



MASSACHUSETTS WATER RESOURCES AUTHORITY

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

Frederick A. Laskey
Executive Director

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ADMINISTRATION, FINANCE & AUDIT COMMITTEE MEETING

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

to be held on

Wednesday, June 26, 2013

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

Time: 10:00 a.m.

AGENDA

A. Information

1. Delegated Authority Report – May 2013
2. FY13 Financial Update and Summary as of May 2013

B. Approvals

1. Final FY14 Capital Improvement Program
2. Final FY14 Current Expense Budget
3. Final FY14 Water and Sewer Assessments
4. Amendment 3 to Memorandum of Understanding with the Department of Public Safety for Electrical Inspections

C. Contract Awards

1. Automated Vehicle Locator Tracking System: Location Technologies, Inc., Contract A586

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Administration, Finance and Audit Committee

June 5, 2013

A meeting of the Administration, Finance and Audit Committee was held on June 5, 2013 at the Authority headquarters in Charlestown. Chairman Foti presided. Present from the Board were Messrs. Barrera, Carroll, Cotter, Flanagan, Pappastergion, Vitale, Swett and Walsh. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Rachel Madden, Paul Whelan, and Bonnie Hale. The meeting was called to order at 12:00 p.m.

Approvals

***MWRA FY14 Insurance Program Renewal**

Mr. Laskey apologized for the late submittal of the staff summary, noting that staff was negotiating for the best rates right up to the last minute. The Committee recommