINE EASEMENT CLEARING OF SECTIONS 83 AND 89 LOCATED IN LEXINGTON AND STONEHAM FOR A TERM OF 90 CALENDAR DAYS.	OP-249	AWARD	TREE TECHNOLOGY & LANDSCAPE COMPANY, INC.	\$63,804.00

PURCHASING DELEGATED AUTHORITY ITEMS - September 1 - 30, 2014

NO.	TITLE AND EXPLANATION	CONTRACT #	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-1. 9/2/14	ONE 60,000 POUND, 12/14 YARD, DIESEL POWERED DUMP TRUCK AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR ONE 60,000-POUND, 12/14-YARD, DIESEL-POWERED DUMP TRUCK. WRA-240, ASSIGNED TO THE WASTEWATER PIPE MAINTENANCE UNIT IN CHELSEA, IS A 1998 TEN -WHEEL DUMP TRUCK WITH A PLOW AND SANDER. THE TRUCK IS USED TO PLOW AND SAND A DOZEN OF MWRA'S SOUTH SYSTEM FACILITIES, AND IS ALSO UTILIZED TO MOBILIZE THE BACKHOE, SMALL EXCAVATOR, 10 -INCH PUMP, AND GENERATORS. DUE TO CORROSION CAUSED BY THE CONSTANT EXPOSURE TO THE SALT/SAND MIXTURE USED IN TREATING THE ROADS AT MWRA'S FACILITIES, THE DUMP BODY ON THE TRUCK HAS RUSTED AND THE PISTON IS LEAKING; BOTH NEED TO BE REPLACED. NOISE EMANATING FROM THE LOWER END ROD WOULD INDICATE A NEED FOR REPAIR, THE TRUCK IS LEAKING OIL, AND THE REAR BRAKE CHAMBERS ARE ROTTED. WRA-240 MEETS THE CURRENT CRITERIA FOR REPLACEMENT IN ACCORDANCE WITH MWRA'S VEHICLE REPLACEMENT POLICY. UPON REPLACEMENT, STAFF PLAN TO DECLARE WRA-240 SURPLUS AND DISPOSE OF IT IN ACCORDANCE WITH MWRA'S SURPLUS PROPERTY	WRA-3882		BOSTON FREIGHTLINER	\$159,934.00
P-2. 9/3/14	SYSTEM AUDITS OF THE CONTINUOUS EMISSIONS MONITORING SYSTEM AWARD OF A THREE-YEAR PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER TO PROVIDE SYSTEM AUDITS OF THE CONTINUOUS EMISSIONS MONITORING SYSTEM AT THE DEER ISLAND TREATMENT PLANT. THE ON-SITE THERMAL/POWER PLANT AT THE DEER ISLAND TREATMENT PLANT HOUSES TWO ZURN, HIGH PRESSURE BOILERS THAT SUPPLY STEAM FOR HEATING, AS WELL AS FOR OPERATING A STEAM TURBINE. THE ZURN BOILERS ARE EQUIPPED WITH FLUE GAS RECIRCULATION SYSTEMS AND TWO LOW-NITROGEN, STEAM-ATOMIZING BURNERS. DEER ISLAND'S AIR PERMIT, ISSUED BY DEP REQUIRES THAT THE EXHAUST GASES FROM THE BOILERS BE MONITORED FOR OPACITY, SULFUR DIOXIDE, CARBON MONOXIDE, OXYGEN, AND OXIDES OF NITROGEN. DEER ISLAND'S CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) PERFORMS THIS MONITORING. THE CEMS CONSISTS OF SAMPLE PROBE BOXES, TEST PORTS, OPACITY MONITORS, AND GAS ANALYZERS FOR CONTINUOUS TESTING OF GAS SAMPLES DRAWN FROM THE TWO EXHAUST DUCTS.	WRA-3892Q		AIR TOX ENVIRONMENTAL COMPANY, INC	\$27,600.00
P-3. 9/4/14	LOCKSMITH SERVICES AT DEER ISLAND APPROVAL OF A SOLE-SOURCE PURCHASE ORDER FOR LOCKSMITH SERVICES AT THE DEER ISLAND TREATMENT PLANT. SEVERAL YEARS AGO A COMPETITIVE BID PROCESS WAS UNDERTAKEN TO SECURE THE SERVICES OF A QUALIFIED LOCKSMITH COMPANY TO REPLACE A NUMBER OF LOCKS AT THE DEER ISLAND TREATMENT PLANT. BOSTON LOCK AND SAFE COMPANY, INC. WAS AWARDED THIS CONTRACT, WHICH INCLUDED ONGOING MAINTENANCE AND REPAIR SERVICES. IN ORDER TO MAINTAIN SECURITY AT THE DEER ISLAND FACILITY, BOSTON LOCK INSTALLED PATENTED LOCK CORES AND CYLINDERS THROUGH OUT THE PLANT THAT REQUIRE THE HIGHEST LEVEL OF SECURITY. THE PATENT HOLDER FOR THE KEYING SYSTEM (MEDECO) AUTHORIZES VARIOUS LOCKSMITHS TO USE ITS SYSTEM AND EACH LOCKSMITH IS ASSIGNED A UNIQUE KEY STYLE. THE KEY STYLE USED AT DEER ISLAND (TRADEMARKED AS "KEYMARK") HAS A TWIST IN THE KEY AS WELL AS OTHER FEATURES THAT PREVENT FRAUDULENT DUPLICATION. IN AN EFFORT TO REDUCE THE NUMBER OF KEYS REQUIRED BY FACILITY MANAGEMENT AND AUTHORIZED MAINTENANCE STAFF, ANY CRITICAL LOCKS NEEDING REPLACEMENT WERE CHANGED OVER TO THE MEDECO SYSTEM, ENHANCING SECURITY.			BOSTON LOCK AND SAFE COMPANY, INC.	\$36,000.00
P-4. 9/12/14	ONE 40,000-POUND, 6/8-YARD, DIESEL-POWERED AUTOMATIC DUMP TRUCK WRA-633, A 1995 FORD DUMP TRUCK, IS ONE OF TWO SIX-WHEEL DUMP TRUCKS ASSIGNED TO FIELD OPERATIONS' WESTERN GROUNDS MAINTENANCE GROUP IN SOUTHBOROUGH FOR AQUEDUCT MAINTENANCE AND FOR MOVING HEAVY EQUIPMENT THROUGHOUT THE WESTERN MAINTENANCE SECTION. IN FY14, WRA-633 MET ALL CRITERIA FOR VEHICLE REPLACEMENT AND FLEET SERVICES DETERMINED THAT RATHER THAN CONTINUING TO MAINTAIN AND REPAIR THE TRUCK, IT SHOULD BE REPLACED, AND, UNDER BID WRA-3718, MWRA PURCHASED A REPLACEMENT SIX-WHEEL DUMP TRUCK WITH A PLOW AND SANDER. HOWEVER, AFTER PURCHASE, WRA-181, A 1998 SIX-WHEEL DUMP WITH A PLOW AND SANDER UTILIZED BY WASTEWATER PIPELINE MAINTENANCE, WHICH WAS SCHEDULED FOR FY15 REPLACEMENT, HAD TO BE REMOVED FROM SERVICE EARLIER THAN EXPECTED. AS A RESULT, THE NEW SIX-WHEEL DUMP TRUCK PURCHASED TO REPLACE WRA-633 WAS DEPLOYED TO WASTEWATER PIPELINE MAINTENANCE. BID WRA-3883 WILL REPLACE WESTERN GROUNDS MAINTENANCE'S WRA-633. UPON REPLACEMENT, STAFF PLAN TO DECLARE WRA-633 SURPLUS AND IT WILL BE DISPOSED OF IN ACCORDANCE WITH MWRA'S SURPLUS PROPERTY POLICY.	WRA-3883		BOSTON FREIGHTLINER	\$128,421.00
P-5. 9/18/14	WATER QUALITY REPORTING SYSTEM APPROVAL OF AMENDMENT 1 TO WRA-3685Q, IN ACCORDANCE WITH STATE BLANKET CONTRACT ITS53 CAT2B, WATER QUALITY REPORTING SYSTEM EXTENDING THE CONTRACT TERM BY 90 CALENDAR DAYS, FROM OCTOBER 1, 2014 TO DECEMBER 31, 2014. ON SEPTEMBER 18, 2013, THE BOARD APPROVED THE AWARD OF PURCHASE ORDER CONTRACT WRA-3685Q FOR TECHNICAL CONSULTING SERVICES TO DEVELOP AND IMPLEMENT A WATER QUALITY REPORTING SYSTEM TO MCINNIS CONSULTING SERVICES, INC. THE PROJECT WAS REQUIRED TO MEET NEW SAFE DRINKING WATER ACT REGULATIONS DURING THE CONSTRUCTION OF THE ULTRAVIOLET (UV) DISINFECTION FACILITIES AT THE JOHN J. CARROLL WATER TREATMENT PLANT AND THE QUABBIN DISINFECTION FACILITY IN WARE. REAL-TIME OPERATING DATA REQUIRED TO TEST NEW REPORTS USING NEW SOFTWARE WAS NOT AVAILABLE AT THE DATE ESTIMATED WHEN THE CONTRACT BEGAN, AS WELL AS THE NEED FOR MORE DEVELOPMENT TIME AND EFFORT, RESULTED IN THE RECOMMENDATION FOR A CONTRACT EXTENSION AND AN INCREASE IN FUNDS.	WRA-3685Q ITS53	1	MCINNIS CONSULTING SERVICES, INC.	\$35,000.00

PURCHASING DELEGATED AUTHORITY ITEMS - September 1 - 30, 2014

NO.	TITLE AND EXPLANATION	CONTRACT #	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-6.	9/19/14	TEN EVAPORATOR COILS	WRA-3891	AIR CONTROL PRODUCTS	\$61,094.00
<p>AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR TEN EVAPORATOR COILS FOR THE DEER ISLAND TREATMENT PLANT. AIR HANDLING UNITS ARE USED ON DEER ISLAND TO SUPPLY AND CIRCULATE AIR THROUGHOUT BUILDINGS OR TO EXTRACT STALE AIR AS PART OF A BUILDINGS HEATING, VENTILATING AND AIR CONDITIONING (HVAC) SYSTEM. AN AIR HANDLING UNIT TYPICALLY IS COMPRISED OF A LARGE INSULATED METAL BOX CONTAINING A FAN, EVAPORATOR (HEATING AND COOLING) COILS, FILTERS, AND DAMPERS. EVAPORATOR COILS CONDITION THE AIR. MOST OF THE EVAPORATOR COILS ORIGINALLY INSTALLED ON DEER ISLAND UTILIZED R-22 REFRIGERANT, WHICH IS NOT AS ENVIRONMENTALLY FRIENDLY AS THE NEWER REFRIGERANTS AVAILABLE TODAY. REGULATORY AGENCIES NO LONGER ALLOW R-22 REFRIGERANT TO BE USED WHEN COILS ARE REPLACED. DEER ISLAND BEGAN TRANSITIONING AWAY FROM R-22 APPROXIMATELY SIX OR SEVEN YEARS AGO AND ALL NEW PURCHASES OF REPLACEMENT EVAPORATOR COILS REQUIRE 410A REFRIGERANT. BID WRA-3891 IS FOR THE PURCHASE OF 10 EVAPORATOR COILS FOR THE AIR HANDLING UNITS IN THE RESIDUALS SECONDARY ELECTRIC AND VARIABLE FREQUENCY DRIVE ROOMS.</p>					
P-7.	9/24/14	TEMPORARY FLOW MONITORING AND DATA COLLECTION	WRA-3889	ADS, LLC	\$147,936.40
<p>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 (QA/QC) EFFORTS IS UTILIZING A SEPARATE MONITORING AND DATA COLLECTION CONTRACT TO RUN COMPARATIVE TESTS AT KEY METER LOCATIONS, UTILIZING TEMPORARY WASTEWATER FLOW METERS. EMPLOYING A QA/QC TEMPORARY WASTEWATER METERING AND DATA COLLECTION PROTOCOL BENEFITS MWRA IN THAT IT HELPS TO VALIDATE THE DATA THAT ITS METERING SYSTEM IS GENERATING, WHICH IMPACTS RATES THAT MWRA CUSTOMER COMMUNITIES ARE CHARGED.</p>					

POSITION CONTROL REGISTER (PCR) LOCATION CHANGES September 2014

<u>DATE OF CHANGE</u>	<u>POSITION TITLE</u>	<u>CURRENT PCR#</u>	<u>CURRENT COST CENTER</u>	<u>NEW PCR #</u>	<u>NEW COST CENTER</u>	<u>REASON FOR CHANGE</u>
9/16/2014	Sr Program Manager	5525062	E&C	2971023	DI Engineering Services	To address staffing needs in DI Engineering Services Program
9/17/2014	Electrician	3396026	Equipment Maintenance	5470076	Equipment General	To resolve personnel issue
9/24/2014	Staff Engineer	5525074	E&C	2971024	DI Engineering Services	To address staffing needs in DI Engineering Services Program

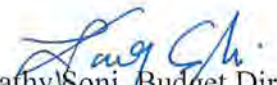
STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 15, 2014
SUBJECT: FY15 Financial Update and Summary

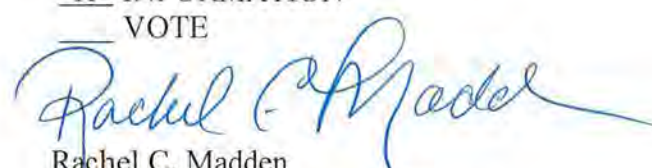


COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE


 Kathy Soni, Budget Director
 David Whelan, Budget Manager
 Preparer/Title




 Rachel C. Madden
 Director, Administration and Finance

RECOMMENDATION:

For information only. This staff summary provides a financial update and variance highlights for the first quarter of FY15, comparing actual spending to the budget.

DISCUSSION:

Total year-to-date expenses are lower than budget by \$2.3 million or 1.4% and total revenues are higher than budget by \$361,000 or 0.2% for a net variance of \$2.7 million.

The expense variances by major categories are represented in the table below:

	FY15 Budget (September)	FY15 Actual (September)	\$ Variance	% Variance
Direct Expenses	\$49.8	\$50.6	\$0.8	1.7%
Indirect Expenses	\$16.6	\$16.3	-\$0.2	-1.4%
Debt Service	\$99.0	\$96.1	-\$2.9	-2.9%
Total	\$165.3	\$163.0	-\$2.3	-1.4%

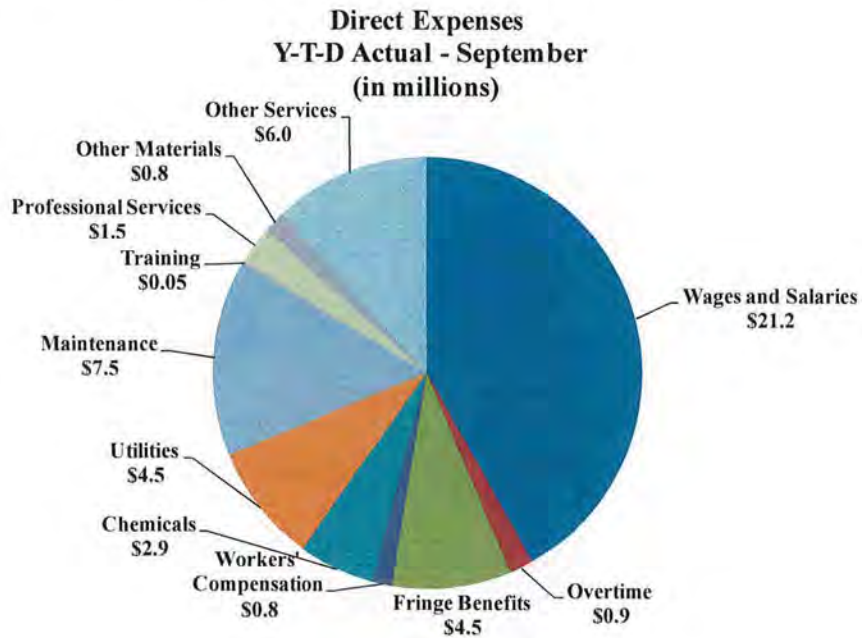
The largest variance year-to-date is the debt service expense which is below budget by \$2.9 million due to the continued favorable short-term rate environment. Indirect expenses are below budget by \$238,000 for lower Watershed Reimbursement and Insurance expenses. The underspending is offset by higher direct expenses of \$831,000 mainly due to maintenance, workers' compensation, professional services, and other materials. The majority of higher than budgeted direct expense spending is a matter of timing.

As the year progresses, staff intend to once again deposit favorable debt service savings in the approved defeasance account.

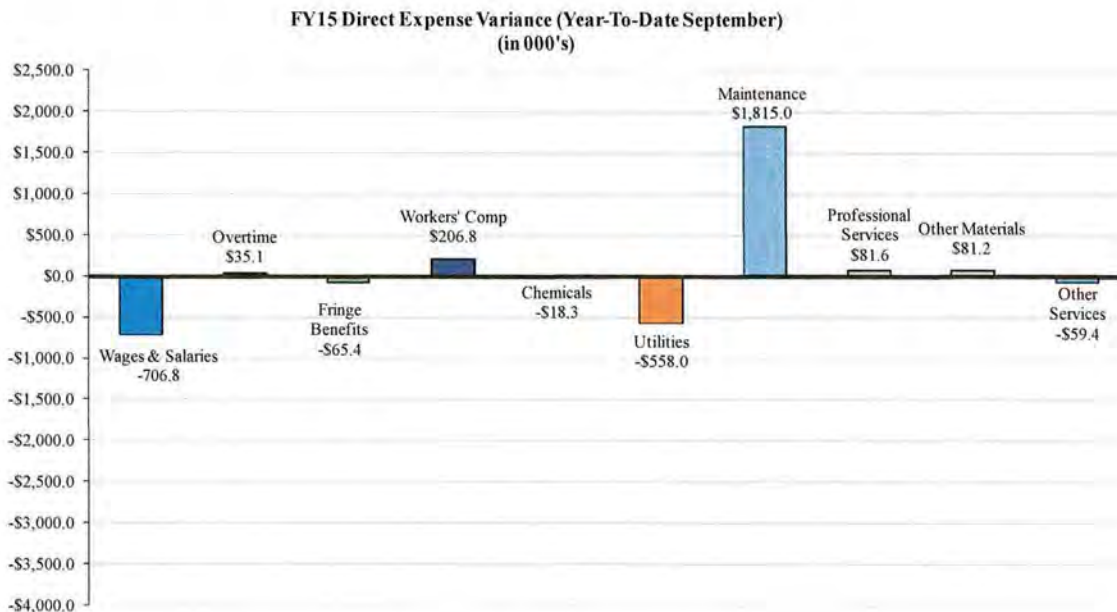
Please refer to Attachment 1 for a more detailed comparison by line item.

Direct Expenses

Direct Expenses totaled \$50.6 million, \$831,000 or 1.7% higher than budget. The chart below represents the make-up of direct expense spending by category:



The primary reason for overspending on Direct Expenses was higher spending for maintenance, workers' compensation, professional services, and other materials offset by underspending for wages and salaries, utilities, fringe benefits, other services, and chemicals.



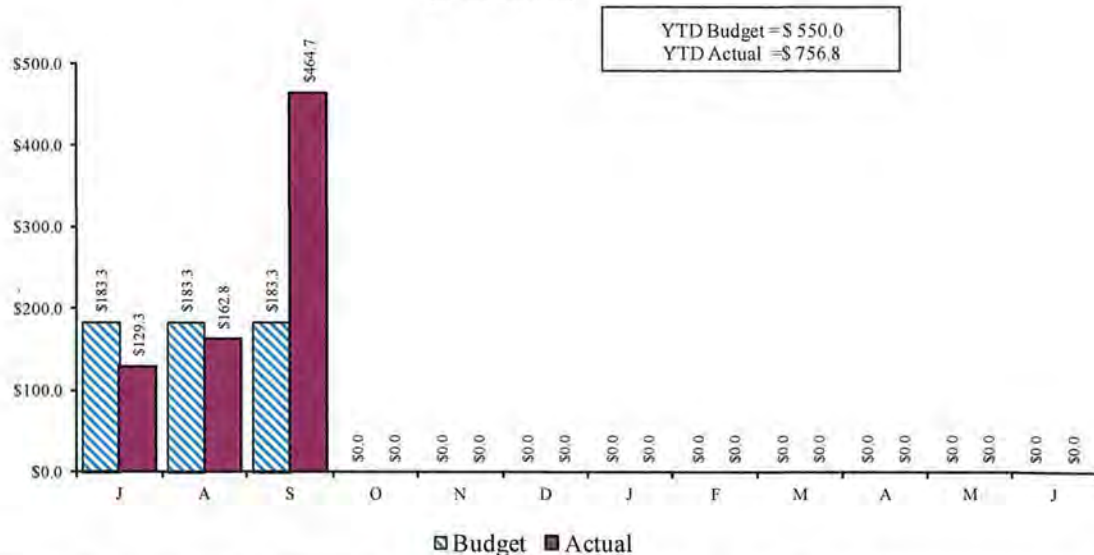
Maintenance

Maintenance was overspent by \$1.8 million or 32.1% year-to-date. Materials are overspent by \$1.4 million and services are overspent by \$422,000. The majority of the variance is timing related for projects scheduled for FY14 completed in FY15 such the Quabbin Spillway fence rehabilitation, heat pump block heaters for various water and wastewater facilities, and ventilation controls at New Neponset and Framingham Pump Stations in Field Operations and the Carrier condenser units and services performed on the Back Pressure Steam Turbine Generator at Deer Island.

Workers' Compensation

Workers' Compensation expenses are higher than budget by \$207,000 or 37.6%, based on higher compensation payments of \$133,000, administrative and legal costs of \$37,000, and medical expenses of \$37,000.

FY15 Workers' Compensation Spending (Year-To-Date September)
(in thousands)



# of Open Claims-Lost Time	69	72	70	0	0	0	0	0	0	0	0
# of Open Claims-Medical Only	16	24	24	0	0	0	0	0	0	0	0

Professional Services

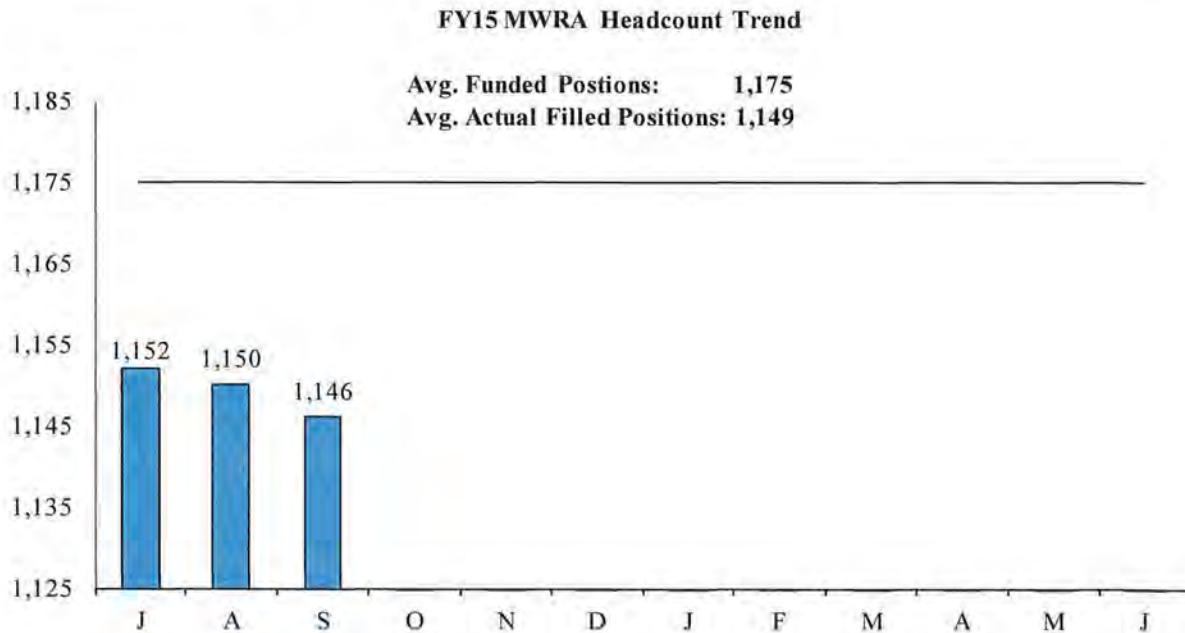
Professional Services are higher than budget by \$82,000 or 5.8% due to the timing of Maximo Upgrade of \$52,000 and higher Security of \$32,000.

Other Materials

Other Materials are higher than budget by \$81,000 or 10.7% mainly due to timing of work clothes, other materials, and computer hardware.

Wages and Salaries

Wages and Salaries were underspent by \$707,000 or 3.2% mainly as a result of lower than budgeted filled positions and the salary mix differential between staff retiring at higher rates and new hires coming on board at lower rates. The average actual filled positions for the quarter was 1,149 which is 26 positions lower than the 1,175 positions funded. Additionally, MWRA had 7 temporary employees.



Utilities

Utilities are underspent \$558,000 or 11.0% year-to-date primarily for lower Electricity of \$492,000 mainly due to lower than budgeted pricing, as well as lower Water and Diesel Fuel of \$43,000 and \$32,000 respectively.

Fringe Benefits

Fringe Benefits are lower than budget by \$65,000 or 1.4% mainly due to lower than budgeted health insurance and unemployment insurance primarily due to the lower headcount.

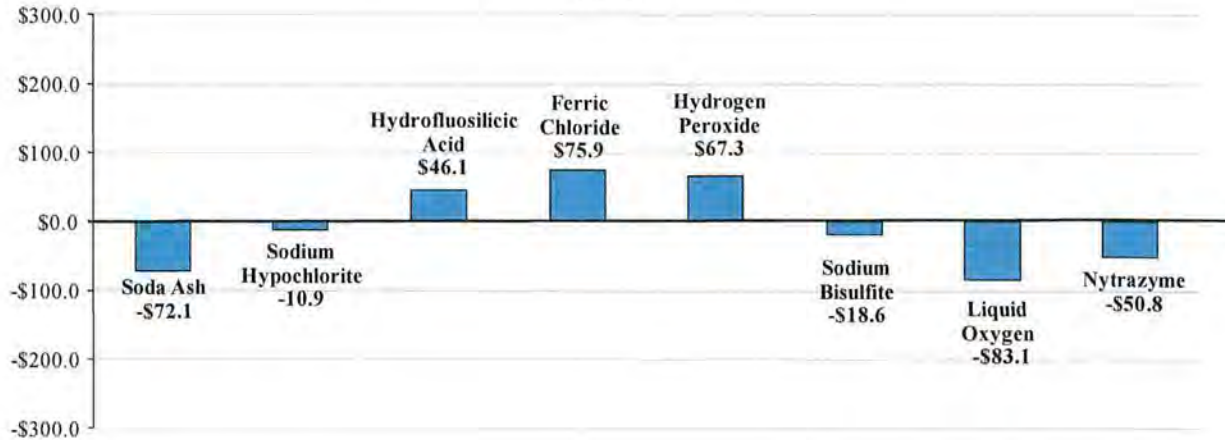
Other Services

Other Services are lower than budget by \$59,000 or 1.0% due to the timing of remediation activities of \$63,000, Grit of \$31,000 due to lower quantities, and Sludge Pelletization of \$17,000 mainly due to lower quantities.

Chemicals

Chemicals are underspent by \$18,000 or 0.6% year-to-date mainly due to lower than budgeted Liquid Oxygen of \$83,000 due to better water quality resulting in lower dosing, Soda Ash of \$72,000 due to lower flows, and Nitrazyme of \$51,000 due to system modifications by the Town of Framingham. Underspending is offset to some degree by higher spending for Ferric Chloride of \$76,000 for struvite control, Hydrogen Peroxide of \$67,000 due to lower flows which required increased pretreatment for hydrogen sulfide gas, Polymer of \$50,000 for sludge thickening, and Hydrofluosilicic Acid of \$46,000 due to delay in anticipated regulatory dosing change.

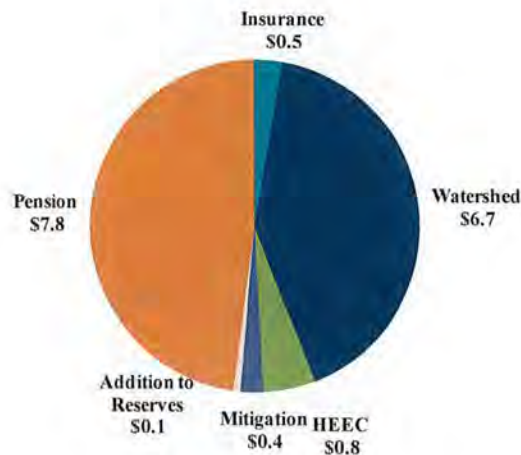
FY15 Chemical Expense Variances (Year-To-Date September)
(in 000's)



Indirect Expenses

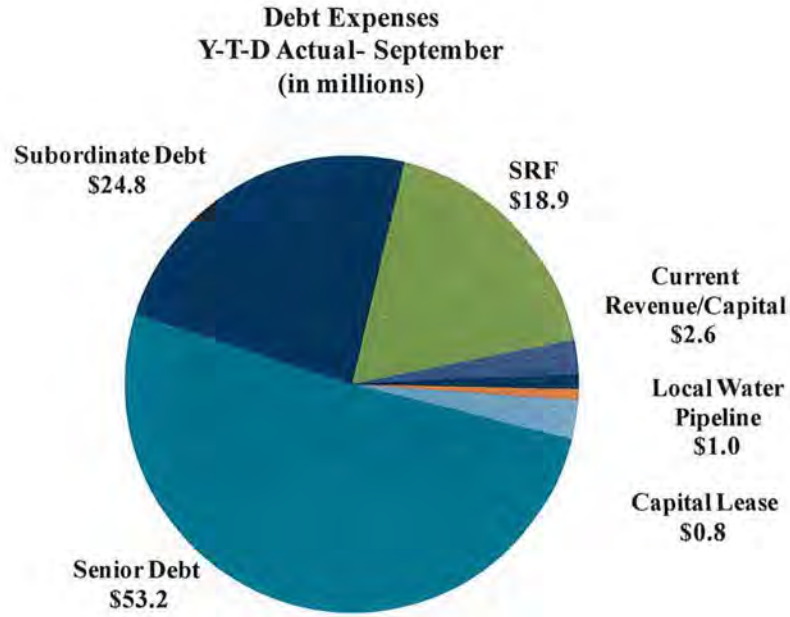
The majority of the year-to-date underspending on Indirect Expenses is for lower Watershed Reimbursement expenses of \$119,000 due to FY14 overaccrual and lower Insurance expenses of \$78,000 mostly related to lower premiums.

Indirect Expenses
Y-T-D Actual - September
(in millions)



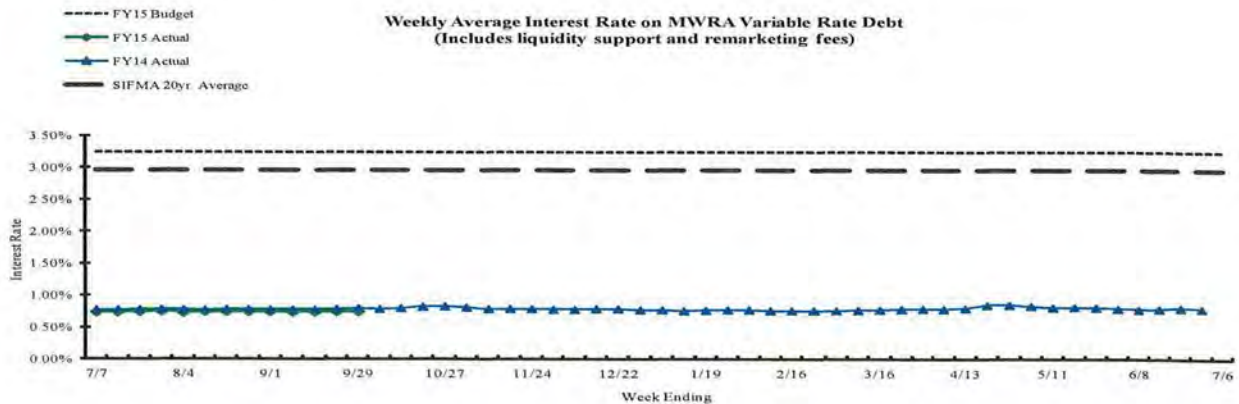
Debt Service Expenses

Debt Service Expenses include the principal and interest payment for fixed debt, the variable subordinate debt, and the State Revolving Fund (SRF) obligation, the commercial paper program for the Local Water Pipeline projects, current revenue for capital, and the Chelsea facility lease payment.



Debt Service expenses through September totaled \$96.1 million which is \$2.9 million or 2.9% lower than budgeted levels due to favorable short-term interest rates.

The graph below reflects the variable rate trend by month over the past year in comparison with FY14 Actuals and the FY15 Budget for the same period.



Revenue

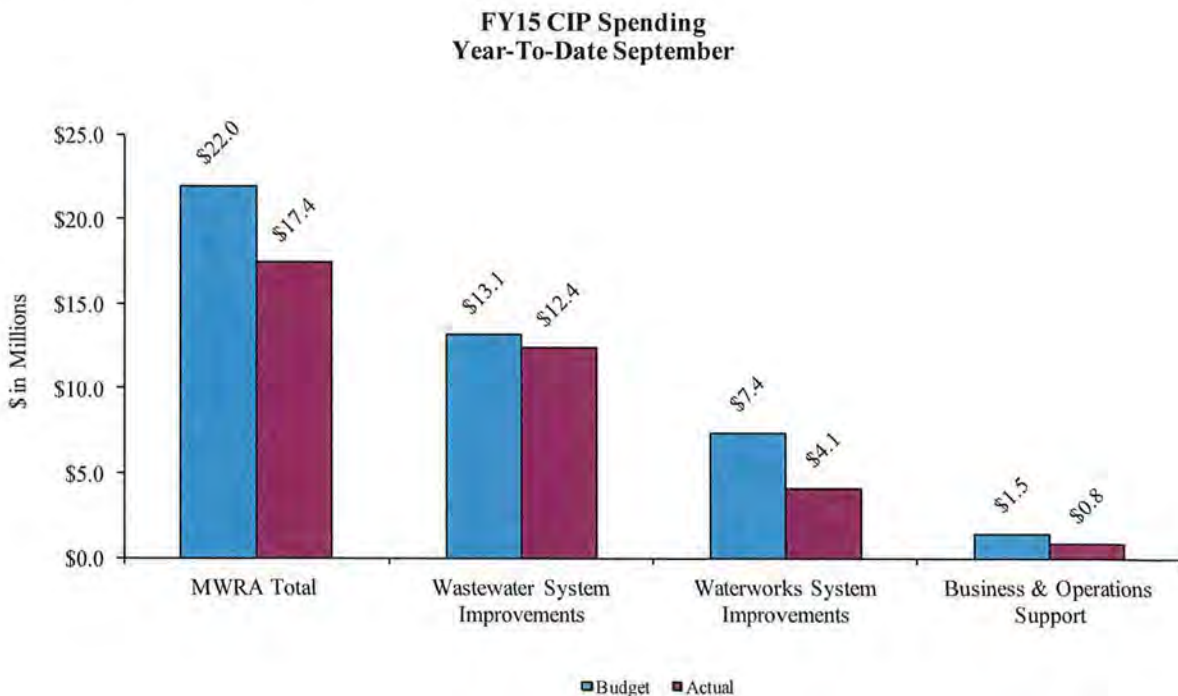
Year-to-date revenue for FY15 totals \$168.4 million which is \$361,000 or 0.2% higher than budget due to higher non-rate revenue of \$434,000 offset by lower Investment Income of \$72,000 due to lower than budgeted short-term rates.

The higher non-rate Revenue of \$434,000 is mainly due to the \$372,000 payment received for the surplus of the Fox Point CSO Facility, \$333,000 for the sale of unbudgeted emergency water for the Town of Hudson, and \$70,000 for higher permit fees offset by lower Energy revenue of \$436,000 mainly due to the timing of Renewable Portfolio Standard (RPS) sales.

FY15 Capital Improvement Program

Spending year-to-date in FY15 totals \$17.4 million, \$4.6 million or 20.9% lower 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, the underspending is \$4.5 million or 25.3%.

Underspending was reported in all programs: Wastewater of \$710,000, Waterworks of \$3.3 million, and Business and Operations Support of \$616,000.



Spending By Program:

\$ in Millions	Budget	Actuals	\$ Var.	% Var.
Wastewater System Improvements				
Interception & Pumping	1.8	2.0	0.1	7.5%
Treatment	4.1	3.6	-0.6	-13.9%
Residuals	0.0	0.0	0.0	N/A
CSO	6.2	7.1	0.9	14.8%
Other	1.0	-0.2	-1.2	-121.0%
Total Wastewater System Improvements	\$13.1	\$12.4	-\$0.7	-5.4%
Waterworks System Improvements				
Drinking Water Quality Improvements	6.6	5.8	-0.7	-11.3%
Transmission	1.6	0.4	-1.1	-72.4%
Distribution & Pumping	1.9	0.6	-1.3	-69.8%
Other	-2.7	-2.7	0.0	1.8%
Total Waterworks System Improvements	\$7.4	\$4.1	-\$3.3	-44.2%
Business & Operations Support	\$1.5	\$0.8	-\$0.6	-42.4%
Total MWRA	\$22.0	\$17.4	-\$4.6	-20.9%

The main reasons for the first quarter underspending were:

1. **Water Distribution and Pumping** of \$1.3 million – for lower spending on Northern Intermediate High of \$496,000 primarily for lower than anticipated spending on West Street Pipe Reading Construction, Southern Extra High Redundancy and Storage of \$344,000 mainly for delays for Southern Extra High Redundancy and Storage Final Design, Weston Aqueduct Supply Mains of \$341,000 for lower WASM 3 Design, Construction Administration, and Resident Inspection work, and Valve Replacement of \$163,000 due to timing of equipment purchases.
2. **Wastewater Other** of \$1.2 million – primarily due to Inflow and Infiltration (I/I) community requests for grants being lower than budget.
3. **Water Transmission** of \$1.1 million – mainly for lower than budgeted spending for Long-Term Redundancy of \$398,000 for Sudbury Aqueduct MEPA Review, Watershed Land of \$300,000 due to timing, Dam Projects of \$250,000 due to less than anticipated Design and Engineering Services During Construction, and MetroWest Tunnel of \$118,000 due to lower spending for Hultman Interconnections Final Design.
4. **Business and Operations Support** of \$616,000 – mainly for lower than budgeted spending for Vehicle Purchases of \$300,000 due to timing, lower than projected spending for As-Needed Design Services of \$194,000, and lower Security Equipment purchases of \$101,000.
5. **Drinking Water Quality Improvements** of \$745,000 – mainly for Spot Pond Covered Storage of \$1.2 million mainly for timing of work and Carroll Water Treatment Plant of \$262,000 due to less than anticipated Carroll UV Disinfection Engineering Services During Construction. Offset by overspending for Quabbin Ultraviolet Construction of \$716,000 primarily due to contractor progress.
6. **Treatment** of \$574,000 – mainly for lower spending on Centrifuge Backdrive Replacement of \$1.2 million, Electrical Equipment Upgrade Construction 4 of \$1.1 million, and North Main Pump Station (NMPS) VFD Replacement Construction of \$256,000, and other smaller projects of \$359,000. Offset by overspending for Scum Skimmer Replacement of \$1.4 million and Clinton Digester Cleaning and Rehabilitation of \$910,000.

The underspending was offset by overspending for the following:

1. **Combined Sewer Overflow (CSOs)** of \$916,000 – primarily due to timing of anticipated reimbursement from Town of Brookline of \$1.1 million.

Construction Fund Balance

The construction fund balance was at \$59 million as of September 2014. Commercial Paper availability was at \$180 million to fund construction projects.

Attachment 1 – Variance Summary September 2014

Attachment 2 – Current Expense Variance Explanations

Attachment 3 – Capital Improvement Program Variance Explanations

ATTACHMENT 1

	September 2014 Year-to-Date					
	Period 3 YTD Budget	Period 3 YTD Actual	Period 3 YTD Variance	%	FY15 Approved	% Expended
EXPENSES						
WAGES AND SALARIES	\$ 21,899,516	\$ 21,192,749	\$ (706,767)	-3.2%	\$ 96,554,749	21.9%
OVERTIME	896,213	931,301	35,088	3.9%	3,620,600	25.7%
FRINGE BENEFITS	4,597,710	4,532,331	(65,379)	-1.4%	18,299,405	24.8%
WORKERS' COMPENSATION	550,000	756,790	206,790	37.6%	2,200,000	34.4%
CHEMICALS	2,916,287	2,897,956	(18,331)	-0.6%	10,219,580	28.4%
ENERGY AND UTILITIES	5,069,639	4,511,594	(558,045)	-11.0%	23,472,354	19.2%
MAINTENANCE	5,653,327	7,468,323	1,814,996	32.1%	27,972,607	26.7%
TRAINING AND MEETINGS	28,532	48,174	19,642	68.8%	361,019	13.3%
PROFESSIONAL SERVICES	1,395,103	1,476,658	81,555	5.8%	5,957,201	24.8%
OTHER MATERIALS	761,097	842,260	81,163	10.7%	5,952,729	14.1%
OTHER SERVICES	6,038,764	5,979,328	(59,436)	-1.0%	22,538,498	26.5%
TOTAL DIRECT EXPENSES	\$ 49,806,188	\$ 50,637,464	\$ 831,275	1.7%	\$ 217,148,742	23.3%
INSURANCE	\$ 532,039	\$ 454,052	\$ (77,987)	-14.7%	\$ 2,128,155	21.3%
WATERSHED/PILOT	6,866,697	6,747,653	(119,044)	-1.7%	27,466,790	24.6%
BECo PAYMENT	834,846	830,280	(4,566)	-0.5%	3,198,174	26.0%
MITIGATION	401,492	364,976	(36,516)	-9.1%	1,605,967	22.7%
ADDITIONS TO RESERVES	120,738	120,738	-	0.0%	482,953	25.0%
RETIREMENT FUND	7,808,155	7,808,155	-	0.0%	12,629,475	61.8%
TOTAL INDIRECT EXPENSES	\$ 16,563,967	\$ 16,325,854	\$ (238,113)	-1.4%	\$ 47,511,514	34.4%
STATE REVOLVING FUND	\$ 18,908,639	\$ 18,908,639	\$ -	0.0%	\$ 78,460,635	24.1%
SENIOR DEBT	53,193,698	53,193,698	-	0.0%	220,835,626	24.1%
CORD FUND	219,127	219,127	-	0.0%	876,506	25.0%
DEBT SERVICE ASSISTANCE	(853,660)	(853,660)	-	0.0%	(853,660)	100.0%
CURRENT REVENUE/CAPITAL	2,550,000	2,550,000	-	0.0%	10,200,000	25.0%
SUBORDINATE MWRA DEBT	24,798,724	24,798,724	-	0.0%	99,686,106	24.9%
LOCAL WATER PIPELINE CP	1,037,113	1,037,113	-	0.0%	4,148,453	25.0%
CAPITAL LEASE	804,265	804,265	-	0.0%	3,217,060	25.0%
VARIABLE DEBT	-	(2,911,671)	(2,911,671)	---	-	0.0%
BOND REDEMPTION SAVINGS	(1,686,399)	(1,686,399)	-	0.0%	(6,745,598)	25.0%
DEFEASANCE ACCOUNT	-	-	-	---	-	---
TOTAL DEBT SERVICE	\$ 98,971,505	\$ 96,059,834	\$ (2,911,671)	-2.9%	\$ 409,825,128	23.4%
TOTAL EXPENSES	\$ 165,341,660	\$ 163,023,152	\$ (2,318,508)	-1.4%	\$ 674,485,384	24.2%
REVENUE & INCOME						
RATE REVENUE	\$ 162,578,946	\$ 162,578,946	\$ -	0.0%	\$ 650,315,784	25.0%
OTHER USER CHARGES	2,135,457	2,119,947	(15,510)	-0.7%	8,259,693	25.7%
OTHER REVENUE	944,336	1,393,696	449,360	47.6%	6,180,450	22.6%
RATE STABILIZATION	-	-	-	---	-	---
INVESTMENT INCOME	2,382,289	2,309,928	(72,361)	-3.0%	9,729,457	23.7%
TOTAL REVENUE & INCOME	\$ 168,041,028	\$ 168,402,517	\$ 361,487	0.2%	\$ 674,485,384	25.0%

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY15 Budget YTD September	FY15 Actuals YTD September	FY15 YTD Actual vs. FY15 Budget		Explanations
			\$	%	
Direct Expenses					
Wages & Salaries	21,899,516	21,192,749	(706,767)	-3.2%	Underspending is due to lower headcount and the salary mix differential between staff retiring at higher rates and new hires coming on board at lower rates. At the end of September the average filled positions of 1,149, are 26 positions less than the 1,175 funded positions.
Overtime	896,213	931,301	35,088	3.9%	Some nominal overspending in several departments.
Fringe Benefits	4,597,710	4,532,331	(65,379)	-1.4%	
Worker's Compensation	550,000	756,790	206,790	37.6%	Higher than budget due to higher Compensation Payments of \$133,000, Administrative and Legal costs of \$37,000, and Medical Payments of \$37,000.
Chemicals	2,916,287	2,897,956	(18,332)	-0.6%	Lower than budgeted Liquid Oxygen of \$83,000 due to better water quality, Soda Ash of \$72,000 due to lower flows and Nitrazyme of \$51,000 due to system modifications by the Town of Framingham offset by higher Ferric Chloride of \$76,000 for struvite control, Hydrogen Peroxide of \$67,000 due to lower flows which required increased pretreatment for hydrogen sulfide gas, Polymer of \$50,000 for sludge thickening, and Hydrofluosilicic Acid of \$46,000 due to delay in anticipated regulatory dosing change.
Utilities	5,069,639	4,511,594	(558,045)	-11.0%	Underspending due to lower Electricity of \$492,000 mainly due to lower than budgeted pricing, as well as lower Water and Diesel Fuel of \$43,000 and \$32,000 respectively.
Maintenance	5,653,327	7,468,323	1,814,996	32.1%	Material purchases are greater than budget by \$1.4 million and services are overspent by \$422,000 mainly due to timing.
Training & Meetings	28,532	48,174	19,642	68.8%	

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY15 Budget YTD September	FY15 Actuals YTD September	FY15 YTD Actual vs. FY15 Budget		Explanations
			\$	%	
Professional Services	1,395,103	1,476,658	81,555	5.8%	Overspending due to the timing of Maximo Upgrade of \$52,000 and higher Security of \$32,000.
Other Materials	761,097	842,260	81,163	10.7%	Over budget due to timing of Work Clothes of \$81,000, Other Materials of \$36,000, and Computer Hardware of \$29,000 offset by lower Postage of \$40,000 and Vehicle Expense of \$35,000.
Other Services	6,038,764	5,979,328	(59,436)	-1.0%	Underspending is a result of the timing of remediation activities of \$63,000, Grit & Screenings of \$31,000 due to lower quantities, and Sludge Pelletization of \$17,000 offset by higher Telephones of \$58,000.
Total Direct Expenses	49,806,188	50,637,464	831,275	1.7%	
Indirect Expenses					
Insurance	532,039	454,052	(77,987)	-14.7%	Lower Premiums of \$59,000 and Payments/Claims of \$19,000.
Watershed/PILOT	6,866,697	6,747,653	(119,044)	-1.7%	Lower Reimbursement expenses of \$119,000 due to FY14 overaccrual.
HEEC Payment	834,846	830,280	(4,566)	-0.5%	
Mitigation	401,492	364,976	(36,515)	-9.1%	
Addition to Reserves	120,738	120,738	-	0.0%	
Pension Expense	7,808,155	7,808,155	-	0.0%	
Post Employee Benefits	-	-	-		
Total Indirect Expenses	16,563,967	16,325,854	(238,113)	-1.4%	

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY15 Budget YTD September	FY15 Actuals YTD September	FY15 YTD Actual vs. FY15 Budget		Explanations
			\$	%	
Debt Service					
Debt Service	99,825,167	96,913,496	(2,911,671)	-2.9%	Underspending results from favorable short-term interest rates.
Debt Service Assistance	(853,660)	(853,660)	-	0.0%	
Total Debt Service Expenses	98,971,507	96,059,836	(2,911,671)	-2.9%	
Total Expenses					
Total Expenses	165,341,662	163,023,154	(2,318,508)	-1.4%	
Revenue & Income					
Rate Revenue	162,578,946	162,578,946	-	0.0%	
Other User Charges	2,135,457	2,119,947	(15,510)	-0.7%	
Other Revenue	944,336	1,393,696	449,360	47.6%	Higher non-rate Revenue of \$434,000 is mainly due to \$421,000 for the surplus of the Fox Point CSO Facility, \$333,000 for the sale of unbudgeted emergency water for the Town of Hudson, and \$70,000 for higher permit fees offset by lower Energy revenue of \$436,000 mainly due to the timing of Renewable Portfolio Standard (RPS) sales.
Rate Stabilization	-	-	-		
Investment Income	2,382,289	2,309,928	(72,361)	-3.0%	Lower Investment Income due to lower than budgeted short-term rates.
Total Revenue	168,041,028	168,402,517	361,489	0.2%	
Net Revenue in Excess of Expenses	2,699,366	5,379,363	2,679,997		

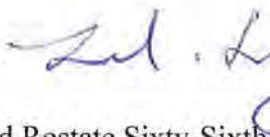
ATTACHMENT 3
Capital Improvement Program Variance Explanations

	FY15 Budget YTD September	FY15 Actuals YTD September	YTD Actuals vs. Budget		Explanations
			\$	%	
Interception & Pumping (I&P)	\$1,827	\$1,963	\$136	7.5%	Overspending mainly due to timing of work for Prison Point/Cottage Farm Engine Pump & Gearbox Rebuilds of \$340,000. Offset by underspending on Chelsea Creek Upgrades Design/CA of \$117,000 due to additional evaluations of equipment and processes.
Treatment	\$4,128	\$3,554	(\$574)	-13.9%	Underspending on Centrifuge Backdrive Replacement of \$1.2M, Electrical Equipment Upgrade Construction 4 of \$1.1M and North Main Pump Station (NMPS) VFD Replacement Construction of \$256,000 mainly due to timing. Offset by overspending on Scum Skimmer Replacement of \$1.4M and Clinton Digester Rehabilitation of \$910,000 due to contractor progress.
Residuals	\$0	\$9	\$9	-	
CSO	\$6,176	\$7,092	\$916	14.8%	Overspending on Brookline Sewer Separation of \$1.1M due to timing of anticipated reimbursement from the Town of Brookline.
Other Wastewater	\$990	(\$207)	(\$1,197)	-	Underspending on Infiltration and Inflow (I/I) due to community requests for grants being less than budgeted.
Total Wastewater	\$13,120	\$12,410	(\$710)	-5.4%	
Drinking Water Quality Improvements	\$6,574	\$5,829	(\$745)	-11.3%	Underspending for Spot Pond Storage Facility of \$1.2M mainly for timing of work and Carroll Water Treatment Plant of \$262,000 for Ultraviolet Disinfection - Design/ESDC/REI due to less than projected need. Offset by overspending on Quabbin Water Treatment Plant of \$716,000 due to contractor progress.
Transmission	\$1,556	\$430	(\$1,126)	-72.4%	Underspending for Long Term Redundancy of \$398,000 mainly due to ongoing alternatives analysis of Sudbury Aqueduct - MEPA Review, Watershed Land of \$300,000 due to the timing of land acquisitions, Dam Projects of \$250,000 due to less than anticipated design and engineering services, and Hultman Aqueduct Rehabilitation of \$117,000.

ATTACHMENT 3
Capital Improvement Program Variance Explanations

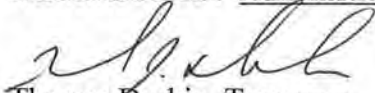

	FY15 Budget YTD September	FY15 Actuals YTD September	YTD Actuals vs. Budget		Explanations
			\$	%	
Distribution & Pumping	\$1,930	\$583	(\$1,347)	-69.8%	Underspending on Northern Intermediate High Redundancy & Storage of \$496,000 mainly due to less than anticipated spending on West St. Pipe Reading - Construction Phase 1A, SEH Redundancy & Storage of \$344,000 mainly due to Redundancy/Storage Phase 1 - Final Design/CA/RI delays pending additional time to meet with local communities, Weston Aqueduct Supply Mains of \$341,000 mainly due to less than anticipated spending for WASM3 Design/Construction Administration/Resident Inspection, and Valve Replacement of \$163,000 due to timing of equipment purchases.
Other Waterworks	-\$2,663	(\$2,711)	(\$48)	1.8%	
Total Waterworks	\$7,397	\$4,130	(\$3,266)	-44.2%	
Business & Operations Support	\$1,453	\$837	(\$616)	-42.4%	Underspending on Capital Maintenance Planning & Development of \$194,000 due to lower than projected use of as-needed technical assistance and Centralized Equipment Purchase of \$401,000 due to timing of security equipment and vehicle purchases.
Total MWRA	\$21,970	\$17,377	(\$4,592)	-20.9%	


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 15, 2014
SUBJECT: Approval of the Resolution to Amend and Restate Sixty-Sixth Supplemental Issuance Resolution

COMMITTEE: Administration, Finance & Audit

VOTE
 INFORMATION


Thomas Durkin, Treasurer
Matthew Horan, Deputy Treasurer 
Preparer/Title


Rachel Madden
Director, Administration & Finance

RECOMMENDATION:

To adopt the Resolution Amending and Restating the Sixty-Sixth Supplemental Issuance Resolution increasing the authorized issuance from \$70,000,000 to up to \$97,000,000 of Massachusetts Water Resources Authority Subordinated General Revenue Bonds.

DISCUSSION:

In February 2014, the Board of Directors approved the Sixty-Sixth Supplemental Resolution authorizing the issuance of up to \$70,000,000 in bonds with the Massachusetts Clean Water Trust ("MCWT"), formerly the Massachusetts Water Pollution Abatement Trust. The original \$70 million in authorization was to allow MWRA to enter into the loan commitment agreements for the projects identified in MCWT's Pool 18 new borrowing.

Since that time, the MCWT has evaluated the projects available for funding from MWRA and its other borrowers to determine an optimal size for the bond issuance they intended to bring to market. In September 2014, MCWT informed MWRA that it had determined that in order to reach its optimal transaction size, its next bond issuance would include projects included on the Pool 18 and Pool 19 approval lists. This approach of determining an optimal transaction size is a change from the MCWT's historical annual debt issuances.

In order for MWRA to take advantage of this change in MCWT's anticipated borrowing, the borrowing authorization will need to be increased from \$70 million, approved in February 2014, to a not-to-exceed amount of \$97 million. This increase is required to allow MWRA to enter into the loan commitments with MCWT for the projects covered under Pool 19. To increase the authorization allowed under the approved supplemental resolution, MWRA's bond counsel drafted a Resolution Amending and Restating the Sixty-Sixth Supplemental Resolution (Attachment A).

The following table provides a breakdown of the allocation of the up to \$97 million in new loans between Pools 18 and 19.

Borrowing Pool	Total Principal
Pool 18	\$ 53,800,000
Pool 19	\$ 42,500,000
Total	\$ 96,300,000

During FY15, staff anticipated receiving \$43.1 million from Pool 18 in October 2014 and the remaining \$42.5 million from the Pool 19 new money in June 2015. Under MCWT's revised borrowing plan, MWRA will likely receive \$70 million in December 2014 and the remaining \$15.6 million in June 2015. A portion of the Pool 18's authorization (\$10.7 million) was borrowed on May 20, 2014 from the MCTW's Pool 16 bond proceeds.

Water projects funded with MCWT financing may have a maturity schedule of up to 20 years; wastewater projects funded with MCWT financing may have a maturity of up to 30 years, depending upon the useful life of the assets financed. The loans with a 20-year maturity will have a fixed interest rate of 2% and loans with a 30-year maturity will have a fixed interest rate of approximately 2.4%.

Projects for which MWRA expects to receive reimbursement under this authorization include Northern Low Service Area Rehabilitation, Southern Spine Distribution Mains, Wachusett Aqueduct Pumping Station, Combined Sewer Overflow ("CSO") Control Plan, Wastewater Treatment Facilities and Sewer Improvements, and Deer Island Treatment Plant Improvements.

BUDGET/FISCAL IMPACT:

There are sufficient funds available in the FY15 CEB to pay the debt service costs associated with these borrowings.

October 15, 2014

RESOLUTION AMENDING AND SUPPLEMENTING THE ISSUANCE RESOLUTION DATED FEBRUARY 12, 2014 (I) APPROVING AND ADOPTING A SIXTY-SIXTH SUPPLEMENTAL RESOLUTION AUTHORIZING THE ISSUANCE OF UP TO \$70,000,000 MASSACHUSETTS WATER RESOURCES AUTHORITY GENERAL REVENUE BONDS (SUBORDINATED SERIES), 2014 SERIES A (THE "BONDS"); (II) AUTHORIZING THE ISSUANCE, EXECUTION AND DELIVERY OF UP TO \$70,000,000 OF THE BONDS; (III) APPROVING THE TERMS OF ONE OR MORE LOAN AGREEMENTS AND/OR BOND PURCHASE AGREEMENTS WITH THE MASSACHUSETTS CLEAN WATER TRUST, FORMERLY KNOWN AS THE MASSACHUSETTS WATER POLLUTION ABATEMENT TRUST (THE "TRUST"); (IV) AUTHORIZING THE EXECUTION AND DELIVERY OF SUCH LOAN AND/OR BOND PURCHASE AGREEMENTS AND OF VARIOUS PROJECT REGULATORY AGREEMENTS WITH THE DEPARTMENT OF ENVIRONMENTAL PROTECTION OF THE COMMONWEALTH OF MASSACHUSETTS; (V) AUTHORIZING ONE OR MORE INTERIM LOANS IN THE EVENT THAT BOND ISSUANCE BY THE TRUST IS DELAYED; (VI) AUTHORIZING THE DISTRIBUTION OF AN INFORMATION STATEMENT OF THE AUTHORITY; (VII) DESIGNATING THE HOLDERS OF BONDS TO BE ISSUED BY THE TRUST AS BENEFICIARIES UNDER THE CONTINUING DISCLOSURE AGREEMENT OF THE AUTHORITY; AND (VIII) AUTHORIZING ANY AND ALL OTHER ACTS NECESSARY OR DESIRABLE IN CONNECTION WITH THE TRANSACTIONS CONTEMPLATED BY THE AFORESAID DOCUMENTS.

WHEREAS, on February 14, 2014, the Board of Directors of the Massachusetts Water Resources Authority (the "Authority") adopted the Issuance Resolution (I) approving and adopting a Sixty-Sixth Supplemental Resolution authorizing the issuance of up to \$70,000,000 Massachusetts Water Resources Authority General Revenue Bonds (Subordinated Series), 2014 Series A (the "Bonds"); (II) authorizing the issuance, execution and delivery of up to \$70,000,000 of the Bonds; (III) approving the terms of one or more Loan Agreements and/or Bond Purchase Agreements with the Massachusetts Clean Water Trust, formerly known as the Massachusetts Water Pollution Abatement Trust (the "Trust"); (IV) authorizing the execution and delivery of such Loan and/or Bond Purchase Agreements and of various Project Regulatory Agreements with the Department of Environmental Protection of The Commonwealth of Massachusetts; (V) authorizing one or more interim loans in the event that bond issuance by the Trust is delayed; (VI) authorizing the distribution of an Information Statement of the Authority; (VII) designating the holders of Bonds to be issued by the Trust as beneficiaries under the Continuing Disclosure Agreement of the Authority; and (VIII) authorizing any and all other acts necessary or desirable in connection with the transactions contemplated by the aforesaid documents; and

WHEREAS, the Authority desires to amend and supplement certain authorizations in the Issuance Resolution. Any capitalized terms used herein and not otherwise defined herein shall have the meaning ascribed to such term in the Issuance Resolution.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Massachusetts Water Resources Authority, pursuant to the Act, as follows:


Section 1. Sixty-Sixth Supplemental Resolution. The approval and authorization granted in the Issuance Resolution with respect to the approval and adoption of the Sixty-Sixth Supplemental Resolution Authorizing the Issuance of up to \$70,000,000 Massachusetts Water Resources Authority General Revenue Bonds (Subordinated Series) is hereby amended by approving and adopting the Sixty-Sixth Supplemental Resolution Authorizing the Issuance of up to \$97,000,000 Massachusetts Water Resources Authority General Revenue Bonds (Subordinated Series) (as so amended, the "Sixty-Sixth Supplemental Resolution") in substantially the form presented to this meeting completed to reflect the definitive terms of the Bonds authorized by the Issuance Resolution, as amended and supplemented by this Resolution Amending and Supplementing the Issuance Resolution, and to include such other changes as may be deemed necessary or desirable by any Authorized Officer, acting singly. Notwithstanding any other provision of the Issuance Resolution, as amended and supplemented by this Resolution Amending and Supplementing the Issuance Resolution this Resolution, it is acknowledged and permitted that such Bonds may be issued in a different number of series than are contemplated by the form of Sixty-Sixth Supplemental Resolution and that such series may be issued at different times and may bear different designations, as shall be set forth in the final form of the Sixty-Sixth Supplemental Resolution. In the event that such series are issued at different times, the separation of the Sixty-Sixth Supplemental Resolution into more than one part, each providing for a separate series shall be authorized hereby.

Section 2. Authorization of Bonds. The authorization granted in the Issuance Resolution authorizing Bonds of the Authority in the aggregate principal amount not to exceed \$70,000,000 is hereby amended by increasing the aggregate principal amount of Bonds authorized to be issued by the Authority in an amount not to exceed \$97,000,000. Each Authorized Officer, acting singly, is authorized to approve the specific terms of the Bonds including without limitation the aggregate principal amount, which shall not exceed \$97,000,000.

Section 3. Interim Loan. The authorization granted in the Issuance Resolution authorizing the Authority to enter into one or more interim loans in the aggregate principal amount not exceeding \$70,000,000 is hereby amended by increasing the aggregate principal amount of such interim loans that may be entered into by the Authority to an amount not exceeding \$97,000,000.

Section 4. Effectiveness. This Resolution Amending and Supplementing the Issuance Resolution shall take effect immediately.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 15, 2014
SUBJECT: Delegation of Authority to Execute a Contract for the Purchase and Supply of Electric Power for MWRA's Profile Accounts
Contract OP-266

COMMITTEE: Administration, Finance & Audit

INFORMATION

VOTE


Rachel C. Madden, Director
Administration and Finance

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


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to execute Contract OP-266 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 36 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:

MWRA has been competitively procuring electricity since 2001. Based on MWRA account load profiles, the optimal approach continues to be three distinct electricity supply contracts. The largest contract is for the Deer Island Treatment Plant account, which represents approximately 67% of MWRA's total purchased electricity demand¹. The next largest contract is for the larger "Interval" accounts, which include the John J. Carroll Water Treatment Plant, the Nut Island Headworks, and the Clinton Advanced Wastewater Treatment Plant, representing 29% of MWRA's total purchased load². 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), which represent 4% of MWRA's total purchased load.

¹ The current contract for Deer Island expires in October 2015.

² The current contract for the Interval Accounts expires in November 2015.

The 43 Profile accounts have an approximate annual energy consumption of 5,000,000 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 significant 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 36 months.

If approved, bids will be sought for a firm, fixed price per kWh to supply 100% of the electricity load requirements for the 43 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 2015, staff recommend that MWRA take bids in October 2014 to take advantage of better market conditions with favorable pricing, prior to the anticipated winter spikes.

Staff and MWRA's energy consultant will evaluate the bids based on market conditions and pricing received. If bid pricing is favorable, staff will recommend that the Executive Director execute a contract with the lowest responsive and responsible bidder for either a term of 12 months, 24 months, or 36 months. If bid pricing received is unfavorable, MWRA is not obligated to execute a contract and can opt to: a) take bids at a subsequent time or at the expiration of the current contract in March 2015; or b) go on Basic Service with the utility until a new contract is procured with more favorable pricing. 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 FY15 Current Expense Budget contains \$284,000 for the electricity supply for all Profile accounts, not including the transmission and distribution costs charged by the local distribution companies. The price of electricity purchased on the open market and Basic Service prices for electricity are not currently known for the proposed contract durations. Thus, the overall benefit or cost of a competitively bid supply cannot be determined until bids are received and staff complete a final comparison of the fixed-bid costs and projected Basic Service pricing over the three possible contract terms. Overall, in the past it has been economically beneficial for MWRA to buy electricity in the competitive market compared to Basic Service, with approximate savings of more than \$190,000 (or \$0.015/kWh less than Basic Service) over the past two and half years of the existing contract.

MBE/WBE PARTICIPATION:

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



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

to be held on

Wednesday, October 15, 2014

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

Time: Immediately following AF&A Comm.

AGENDA

A. Information

1. Update on Pandemic Planning (Presentation)
2. MWRA Industrial Waste Report #30: Industrial Pretreatment Program Annual Report to EPA for FY14
3. Deer Island Treatment Plant Fire Alarm System Evaluation and Replacement

B. Approvals

1. Deer Island Co-Digestion Program Update
2. Charles River Pollution Control District Petition on NPDES Co-Permittees
3. Approval of One New Member of the Wastewater Advisory Committee

C. Contract Awards

1. Supply and Delivery of Sodium Hypochlorite to the Deer Island Treatment Plant: Borden & Remington Corp., Bid WRA-3906
2. Thermal/Power Plant Management System Upgrade, Deer Island Treatment Plant: O'Connor Corp., Contract 7401
3. Instrumentation System Services: KIT Zeller Corp., Contract OP-256

D. Contract Amendments/Change Orders

1. Elevator Maintenance and Repair at Various Facilities: BBE Corp., Contract OP-218, Change Order 2

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Wastewater Policy and Oversight Committee

September 17, 2014

A meeting of the Wastewater Policy and Oversight Committee was held on September 17, 2014 at the Authority headquarters in Charlestown. Chairman Walsh presided. Present from the Board were Ms. Wolowicz and Messrs. Carroll, Cotter, Flanagan, Foti, Pappastergion, Swett and Vitale. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Mike Hornbrook, Dave Kubiak, Dave Duest, John Vetere, John Colbert, Rick Adams and Bonnie Hale. The meeting was called to order at 11:25 a.m.

Information

Progress of Cambridge-Implemented CSO Projects and Projected Financial Assistance through March 2015

Staff summarized the status of progress in the Long-Term CSO Control Plan.

Deer Island Energy Update – Existing and Future Combined Heat and Power Systems

Staff gave a presentation reviewing the results of the CDM Smith residuals technology assessment study, and provided an update on the performance of Deer Island's combined heat and power systems and planned next steps. There was general discussion and question and answer.

Contract Awards

*Struvite, Scum, Sludge, and Grit Removal Services at the Deer Island Treatment Plant: Moran Environmental Recovery, Contract WRA-3862

Staff gave a presentation on the various services to be performed under this contract. The Committee recommended approval of the contract award (ref. agenda item B.1).

*Deer Island Treatment Plant Clarifier Rehabilitation, Phase II, Design/Engineering Services During Construction: CDM Smith Inc., Contract 7394

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

* Approved as recommended at September 17, 2014 Board of Directors meeting.

Contract Amendments/Change Orders

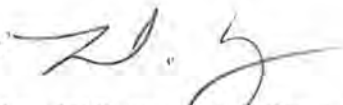
*Agency-Wide Technical Assistance Consulting Services: Fay, Spofford & Thorndike, LLC, Contract 7437, Amendment 1; and Hazen and Sawyer, P.C., Contract 7456, Amendment 1

Staff described the structure of the two technical assistance contracts awarded in November 2013 and the justification for the amendments to each contract. The Committee recommended approval of Amendment 1 to each of the above contracts (ref. agenda item C.1).

The meeting adjourned at 12:10 p.m.

* Approved as recommended at September 17, 2014 Board of Directors meeting.


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 15, 2014
SUBJECT: MWRA Industrial Waste Report #30: Industrial Pretreatment Program Annual Report to EPA for FY14

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 FY14 Annual Report (Industrial Waste Report #30) to EPA on or before October 31, 2014, the required submittal deadline. This staff summary discusses some of the highlights from the report. A draft copy of the report will be available for review at the Board meeting.

DISCUSSION:

Industrial Waste Report #30 documents MWRA's efforts to control current permitted sewer users during FY14. 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 1,192 permitted sewer users (see Attachment 1 for a map of the facilities discharging in MWRA's Metropolitan Sewerage Service Area). There were 214 facilities that met MWRA's definition of Significant Industrial User (SIU) during FY14. 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 214 industries designated as Significant Industrial Users in MWRA's sewer service areas during FY14 (an SIU is a sewer user subject to Federal Categorical standards such as a 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 14, the number of SIUs in the District dropped to 204. 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 FY14. Staff inspected all of the 214 SIUs and sampled 185 of the 187 SIUs with flow during the year (two SIUs with flow were not sampled because the facilities unexpectedly ceased operations early in the fiscal year). In FY14, 29 SIUs were not sampled because they did not discharge during the year¹, were re-categorized as non-SIUs before they could be sampled, or ceased operations early in the fiscal year.



TRAC staff performing pH and TCR sampling at an industry

TRAC issued 88% of SIU permits within 120 days and 98% of permits within 180 days compared to permit requirements of 90% within 120 days and 100% within 180 days. A small number of SIU permits were issued beyond the 120 days (11 facilities) and 180 days (2 facilities) due to the time necessary to acquire and consider information to correctly permit facilities that made modifications. 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.

This year, the total number of SIUs in Significant Noncompliance² was 33, which was a lower number than the 38 in FY13. In the last quarter of FY14, the number of SIUs in Significant Noncompliance was only five, indicating that 28 of the facilities designated earlier in the year were no longer in Significant Noncompliance. MWRA continues to hold annual educational meetings with SIUs to review and reinforce methods for staying in compliance. The FY14 meetings were held at MWRA's Chelsea Facility in May 2014. Attendees heard seminars on topics of interest in toxic reduction and control from MWRA staff and from the Toxic Use Reduction Institute at UMASS Lowell. Additional speakers presenting from MWRA included

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. There were other SIUs that did not discharge while undergoing renovations.

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.

an Environmental Quality presentation on beach monitoring, the John J. Carroll Water Treatment Plant, and MWRA water quality. Credits for attending the seminar were DEP-approved for Operator License training. A total of 120 people from 72 of MWRA's SIUs attended the meeting over three concurrent daily sessions.

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 regulated pollutants to the sewer and assist other MWRA programs. In FY14, TRAC staff conducted an additional 538 industrial/commercial facility inspections, 248 inspections associated with the septage program, and 641 inspections of oil/water separators (see Attachment 2 for a map of oil/water separators in MWRA's Metropolitan Sewerage Service Area). 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 1,976 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.



Wastewater characterization sampling

Enforcement Program

In FY14, TRAC issued a total of 217 early enforcement actions (Notices of Violations and Traps Warning Letters) to industrial and commercial facilities (compared to 250 in FY13), and 29 higher-level enforcement actions (Orders and Penalty Assessment Notices) issued in response to a variety of persistent discharge and reporting violations, compared to 70 in FY13. The lower number of enforcement actions is consistent with a drop in the number of SIUs that were in Significant Noncompliance. In addition, a decrease in the number of violations by permitted users resulted in fewer enforcement actions.

TRAC assessed a total of \$64,250 in penalties in FY14 against permitted sewer users (compared to \$226,440 assessed in FY13); three SIUs were assessed penalties totaling \$63,250, while two non-SIUs were assessed penalties totaling \$1,000. MWRA collected a total of \$120,450³ (compared to \$47,175 collected in FY13). 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.

³ Only a portion of the penalties assessed in FY14 were actually settled and collected during FY14. 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.

Program Cost Recovery

Staff have begun a review of the current Incentive and Other Charges program in Fiscal Year 2015 to determine if changes could enhance cost recovery of TRAC's expenses. Preliminary staff recommendations may include some small incremental across-the-board increases, as well as other minor modifications to permit charges as in previous years. Changes, if any, will be presented to the Board prior to any public notice and review, and will require changes to the Sewer Use Regulations.

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 FY14 was \$2,116,952, an increase from \$1,992,633 in FY13. As of September 2014, collections for FY14 bills were at \$2,091,769 (compared to \$1,970,547 in FY13), approximately a 99% recovery of the adjusted amount invoiced.

FY15 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.

EPA recently released a proposed rule that would regulate dental facilities with the potential to discharge mercury amalgam. Staff are reviewing this rule to evaluate its impact on the TRAC program. MWRA will provide comments to EPA on the proposed rule.

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:

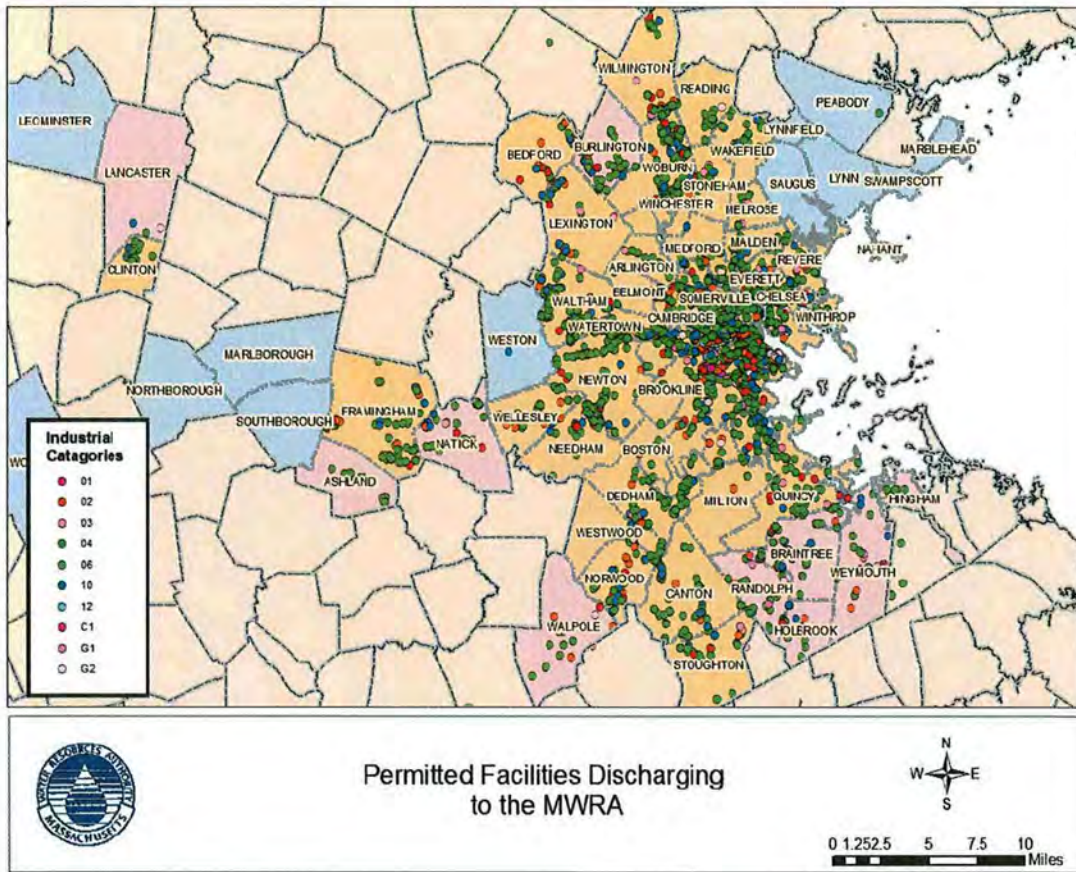
TRAC's FY14 Current Expense Budget was \$3.8 million, and based on the FY13 and FY14 average actual spending of \$3.4 million, TRAC recovered through Permit and Monitoring Fees and Penalties approximately 65% of its expenses (\$2,181,202), compared to 56% in FY13.

TRAC FY15 charges are 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 level until modified by changes to MWRA's regulations, as described above.

Attachment 1: Map of Permitted Facilities Discharging to MWRA

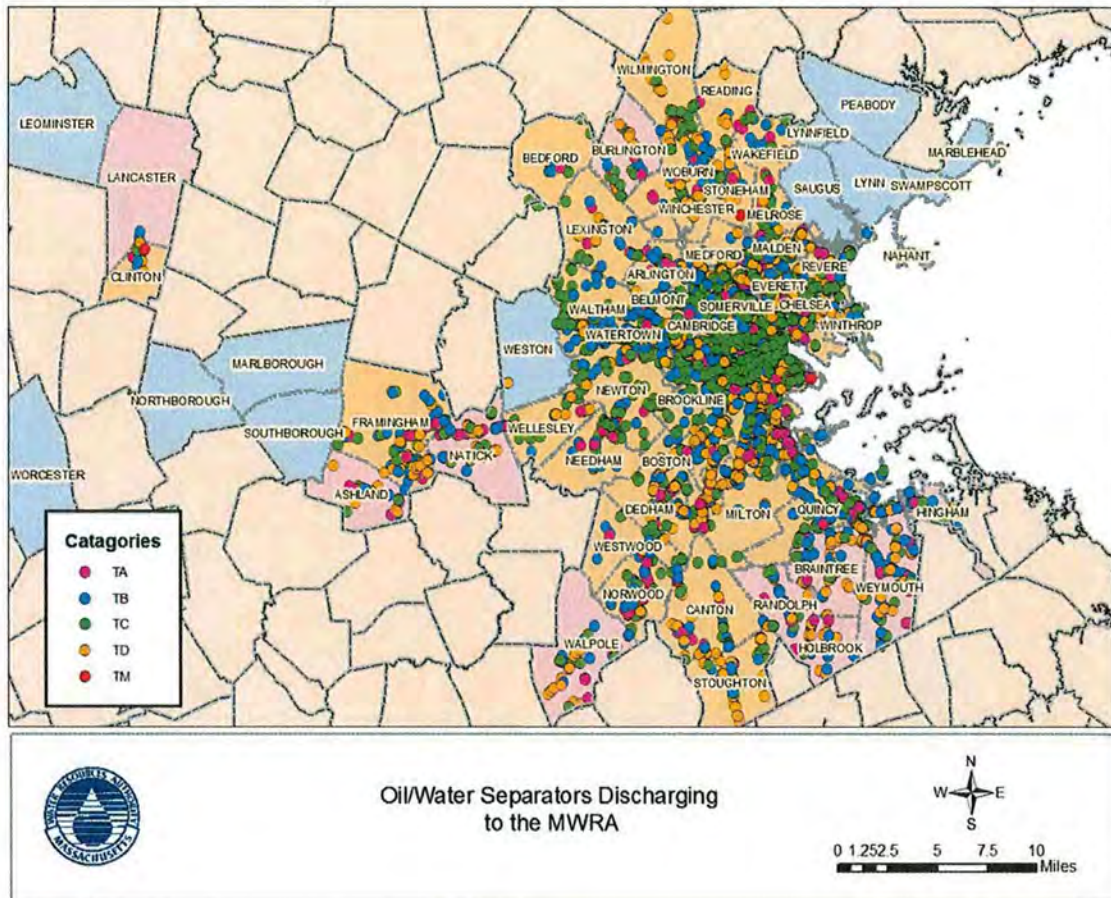
Attachment 2: Map of Oil/Water Separators Discharging to MWRA

Attachment 1



- 01: Facilities requiring pretreatment
- 02: Facilities with pollutants but pretreatment not required
- 03: Facilities with discharges with no pollutants
- 04: Federally regulated facilities with no discharge
- 06: Septage Haulers
- 10: Low Flow/Low Pollutant facilities
- 12: Construction dewatering in CSO areas
- C1: Facilities with Photo/Printing operations and Low Flow/Low Pollutant discharges
- G1: Photo developing/Printing facilities
- G2: Food Processing facilities

Attachment 2



TA: Traps at facilities with high volume oil changes (examples include quick lube, fleet repair, auto body shops, large vehicle sales, rentals, repairs)

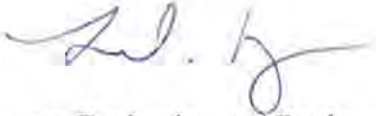
TB: Traps at facilities similar to TA examples but smaller operations (examples include service stations, vehicle repair shops with fewer than eight bays, machine shops)

TC: Traps at facilities where vehicles are stored (examples include parking garages, warehouses)

TD: Facility types that typically have floor drains to traps, but do not

TM: Traps at MWRA facilities


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 15, 2014
SUBJECT: Deer Island Treatment Plant Fire Alarm System Evaluation and Replacement Project Update

COMMITTEE: Wastewater Policy & Oversight

INFORMATION
 VOTE

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


Michael J. Hornbrook
Chief Operating Officer

The fire alarm system on Deer Island is one of the largest fire alarm systems in a single facility in the Commonwealth of Massachusetts. The existing system was installed under one contract as part of the Boston Harbor Project, but it was constructed in phases as buildings and facilities were completed and brought on line, beginning with the Administration/Laboratory Building in 1992 through approximately 2000. Parts of the system are more than 20 years old and certain replacement parts are no longer manufactured and cannot be purchased. MWRA will soon commence the design and construction of a complicated and expensive project to evaluate and replace a significant portion of the existing fire alarm system. This staff summary provides the Board with an update on the estimated costs and schedule for this project and discusses in broader detail some of the important issues related to the project.

RECOMMENDATION:

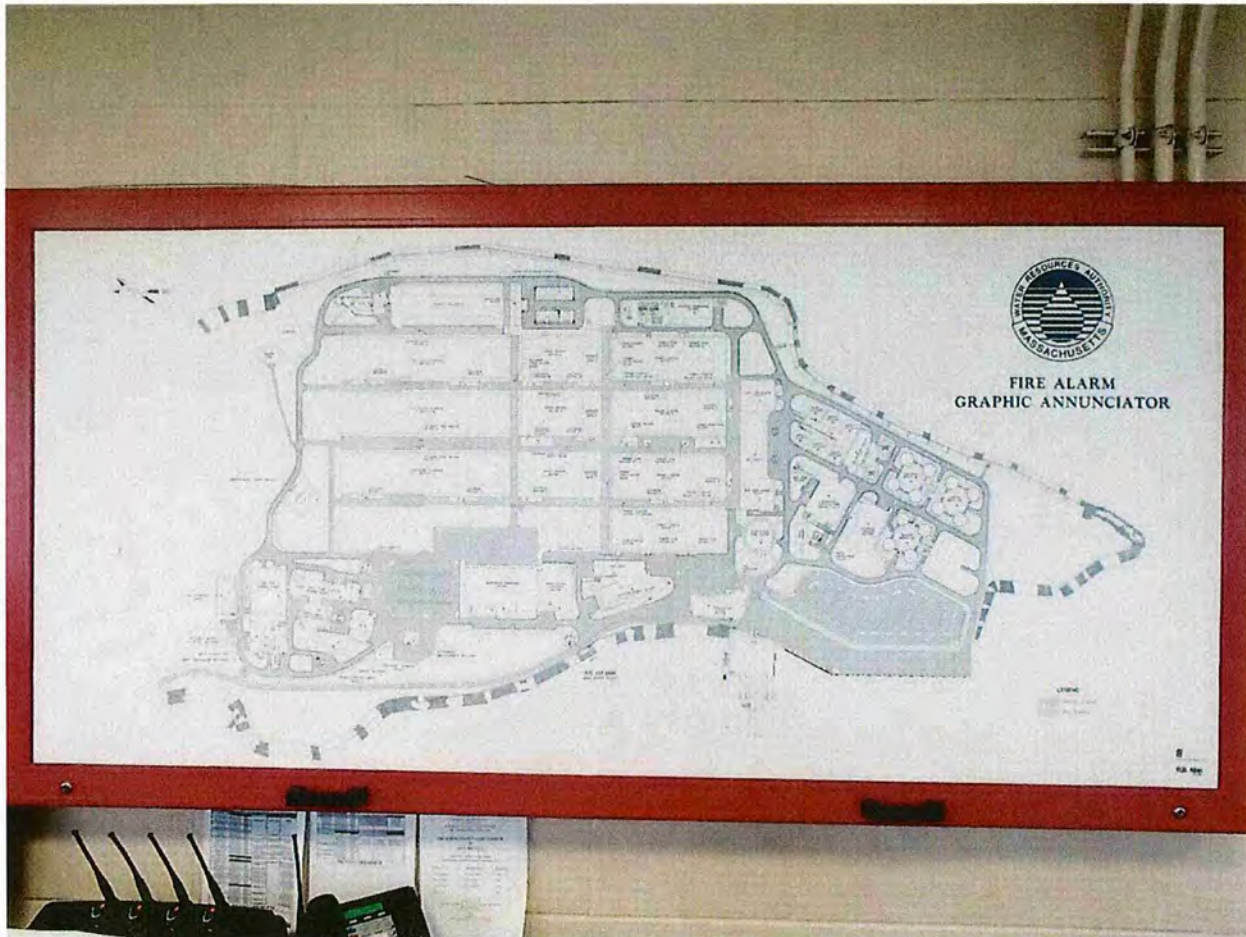
For information only.

DISCUSSION:

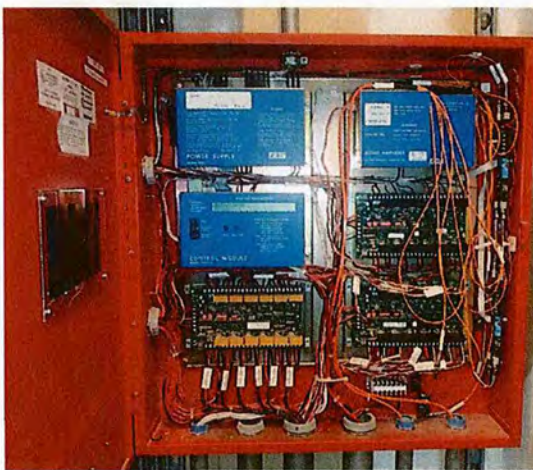
The Deer Island Treatment Plant is a massive complex consisting of 52 different buildings/facilities that are monitored for fires. Deer Island's fire alarm system consists of a central monitoring "front end," which is located in Primary Operations Building, a graphic annunciation panel located at the main gate guard house, 43 local fire alarm control panels, 3,000 initiating devices (heat and smoke detectors, strobes, horns, pull stations, etc.), a network of fire pumps and valves, fire suppression systems (Halon), and a redundant fiber optic communication loop.

The fire alarm control panels (at least one in each building) provide the communication link between each building to the front end. The alarm control panels send data through a redundant fiber optic network to the front end when an initiating device senses an abnormal condition (smoke, heat, fire, etc). In turn, the front end will initiate a general alarm that is sent to both the Winthrop and Boston Fire Departments.

The following picture depict some of the elements of Deer Island's existing fire alarm system:



Annunciator panel in the Guard Shack at Deer Island entrance that flashes light signals showing the specific location of the alarm



One of 43 control panels throughout Deer Island



One Halon fire suppression set-up in the Administration/Laboratory Building



One of numerous fire pumps located throughout Deer Island

The major elements of the fire alarm system, the front end and the control panels, contain a number of circuit boards that are no longer manufactured and staff are having difficulty locating sources for spare parts. The system cannot operate as designed if replacement parts are unavailable. The existing fiber optic cable utilizes a multi-mode, buffered, optical glass fiber cores. This cable was designed and utilized in the late 1980s early 1990s. Since that time, there have been significant improvements in fiber optic technology, which have greatly increased data transfer rates and decreased the supporting equipment required to transmit data across longer cable runs. Much of the cable system is 20 years old and may require replacement to ensure reliability in the future. The initiating devices are proprietary to each system's manufacturer and are not interchangeable so that all devices will likely need to be replaced. In addition, the National Fire Protection Association recommends the replacement of the existing smoke detectors.

Anticipated Next Steps

Staff are in the process of developing a Request for Proposals/Qualifications to competitively award a consultant contract to perform the following:

Develop a Preliminary Design Report that will include an assessment of the existing fire alarm system (including the fiber optic system) and provide conceptual options to be further investigated and detailed after MWRA review and approval. Tasks will include:

- Investigating different fire alarm manufacturers' systems to determine if open architecture is available to eliminate possible propriety issues in the future;
- Providing an assessment on the life/condition of the existing fiber optic system and determine if existing technological limitations (bandwidth and dB loss) can still be used with new systems/technology;
- Investigating and providing different options available for the replacement of the existing Halon fire suppression systems;
- Investigating the condition of the existing fire pumps to determine if any of the equipment can be eliminated if sufficient water pressure is available; and
- Determining what modifications are needed, if any, due to updated federal, state, or local fire/building codes.

Once a complete fire alarm system assessment is completed and staff have reviewed the Preliminary Design Report, staff will provide the Board with a further update. The selected consultant will provide a 30%, 60%, 90% and 100% design for the recommended fire alarm replacement project, as well as provide Engineering Services During Construction (anticipated to be approximately 42 months).

Staff estimate that the cost of design and construction oversight services would be approximately \$3.3 million and construction costs would be approximately \$15 million. The original cost for the installation of the existing fire alarm system on Deer Island was approximately \$13.3 million (1999 dollars), not including engineering and construction oversight services.

BUDGET/FISCAL IMPACT:

The FY15 Capital Improvement Program budget includes \$2.1 million for the design portion of this project (Contract 6904) and \$16 million for the construction phase (Contract 7051). Staff anticipate that future CIP submittals may be adjusted to reflect more accurate costs upon completion of the Preliminary Design Report and MWRA's recommendations.

ITEM POSTPONED

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 15, 2014
SUBJECT: Deer Island Treatment Plant Co-Digestion Program Update



COMMITTEE: Wastewater Policy & Oversight

 INFORMATION
 X VOTE

John P. Vetere, Deputy Chief Operating Officer
David F. Duest, Director, Deer Island WWTP
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To authorize: 1) the Executive Director to finalize negotiations on financing arrangements with the Massachusetts Executive Office of Energy and Environmental Affairs for the proposed Pilot Program facilities as substantially described in Discussion Section 1 of this staff summary; 2) staff to recommence the Co-Digestion Pilot Program utilizing barge receiving facilities at the Deer Island Treatment Plant; 3) the Executive Director to amend the existing Pilot agreement with Waste Management to supply Pre-Processed Source Separated Organics for a total supply contract period of three years in an amount up to 28 dry tons per day; and 4) staff to move forward with procuring professional services for design of permanent Co-Digestion facilities to help expedite the implementation of permanent Co-Digestion facilities on Deer Island utilizing barge transport. Staff will return to the Board to seek authorization to award the permanent Co-Digestion design contract.

BACKGROUND:

At the June 25, 2014 Board of Directors meeting, staff presented a comprehensive update on Co-Digestion and the benefits that could be realized by MWRA moving forward with a program at the Deer Island Treatment Plant. The original Pilot Program anticipated an economic benefit of \$2.1 million over three years of the pilot, exclusive of capital expenses, with the MWRA accepting from 7-21 dry tons per day (dtpd) of pre-processed source separated organics ("PSSO") in the form of a liquid slurry (similar in consistency to the picture to the right). The PSSO would be added to Deer Island's anaerobic digesters, producing more digester gas that would be beneficially used to produce additional heat and electricity for the facility offsetting operating expenses. Projections for a permanent and larger Co-Digestion Program at Deer Island predicted combined annual cost savings and estimated additional revenue of potentially up to \$5 million annually.



Facility construction on Deer Island to support the Pilot Program changed from receiving material via truck, at an estimated cost of between \$500,000-\$700,000, to the most recent alternative - barging, at an additional estimated incremental construction cost of \$2.3 million. Since June, staff have been working on alternative designs to identify the lowest cost option for on-island Pilot Program barging facilities and have been researching potential financing options. Preliminary discussions have been conducted with the Executive Office of Energy and Environmental Affairs, the Massachusetts Department of Environmental Protection, the Mass. Clean Energy Centers and Mass. Department of Energy Resources to obtain state funding assistance for the Pilot Program. This staff summary updates the Board on the financial discussion to date, the design recommended to move forward with Deer Island facilities to support this Co-Digestion Pilot Program and then recommends a course of action.

DISCUSSION:

Financial Discussions with State Agencies:

The state's organics waste ban went into effect October 1, 2014 and all commercial and industrial institutions that generate greater than one wet ton per week of organic waste now must divert the waste material from landfills and incinerators to more beneficial means, like composting or anaerobic digesters with green energy production. Only six wastewater treatment plants in the state have anaerobic digesters and Deer Island's digesters constitute 87% of the digester capacity in the state. Most of the treatment plants have conducted or are conducting co-digestion feasibility studies. Two treatment plants with anaerobic digesters have expressed an interest in possibly developing a Co-Digestion program. MWRA is the only one actively pursuing a pilot.



Staff have had discussions with the Executive Office of Energy and Environmental Affairs ("EOEEA"), the Massachusetts Department of Protection ("MassDEP"), the Massachusetts Clean Energy Center ("MassCEC"), and the Massachusetts Department of Energy Resources ("MassDOER") seeking additional financial assistance from the state for the barging option. Working collaboratively with EOEEA, MassDEP, MassCEC, and MassDOER, the proposed funding described below outlines how these agencies could provide up to \$1.9 million in funding to assist the MWRA in launching its Co-Digestion Pilot Program operation:

Grant from MassDEP (MassDOER ACP \$)	\$ 400,000
Reimbursement of documented expenses contained in grant agreement.	
Loan from MassCEC (RET)	\$ 240,000
Loan From MassDEP (SMRP Trust)	\$1,260,000

Loans would need to disburse funding under a contract with MWRA that identified expenses and established a payment schedule.

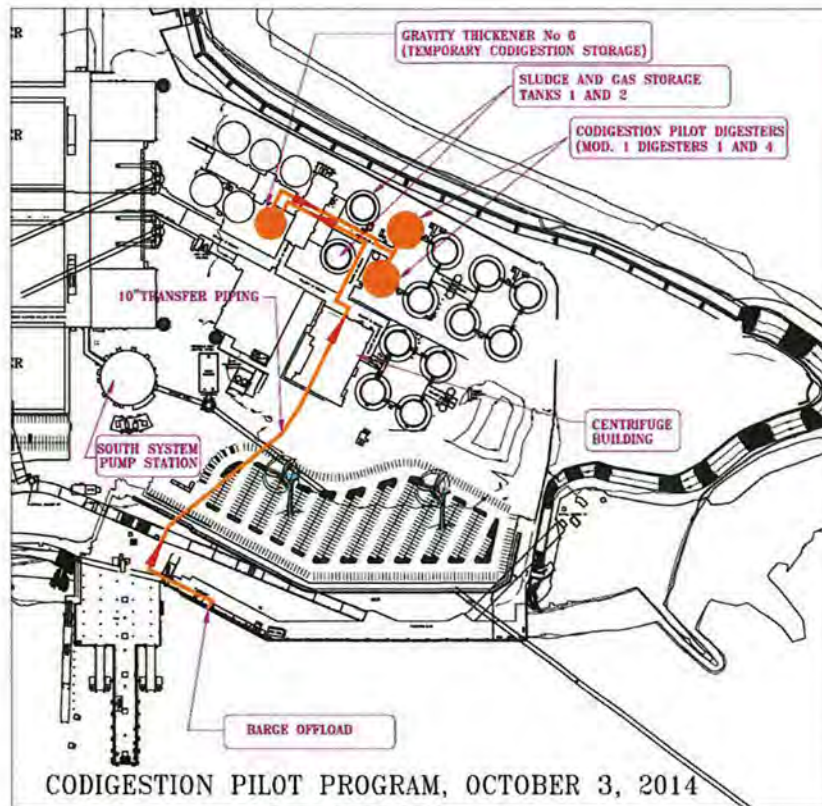
Conceptually the loans would be no interest, "non-recourse" loans meaning the loans or a portion thereof, wouldn't need to be repaid if the Pilot Program was deemed unsuccessful or was terminated due to negative impacts to the Deer Island Facility. Given MWRA projected average annual net cost savings under the Pilot (approximately \$700,000), a reasonable payback period on the \$1.5 million in loans would be five years with an average annual payment of \$300,000. This would be broken out into two payments representing the two separate loans (\$50,000 annually to MassCEC and \$250,000 annually to MassDEP until repaid). To ease administration, payments would be annual with a proration clause in case the pilot ceased prior to the five year loan duration. The annual payment could be smaller in the initial year if ramp up of the pilot tonnage was slower than anticipated. This would still leave MWRA with projected average annual net cost savings of \$400,000 annually for the Pilot Program.

The loan repayment terms could alternatively be structured as a percentage of net savings (the Commonwealth has recommend 50%).

Deer Island Treatment Plant (DITP) Co-Digestion Facilities:

Staff have been working on several alternatives for receiving pre-processed source separated organics ("PSSO") onto DITP via barge to help reduce the overall cost of the Pilot Program after a trucking plan was abandoned due to local opposition. Although barging was always envisioned for the long-term program, the move to barging this early significantly increases the construction cost impact of the Pilot. Staff estimate the incremental cost increase for barging facilities on Deer Island is approximately \$2.3 million. Receiving material via barge would require construction of a receiving connection at the DITP pier, a pipeline for the transfer of the PSSO from barge to storage facilities, then construction of a digester feed-in station. The largest single expense, PSSO storage, was evaluated with multiple options. When trucking was first considered, a 60,000 gallon existing decommissioned wet well was planned to be repurposed for use in the Pilot Program. When barging became the only viable transportation method, much greater volumes of material with fewer deliveries created a volume shortage in the initially planned storage area on Deer Island. Options such as reuse of other existing tankage versus installation of temporary tanks on Deer Island were considered. Staff evaluations determined that using existing tankage in Deer Island's gravity thickener area was the most cost effective option for PSSO storage for the Pilot Program.

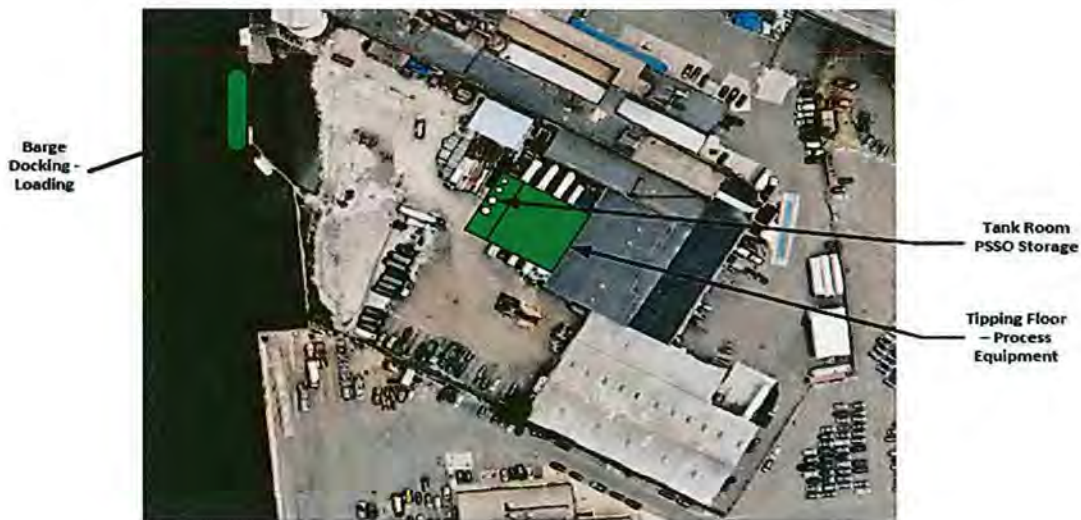
Equipment previously purchased under the original Pilot Program design, with the bulk of the funding provided by the state, will be used to construct the digester feed-in station. A schematic of the proposed barge offload, pipeline, PSSO storage and feed-in station is depicted on the following page.



The bulk of the design and construction efforts for the Pilot Program would be performed utilizing in-house staff. The equipment list and estimated costs for the barging option are included in Attachment A. A significant portion of these Pilot Program facilities could be utilized for a permanent Co-Digestion Program. Staff estimate the Pilot Program system could be on-line as early as next summer with concentrated efforts on finalizing the design, procuring the equipment and constructing the system.

Contract with Waste Management:

On December 23, 2013, MWRA entered into a no-cost agreement with Waste Management of Massachusetts (Waste Management) to deliver pre-processed, source separated organic material ("PSSO") to the anaerobic digesters at DITP for a contract term from the Notice to Proceed date through June 1, 2015, with two consecutive one-year options pending Board approval. The cost of material collection, cleanup, pre-processing and delivery of the material to DITP was to be fully funded by Waste Management, presumably paid for by consumer tipping fees paid for waste pickup and disposal services. The contract specified the material would be delivered to DITP via truck. Waste Management has sited and permitted a pre-processing facility, ready for construction to begin at 200 Terminal Street, Charlestown (site depicted below). Waste Management estimates construction could take six months to reach substantial completion and commissioning.



Even with the change in transportation method of PSSO to barging, Waste Management has maintained interest in continuing the Pilot Program. Waste Management, however, has found the impact of barging on its finances to be substantial, on the order of \$2.5 million above and beyond the costs expected under its original agreement with MWRA. Waste Management has tried to seek mitigation to defray some of these costs through their own discussions with MassDEP and later with MWRA. MWRA has not offered Waste Management any funding. In lieu of any direct funding, Waste Management has asked MWRA for consideration of other ways to help justify its increased costs due to barging.

Waste Management has requested an increase in the Pilot supply agreement terms to a 3-5 year period minimum. MWRA staff recommend revising the existing Pilot agreement duration of a contract supply duration of one year with two one-year options to a three year supply agreement (retaining all contingency and cancellation clauses should a problem arise) from the date that the first organics are delivered to Deer Island.

In addition, Waste Management has requested that the maximum PSSO quantities for the Pilot Program be increased from 21 dtpd to 28 dtpd. With barge delivery, it is more economical to deliver larger quantities of the PSSO compared to trucking. Increased quantities of the PSSO would provide the potential for larger cost savings for MWRA. If 28 dtpd were utilized for the Pilot the net economic benefit to MWRA would increase in the second and third years by an additional approximately \$280,000 per year. The requested quantities are consistent with MWRA's original intent of the Pilot Program of testing various and increasing feed rates to the digesters while limiting the Pilot to two test digesters. Staff recommend that that the Pilot Program supply agreement also be revised to reflect up to 28 dtpd.

Permanent Co-Digestion Program – Preliminary Design

A permanent Co-Digestion Program, scaled to receive up to 70 dtpd of material could provide substantial savings in operating costs should MWRA decide to move forward with the program. The updated feasibility cost benefit models predict \$2.3 million in net annual savings with a potential \$2.7 million in additional non-rate revenue assessed for tipping fees for a total net annual benefit of \$5 million. These projected savings and revenues were outlined to the Board at the June 25, 2014 Board meeting. Given the major financial benefit to the MWRA, staffs recommend that it is prudent, on a

parallel path to the above actions, to initiate a design contract for permanent co-digestion facilities on Deer Island. This design contract will take six months to initiate and will produce a 30% design to confirm construction costs. Staff will return to the Board at the 30% design with updated costs and schedules and a recommendation to complete the design and construction either through design/build or the more traditional Chapter 149 procurement process.

Town of Winthrop

MWRA staff will hold a meeting with residents of Winthrop on October 22, 2014 to provide an update on co-digestion and to discuss any other Deer Island related issues.

BUDGET/FISCAL IMPACT:

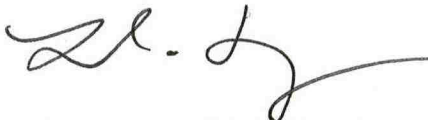
The original cost estimate for the Pilot Program utilizing trucking was \$500,000 to \$700,000 of which \$500,000 is committed to date. The FY15 approved CIP includes \$250,000 for the Pilot Program. The receipt of \$300,000 in grants from the State funded 60% of the original project.

The current additional construction costs for receiving food waste material by barge for MWRA is estimated at approximately \$2.3 million (including a 20% contingency). As previously discussed, the state has proposed funding assistance for the Pilot program of \$1.9 million. The total anticipated economic benefit from the three-year Pilot Program is approximately \$2.1 million (which could increase to \$2.6 million if the pilot was expanded to receive a maximum of 28 dtpd of PSSO) and offsets the capital costs of the Pilot Project. The total predicted annual benefit from the long-term permanent Co-Digestion Program is approximately \$5 million. The permanent co-digestion program facilities are estimated to cost \$5 million. Any capital cost increase in the Pilot or Permanent programs will be absorbed within the approved 5-year CIP spending cap.

**Massachusetts Water Resources Authority
Deer Island Treatment Plant
Co-Digestion Expenses due to Barging
Attachment A**

Item	Unit	QTY	Unit Price	Labor	Extended Price	Assumptions/Notes
Gravity Thickener Area						
6-inch pipe and fittings	LF	300	\$63.30	\$0.00	\$18,990.00	
8-inch pipe and fittings (in building)	LF	200	\$80.00	\$0.00	\$16,000.00	
10-inch pipe and fittings	LF	950	\$108.65	\$0.00	\$103,217.50	
12-inch pipe and fittings	LF	50	\$200.00	\$0.00	\$10,000.00	
18-inch pipe and fittings	LF	30	\$425.00	\$0.00	\$12,750.00	
12-inch plug valves	EA	4	\$2,000.00	\$0.00	\$8,000.00	
12-inch check valves	EA	2	\$1,800.00	\$0.00	\$3,600.00	
14-inch plug valves	EA	4	\$3,250.00	\$0.00	\$13,000.00	
Mixing Pumps	EA	2	\$100,000.00	\$0.00	\$200,000.00	8,000gpm @ 50ft; 200hp; centrifugal chopper Complete system, including materials and contract labor for welded pipe.
Heat Exchanger and associated piping	Lot	2	\$175,000.00	\$0.00	\$350,000.00	
Pipe Hangers	Lot	1	\$75,000.00	\$0.00	\$75,000.00	
Tank Coating	Lot	1	\$100,000.00	\$200,000.00	\$300,000.00	
Demolition of Gravity Thickener Equip.	Lot	1	\$50,000.00	\$0.00	\$50,000.00	Includes rigging costs
8-inch flow meter for mixing system	Lot	1	\$2,500.00	\$0.00	\$2,500.00	
pressure and flow switches for mixing	EA	12	\$1,000.00	\$0.00	\$12,000.00	
VFDs for mixing pumps	EA	2	\$7,500.00	\$0.00	\$15,000.00	
Coring	Lot	1	\$0.00	\$3,000.00	\$3,000.00	
Rigging	Lot	1	\$0.00	\$10,000.00	\$10,000.00	
Temp Pre-Engineering Bldg	Lot	1	\$150,000.00	\$0.00	\$150,000.00	
Subtotal by Area					\$1,353,057.50	71%
Pier Facility						
Pier Duct Bill Repair (remove built up sand)	Lot	1	\$1,000.00	\$4,000.00	\$5,000.00	
4" Backflow Preventer	Lot	1	\$12,000.00	\$0.00	\$12,000.00	To replace existing one at pier damaged by freezing.
Repair Pier Water Building Doors and wall repair	Lot	1	\$5,000.00	\$10,000.00	\$15,000.00	
Monorails at barge unloading	EA	2	\$2,000.00	\$13,000.00	\$17,000.00	Used to lift hose
Electrical Repairs for Cranes	Lot	1	\$2,000.00	\$10,000.00	\$12,000.00	
Replace Pier Building Vent Damper	Lot	1	\$1,000.00	\$0.00	\$1,000.00	
Repair Pier Lighting	Lot	1	\$1,000.00	\$0.00	\$1,000.00	
14" Pier Offloading Hoses	EA	2	\$10,000.00	\$0.00	\$20,000.00	
Repair Steel support for wood piles from pier	Lot	1	\$10,000.00	\$40,000.00	\$50,000.00	
Pile maintenance (coat top of piles)	Lot	1	\$500.00	\$1,500.00	\$2,000.00	
New pigging system	Lot	1	\$15,000.00	\$0.00	\$15,000.00	
Pier Sump Pump Replace	Lot	1	\$5,000.00	\$0.00	\$5,000.00	
Electrical for Sump Pump Replacement	Lot	1	\$5,000.00	\$0.00	\$5,000.00	
Subtotal by Area					\$160,000.00	8%
Flushing System						
W2 booster pump	Lot	1	\$16,000.00	\$0.00	\$16,000.00	300gpm; 75hp, centrifugal
New Electrical for booster pump 96 amp 460V 3Ph	Lot	1	\$4,500.00	\$0.00	\$4,500.00	
Heat Tape System	LF	600	\$84.00	\$0.00	\$50,400.00	For W2 and San piping
Electrical feed for Heat Tape System	Lot	1	\$6,500.00	\$0.00	\$6,500.00	
New W2 Pipe 4" diameter	LF	300	\$25.00	\$0.00	\$7,500.00	
New San Pipe 6" diameter	LF	300	\$30.00	\$0.00	\$9,000.00	
Electrical Repairs replace corroded conduit supports	Lot	1	\$1,000.00	\$0.00	\$1,000.00	
Subtotal by Area					\$94,900.00	5%
Buried piping						
Asphalt and Curb materials	Lot	1	\$10,000.00	\$0.00	\$10,000.00	
10-inch pipe and fittings (buried)	LF	2000	\$108.65	\$0.00	\$217,300.00	two-10" lines
10-inch pipe and fittings (in building)	Lot	1	\$60,000.00	\$0.00	\$60,000.00	
Subtotal by Area					\$287,300.00	15%
Misc Areas						
conduit	Lot	1	\$5,000.00	\$0.00	\$5,000.00	
wire	Lot	1	\$15,000.00	\$0.00	\$15,000.00	
Subtotal by Area					\$20,000.00	1%
					Overall Sub-Total:	\$1,915,257.50
					20% contingency:	\$383,051.50
					20 Percent Contingency Total:	\$2,298,309.00

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 15, 2014
SUBJECT: Charles River Pollution Control District Petition on NPDES Co-Permittees

COMMITTEE: Wastewater Policy & Oversight

Carolyn M. Fiore, Deputy Chief Operating Officer
 Christopher John, Sr. Staff Counsel
Betsy Reilley, Ph.D., Director, Environmental Quality
 Preparer/Title

INFORMATION

VOTE


 Stephen A. Remsberg

General Counsel


 Michael J. Hornbrook

Chief Operating Officer

The Charles River Pollution Control District (CRPCD) recently received its final¹ National Pollutant Discharge Elimination System (NPDES) permit, which was issued to it and four co-permittees, the Towns of Medway, Bellingham, Franklin and Millis, CRPCD's satellite communities. The four Towns, along with Upper Blackstone Water Pollution Abatement District, are appealing the co-permittee provisions. MWRA received co-permittee language for the Town of Clinton and the Lancaster Sewer District in a draft NPDES permit for its Clinton Wastewater Treatment Plant (CWWTP). Staff are seeking approval to provide limited financial support to the on-going appeal of the CRPCD permit in support of the appellants attempt to invalidate the co-permittee provisions. The MWRA Advisory Board also agreed to provide financial assistance for the appeal. Staff believes it is in MWRA's best interests to participate in this case now to improve the chance that this EPA permitting approach will be struck down before it can be more widely implemented either with MWRA's Clinton or Deer Island permits.

RECOMMENDATION:

To authorize the Executive Director to provide financial support in an amount not to exceed \$10,000 to mitigate the legal costs associated with the support of an appeal by the co-permittees, the Towns of Bellingham, Franklin, Millis and Medway, along with Upper Blackstone Water Pollution Abatement District, challenging EPA's authority to designate co-permittees in the Charles River Pollution Control District's NPDES permit. The National Association of Clean Water Agencies ("NACWA") also plans to file an *amicus curiae* brief, as there are national implications for the wastewater industry.

¹ Leominster received the first final NPDES permit with this co-permittee language, but since no comments were submitted on the draft permit, there is no mechanism to appeal these requirements. The Charles River Pollution Control District draft permit had many comments submitted, therefore this permit provides the first opportunity to appeal this language.

BACKGROUND:

The Charles River Water Pollution Control District (CRPCD) is a centralized POTW that receives and treats wastewater from the Towns of Medway, Bellingham, Franklin and Millis. On July 23, 2014, the U.S. Environmental Protection Agency (EPA) and the Commonwealth of Massachusetts (DEP) issued a final NPDES permit to CRPCD and listed CRPCD's four satellite communities as co-permittees. A satellite community owns and maintains a wastewater collection system but does not have its own wastewater treatment facility with a point source discharge to a Water of the United States. Like MWRA's NPDES permit for the Deer Island Wastewater Treatment Plant, CRPCD's prior NPDES permits were issued by EPA solely to CRPCD. The co-permittee language provides EPA direct enforcement authority over the satellite communities for sewer collection system operation and maintenance activities that had previously been the purview of state and local agencies.

Currently, DEP has the authority to regulate satellite wastewater communities for inflow/infiltration (I/I) and operation and maintenance activities (O&M) under recently updated state regulations. EPA does not have the legal authority to impose I/I and O&M requirements on the satellite wastewater communities unless there is a Clean Water Act violation, *i.e.*, sanitary sewer overflow (SSO), which results in an unauthorized discharge to the Waters of the U.S. Inclusion of co-permittee requirements in the CWWTP or DITP NPDES permits would allow EPA to take direct action against satellite communities related to I/I and O&M requirements.

In 2008, EPA attempted to put similar language in the Upper Blackstone Water Pollution Abatement District (UBWPAD) permit, which was appealed and eventually remanded by the Environmental Appeals Board (EAB). In the remand, the EAB required EPA demonstrate their legal authority. EPA chose to remove the co-permittee language from the UBWPAD permit and issued a final modified permit in April 2009 without the co-permittee language. EPA subsequently developed a legal rationale "EPA REGION 1 NPDES PERMITTING APPROACH FOR PUBLICLY OWNED TREATMENT WORKS THAT INCLUDE MUNICIPAL SATELLITE SEWAGE COLLECTION SYSTEM." EPA now attaches its legal rationale to draft and final NPDES permits that it issues which include co-permittee language.

MWRA received similar co-permittee language in a draft permit for its Clinton Wastewater Treatment Plant (CWWTP) and staff submitted comments objecting to these requirements in October and November 2013. EPA has not yet responded to MWRA's comments nor has it issued a final NPDES permit for the CWWTP. MWRA has not received a draft NPDES permit for DITP, but anticipates that all 43 of its satellite wastewater communities will be included as co-permittees unless the EPA's regional approach is not upheld through the administrative or judicial appeal process.

DISCUSSION:

MWRA staff and others believe that EPA is not authorized under the CWA, 33 U.S.C. § 1251 *et. seq.* and the Code of Federal Regulations governing EPA's NPDES program to include satellite systems as co-permittees. The legal rationale upon which EPA now relies: 1) fails to identify language in the Clean Water Act that allows EPA to extend its reach into the community collection systems; 2) fails in its defense of categorizing discharges from municipal sewer systems as "direct discharges" (33 U.S.C. § 1317 of the CWA) requiring NPDES permits; and,

3) fails to provide potentially impacted entities "due process" in that it amounts to a new rule, and EPA has not followed the proper procedures necessary for such rulemaking as described in the Administrative Procedures Act (APA).

Staff do not dispute the need for I/I control or proper O&M by individual communities, but object to adding co-permittees in its NPDES permits for the following reasons:

- EPA is overstepping its authority. Co-permittees are not point source dischargers to a water of the US and therefore are not subject to the CWA requirements. In addition, co-permittees did not apply for a NPDES permit and did not agree to be subject to NPDES permit requirements, but were added to the NPDES permit by EPA anyway;
- Enforcement could lead to penalties, Administrative Orders, and costly requirements which may overburden communities with layers of requirements, deadlines, compliance schedules, construction costs, etc;
- A community failure to comply with the co-permittee requirements would result in the NPDES permit, as well as the POTW, such as MWRA, as being in non-compliance until the non-compliance is addressed;
- Future NPDES permits could add more costly requirements; and
- MWRA might have to take an active role in directing communities on how and where to spend I/I money and implement collection system O&M.

EPA issues draft NPDES permits to facilities that have point source discharges to the environment. Upon issuance of a draft permit, the permittee and the public have an opportunity to submit comments (generally within 30 days). EPA reviews these comments, generates responses, and issues a final permit. Any party that filed comments may appeal the permit by filing a petition with the Environmental Appeals Board (EAB). Another party may file an *amicus* brief with the Appeals Board, but must do so no later than fifteen days after EPA files its response brief to that appeal. The Appeals Board is the final Agency decision maker on administrative appeals. The Board typically sits in panels of three judges and makes decisions by majority vote.

EPA issued the final permit to CRPCD and its satellite communities on July 23, 2014. All four of the communities as well as UBWPAD, represented by Counsel, filed a petition to appeal the permit on August 27, 2014. EPA had a 30-day period to respond to the petition, which they did on September 26, 2014. NACWA has indicated that it will submit an *amicus* brief on the issue as well, by the October 14, 2014 deadline. The EAB will determine if it will grant oral argument (and it is expected they will grant this), and if so, oral argument will likely be in the December 2014 - January 2015 time frame.

Bowditch and Dewey have been retained to file the petition on behalf of the Upper Blackstone Water Pollution Abatement District and the four listed communities to appeal the co-permittee provisions which were included in the Charles River Pollution Control District (CRPCD) National Pollutant Discharge Elimination System (NPDES) permit. Only the CRPCD permit allows an opportunity to petition against the co-permittee requirements².

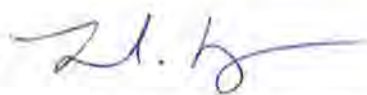
² Leominster Water Pollution Control Facility and Mansfield-Foxboro-Norton Regional Water Pollution Control Facility NPDES permits also contained co-permittee language but no comments were submitted on the drafts related to the co-permittee issue so there is no opportunity to appeal those final permits.

Challenging these requirements now, before EPA issues a large number of permits with this language and establishes legal precedent, will benefit MWRA and its member communities. MWRA will be able to review draft appellate documents and provide input into the active appeal. If the co-permittee requirements are remanded or rejected for the CRPCD permit, MWRA should not have to contend with them in its NPDES Clinton and/or Deer Island permits. If they are upheld, MWRA will have the opportunity to evaluate the effectiveness of the challenge, and then to tailor our own legal challenge should that be necessary. Assisting with this appeal will help ensure it goes through the full legal process: CRPCD member communities have indicated that without financial assistance for the legal costs, they would be forced to accept the permit as is, and/or curtail the challenge earlier than they will with additional financial support.

BUDGET/FISCAL IMPACT:


The FY15 Current Expense Budget includes sufficient funds for the proposed expenditure.


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 15, 2014
SUBJECT: Approval of One New Member of the Wastewater Advisory Committee

COMMITTEE: Wastewater Policy & Oversight

INFORMATION
 VOTE


Wendy Leo, Senior Program Manager
Preparer/Title


Kevin A. McCluskey
Director, Public Affairs

RECOMMENDATION:

To approve the addition of one new member, Mr. Travis Ahern of the MWRA Advisory Board staff, to the Wastewater Advisory Committee.

DISCUSSION:

The Wastewater Advisory Committee (WAC) was created in 1990 to offer independent recommendations on wastewater programs and policies; it is a successor to the Facilities Planning Citizen Advisory Committee, which was established during the planning of the new Deer Island Treatment Plant. WAC's members include citizen advocates, representatives from the Metropolitan Area Planning Council, watershed associations, the engineering and business communities, and the science and education fields. The Advisory Board appoints a member as well.

WAC elects its chairman and employs an Executive Director (selected by WAC's membership with the concurrence and approval of MWRA's Public Affairs Department). WAC's current chairman is Stephen Greene and WAC's current Executive Director is Andreae Downs.

The current Agreement between WAC and MWRA for FY15, which was approved by the Board on June 4, 2014, provides that WAC shall have a maximum of twenty members approved by MWRA's Board of Directors; the Agreement prohibits alternates or designees.

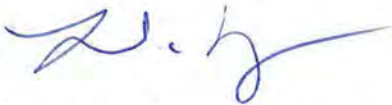
The current twelve members on WAC are: Mary Adelstein, citizen advocate; Craig Allen, Commonwealth Research Group, Inc.; Wayne Chouinard, Town of Arlington DPW; Zhanna Davidovitz, Massachusetts Institute of Technology; Stephen Greene (WAC Chairman), Howland-Greene Consultants; Taber Keally, Neponset River Watershed Association; Karen Lachmayr, Harvard University; Beth Miller, independent engineer; Martin Pillsbury, Metropolitan Area Planning Council; Elie Saroufim, Boston Water & Sewer Commission; Vincent Spada, Woodard & Curran; Dan Winograd, Woodard & Curran.

In accordance with the current Agreement, the MWRA Advisory Board has appointed, and WAC unanimously nominated, the following individual for membership at its last meeting:

Travis Ahern

Mr. Ahern is the Finance & Policy Analyst for the MWRA Advisory Board, where he reviews and analyzes MWRA budgets, program performance and related policies. He earned a Master's in Public Administration from Northeastern University and a Bachelor of Arts degree from Hobart College, with a focus on Political Science and Public Policy. Following four years in the private sector working for a financial institution in Boston he transitioned to the public sector as a Financial Analyst for the Town of Weston, where he worked for three years, before arriving at the Advisory Board.


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 15, 2014
SUBJECT: Supply and Delivery of Sodium Hypochlorite to the Deer Island Treatment Plant
Borden & Remington Corporation
WRA-3906

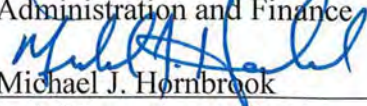
COMMITTEE: Wastewater Policy & Oversight

INFORMATION

VOTE


Rachel C. Madden, Director
Administration and Finance

David F. Duest, Director, Deer Island WWTP
Michele S. Gillen, Deputy Director, Administration and Finance
Preparer/Title

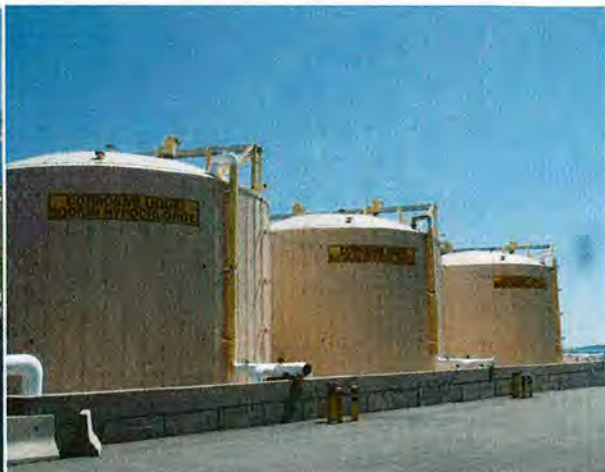

Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the award of Purchase Order Contract WRA-3906, 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 \$1,041,757.83 for a period of one year, from November 17, 2014 through November 16, 2015.

DISCUSSION:

Sodium hypochlorite is a combination of chlorine and caustic soda. MWRA uses sodium hypochlorite at the Deer Island Treatment Plant primarily to disinfect the plant's effluent. It is also used in the plant's non-potable process water system and in the odor control system.



As can be seen from the pictures on the previous page, sodium hypochlorite is currently stored in three large tanks, each 30 feet high and 40 feet in diameter, with a capacity to hold 250,000 gallons. Deer Island's total storage capacity is one million gallons (a fourth tank is presently not used as there is sufficient capacity in the three tanks shown). To avoid degradation of product, staff can meet treatment needs by utilizing two of the three storage tanks on a rotating basis.

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 are unit cost and availability. The most common and widely available strength is 15% solution. In previous contracts, MWRA has purchased both 15% and 19% solution. Although the unit cost for 19% is higher, the net result is less volume is needed to achieve the desired treatment results and 19% has proven to be more cost-effective when comparing actual chlorine content.

Procurement Process

Bid WRA-3906 was advertised in the Boston Herald, Central Register, Goods & Services, Dodge Reports, El Mundo, and Banner Publications. In addition, bids were made available for public downloading on MWRA's e-procurement system and potential bidders were notified of the bid opportunity.

On September 19, 2014, sealed bids were received from four vendors with the following results:

Borden & Remington Corporation	Estimated Gallons	Percentage Solution	Unit Price Per Gallon	Extended Bid Price
	2,200,000	15% Solution	\$0.5031	\$1,106,820.00
	1,736,842	19% Solution	\$0.5998	\$1,041,757.83
	1,650,000	20% Solution	No Bid	No Bid
JCI Jones Chemicals, Inc.	Estimated Gallons	Percentage Solution	Unit Price Per Gallon	Extended Bid Price
	2,200,000	15% Solution	\$0.4912	\$1,080,640.00
	1,736,842	19% Solution	No Bid	No Bid
	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	\$0.5977	\$1,314,940.00
	1,736,842	19% Solution	No Bid	No Bid
	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	\$1.05	\$2,310,000.00
	1,736,842	19% Solution	\$1.33	\$2,309,999.86
	1,650,000	20% Solution	\$1.40	\$2,310,000.00

Vendors were given the option to provide a unit bid price for any of the three available grades of sodium hypochlorite. Under the current contract with JCI Jones Chemicals, Inc., which expires

on November 16, 2014, MWRA is paying a fixed price of \$0.5173 per gallon for 15% solution. Compared to the existing contract, the cost per gallon price is increased by \$0.0825. However, by purchasing the sodium hypochlorite at the higher concentration of 19%, the estimated required quantity is reduced by 463,158 gallons, or an annual reduction of \$96,302.17 compared to the existing contract. Staff have been assured by Borden & Remington that it will have no problem providing MWRA with 19% solution throughout the contract term. 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.

The caustic soda market has historically been one of extreme volatility. However, this year, experts consider the current market conditions for caustic soda as stable. Purchasing staff contacted Borden & Remington Corporation and were informed that the overall raw materials costs have not changed in the past year. The company attributes this year's cost savings to a rise in the level of competition between the two producers that sell raw materials used to make sodium hypochlorite. Although the market is presently stable, because of the more typical volatility of the market, vendors are reluctant, and often unwilling, to lock in bid pricing for more than one year at a time.

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 for the first portion of this contract in the FY15 Current Expense Budget. Appropriate funding will be included in the Proposed FY16 CEB request for the remaining term of the contract.

MBE/WBE/PARTICIPATION:

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

STAFF SUMMARY

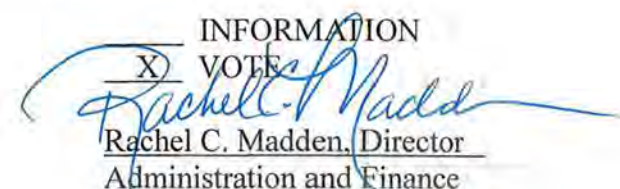
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 15, 2014
SUBJECT: Thermal/Power Plant Boiler Management System Upgrade
Deer Island Treatment Plant
O'Connor Corporation
Contract 7401



COMMITTEE: Wastewater Policy & Oversight

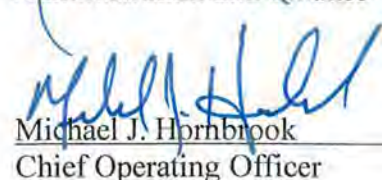
INFORMATION

VOTE



Rachel C. Madden, Director
Administration and Finance

David F. Duest, Director, Deer Island WWTP
Phillip Szottfried, Program Manager, I&C
Richard J. Adams, Manager, Engineering Services
Preparer/Title



Michael J. Hornbrook
Chief Operating Officer

Last month, staff presented an informational staff summary to the Board on future plans for a new combined heat and power system at Deer Island, which would optimize generation and use of digester gas to generate heat and significantly more power per unit of fuel than the current system in the Thermal/Power Plant. Discussion of Deer Island's two high-pressure boilers was included in that update. A combined heat and power system would have an overall design and construction schedule of five to seven years. In the interim, critical components of the current 18-year-old boiler management system require replacement due to obsolescence and the inability to acquire replacement parts. Contract 7401 is critical to keeping the existing boilers operating reliably until their possible replacement.

RECOMMENDATION:

To approve the award of Contract 7401, Thermal/Power Plant Boiler Management System Upgrade, Deer Island Treatment Plant, to the lowest responsible and eligible bidder, O'Connor Corporation, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$1,591,952 for a contract term of 730 calendar days from the Notice to Proceed.

DISCUSSION:

The Thermal/Power plant on Deer Island contains two high-pressure boilers that have been in service since 1998. These boilers generate high-pressure steam that is used for facility and process heating. The steam produced is also used to power the 18-megawatt steam turbine and the 1.2-megawatt back-pressure turbine, which are used for electrical generation. Electric power

produced by the steam turbines is used on Deer Island, decreasing the amount of purchased electricity. The combined estimated cost savings from these systems at current power pricing is approximately \$10,000 per day. Both boilers can be fired with digester gas (methane), #2 diesel fuel oil, or a combination of both.

Contract 7401 will provide for the replacement of the boiler management system for the two high-pressure boilers. The existing boiler management system is 18 years old and is at the end of its useful life. Staff can no longer attain parts for the control system so maintenance and ensuring the uninterrupted and optimal operation of the boilers is becoming an increasingly difficult challenge.

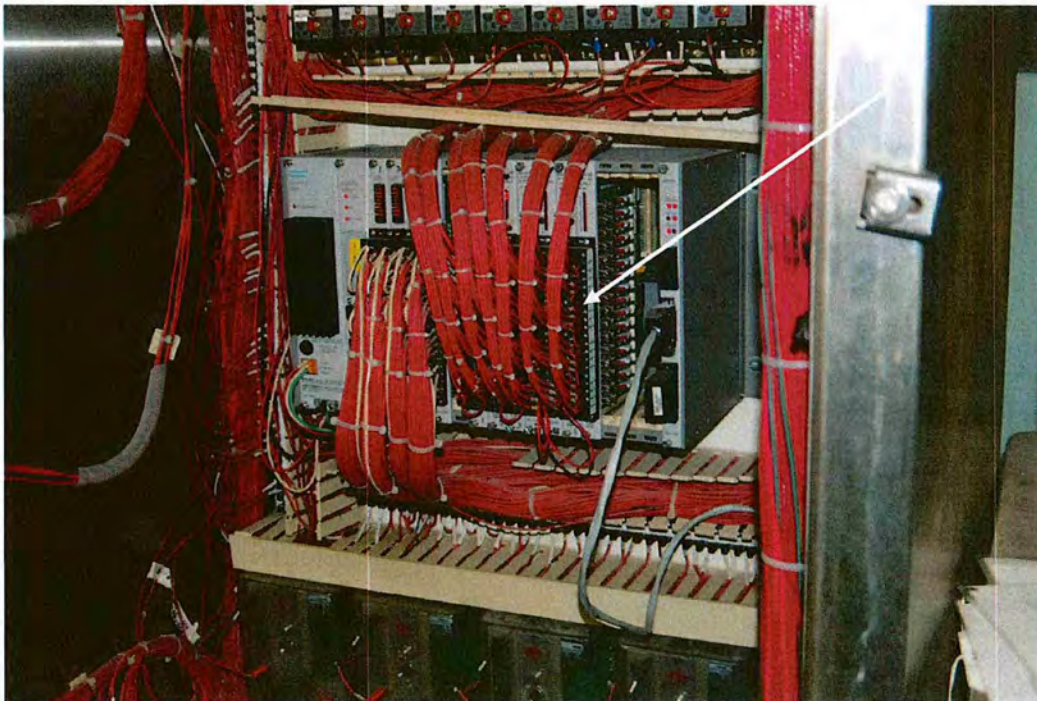
There are two boiler management systems, one for each boiler. Each boiler management system includes the controls, a gas train, fuel oil and atomizing control valves, and an actuator for the boiler force draft fans. The modulating control valves vary the flow of gas or oil to the boiler burners while the steam atomizing valves mix steam and oil to produce a spray of finely atomized oil, which is required to maximize the combustion process in the boiler. In addition the actuators, which control air flow into the boiler combustion chamber will be replaced with new pneumatically controlled actuators. The following pictures provide some examples of components of the boiler management systems that will be replaced:



Digester control valves and actuators – a total of four; two for each boiler (shown is mid-level of boilers) will be replaced because of low-flow instability; the new valves will operate more accurately and efficiently, and with better range at low flows.



The fan inlet damper drives (one for each boiler) need to be replaced due to obsolescence – replacement parts are not available. New damper drives will restore accuracy of air flow and boiler efficiency and performance.



The programmable logic controllers (one for each boiler) must be replaced. The input/output boards are no longer manufactured

Procurement Process

Contract 7401 was advertised and bid in accordance Chapter 149 of the Massachusetts General Laws. Bids were opened on August 28, 2014 with the following results:

BIDDERS	BID PRICE
O'Connor Corporation	\$1,591,592
J. F. White Contracting Co.	\$1,890,000
<i>Engineer's Estimate</i>	<i>\$1,998,680</i>

O'Connor Corporation's bid price is 20% lower than the Engineer's Estimate. Staff and MWRA's Design Consultant, AECOM, interviewed O'Connor Corporation to discuss the variance from the Engineer's Estimate. One significant factor that could not be assumed in the Engineer's Estimate, is that O'Connor Corporation is actively engaged with two other MWRA contracts on Deer Island, one of which is Contract S526, Thermal and Hydro Power Plant Maintenance, which was approved by the Board and awarded on March 12, 2014 in the amount of \$3,273,607. The Contractor is thoroughly familiar with the facility and its equipment. O'Connor Corporation was also awarded Contract S524, Combustion Turbine Generator Maintenance. Staff have been satisfied with the Contractor's performance on both contracts. As a result of these on-going projects, the Contractor took advantage of minimal mobilization costs, and shared resources such as construction trailers, project managers, and supervisors. In addition, O'Connor was able to attain lower price quotes for the control valves and actuators than what was assumed in the Engineer's Estimate. Staff and AECOM have reviewed the bids and have determined that O'Connor Corporation's bid meets all of the requirements of the specifications, and have determined that the bid price is reasonable, complete, and includes the payment of prevailing wages.

References were checked and found to be favorable.

Staff are of the opinion that O'Connor Corporation possesses the skill, ability, and integrity necessary to perform the work under this contract and is qualified to do so. Therefore, staff recommend the award of this contract to O'Connor Corporation as the lowest responsible and eligible bidder.

BUDGET/FISCAL IMPACT:

Funding of \$1,000,000 is included in Deer Island's FY15 Capital Budget because the budget was prepared before the design for this contract was completed. The difference of \$591,592 will be included in the 5-year CIP spending cap.

MBE/WBE PARTICIPATION:

Due to the limited opportunities for subcontracting, there were no MBE or WBE participation requirements established for this contract.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 15, 2014
SUBJECT: Instrumentation Systems Services
Kit Zeller, Inc.
Contract OP-256

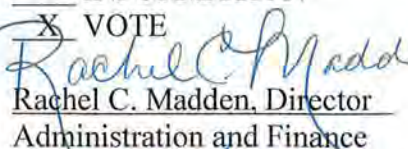


COMMITTEE: Wastewater Policy & Oversight


M. Altaf Bhatti, Project Engineer
Brian Kubaska, Manager, SCADA and Process Control
Stephen D. Cullen, Director, WW Operations & Maintenance
Preparer/Title

INFORMATION

VOTE



Rachel C. Madden, Director
Administration and Finance



Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the award of Contract OP-256, Instrumentation Systems Services, to the lowest, responsive bidder, Kit Zeller, Inc., and authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$432,000, for a contract term of 730 calendar days from the Notice to Proceed.

DISCUSSION:

Contract OP-256 will provide scheduled and/or as-needed specialized process instrumentation services at 27 MWRA facilities, including headworks facilities, pump stations, CSO facilities, the Chelsea Screen House, and the Clinton Advanced Wastewater Treatment Plant. The contract will also provide emergency and non-emergency on-call services, and necessary replacement parts.

Instrumentation equipment measures critical facility operational parameters such as, wastewater levels, gate positions, flow rates, chemical tank levels, pump vibration, and environmental gas concentrations. The instrumentation data provides specific and immediate feedback that helps staff ensure the facilities are operating safely and within design/operational parameters.

The contractor will also be responsible for providing scheduled instrumentation services for interceptor hydrogen sulfide gas monitoring locations used in MWRA's odor and corrosion control program.

In addition to the scheduled services, such as calibration and cleaning, and the emergency or non-emergency on-call services, the contract also includes some specifically scoped replacement work that as the gas monitoring equipment at the Nut Island Headworks, the Braintree-Weymouth Intermediate Pump Station, and the Prison Point CSO facility will be replaced.



One of three gas monitoring control panels at the Nut Island Headworks

Procurement Process

Contract OP-256 was bid as a non-professional services contract. On September 18, 2014, MWRA received and opened three bids with the following results:

<u>Bidders</u>	<u>Bid Amount</u>
Kit Zeller, Inc.	\$432,000
Apollo Safety, Inc.	\$469,800
CrossPoint Engineering Corp	\$513,900
<i>MWRA Staff Estimate</i>	<i>\$551,910</i>

Kit Zeller, Inc.’s bid price is 22% less than the MWRA Staff’s Estimate, which was developed based upon reasonable assumptions and previous contract history. Staff used past hourly rates and assumed a small inflationary factor.

Staff reviewed Kit Zeller Inc.’s bid and met twice with representatives from the company to discuss the bid. Staff were initially concerned about the significant variance from the cost estimate and wanted to be sure that the company fully understood all aspects of the contract requirements and scope of work. (It should be noted that the third highest bidder, CrossPoint Engineering Corp., was awarded a previous MWRA instrumentation contract and fully understands the nature and scope of work involved – CrossPoint’s bid is much closer to MWRA’s estimate.) Kit Zeller representatives informed MWRA that it stood behind its bid pricing and it fully understood all of the requirements of the bid specifications. The firm wanted to be competitive and stated that it planned to maximize the use of its entire work force to perform the work. MWRA conducted further interviews with Kit Zeller employees who will be assigned to the contract and gained confidence that they have the technical ability to perform the work. References were checked and found to be favorable.

After completing the review, and after discussions with the company, MWRA staff are confident that Kit Zeller, Inc. understands the full nature and scope of work under this contract. Staff are

of the opinion that the bid price is reasonable and complete, and that Kit Zeller, Inc. possesses the skill, ability, and integrity necessary for the successful performance of this work.

Therefore, staff recommend the award of this contract to Kit Zeller, Inc. as the lowest responsible and eligible bidder.


BUDGET/FISCAL IMPACT:

Funding for the first portion of this contract are included in the FY15 Current Expense Budget. Appropriate funding for the remaining term of the contract will be included in subsequent CEB requests.

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 15, 2014
SUBJECT: Elevator Maintenance and Repair Service at Various Authority Facilities
BBE Corporation
Contract OP-218, Change Order 2

COMMITTEE: Wastewater Policy & Oversight

INFORMATION
 VOTE

M. Altaf Bhatti, Project Engineer
Brian L. Kubaska, P. E., Manager, SCADA & Process Control
Stephen D. Cullen, Director, WW Operations & Maintenance
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To authorize that the Executive Director, on behalf of the Authority, to approve Change Order 2 to Contract OP-218, Elevator Maintenance and Repair Service at Various Authority Facilities, with BBE Corporation, for an amount not to exceed \$51,000, increasing the contract amount from \$162,435 to \$213,435, with no increase in contract term.

DISCUSSION:

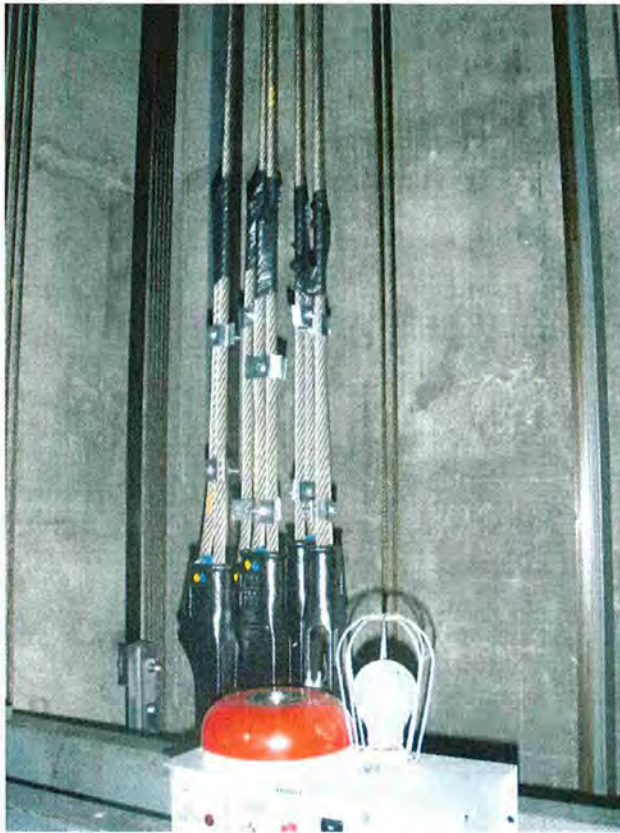
Under Contract OP-218, the Contractor is providing preventive elevator maintenance services, and non-emergency and emergency repair services for 14 elevators located at various MWRA water and wastewater facilities, including the Chelsea Facility, the John J. Carroll Water Treatment Plant, the Cosgrove Intake, the Caruso and Hayes Pumping Stations, and the Nut Island, Columbus Park, Chelsea Creek, and Ward Street Headworks. The elevators at the Deer Island Treatment Plant are serviced under a separate contract.

The services provided under this contract are essential for the continued safe and reliable operation of MWRA's elevators, which are used by staff in the daily performance of their responsibilities, as well as by other contractors performing important work. These services are also necessary to ensure timely certification of the elevators as required by the Department of Public Safety. MWRA has contracted these specialized services for many years.

Contract OP-218 is a two-year contract that will not expire until October 1, 2015.

This Change Order

The level of effort, number of service hours, and allowance amounts included in the contract were developed based upon reasonable assumptions considering the age and condition of the elevators, and past contract history. During the first year of the contract, significantly more repair work and replacement parts were used than was originally estimated. Inoperable elevators require prompt repairs to restore availability. During the first year, an unanticipated failed elevator motor at Ward Street Headworks required replacement; frayed elevator cables at the Nut Island Headworks also needed replacement; and most recently (see photos below), cables and a failed variable frequency drive at the Cosgrove Intake Facility needed to be replaced. These unexpected and costly repairs, along with additional unanticipated corrective repairs at several other facilities, have nearly depleted the budget for repair services and replacement parts.



Newly installed cables on the Cosgrove Intake Facility's service elevator



Variable frequency drive at Cosgrove required replacement due to overheating and damaged components

Staff have evaluated the contract bid prices in comparison to other bids received and believe that BBE's pricing is not only favorable for repair services, but also significantly better for scheduled monthly maintenance. MWRA staff are pleased with the Contractor's work, reliability, and efficiency. Therefore, staff recommend that Change Order 2 be approved to increase the contract amount by \$51,000 to ensure uninterrupted elevator maintenance and repair services through the remaining contract term.

Change Order 2 consists of the following two items:

Non-Emergency and Emergency Repair Services, Regular Hours \$40,500

The contract included an original estimate of 500 service hours for non-emergency repair service and emergency repair service, Monday through Friday between the hours of 7:00 AM and 3:00 PM, excluding Saturdays, Sundays and Authority-observed holidays, at a rate of \$135 per hour for a not-to-exceed amount of \$67,500 (Change Order 1 added 145 hours - \$19,575).

Based on estimates as of September 30, 2014, approximately 97% of the adjusted contract hours have been expended. Staff estimate that an increase of 300 hours at the original unit bid price of \$135 per hour will be sufficient to ensure services through the end of the contract term, resulting in a recommended increase of \$40,500.

Increase Replacement Parts Allowance and Mark-Up \$10,500

The contract included an original allowance amount of \$26,250 for replacement parts and consumable materials furnished in connection with the performance of all work under this contract, including mark-up (Change Order 1 added \$5,250).

Based on estimates as of September 30, 2014, more than 70% of the adjusted allowance amount as been expended. Staff estimate that an increase of \$10,500 will be sufficient to ensure an uninterrupted supply of replacement parts and consumable materials, including mark-up, through contract completion.

The approved PCO for this work has been identified by MWRA staff as an unforeseen condition. MWRA staff and the Contractor have agreed to a not-to-exceed amount of \$10,500 for this change order with no increase in contract term.

CONTRACT SUMMARY:

	AMOUNT	TIME	DATED
Original Contract:	\$137,610.00	730 Days	10/01/13
CHANGE ORDERS:			
Change Order 1*:	\$24,825.00	0 Days	07/28/14
Change Order 2:	<u>\$51,000.00</u>	<u>0 Days</u>	Pending
Total Change Orders:	\$75,825.00	0 Days	
Adjusted Contract:	\$213,435.00	730 Days	

*Approved under delegated authority

BUDGET/FISCAL IMPACT:

There are sufficient funds for this change order in the FY15 Current Expense Budget.

MBE/WBE PARTICIPATION:

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



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. Pappastergion
Vice-Chair: B. Swett
Committee Members:
J. Barrera
J. Carroll
J. Foti
H. Vitale
J. Walsh
J. Wolowicz

to be held on

Wednesday, October 15, 2014

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

Time: Immediately following Wastewater Comm.

AGENDA

A. Information

1. Dedham-Westwood Water District Update

B. Contract Awards

1. Construction of Water Mains – Sections 36, W11C and S9-A, Arlington and Medford: RJV Construction Corporation, Contract 7448

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Water Policy and Oversight Committee

September 17, 2014

A meeting of the Water Policy and Oversight Committee was held on September 17, 2014 at the Authority headquarters in Charlestown. Chairman Pappastergion presided. Present from the Board were Ms. Wolowicz and Messrs. Carroll, Cotter, Flanagan, Foti, Swett, Vitale and Walsh. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Nava Navandan, Patrick Smith, Cori Barrett, Lisa Hamilton and Bonnie Hale. The meeting was called to order at 12:10 p.m.

Contract Awards

*Beacon Street Line Water Pipeline Repair: Green International Affiliates, Inc., Contract 7474

Staff gave a presentation on the work to be performed under this contract and the challenges presented by the busy location along the Green Line tracks in Brookline. The Committee recommended approval of the contract award (ref. agenda item A.1).

Contract Amendments/Change Orders

*Spot Pond Water Storage Facility Design/Build Project: Walsh Construction Co., Contract 6457, Change Order 7

The Committee recommended approval of Change Order 7 (ref. agenda item B.1).

*Gillis Pump Station Short Term Improvements: Bay State Regional Contractors, Contract 7260, Change Order 3

The Committee recommended approval of Change Order 3 (ref. agenda item B.2).

Approvals

*Recommendation to Rename the Ware Disinfection Facility the William A. Brutsch Water Treatment Facility

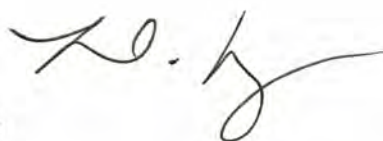
Consideration of this item was referred to the full Board. (Please refer to the minutes of the Board of Directors' meeting for the full text of the resolution.)

The meeting adjourned at 12:20 p.m.

* Approved as recommended at September 17, 2014 Board of Directors meeting.

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 15, 2014
SUBJECT: Dedham-Westwood Water District Update



COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE

Pamela Heidell, Policy & Planning Manager
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

On September 17, 2014, the Executive Director informed the Board of the Dedham-Westwood Water District's plan to request approval for an increased withdrawal of 100,000 gallons per day from the MWRA system. In response to the Board's request for further information, this staff summary provides some additional background related to Dedham-Westwood Water District's plan.

RECOMMENDATION:

For information only.

DISCUSSION:

The Dedham-Westwood Water District (DWWD) was admitted into the MWRA Waterworks System in 2005. Although its supply sources were able to meet the District's demand the majority of the time, during dry conditions, the District encountered difficulties meeting its peak demand. DWWD's local water supply system is served by three groundwater supplies, two of which are in the Charles River Basin and one, the Fowl Meadow Well, is in the Neponset River Basin.

Use of the Fowl Meadow Well is governed by both the Water Management Act and the Interbasin Transfer Act, and the latter requires DWWD to cease operation of the Fowl Meadow Well when flow in the Neponset River falls below a designated amount. Hydrologic and water demand modeling was conducted to identify the water deficit created by restricted use of the Fowl Meadow Well, and this deficit was projected in 2005 to be 0.1 mgd, which served as the basis of DWWD's original request to MWRA. Accordingly, under the terms of DWWD's admission to MWRA, DWWD was authorized to withdraw 36.5 million gallons annually or 100,000 gallons per day on an annual average day basis, with a typical maximum day withdrawal of 2 million gallons.

From 2006 through 2012, DWWD's yearly withdrawals ranged from virtually nothing to 39 million gallons. Higher withdrawals from MWRA in 2012 were due to a SCADA issue on DWWD's part where usage was not being tracked by the District on a real-time basis (but MWRA's meter did record usage and DWWD was billed for all water withdrawn). In 2013, DWWD returned to its more typical withdrawal volume of 15 million gallons a year, as during most years the District has withdrawn less than half of its authorized 36.5-million-gallon annual limit.

In 2014, DWWD encountered delays to work of one of its wells, creating a supply deficit and emergency situation that has resulted in projected withdrawals from MWRA far exceeding the 36.5-million-gallon annual limit. Through August 2014, DWWD has withdrawn approximately 48 million gallons. Looking forward, anticipated growth in DWWD's service area, increasing groundwater withdrawal concerns highlighted by the Sustainable Water Management Initiative, and a desire to increase the reliability of its water system in the event of groundwater pump failure, have prompted DWWD to propose an increase to its withdrawal limit from MWRA. DWWD is seeking approval for an additional 100,000 gpd, an additional 36.5 million gallons per year, for a total authorized average withdrawal of 200,000 gpd or 72.5 million gallons a year. DWWD's maximum daily withdrawal of 2 million gallons would not change.

DWWD's existing agreement with MWRA provides that any increase beyond 2 million gallons on a daily basis and 36.5 million gallons on an average annual basis requires a written contract revision and a revision to the entrance fee. Accordingly, staff anticipate that a new agreement will be presented to the Board by the end of the year, assuming DWWD receives Advisory Board approval and concurrence by regulatory agencies that no further regulatory review is required (see copy of letter from DWWD to MEPA in Attachment 1).

When DWWD was admitted to MWRA, the computation of the entrance fee in MWRA Policy #OP.10, Admission of New Community to MWRA Water System, was based solely on average annual withdrawals. Also, payment of the entrance fee included interest based on MWRA's blended cost of fixed-rate debt. In 2006, the Operating Policy was revised to reflect calculation of the entrance fee based on 75% annual average use, 25% peak six-month average. The revised Policy also specifically noted its new provisions would not apply to communities seeking admission at the time of the Policy Revision, but was silent on communities admitted in the past. DWWD was charged an initial entrance fee of \$548,748, which it paid in yearly installments of \$128,064; the entrance fee was paid in full in FY10.

If the provisions of OP.10, prior to its revision, were to be applied, based on the rationale that DWWD was admitted into the system under that set of rules, the entrance fee for the additional 100,000 gpd requested would be \$479,848, and assuming payment of the entrance fee over five years (as DWWD had previously) and an annual interest rate of 4.34%, DWWD would make five annual payments of \$108,818, for a total of payment of \$544,090. DWWD could also elect to pay the entrance fee in one lump sum payment. Alternatively, staff estimate that under the current OP.10 provisions, DWWD's entrance fee would be approximately \$557,000. It is also relevant to note that the MWRA Advisory Board's current recommendations are that for new communities joining the system in the next year, the entrance fee can be paid over 25 years, with a grace period and zero percent interest. If the Advisory Board's recommendations regarding

zero percent interest are embraced by the MWRA Board, DWWD would not be required to pay interest.

Any new agreement between MWRA and DWWD presented for approval at a later date will reflect comments and direction from MWRA's Board of Directors regarding the entrance fee and payback provisions.

BUDGET/FISCAL IMPACT:

An increased withdrawal limit of 100,000 gallons per day will result in a new entrance fee ranging from \$470,848 to \$557,000, which may be paid in one lump sum or in annual payments over a number of years. In addition, if DWWD were to withdraw an additional 100,000 gallons per day, this would equal \$118,247 at FY15 prevailing rates.

ATTACHMENTS:

Attachment 1 – Letter from DWWD to MEPA, dated September 17, 2014

Attachment 2 – MEPA Certificate on the Final EIR to admit DWWD to MWRA Waterworks and related correspondence



DEDHAM-WESTWOOD WATER DISTRICT

50 Elm Street, P. O. Box 9137 • Dedham, MA 02027-9137
(781) 329-7090 • Fax (781) 329-8737
www.dwwd.org

September 17, 2014

Secretary Maeve Vallely Bartlett
Executive Office of Energy and Environmental Affairs
Attn: MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Dear Secretary Bartlett:

The Dedham Westwood Water District (DWWD) is requesting an Advisory Opinion from the Massachusetts Environmental Policy Act Office regarding our intent to increase our withdrawal from the Massachusetts Water Resources Authority (MWRA) by 100,000 gallons per day. DWWD does not believe the increased withdrawal requires additional MEPA review, and is requesting MEPA's opinion on the matter. Further detail is provided below.

DWWD's withdrawal from MWRA underwent MEPA review in 2005 pursuant to Section 11.03 (4) (a) (4) of the MEPA regulations because the project involved new water service to a water district across a municipal boundary (MEPA Project #13337). As addressed in the ENF and EIR in 2005, the volume of water to be purchased from MWRA was projected to be up to 100,000 gallons per day (0.1 mgd) on an average annual basis, and up to 2.0 mgd on a maximum day basis. The 2005 projected withdrawals from MWRA were based on hydrologic and water demand modeling conducted for DWWD.

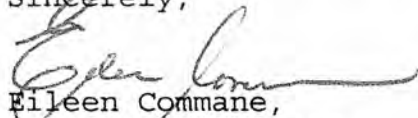
DWWD's water system is served by three groundwater supplies, two of which are in the Charles River Basin and one of which is in the Neponset River Basin. Most of the time, DWWD's groundwater supplies are able to meet the DWWD demand, but growth in DWWD's service area coupled with increasing groundwater withdrawal concerns highlighted by the Massachusetts Sustainable Water Management Initiative now prompts DWWD's request and need for more MWRA water. Moreover, the reliability of the DWWD water system in the event of any groundwater pump failure would also be improved with an increase in the contractual volume available from the MWRA.

DWWD proposes to purchase, on an annual average basis, an additional 100,000 gallons per day from MWRA for a total of 200,000 gpd on an annual average basis. The existing water supply infrastructure/connection to MWRA is adequate and no construction would be required. In addition, DWWD's maximum day withdrawal from MWRA would not change. Further, no additional permits are required: in 2005, the Water Resources Commission indicated that the project was not subject to the Interbasin Transfer Act because Dedham was named in the MWRA Enabling act and the DWWD's Enabling Act gave the DWWD all of the rights previously belonging to the Dedham Water Company, and the rights to Dedham Water Company to purchase water from MWRA are shared by Westwood.

Based on our review of the regulations, DWWD does not believe new MEPA review is triggered, since DWWD is already served by MWRA, the expansion of withdrawal is only 100,000 gallons per day on an annual basis, and no new construction is required for the withdrawal. We are requesting concurrence from MEPA that no further MEPA review is required, based on the above facts. I would also note that DWWD has implemented the recommendations for water resource conservation detailed in the September 16, 2005 FEIR Secretary's Certificate.

Should you have any questions or desire further information, please do not hesitate to contact me at 781-461-2779 or ecommane@dwwd.org.

Sincerely,


Eileen Commane,
Executive Director

cc:

Pam Heidell, MWRA

Joseph Favaloro, MWRA Advisory Board

Kathleen Baskin, Water Resources Commission



The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114-2524

MITT ROMNEY
GOVERNOR

KERRY HEALEY
LEUTENANT GOVERNOR

STEPHEN R. PRITCHARD
SECRETARY

Tel. (617) 626-1000
 Fax. (617) 626-1181
<http://www.mass.gov/envir>

September 16, 2005

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
 ON THE
 FINAL ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : Admission to the Massachusetts Water Resource Authority Waterworks Division
 PROJECT MUNICIPALITY : Dedham and Westwood
 PROJECT WATERSHED : Charles River
 EOE NUMBER : 13337
 PROJECT PROPONENT : Dedham-Westwood Water District
 DATE NOTICED IN MONITOR : June 22, 2005

As Secretary of Environmental Affairs, I hereby determine that the Final Environmental Impact Report (Final EIR), originally submitted as a Draft Environmental Impact Report (Draft EIR), for this project adequately and properly complies with the Massachusetts Environmental Policy Act (M.G. L. c. 30, ss. 61-62H) and with its implementing regulations (301 CMR 11.00).

Pursuant to section 11.08(b)2.a. of the MEPA regulations, I determined on July 29, 2005 in the Draft EIR Certificate that preparation of a stand-alone Final EIR was unnecessary. I published notice of this in the August 10, 2005 *Environmental Monitor* that the Draft EIR was to be reviewed as a Final EIR.

The project involves the request by the Dedham-Westwood Water District (DWWD) for membership in the Massachusetts Water Resources Authority (MWRA) Waterworks Division, which will make it possible to purchase water in order to meet the DWWD's water supply needs more consistently, particularly when wells are off-line in Dedham and Westwood. The proposed average quantity for purchase is 100,000 gallons per day. During some years, no water may be required. The projected annual purchase needed during a 50-year drought is currently 10 million gallons (mg), increasing to 29 mg in 2023. An MWRA transmission line exists that serves Norwood and Canton/Stoughton with an emergency interconnection in downtown Dedham. DWWD proposes to construct a new connection in Westwood, which will consist of an underground meter vault and an above-ground booster pumping station. DWWD would then continue to use the existing connection for emergency purposes only.

The project is undergoing MEPA review and requires the preparation of a mandatory EIR pursuant to Section 11 03(4)(a)(4) of the MEPA regulations, because the project involves new water service to a water district across a municipal boundary and requires state permits. The project will require approval of its application and an 8(M) Permit from the MWRA, a Massachusetts Highway Department (MHD) Access Permit, a permit under the Department of Environmental Protection's (DEP) Drinking Water Program and possibly a NPDES Dewatering Permit. The project will also require Orders of Conditions from the Dedham Conservation Commission and the Westwood Conservation Commission (and Superceding Orders of Conditions from DEP if the local Orders are appealed). Because the proponent is an agency of the Commonwealth, MEPA jurisdiction extends to all aspects of the project that may cause significant Damage to the Environment.

My earlier Certificate on the Draft EIR stated that the Draft EIR adequately described the environmental impacts of the project that are within the jurisdiction of MEPA. The Certificate also stated that the Draft EIR had adequately responded to the issues raised in the scope of October 2004. I am satisfied that the proponent has met its obligations under MEPA, and that the state permitting agencies have adequate information upon which to base their required Section 61 Findings. For these reasons, no major issues remained that warranted the preparation of a separate Final EIR.

The Water Supply Citizens Advisory Committee (WSCAC) has expressed recently raised concerns in its comment letter. I agree that these are significant issues and I strongly encourage the proponent to work closely with the municipalities of Dedham and Westwood and the MWRA to address them. I also reiterate that I require the proponent to develop and submit a detailed water conservation plan to DEP by October 31, 2005. This plan must include strategies and financing for implementation and a seasonal irrigation plan. The proponent shall supply the MEPA Office with a copy of the detailed water conservation plan.

I continue to strongly recommend that the DWWD and the two municipalities work to coordinate the planning and operations of the water supply and wastewater systems, reduce inflow and infiltration, and investigate innovative management tools like water banking.

I am satisfied that the project has avoided and mitigated environmental impacts to the extent feasible, and that the state permitting agencies have adequate information on which to base their permit decisions, and sufficient permitting authority to ensure that any remaining issues are adequately addressed.

September 16, 2005

Date


Stephen R. Pritchard

EOEA #13337

Final EIR Certificate

09/16/05

09/08/05 Water Supply Advisory Committee

SRP/ACC/acc



THE COMMONWEALTH OF MASSACHUSETTS
WATER RESOURCES COMMISSION

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Dedham h to

July 12, 2005

Secretary Stephen Pritchard
Executive Office of Environmental Affairs
Attention MEPA Office
Anne Canaday, EOEA No. 13337
100 Cambridge Street, Suite 900
Boston MA 02114

Dear Secretary Pritchard:

Staff for the Water Resources Commission (WRC) is in receipt of the Draft Environmental Impact Report (DEIR) for the Dedham-Westwood Water District's Application for Admission to the Massachusetts Water Resources Authority's Water Works Division (MWRA). As stated in the DEIR, this project is not subject to the Interbasin Transfer Act because the town of Dedham is named in the MWRA Enabling Act and the Dedham-Westwood Water District Enabling Act gave the DWWD all of the rights previously belonging to the Dedham Water Company. Because the town of Westwood was historically served by the Dedham Water Company, the rights of the Dedham Water Company to purchase water from the MWRA are shared by Westwood.

Admission to the MWRA requires that a community have a Local Water Resources Management Plan approved by the WRC. This plan was included in the DEIR. It is expected that the WRC will discuss and vote on this plan at its August and September meetings. Thank you for the opportunity to comment.

Sincerely,

Kathleen M. Baskin

Kathleen M. Baskin
Executive Director

Cc: Michele Drury, DCR
Pamela Heidell, MWRA ✓

Drury, Michele (DEM)

From: Drury, Michele (DEM)
Sent: Wednesday, April 23, 2003 10:56 AM
To: Hartig, Frank (DEM)
Subject: Dedham Westwood and the MWRA

Hello Frank, this is my interpretation of our conversation of April 9, 2003 concerning the applicability of the Interbasin Transfer Act to Dedham-Westwood Water District's application to join the MWRA:

The Interbasin Transfer Act does not apply to this proposal because:

- A) Dedham is named in the MWRA Enabling Act
- B) The Dedham-Westwood Water District Enabling Act gave the DWWD all of the rights previously belonging to the Dedham Water Company, which included the right to purchase water from the MWRA.

Please let me know if my interpretation is correct. Thanks.

STAFF SUMMARY

TO: Board of Directors
FROM: Fredrick A. Laskey, Executive Director *FL*
DATE: October 15, 2014
SUBJECT: Construction of Water Mains – Sections 36, W11C, and S9-A, Arlington and Medford
RJV Construction Corporation
Contract 7448

COMMITTEE: Water Policy & Oversight

Ester N. Lwebuga, P.E., Project Manager
A. Navanandan, P.E., Chief Engineer
Preparer/Title

 INFORMATION

 X VOTE

Rachel C. Madden
Rachel C. Madden, Director
Administration and Finance

Michael J. Hornbrook
Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the award of Contract 7448, Construction of Water Mains – Sections 36, W11C, and S9-A, Arlington and Medford, to the lowest responsible and eligible bidder, RJV Construction Corporation, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$11,235,500, with a contract term of 910 calendar days from the Notice to Proceed.

DISCUSSION:

Contract 7448 includes the replacement of Section 36 in Arlington, which is a 100-year-old, 16-inch-diameter, cast-iron pipe, approximately 5,013 feet in length (see Attachment A). It is a discharge pipe from the Brattle Court Pumping Station (pictured on the right) to the Northern Extra High Service zone serving Bedford, Lexington, and parts of Arlington, Belmont, Waltham, and Winchester. From the Brattle Court Pumping Station, Section 36 runs along Brattle Street, Massachusetts Avenue, Robbins Road, Hawthorne Avenue, and Park Avenue, and ends at Park Circle in Arlington. Section 36 serves as a major connection in the Northern Extra High Service zone between the Brattle Court and Spring Street Pumping Stations.



In 2006, MWRA replaced approximately 230 feet of Section 36 as part of Contract 6375, Rehabilitation of Water Pump Stations, and MWRA staff replaced approximately 70 feet of Section 36 as part of a valve replacement project at Park Circle. In 2009, the Town of Arlington replaced approximately 120 feet of this main, located under the Mill Brook Culvert on Brattle Street. Approximately 4,600 feet still needs to be replaced.

Existing Section 36 does not have adequate capacity to feed the Northern Extra High service area if the Spring Street Pump Station (shown on the right) is out of service. Replacing the remaining 4,600 feet of 16-inch-diameter Section 36 with 24-inch-diameter pipe will provide full redundancy to the Northern Extra High service area and will replace this 100-year-old, cast-iron pipe.



Contract work in Arlington also will include the installation of a new water main, which will be designated as Section W11C. Several system configurations to MWRA's regional water transmission system will be needed during the rehabilitation of Weston Aqueduct Supply Main 3 (WASM 3), which is more than 80 years old. Based on a recommendation from the Preliminary Design Report, in order to minimize service interruption and provide redundancy to Spring Street Pumping Station, a connection from WASM 3 with the necessary valve configuration is needed. This connection will provide flexibility to feed the Spring Street Pumping Station from the north (Shaft 9), or the south (Norumbega Tanks) during the WASM 3 rehab.

The new MWRA W11C water main will require open-cut installation of approximately 1,250 feet of 36-inch-diameter, ductile-iron pipe that will connect to WASM 3 at the intersection of Pleasant Street and Brunswick Road, run along Brunswick Road and Hillsdale Road and connect to Section W11B at the intersection of Hillsdale Road and Spring Street (also shown on Attachment A).

The third element of Contract 7448 is the replacement of an inoperable 48-inch butterfly valve on Shaft 9-A pipeline in Medford. This water main backfeeds WASM 3 from Shaft 9 in Somerville. During the rehabilitation of portions of WASM 3, the Shaft 9-A water main will be a source supply for the Brattle Court and Spring Street Pumping Stations. It is necessary to replace the valve prior to the WASM 3 rehabilitation to ensure that the line flows at its capacity without potential restrictions by an inoperable valve.

Procurement Process

Contract 7448 was advertised and bid in accordance with Massachusetts General Laws, Chapter 30. Bids were received and opened on September 30, 2014; the results are presented on the following page.

<u>Contractor</u>	<u>Bid Amount</u>
<i>Engineer's Estimate</i>	\$11,044,500.00
RJV Construction Corporation	\$11,235,500.00
Albanese D&S, Inc.	\$12,791,000.00
The Dow Company, Inc.	\$12,794,500.00
DeFelice Corporation	\$12,809,501.81
P. Caliacco Corporation	\$15,457,250.00
Albanese Brothers, Inc.	\$15,624,004.39
P. Gioioso & Sons, Inc.	\$16,234,500.00
R. Zoppo Corporation	\$17,494,925.00

RJV Construction Corporation's bid is \$191,000 or 1.73% more than the Engineer's Estimate. MWRA staff and the Design Engineer, Green International Affiliates, Inc., have reviewed RJV Construction's bid in detail and discussed the major bid items with the company. Based on the bid review and subsequent discussions with RJV Construction, staff are satisfied that RJV Construction Corporation understands the full scope of work under the contract and can perform the work for the bid price, which includes the payment of prevailing wages.

References were checked and found to be favorable. RJV Construction has successfully completed two past MWRA projects: Contract 7099 - Section 107 Phase 2 Construction (\$14,565,000) and Contract 6436 - Phase VII Valve Replacement (\$2,385,000).

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

BUDGET/FISCAL IMPACT:

The FY15 CIP includes a budget of \$10,480,000 for Contract 7448. The contract award amount is \$11,235,500, or \$755,500 over budget because of revisions to the design after the budget was submitted. This amount will be covered within the five-year CIP spending cap.

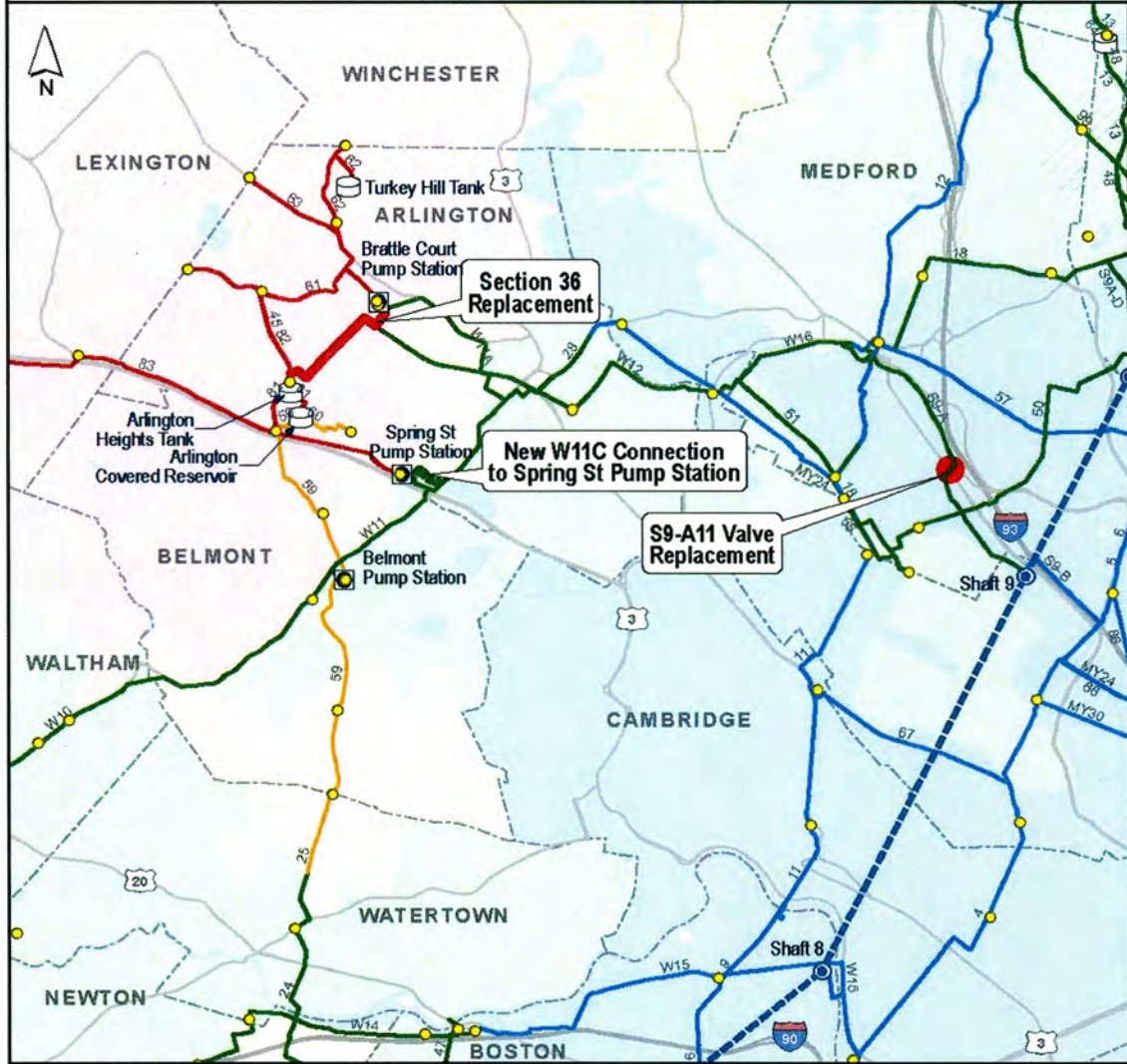
MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract were established at 3.4% and 3.8%, respectively. The Affirmative Action and Compliance Unit has reviewed RJV Construction Corporation's bid and has determined that it meets these requirements.

ATTACHMENT:

Attachment A – Locus Map for Contract 7448 Construction of Water Mains – Sections 36, W11C and S9-A

Attachment A Contract 7448, Construction of Water Mains Sections 36, W11C and S9-A



<p>Pressure Zones</p> <ul style="list-style-type: none"> Low (170'-180') High (280') Intermediate High (320') Northern Intermediate High (330') Northern Extra High (443') Boosted Areas 	<p>MWRA Water Distribution Pipes by Pressure</p> <ul style="list-style-type: none"> Northern and Southern Extra-High Northern Intermediate High Northern and Southern High Low 	<ul style="list-style-type: none"> Water Meters Water Storage Pump Stations Transmission Shafts MWRA Water Transmission
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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: K. Cotter
Vice-Chair: J. Wolowicz
Committee Members:
J. Barrera
J. Carroll
P. Flanagan
J. Foti
A. Pappastergion
H. Vitale
I. Walsh

to be held on

Wednesday, October 15, 2014

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

Time: Immediately following Water Comm.

A. Approvals

1. PCR Amendments – October 2014
2. Appointment of Construction Coordinator
3. Appointment of Construction Coordinator

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Personnel and Compensation Committee

September 17, 2014

A meeting of the Personnel and Compensation Committee was held on September 17, 2014 at the Authority headquarters in Charlestown. Chairman Cotter presided. Present from the Board were Ms. Wolowicz and Messrs. Flanagan, Foti, Pappastergion, Swett, Vitale and Walsh. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Rachel Madden, Russ Murray, and Bonnie Hale. The meeting was called to order at 12:20 p.m.

Approvals

*PCR Amendments – September 2014

The Committee recommended approval of amendments to the Position Control Register (ref. agenda item A.1).

The Committee recommended approval of seven personnel appointments, as follows:

*Appointment of Superintendant, Clinton Advanced Wastewater Treatment Plant
(Robert E. Gorham, ref. agenda item A.2)

*Appointment of Program Manager, Process Monitoring, Deer Island
(Lisa L. Wong, ref. agenda item A.3)

*Appointment of Project Manager, Process Control, Deer Island
(Timothy Beaulieu, ref. agenda item A.4)

*Appointment of Senior Staff Engineer, Structural
(Andrea K. Adams, ref. agenda item A.5)

*Appointment of Project Manager, Environmental Data
(Fang Yu, ref. agenda item A.6)

*Appointment of Manager, Western Maintenance
(Eben A. Nash, ref. agenda item A.7)

*Appointment of Manager, IT Security, Architecture and Engineering
(Paula Weadick, ref. agenda item A.8).

The meeting adjourned at 12:25 p.m.

* Approved as recommended at September 17, 2014 Board of Directors meeting.


STAFF SUMMARY

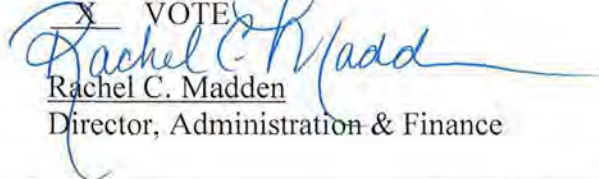
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 15, 2014
SUBJECT: October PCR Amendments



COMMITTEE: Personnel and Compensation

INFORMATION



VOTE

Rachel C. Madden
Director, Administration & Finance

Robert Donnelly, Director of Human Resources
Joan C. Carroll, Manager Compensation
Preparer/Title

RECOMMENDATION:

To approve the amendments to the Position Control Register (PCR) included in the attached chart¹.

DISCUSSION:

The PCR amendments included in this package reflect organizational changes aimed at improving the cost-effectiveness, structural soundness and staffing patterns within the Operations Division.

These amendments include:

1. Title and grade change to a filled position (Program Manager, Compliance to Sr. Program Manager, Compliance) in the Toxic Reduction and Control Department, Operations Division, to reflect increased responsibilities and duties.
2. Title and grade change for a vacant position (Machinist to Toolmaker) at the Deer Island Treatment Plant, Operations Division, to meet the staffing needs at DITP.

These amendments require approval by the Personnel and Compensation Committee.

BUDGET/FISCAL IMPACT:

The annualized budget impact of these PCR amendments is \$7,986. Staff will ensure that any cost increase associated with these PCR amendments will not result in spending over the approved FY15 Wages and Salaries budget.

ATTACHMENTS:

New/Old Job Descriptions

¹ The Position Control Register lists all regular positions in this fiscal year's Current Expense Budget. Any changes to positions during the year are proposed as amendments to the PCR. The Personnel and Compensation Committee of the Board of Directors must approve all PCR amendments. In addition, any amendments resulting in an upgrade of a position by more than one grade level or increasing a position's annual cost by \$10,000 or more must be approved by the Board of Directors after review by the Personnel and Compensation Committee.

MASSACHUSETTS WATER RESOURCES AUTHORITY
 POSITION CONTROL REGISTER AMENDMENTS
 FISCAL YEAR 2015

PCR AMENDMENTS REQUIRING PERSONNEL & COMPENSATION COMMITTEE APPROVAL - October 15, 2014

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
P5	Operations TRAC 2210055	F	T,G	Program Manager, Compliance	9	29	Sr Program Manager, Compliance	9	30	\$109,654	\$114,229 - \$114,229	\$4,575 - \$4,575	To reflect increased responsibilities and duties
P6	Operations Trade Labor Maintenance 2988091	V	T,G	Machinist	3	15	Toolmaker	3	16	\$60,413	\$63,824 - \$63,824	\$3,411 - \$3,411	To meet staffing needs at DITP
PERSONNEL & COMP COMMITTEE TOTAL=					2		TOTAL:					\$7,986 - \$7,986	
BOARD TOTAL =					0		SUBTOTAL:					\$0 - \$0	
GRAND TOTAL =					2		TOTAL ESTIMATED COSTS:					\$7,986 - \$7,986	

Legend:
 V = Vacant position, F = Filled position
 T = Title change, L = Location change; transfer to another Cost Center, G = Grade Change, SA= Salary Adjustment, E = Elimination.

MWRA
POSITION DESCRIPTION

OLD

POSITION: Program Manager, Compliance

PCR#:

DIVISION: Operations

DEPARTMENT: Field Operations

BASIC PURPOSE:

Manages all aspects of TRAC compliance/enforcement program, including compliance/enforcement and information systems programs, and supervises professional staff.

SUPERVISION RECEIVED:

Reports to the Director of TRAC

SUPERVISION EXERCISED:

Supervises Compliance staff and Data/File Management staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages and supervises work of Compliance Coordinators and Administrative Systems Coordinator, related to compliance/enforcement matters.
- Manages and supervises TRAC's data management staff.
- Develops, recommends and maintains long-range strategic plan for compliance/enforcement programs and initiatives and supporting information system applications.
- Develops, recommends and implements policies and procedures related to compliance/enforcement program and the maintenance of departmental information systems.
- Reviews compliance and enforcement documents prepared by Compliance Coordinators and

other TRAC staff to help ensure that they meet programmatic and legal requirements and are consistent among the TRAC regional teams.

- Conducts meetings and negotiations on compliance and enforcement issues with MWRA-regulated entities.
- Assists in the administrative review and resolution of appeals of enforcement documents.
- Provides support on compliance/enforcement and information systems issues to other sections of TRAC.
- Manages/oversees the process to identify and report on sewer users in significant noncompliance and to inform those sewer users of their status.
- Oversees the process of Permit Charges billing and collection.
- Participates in liaison, coordination, and educational activities within the MWRA and with other governmental agencies and the public.
- Manages the development and auditing of departmental data entry and validation procedures.
- Drafts reports, memoranda, and other documents.

SECONDARY DUTIES:

- Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Four year undergraduate degree in the chemistry, biology, environmental sciences, a related engineering or science discipline, computer science or information systems science, legal studies or other related field. Advanced degree preferred.
- (B) Knowledge and understanding of environmental regulatory issues, policies, and practices related to industrial wastewater treatment and discharge, as acquired through a minimum of 7 to 9 years of experience, of which 3 to 5 years should be in a supervisory or managerial capacity. This should include an understanding of industrial permits, and enforcing environmental requirements.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of the use, development, maintenance and management of complex computer-based information systems as a tool for supporting compliance/enforcement program.
- (B) Ability to negotiate and reach agreement in an enforcement setting and to work with attorneys.
- (C) Ability to plan and implement programs.
- (D) Demonstrated effectiveness working across organizational boundaries and with persons at all levels in an organization.
- (E) Strong written and oral communication skills.

SPECIAL REQUIREMENTS:

None

TOOLS AND EQUIPMENT USED:

Office machines as normally associated, with the use of telephone, personal computer including word processing and other software, copy or 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 the job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

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

The employee must regularly lift and/or move up to 10 pounds, occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance 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 a moderately quiet in office setting.

January 2006

MWRA
POSITION DESCRIPTION

NEW

POSITION: Senior Program Manager, Compliance

PCR#:

DIVISION: Operations

DEPARTMENT: Field Operations

BASIC PURPOSE:

Directs and manages all aspects of TRAC compliance/enforcement program, including compliance/enforcement staff and data management staff. Primary internal and regulatory contact for pretreatment program compliance issues and PIMS. Supervises professional staff.

SUPERVISION RECEIVED:

Reports to the Director of TRAC.

SUPERVISION EXERCISED:

Supervises Compliance staff and Data/File Management staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Supervises staff and manages resources to develop and implement toxic reduction and control, compliance/enforcement and information technology policies.
- Conducts interviews and makes hiring recommendations, approves time sheets, reports disciplinary issues to manager as appropriate, prepares staff performance evaluations and budget preparations.
- Manages and supervises TRAC's data management group and Project Manager, PIMS. Defines, prioritizes, schedules and assigns projects. Forecasts and plans PIMS upgrades, enhancements, and requirements. Works with MIS to oversee PIMS consultants and ensures TRAC's information system needs are articulated and understood. Oversees development of and reviews Task Orders.

- Develops, recommends and maintains long-range strategic plan for compliance/enforcement programs and initiatives and supporting information system applications.
- Develops, recommends and implements policies and procedures related to compliance/enforcement program and the maintenance of departmental information systems. Oversees management of PIMS Task Orders.
- Reviews compliance and enforcement documents prepared by Compliance Coordinators and other TRAC staff to help ensure that they meet programmatic and legal requirements and are consistent among the TRAC staff.
- Conducts meetings and negotiations on compliance and enforcement issues with MWRA-regulated entities. Negotiates compliance schedules and Settlement Agreements, including penalty assessments with regulated entities, municipal officials, attorneys, and government agencies; Drafts Settlement Agreements. Recommends appropriate compliance and enforcement actions to senior management.
- Represents the interests of the enforcement program at meetings with other TRAC managers, industrial users, municipal officials, the Attorney General, DEP, EPA and others.
- Assists legal staff in the adjudicatory appeals process from appeals of enforcement documents. Meets with opposing counsel; testify as witness if needed; provides technical assistance and advice to legal group.
- Provides technical support on compliance/enforcement and information systems issues to other sections of TRAC.
- Manages/oversees the application of federal regulations to identify and report on sewer users in significant noncompliance and to inform those sewer users of their status.
- Oversees the process of Permit Charges billing and collection.
- Participates in liaison, coordination, and educational activities within the MWRA and with other governmental agencies and the public. Speak at Annual SIU Meetings and present overview of complex federal regulations to Significant Industrial Users;
- Manages the development and auditing of departmental data entry and validation procedures.
- Drafts reports, memoranda, and other documents.

SECONDARY DUTIES:

- Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Four year undergraduate degree in the chemistry, biology, environmental sciences, a related engineering or science discipline, computer science or information systems science, legal studies or other related field. Advanced degree preferred.
- (B) Knowledge and understanding of environmental regulatory issues, policies, and practices related to industrial wastewater treatment and discharge, as acquired through a minimum of 7 to 9 years of experience, of which 3 to 5 years should be in a supervisory or managerial capacity. This should include an understanding of industrial permits, and enforcing environmental requirements.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of the use, development, maintenance and management of complex computer-based information systems as a tool for supporting compliance/enforcement program.
- (B) Ability to negotiate and reach agreement in an enforcement setting and to work with attorneys.
- (C) Ability to plan and implement programs.
- (D) Demonstrated effectiveness working across organizational boundaries and with persons at all levels in an organization.
- (E) Strong written and oral communication skills.

SPECIAL REQUIREMENTS:

None

TOOLS AND EQUIPMENT USED:

Office machines as normally associated, with the use of telephone, personal computer including word processing and other software, copy or 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 the job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

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

The employee must regularly lift and/or move up to 10 pounds, occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance 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 a moderately quiet in office setting.

September 2014

OLD

**MWRA
POSITION DESCRIPTION**

POSITION: Machinist
PCR#:
DIVISION: Operations
DEPARTMENT: EQ-General, Equipment Maintenance, Trade Labor Maintenance

BASIC PURPOSE:

Performs skilled precision machine shop duties to plan and set up work and operate a variety of machine tools to produce complex parts, and fabricate or repair equipment, tools or devices.

SUPERVISION RECEIVED:

Works under the general supervision of the Unit Supervisor.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Operates various machines and tools in the machine shop, for the fabrication, shape and repair of finish machinery parts from raw materials such as steal, iron, brass, plastics and other alloys.
- Plans and lays out work from blueprints, sketches, work orders, model of part or other specifications.
- Determines the most efficient work procedures, machine tools and attachments to be used, and proper sequence of machine operations.
- Performs preventive, predictive and corrective maintenance or machine shop tools and equipment.
- Performs routine lubrication of equipment and replaces oil reserves.

- Assists other maintenance department mechanics to dismantle, replace defective parts and reassemble equipment and devices.
- Obtains necessary parts through established procedures.
- Operates motor vehicles, such as vans and pick up trucks, to transport materials to work sites, and pick up and deliver supplies and equipment.
- Performs light maintenance independently or as part of a team. Light maintenance shall include but not limited to:
 - Inspects and troubleshoots various systems and equipment
 - Installs and retrofits/new equipment related to plant systems.
 - Modifies and/or aligns existing equipment to specifications.
 - With proper training sets up ladders, staging and rigging and utilizes hoists, jacks, dollies, lifts, etc. for proper access to job and to remove and install equipment.
 - Operates portable pumping and/or ventilation equipment to prepare a work area for access.
 - Opens hatches.
 - Installs safety rails.
 - Performs routine testing, lockout/tagout, operation (startup/shutdown) and adjustment of process equipment.
 - Removes snow from immediate work area.

SECONDARY DUTIES:

- Promotes and participates in the cross-functional work practices.
- Trains peers and subordinates as requested.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A high school education or the equivalent; and
- (B) Requires the satisfactory completion of a certified journey level machinist apprenticeship training program, or a similar formal training program and four (4) to (6) six years of experience; or
- (C) Any equivalent combination of education and/or experience.

Necessary Knowledge, Skills and Abilities:

- (A) A working knowledge of the tools, methods, materials, equipment, instruments common to the trade, such as (but not limited to), lathes, boring machines, drill presses, welding equipment, milling machines, grinders, vernier calipers, micrometers and other precision measuring instruments, principles of metallurgy, heat treating and tempering, etc.
- (B) The ability to plan and lay out work from blue prints sketches, work orders, models, or other specifications, and to set up and operate a wide variety of machine shop equipment to fabricate complex parts to specified precise dimensions.
- (C) Basic reading, writing, mathematical, scientific and oral communication skills.
- (D) A working knowledge of the occupational hazards and safety practices common to the trade, to include the satisfactory completion of MWRA safety training in safe techniques for the use of staging, rigging, and material handling equipment.

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.

TOOLS AND EQUIPMENT USED:

Motor vehicle, power and hand tools, mobile radio, telephone, beeper.

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

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move more than 100 pounds. Specific vision abilities required by this job include close vision, distance and peripheral vision, depth perception, and the ability to adjust focus.

WORK ENVIRONMENT:

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

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

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

November 2007

**MWRA
POSITION DESCRIPTION**

NEW

POSITION: Toolmaker
PCR#:
DIVISION: Operations
DEPARTMENT: Trade Labor Maintenance / EQ General

BASIC PURPOSE:

Provides engineering support for assigned area.

SUPERVISION RECEIVED:

Works under the general supervision of the Unit Supervisor.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Operates lathes, drill presses, planers, milling machines and similar equipment in the manufacture, repair and alteration of metal objects and precision machine parts.
- Designs special tools, jigs and fixtures required in the maintenance of machinery and equipment.
- Performs miscellaneous machine tool operations, such as boring, threading, grinding and key seating.
- Maintains machine tools and equipment in first class condition.
- Performs welding, brazing, soldering, heat-treating, shrink fitting, oxy-acetylene outing, metal spraying and other machine shop operations.

SECONDARY DUTIES:

- Performs related duties as assigned.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Basic reading, writing, mathematical, scientific and oral communication skills as normally acquired through a high school education or equivalent; and
- (B) Knowledge of the tools, materials, methods, equipment and standard practices used in metal working trades; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of the use and operation of power machine tools.
- (B) Knowledge of the hazards and safety precautions required in the operation and use of power tools, oxy-acetylene equipment, chilling and heating devices and related equipment.
- (C) Ability in the care, maintenance and reconditioning of hand and machine tools.
- (D) Ability to make sketches and designs for special purpose fabrications or alterations of a mechanical nature.
- (E) Ability to work from blueprints, plans, drawings, models, samples, and oral and written instructions.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:


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

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

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

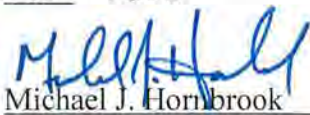
April 2008

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: October 15, 2014
SUBJECT: Appointment of Construction Coordinator
Engineering & Construction Department

COMMITTEE: Personnel & Compensation

Robert G. Donnelly, Director, Human Resources
John P. Vetere, Deputy Chief Operating Officer
Corinne M. Barrett, Director of Construction
Preparer/Title

 INFORMATION
 X VOTE

Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of Mr. Vincent W. Spada to the position of Construction Coordinator in the Engineering & Construction Department (Unit 9, Grade 30), at the recommended salary of \$100,954, to be effective on a date to be determined by the Executive Director.

DISCUSSION:

The position of Construction Coordinator is MWRA's key point person on every construction project, and is responsible for managing all aspects of the project. Construction Coordinators take the lead role in: all communication with contractors and design engineers; negotiating change order costs and determining the necessity and reasons for the changes; and, in general, ensuring that MWRA's best interests are served during the construction of any project. Depending on the size of the project, a Construction Coordinator may be assigned to a single project or multiple projects that could include new buildings/facilities or the rehabilitation and improvement of MWRA's existing water and wastewater facilities and pipelines. Construction Coordinators also perform constructability reviews of contract plans and specifications prior to bidding. Additional responsibilities include, but are not limited to, supervision of field engineers and inspectors, assignment of projects, performance evaluations and staff development, and provision of technical and administrative assistance to staff assigned to the construction projects as required.

Organizationally, the Construction Coordinator position reports to the Assistant Director, Construction, in the Construction Unit and can supervise up to five field staff (see attached organization chart).

Selection Process

These positions were posted both internally and externally. A total of 20 candidates applied and after reviewing the applications, it was determined that eight of the candidates met the minimum qualifications for the available openings. Senior staff from Engineering & Construction and a representative from MWRA's Affirmative Action and Compliance Unit interviewed seven of the eight candidates (one candidate subsequently withdrew from consideration) and determined that Mr. Vincent W. Spada was the most qualified candidate to fill one of these positions based upon his combination of experience, abilities, knowledge, and education.

Mr. Spada has more than 16 years of experience working civil engineering projects with various private and public firms. He has managed projects from planning/conceptual designs to construction close-outs, including the rehabilitation and improvement of waterworks and wastewater infrastructure. Mr. Spada was most recently employed as a Client Manager with Woodard & Curran of Andover, MA. Prior to that, he worked at Kleinfelder/SEA Consultants in Cambridge, MA, where he managed and provided technical direction and expertise, developed team organization and resources, and participated in projects serving public clients. He served as a CSO technical expert, providing on-call wastewater engineering services, managed and developed Long-Term Control Plan programs, and planned and designed sewer improvements, storm drainage, and flood control programs.

Mr. Spada holds both a Bachelor of Science Degree in Civil Engineering and a Master of Science in Environmental Engineering from Northeastern University. He also holds a Massachusetts Registered Professional Engineering license (PE), and is a Licensed Site Professional.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the Operations Divisions FY15 Current Expense Budget for this position. The recommended salary is commensurate with Mr. Spada's experience, and is in accordance with guidelines established in Unit 9's collective bargaining agreement.

ATTACHMENTS:

Resume of Vincent Spada
Position Description
Organizational Chart

VINCENT W. SPADA, PE, LSP

PROFESSIONAL CONSULTING ENGINEER

Renovating Aging Infrastructure

Manage all phases of civil engineering projects with strategic planning from conceptual designs, reports, plans and specifications to successful construction close-out. Expertise in assessing and upgrading existing urban infrastructure while focusing on understanding and meeting client expectations and business objectives.

Create high performing teams through open communication, collaboration, and transparent leadership.

Proficient in civil engineering projects for both private and public clients including:

- Urban Infrastructure
- Water and Sewer
- Roadways
- Hazardous Waste
- Utilities
- Land Development
- Solid Waste

PROFESSIONAL EXPERIENCE

WOODARD & CURRAN, Andover, MA

2012 – 2014

Client Manager

Performed business development activities, providing strategy, goals and objectives, technical expertise, preparation and review of marketing plans for selected client targets. Identified and positioned potential project opportunities, initiated client contacts and responded to proposals. Developed team organization, staff resources, scope of services, schedules and fees. Coordinated and participated in project reviews. Managed and provided technical direction and expertise for following projects:

- **National Grid, New York City, Gowanus Canal, Brooklyn, NY**
 - Served as CSO technical expert, providing review, expert opinion, alternative evaluation and recommendations on CSO-related issues for one of first sites in nation where Clean Water Act overlapped with RCRA regulations.
 - Reviewed and value-engineered City of New York's Long Term Control Plan recommended CSO mitigation, evaluating investigation approach, hydraulic modeling development and results, CSO control alternatives evaluation, costs, conclusions and recommendations, identifying and further investigating data needs and gaps.
 - Determined and demonstrated proposed mitigation feasibility by preparing CSO sampling plan, conceptual layouts and costs for CSO control options.
 - Presented evaluation results and data gaps to City DEP and Region 2 EPA resulting in City undertaking pilot program to evaluate flow metering best available technology and equipment for CSO regulators along canal. Evaluation supported EPA's consent order requiring City move forward with CSO storage and finalize LTCP.
- **LTCP Update, Monmouth, IL**
 - Reviewed and made recommendations on City's current LTCP program. Developed hydraulic model and alternatives for main truck lines, utilizing iterative process. Arrived at cost effective CSO mitigation plan and developed schedule to be implemented over 10 years.
- **SSES and Asset Management Program, Lawrence MA**
 - Developed scope, budget, sequencing, schedule, organization and staffing plan for \$2M program for combined and separated sewer system including manhole and pipe inspection, GIS map development, GPS of structures, flow monitoring, illicit connection detection and elimination, hydraulic modeling, risk analysis, and prioritized asset management CIP.

Client Manager

Managed projects by advising, collaborating, planning, understanding strategic big picture and overseeing client needs and expectations for following projects:

- **Wastewater Engineering On Call Services, Northampton, MA**
 - Provided on-call wastewater engineering services including development of Comprehensive Wastewater Management Plan, WWTP Nitrogen Optimization Study, WWTP Effluent Replacement Pumps and Bar Rack Replacement, and Bradford Road Pump Station Replacement.
- **Springfield Water and Sewer Commission, Wastewater Engineering On Call Services, Springfield, MA**
 - Managed and developed Long Term Control Plan program with engineering budget of >\$10M including major infrastructure improvements, WWTP improvements, GIS upgrades, Risk Analysis, Asset Management and condition assessment, O&M, and Capital Improvements Plan with estimated construction value of \$200 to \$300M.
- **Chicopee River CSO Project, Springfield, MA**
 - Planned, designed and oversaw construction CSO control, sewer separation and pump station improvements, with construction value of \$30M.
- **DPW, CSO and Sewer Separation Program, Cambridge, MA**
 - Planned and designed sewer improvements, storm drainage and flood control program, providing construction administration services with total estimated construction value of \$100M.
- **Fresh Pond Parkway Sewer Separation and Surface Enhancement Project, Cambridge, MA**
 - Managed \$18M 2 phase construction project: sewer separation and roadway enhancement, consisting of 1,500 to 2,000 feet of new and rehabilitated sanitary sewer pipe and storm drain pipes ranging in diameter from 18 inches to 4 ft by 10 ft, drainage and sanitary flush vaults, and catch basins.
 - Relocated and replaced other public and private utilities including gas, electric, telephone, and water mains. Enhanced surface construction included roadway sub base reconstruction, bituminous concrete pavement, curbing, sidewalks, bikepath and landscaping.
- **Cambridge Park Drive Area Drainage Contract 12 Design, Cambridge, MA**
 - Led design of city-wide sewer separation program undertaken as part of series of court-ordered Boston Harbor Clean-up measures designed to prevent untreated sewage discharges from combined sewer overflows to local waterways, including 3,000 linear feet of proposed 4 ft by 8 ft box culvert storm drain pipes, special structures, grit chamber, bending weir, and MBTA high-speed railroad crossing.
 - Created 3.4 acre stormwater treatment wetland in Alewife Brook Reservation.
 - Managed community relations, permitting, and easement negotiations for project with estimated construction value of \$15M.

FOUNDATIONAL EXPERIENCE

CDM, Cambridge, MA
Project Manager

EJ FLYNN ENGINEERING, Northboro, MA
Office Manager

CDM, Boston, MA
Project Engineer

EDUCATION

MSCE, Environmental Engineering, Northeastern University, Boston, MA
BSCE, Civil Engineering, Northeastern University, Boston, MA

PROFESSIONAL REGISTRATIONS

Professional Engineer – MA (#31436), CT (#25669), NH (#6097), VT (#5088)
Licensed Site Professional – MA (#6603)

TRAINING AND CERTIFICATIONS

OSHA 40 Hour Hazardous Waste Training
Confined Space Entry Training
Pipe Assessment and Certification Program (PACP) Certified

PROFESSIONAL ORGANIZATIONS

American Public Works Association (APWA), Boston Society of Civil Engineers (BSCE), New England Water Environment Association (NEWEA), New England Water Works Association (NEWWA), Licensed Site Professional Association, MWRA Wastewater Advisory Committee

PUBLICATIONS

Spada, Vincent and Geribo, Stephen H., "A Seven-Step Action Plan for Sustaining Infrastructure", WEF Conference, Orlando, FL, June 2010.
Spada, Vincent and Joshua Schimmel, "Chicopee River CSO Project", APWA International Congress, San Antonio, TX, September 2007.
Spada, Vincent and O'Riordan, Owen, "Anyone Can Put in a Pipe! Construction of the Fresh Pond Parkway Sewer Separation and Surface Enhancements City of Cambridge, MA" Volume One – Proceedings of the ASCE International Conference on Pipeline Engineering and Construction, New Pipeline Technologies, Security and Safety, Baltimore, MD, Cp July 2003.

COMMUNITY SERVICE

Town of Tewksbury Planning Board (elected position), 1999 – 2014
Tewksbury Conservation Commission, 1990 – 1999

**MWRA
POSITION DESCRIPTION**

POSITION: Construction Coordinator
PCR#: 55250144, 55250105
DIVISION: Operations
DEPARTMENT: Engineering and Construction

BASIC PURPOSE:

Supervises office and field engineers to oversee and manage construction contracts and professional engineering contracts in the construction, rehabilitation, improvements, and start-up of Waterworks and Wastewater facilities and infrastructure.

SUPERVISION RECEIVED:

Works under the general supervision of the Assistant Director, Construction.

SUPERVISION EXERCISED:

Exercises close supervision of office and field employees including professional and technical staff, resident engineers, and inspectors.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Oversees and manages a program of construction projects, including the rehabilitation and improvement of waterworks and wastewater facilities and pipelines.
- Supervises and manages office and field engineers, including assignment of projects, evaluation of performance, and staff development planning. Provides technical and administrative assistance to staff during the construction, startup, and warranty of projects.
- Oversees and directs consultant engineering services and contracts during construction, including all work for quality of work, budget, schedule, and compliance with contractual terms and MWRA objectives and policies. Negotiates and reviews construction services in consultant contracts.
- Acts as liaison with engineering, operations, and maintenance staff to ensure the smooth construction and start-up of new or rehabilitated facilities.

- Ensures contractor compliance with construction documents, MWRA procedures and policies, regulatory requirements, and applicable engineering standards.
- Supervises the development and maintenance of construction tracking and reporting procedures. Prepares and updates construction budget and schedule projections.
- Performs constructability reviews of construction plans and specifications.
- Reviews, negotiates and processes change orders and claims in accordance with MWRA policies and procedures.
- Reviews and processes pay estimates and final payment and construction closeout documents in a timely manner. Oversees preparation and submittal of accurate record drawings upon construction completion.
- Oversees office and field project files, ensuring that all project documentation is complete, up-to-date, and in accordance with MWRA policies and procedures.
- Prepares reports for the Executive Director and Board for construction contract and engineering agreement changes, and project status.

SECONDARY DUTIES:

- Participates in preparing for collective bargaining and hears Step-One grievances.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Completion of a four (4) year college program in civil engineering or a related field; and
- (B) Eight (8) to (10) ten years experience in the construction of water and wastewater facilities and infrastructure, of which four (4) years should be in a supervisory capacity and four (4) years should include a project management experience; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Demonstrated ability to work effectively as part of a project team and also to function independently with minimal supervision.

- (B) Knowledge of Massachusetts laws, including MGL Chapter 30 and Chapter 149 construction regulations.
- (C) Familiarity with computer software, such as Word and Excel.
- (D) Excellent interpersonal, managerial, oral and written communication skills are required.

SPECIAL REQUIREMENTS:

Registration as a Professional Engineer in Massachusetts is preferred.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

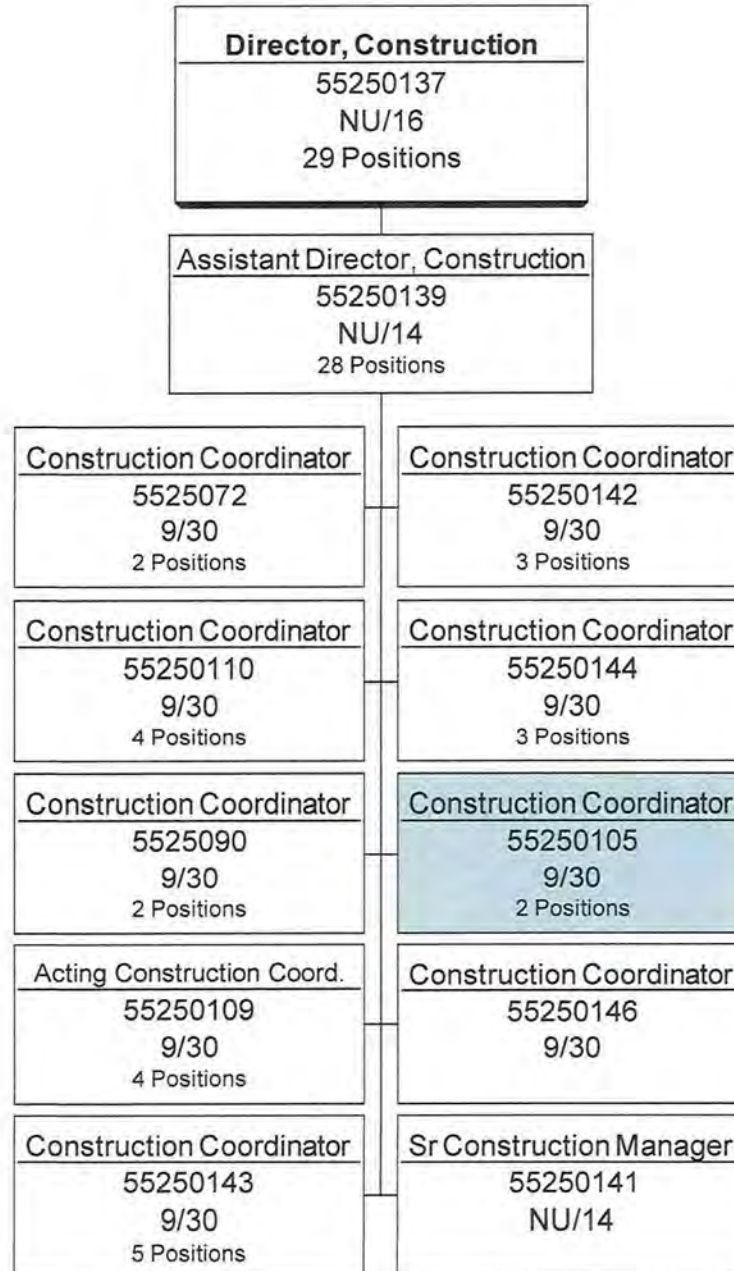
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employees frequently 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, extreme heat or extreme cold, and the risk of electrical shock.

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

**Engineering & Construction
Construction**

October 2014



STAFF SUMMARY

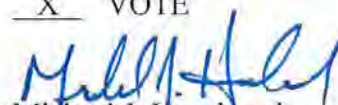
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 15, 2014
SUBJECT: Appointment of Construction Coordinator
Engineering & Construction Department



COMMITTEE: Personnel & Compensation

Robert G. Donnelly, Director, Human Resources
John P. Vetere, Deputy Chief Operating Officer
Corinne M. Barrett, Director of Construction
Preparer/Title

 INFORMATION
 X VOTE



Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of Mr. Daniel R. Thompson to the position of Construction Coordinator in the Engineering & Construction Department (Unit 9, Grade 30) at the recommended salary of \$114,229, to be effective October 18, 2014.

DISCUSSION:

The position of Construction Coordinator is MWRA's key point person on every construction project, and is responsible for managing all aspects of the project. Construction Coordinators take the lead role in: all communication with contractors and design engineers; negotiating change order costs and determining the necessity and reasons for the changes; and, in general, ensuring that MWRA's best interests are served during the construction of any project. Depending on the size of the project, a Construction Coordinator may be assigned to a single project or multiple projects that could include new buildings/facilities or the rehabilitation and improvement of MWRA's existing water and wastewater facilities and pipelines. Construction Coordinators also perform constructability reviews of contract plans and specifications prior to bidding. Additional responsibilities include, but are not limited to, supervision of field engineers and inspectors, assignment of projects, performance evaluations and staff development, and provision of technical and administrative assistance to staff assigned to the construction projects as required.

Organizationally, the Construction Coordinator position reports to the Assistant Director, Construction, in the Construction Unit and can supervise up to five field staff (see attached organization chart).

Selection Process

These positions were posted both internally and externally. A total of 20 candidates applied and after reviewing the applications, it was determined that eight of the candidates met the minimum

qualifications for the available openings. Senior staff from Engineering & Construction and a representative from MWRA's Affirmative Action and Compliance Unit interviewed seven of the eight candidates (one candidate subsequently withdrew from consideration) and determined that Mr. Daniel R. Thompson was the most qualified candidate to fill one of these positions based upon his combination of experience, abilities, knowledge, and education.

Mr. Thompson began his career with MWRA in 1986 as a Project Manager and has more than 27 years of experience in the operation, design, and construction of MWRA water and wastewater systems. Mr. Thompson is currently a Program Manager in Wastewater Operations, where he assists the Manager of Operations in maintaining the day-to-day operation of MWRA's wastewater systems. His current responsibilities include personnel management, supervising equipment operation and monthly operations maintenance, reviewing construction contracts for facility improvements and upgrades, coordinating with various MWRA departments, such as Engineering & Construction during facility modifications and construction projects, and providing on-call management and emergency response coverage for wet-weather storm events.

Since starting at MWRA, Mr. Thompson has held several positions of increasing responsibility. Throughout these various positions, he has acquired extensive experience in managing and coordinating both construction and maintenance contracts. For several years, Mr. Thompson worked closely with Pratt & Whitney field service technicians in managing MWRA's combustion turbine generator maintenance agreement on Deer Island. He has worked closely with contractors in all phases of engineering maintenance services and equipment repair contracts from specification development, to award, to contract close-out.

Mr. Thompson has successfully demonstrated the ability to manage multiple projects, has good leadership skills, and has earned the respect of his supervisors and colleagues.

Mr. Thompson holds a Bachelor of Science Degree in Marine Engineering from Massachusetts Maritime Academy and certificates from Wentworth Institute of Technology in Managing Construction Projects, Facility Management, and Construction Technology.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the Operations Division's FY15 Current Expense Budget for this position. The recommended salary is in accordance with guidelines established in Unit 9's current collective bargaining agreement.

ATTACHMENTS:

Resume of Daniel Thompson
Position Description
Organizational Chart

Daniel R. Thompson

EXPERIENCE

1986 – present

MASSACHUSETTS WATER RESOURCES AUTHORITY

Boston, MA

Program Manager – Wastewater Operations Division / Field Operations

Assist Manager of Operations in maintaining the day to day wastewater system operations that includes:

- personnel management; supervise equipment operation & monthly operations maintenance;
- review construction contracts for facility improvements and upgrades from an operations perspective; coordinate with Process Control and Engineering & Construction during facility process modifications and construction projects;
- on-call management for wet weather storm events; generate department reports & operating summaries; present required annual safety practices to the department staff;

Project Manager – Senior Designer, Engineering Department / Capital Department

Manage various construction and engineering maintenance services and equipment repair contracts for facility construction improvements and upgrades within the Deer Island Treatment Plant. Developed construction and maintenance service contract documents from inception to award:

- developed project cost estimates for various maintenance and engineering construction services;
- manage contractors and maintain budgets and for both construction and maintenance service contracts while working with the Operations Department;
- planned & managed both scheduled and emergency equipment repairs with contractors;

Senior Engineer, Energy Department

Assisted Senior Program Manager in implementing the MWRA Energy policy throughout the water and sewerage divisions:

- managed consultant contract providing energy audits within selected Authority facilities;
- maintained data base for monitoring electricity usage and evaluation prior to and during the 1998 Massachusetts electric supply industry de-regulation initiative;

Project Engineer, Waterworks Division, Planning Department

Developed and implemented various technical assistance projects for water and energy conservation technology and practices within commercial and industrial facilities;

- designed, scheduled, and managed a budget for comprehensive facility water audits performed in-house and by three contracted consulting engineering firms;
- assessed new & existing facilities for efficient water use practices and improved technologies;

Project Engineer, Wastewater Engineering Department

Responsible for engineering support relating to the Combined Sewer Overflow (CSO) Facility Plan under the direction of the Senior Program Manager:

- managed construction contracts from inception to completion for small in-system improvements in the City of Chelsea;
- participated in CSO community and regulatory agency meetings, including EPA and DEP, during Authority CSO planning and in-system construction projects evaluations;

Daniel R. Thompson

1984-1986

SCHLUMBERGER Ltd. (SEDCO-FOREX DIVISION)

Dallas, TX

Third Assistant Engineer

- responsible for all engine room equipment during operation on a dynamically positioned drill ship involved in the offshore oil industry; monitored and performed mechanical equipment maintenance

EDUCATION

Wentworth Institute of Technology - Continuing Education – Professional Certificate Program:

- Managing Construction Projects – 2011
- Facility Management - 2009
- Construction Technology - 2008

Commonwealth of Massachusetts, Office of the Inspector General

Associate Massachusetts Certified Public Purchasing Officer (Associate MCPPO) - June 2010 -
(* Includes: MGL Chapter 30 Sec.39M and 149 for Design and Construction Projects)

Peterson School of Steam Engineering:

Facilities Equipment Maintenance, Certificate, 1994

Third Assistant Stationary Engineer, Certificate, 1991

Massachusetts Maritime Academy

B.S. Marine Engineering, 1983

TRAINING / CERTIFICATES

Pratt & Whitney FT8 – CTG – Annual Users Group Conference 2010 -2005

2012 U.S. Coast Guard License (*renewed*)

Second Assistant Motor & Third Assistant Steam - Unlimited Horsepower

1996 Massachusetts Wastewater Operators License, Grade 5-C

Microsoft Word, Excel, SCADA- PI, Windows Operating System

ASSOCIATIONS

Construction Specification Institute (CSI)

NEWEA - New England Water Environmental Association

WEF - Water Environmental Federation

REFERENCES

Furnished upon request.

**MWRA
POSITION DESCRIPTION**

POSITION: Construction Coordinator
PCR#: 55250144, 55250105
DIVISION: Operations
DEPARTMENT: Engineering and Construction

BASIC PURPOSE:

Supervises office and field engineers to oversee and manage construction contracts and professional engineering contracts in the construction, rehabilitation, improvements, and start-up of Waterworks and Wastewater facilities and infrastructure.

SUPERVISION RECEIVED:

Works under the general supervision of the Assistant Director, Construction,

SUPERVISION EXERCISED:

Exercises close supervision of office and field employees including professional and technical staff, resident engineers, and inspectors.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Oversees and manages a program of construction projects, including the rehabilitation and improvement of waterworks and wastewater facilities and pipelines.
- Supervises and manages office and field engineers, including assignment of projects, evaluation of performance, and staff development planning. Provides technical and administrative assistance to staff during the construction, startup, and warranty of projects.
- Oversees and directs consultant engineering services and contracts during construction, including all work for quality of work, budget, schedule, and compliance with contractual terms and MWRA objectives and policies. Negotiates and reviews construction services in consultant contracts.
- Acts as liaison with engineering, operations, and maintenance staff to ensure the smooth construction and start-up of new or rehabilitated facilities.

- Ensures contractor compliance with construction documents, MWRA procedures and policies, regulatory requirements, and applicable engineering standards.
- Supervises the development and maintenance of construction tracking and reporting procedures. Prepares and updates construction budget and schedule projections.
- Performs constructability reviews of construction plans and specifications.
- Reviews, negotiates and processes change orders and claims in accordance with MWRA policies and procedures.
- Reviews and processes pay estimates and final payment and construction closeout documents in a timely manner. Oversees preparation and submittal of accurate record drawings upon construction completion.
- Oversees office and field project files, ensuring that all project documentation is complete, up-to-date, and in accordance with MWRA policies and procedures.
- Prepares reports for the Executive Director and Board for construction contract and engineering agreement changes, and project status.

SECONDARY DUTIES:

- Participates in preparing for collective bargaining and hears Step-One grievances.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Completion of a four (4) year college program in civil engineering or a related field; and
- (B) Eight (8) to (10) ten years experience in the construction of water and wastewater facilities and infrastructure, of which four (4) years should be in a supervisory capacity and four (4) years should include a project management experience; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Demonstrated ability to work effectively as part of a project team and also to function independently with minimal supervision.

- (B) Knowledge of Massachusetts laws, including MGL Chapter 30 and Chapter 149 construction regulations.
- (C) Familiarity with computer software, such as Word and Excel.
- (D) Excellent interpersonal, managerial, oral and written communication skills are required.

SPECIAL REQUIREMENTS:

Registration as a Professional Engineer in Massachusetts is preferred.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

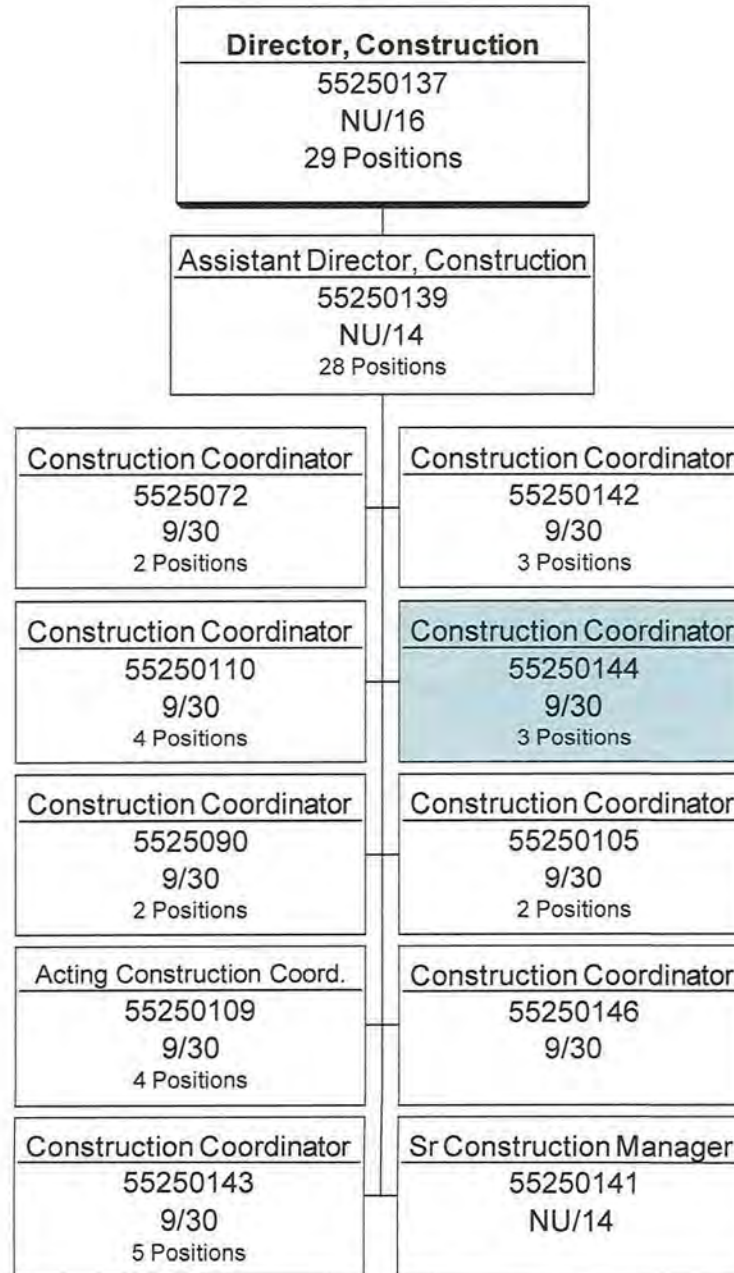
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employees frequently 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, extreme heat or extreme cold, and the risk of electrical shock.

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

**Engineering & Construction
Construction**

October 2014





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
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Chair: M. Bartlett
Vice-Chair: J. Carroll
Secretary: J. Foti
Board Members:
J. Barrera
K. Cotter
P. Flanagan
A. Pappastergion
B. Swett
H. Vitale
J. Walsh
J. Wolowicz

BOARD OF DIRECTORS' MEETING

to be held on

Wednesday, October 15, 2014

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

- A. Annual Meeting of the Board of Directors – Election and Appointment of MWRA Officers and Committee Assignments

III. REPORT OF THE EXECUTIVE DIRECTOR

IV. BOARD ACTIONS

A. Approvals

1. Resolution to Amend and Restate the Sixty-Sixth Supplemental Issuance Resolution (ref. AF&A B.1)
2. Delegation of Authority to Execute a Contract for the Purchase and Supply of Electric Power for MWRA's Profile Accounts, Contract OP-266 (ref. AF&A B.2)
3. Deer Island Co-Digestion Program Update (ref. WW B.1)
4. Charles River Pollution Control District Petition on NPDES Co-Permittees (ref. WW B.2)

5. Approval of One New Member of the Wastewater Advisory Committee (ref. WW B.3)
6. PCR Amendments – October 2014 (ref. P&C A.1)
7. Appointment of Construction Coordinator (ref. P&C A.2)
8. Appointment of Construction Coordinator (ref. P&C A.3)

B. Contract Awards

1. Supply and Delivery of Sodium Hypochlorite to the Deer Island Treatment Plant: Borden & Remington Corp., Bid WRA-3906 (ref. WW C.1)
2. Thermal/Power Plant Management System Upgrade, Deer Island Treatment Plant: O'Connor Corp., Contract 7401 (ref. WW C.2)
3. Instrumentation System Services: KIT Zeller Corp., Contract OP-256 (ref. WW C.3)
4. Construction of Water Mains – Sections 36, W11C and S9-A, Arlington and Medford: RJV Construction Corporation, Contract 7448 (ref. W B.1)

C. Contract Amendments/Change Orders

1. Elevator Maintenance and Repair at Various Facilities: BBE Corp., Contract OP-218, Change Order 2 (ref. WW D.1)

V. CORRESPONDENCE TO THE BOARD

VI. OTHER BUSINESS

VII. EXECUTIVE SESSION

A. Litigation

1. Summary of Litigation and Construction Claims and Negotiations

VIII. ADJOURNMENT

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Board of Directors

September 17, 2014

A meeting of the Board of Directors of the Massachusetts Water Resources Authority was held on September 17, 2014 at the Authority headquarters in Charlestown. Vice-Chair Carroll presided. Present from the Board were Ms. Wolowicz and Messrs. Barrera, Cotter, Flanagan, Foti, Pappastergion, Swett, Vitale and Walsh. Ms. Bartlett was absent. Among those present from the Authority staff were Frederick Laskey, Executive Director, Steven Remsberg, General Counsel, Michael Hornbrook, Chief Operating Officer, Rachel Madden, Director of Administration and Finance, and Bonnie Hale, Assistant Secretary. The meeting was called to order at 1:00 p.m.

APPROVAL OF MINUTES

Upon a motion duly made and seconded, it was

Voted to approve the minutes of July 16, 2014, as presented and filed with the records of the meeting.

REPORT OF THE EXECUTIVE DIRECTOR

Mr. Laskey reported on various matters, including: that UV was online for the CVA plant, had passed the reliability test, and was substantially complete; the FY14 audited financials, with no findings, were in Board members' mailboxes; and the Annual Meeting of the Board is planned for October 15, 2014.

BOARD ACTIONS

APPROVALS

Approval of the Sixty-Eighth Supplemental Resolution

Upon a motion duly made and seconded, it was

Voted to adopt the Sixty-Eighth Supplemental Resolution authorizing the issuance of up to \$315,000,000 of Massachusetts Water Resources Authority General Revenue Bonds and Massachusetts Water Resources Authority General Revenue Refunding Bonds and the supporting Issuance Resolution.

PCR Amendments – September 2014

Upon a motion duly made and seconded, it was

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

Appointment of Superintendent, Clinton Advanced Wastewater Treatment Plant

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Mr. Robert E. Gorham, Area Manager (Unit 6, Grade 12), Clinton Advanced Wastewater Treatment Plant, to the position of Superintendent, Clinton Advanced Wastewater Treatment Plant (Non-Union, Grade 14), at an annual salary of \$114,699.25, commencing on September 20, 2014.

Appointment of Program Manager, Process Monitoring, Deer Island

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Ms. Lisa L. Wong, Project Manager, Process Monitoring (Unit 9, Grade 25) to the position of Program Manager, Process Monitoring (Unit 9, Grade 29), at an annual salary of \$100,808.66, commencing on September 20, 2014.

Appointment of Project Manager, Process Control, Deer Island

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Mr. Timothy Beaulieu, Project Manager, Meter Data (Unit 6, Grade 11) to the position of Project Manager, Process Control (Unit 9, Grade 25), at an annual salary of \$93,955.64, commencing on September 20, 2014.

Appointment of Senior Staff Engineer, Structural

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Ms. Andrea K. Adams to the position of Senior Staff Engineer, Structural (Unit 9/Grade 25), at an annual salary of \$93,955.68, to be effective on the date designated by the Executive Director.

Appointment of Project Manager, Environmental Data

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Ms. Fang Yu (Programmer Analyst II, Unit 6, Grade 9) to the position of Project Manager, Environmental Data, ENQUAD Dept. (Unit 9, Grade 25), at an annual salary of \$86,332, commencing on September 20, 2014.

Appointment of Manager, Western Maintenance

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Mr. Eben A. Nash, Sr. Program Manager, Western Maintenance (Unit 9, Grade 30), to the position of Manager, Western Maintenance (Non-Union, Grade 14), at an annual salary of \$123,252.47, commencing on September 20, 2014.

Appointment of Manager, IT Security, Architecture and Engineering

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Ms. Paula Weadick to the position of Manager, IT Security, Architecture & Engineering, MIS Department (Non-Union, Grade 14), at an annual salary of \$123,252, to be effective on the date designated by the Executive Director.

Recommendation to Rename the Ware Disinfection Facility the William A. Brutsch Water Treatment Facility

The following motion was duly made and seconded:

Whereas, William A. Brutsch graduated from Worcester Polytechnic Institute in 1962 with a BS in Mechanical Engineering; and

Whereas, Mr. Brutsch began his career with the Metropolitan District Commission in 1970 as a Mechanical Engineer, after serving in the Air Force for four years. He became a Professional Engineer in 1978 and was promoted to Assistant to the Chief Engineer. In 1982, he became Acting Director of the Water Division and Chief Water Supply Engineer; and

Whereas, in 1981, Mr. Brutsch became MDC's Director of Program Management in the Water Division; and

Whereas, after the creation of the MWRA, Mr. Brutsch was appointed as Director of the Waterworks Division in 1986; and

Whereas, Mr. Brutsch spearheaded a water conservation program in the early 1990s, which eliminated the need for new source development, which has resulted in a water use reduction of over 120 million gallons per day; and

Whereas, Mr. Brutsch also began the automation of critical water system operations and the development of a strong maintenance program which lead to the development of a skilled and dedicated work force; and

Whereas, under Mr. Brutsch's steadfast leadership, planning and construction of a \$2 billion program to modernize the region's water system was begun to ensure clean, safe and reliable drinking water for over 2.3 million people in 51 communities for generations to come; and

Whereas, in May 2000, Mr. Brutsch was appointed as MWRA's first Deputy Chief Operating Officer until his retirement in 2002; and

Whereas, Mr. Brutsch essentially headed the Metropolitan Water System for over 30 years, leaving an indelible mark on the water system and the enduring respect and gratitude of the entire MWRA staff; and

Whereas, Mr. Brutsch performed his public service with the utmost professionalism and integrity; and

Now therefore, the Board of Directors of the Massachusetts Water Resources Authority vote to name the water treatment plant in Ware, Massachusetts the "William A. Brutsch Water Treatment Facility."

CONTRACT AWARDS

eDiscovery Technical Consulting Services: PeopleSERVE PRS, Inc., WRA-3869Q, State Blanket Contract ITS53 Cat2b (ref. AF&A C.1)

Upon a motion duly made and seconded, it was

Voted to approve the award of a purchase order contract for technical consulting services to implement eDiscovery Solution, Symantec Enterprise Vault File System Archiving and Clearwell Identification and Collection Services to the lowest eligible and responsible bidder under Bid WRA-3869Q, PeopleSERVE PRS, Inc., and to authorize the Executive Director, on behalf of the Authority, to execute and deliver said purchase order contract in an amount not to exceed \$156,160 under State Blanket Contract ITS53 Cat2b.

Struvite, Scum, Sludge, and Grit Removal Services at the Deer Island Treatment Plant: Moran Environmental Recovery, Contract WRA-3862

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, Moran Environmental Recovery, and to authorize the Director of Administration and Finance, on behalf of the Authority, to execute and deliver said purchase order in an amount not to exceed \$929,025.

Deer Island Treatment Plant Clarifier Rehabilitation, Phase II, Design/ Engineering Services During Construction: CDM Smith Inc., Contract 7394

Upon a motion duly made and seconded, it was

Voted to approve the recommendation of the Consultant Selection Committee to select CDM Smith Inc. to provide preliminary design, final design, and engineering services during construction, for the Deer Island Treatment Plant Clarifier Rehabilitation, Phase II project and to authorize the Executive Director, on behalf of the Authority, to execute Contract 7394 with CDM Smith Inc. in an amount not to exceed \$2,237,401, for a term of 81 months from the Notice to Proceed.

Beacon Street Line Water Pipeline Repair: Green International Affiliates, Inc., Contract 7474

Upon a motion duly made and seconded, it was

Voted to approve the recommendation of the Consultant Selection Committee to select Green International Affiliates, Inc. to provide Design, Construction Administration and Resident Inspection Services for the Beacon Street Line Water Pipeline Repair project and to authorize the Executive Director, on behalf of the Authority, to execute Contract 7474 with Green International Affiliates, Inc. in the amount of \$425,440, for a term of 930 calendar days from the Notice to Proceed.

CONTRACT AMENDMENTS/CHANGE ORDERS

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

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to approve Amendment 1 to exercise the first option to renew and increase the amount of Contract No. A591 with Delta Dental of Massachusetts, Dental Insurance, in the amount of \$336,000 and to extend the term for twelve months from January 1, 2015 to December 31, 2015.

Agency-Wide Technical Assistance Consulting Services: Fay, Spofford & Thorndike, LLC, Contract 7437, Amendment 1; and Hazen and Sawyer, P.C., Contract 7456, Amendment 1

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to approve two separate Amendments No. 1 to increase the amount of Contract No. 7437 with Fay, Spofford & Thorndike, LLC; and Contract 7456 with Hazen and Sawyer, P.C., Technical Assistance Consulting Services, each in an amount not to exceed \$550,000, and to extend each contract term by one year, as follows: Contract 7437 from January 28, 2015 to January 25, 2016; and Contract 7456 from February 25, 2015 to February 25, 2016.

Spot Pond Water Storage Facility Design/Build Project: Walsh Construction Co., Contract 6457, Change Order 7

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order 7 to increase the amount of Contract 6457 with Walsh Construction Company, Spot Pond Water Storage Facility Design/Build Project, for a lump sum amount of \$587,630.07, with no increase in contract term. Further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 6457 in amounts not to exceed the aggregate of \$250,000, in accordance with the Management Policies and Procedures of the Board of Directors.

Gillis Pump Station Short Term Improvements: Bay State Regional Contractors, Contract 7260, Change Order 3

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order 3 to increase the amount of Contract 7260 with Bay State Regional Contractors, Inc., Gillis Pump Station Short-Term Improvements, in an amount not to exceed \$235,933.19, and to extend the contract term by 10 calendar days from July

26, 2014 to August 5, 2014. Further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 7260 in amounts not to exceed the aggregate of \$150,000 in accordance with the Management Policies and Procedures of the Board of Directors.

EXECUTIVE SESSION

It was moved to enter executive session to discuss litigation and 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>
Barrera		
Cotter		
Flanagan		
Foti		
Pappastergion		
Swett		
Vitale		
Walsh		
Wolowicz		
Carroll		

Voted to enter executive session to discuss strategy with respect to litigation 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 and negotiating positions of the Authority.

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

* * * *

EXECUTIVE SESSION

* * * *

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

STAFF SUMMARY

TO: Board of Directors
FROM: Maeve Valley Bartlett, Chairman *MVB*
DATE: October 15, 2014
SUBJECT: Annual Meeting: Election and Appointment of MWRA Officers and Committee Assignments

RECOMMENDATION:

That the Board of Directors (1) designate this October 15, 2014 meeting as the Annual Meeting which, as provided in the Authority’s by-laws, will be deemed a special meeting of the Board for the purpose of election of officers; (2) elect a Vice-Chairman of the Board; and (3) appoint a Secretary of the Board, an MWRA Treasurer, and such Assistant Secretaries and Assistant Treasurers of the Board as the Board deems appropriate. New Committee Chairs will be appointed approximately every two years.

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

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

DISCUSSION:

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

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

The by-laws also provide that:

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

Retirement Board Appointments

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

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

The same section of that statute further provides that the second member of the Retirement Board “. . . shall be appointed by the board of directors of the authority for a term of 3 years . . .”

Thomas J. Durkin was appointed as a member of the Retirement Board for a three-year term beginning on October 17, 2012.

Nomination of Officers

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

Vice-Chairman: John J. Carroll
Secretary: Joseph C. Foti
Treasurer: Thomas J. Durkin
Assistant Secretaries: Bonnie Hale
Rose Marie Convery
Assistant Treasurer: Matthew Horan
Kathy Soni

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

Vice-Chairman: John J. Carroll
Secretary: Joseph C. Foti
Treasurer: Thomas J. Durkin
Assistant Secretaries: Bonnie Hale
Rose Marie Convery
Assistant Treasurers: Matthew Horan
Kathy Soni

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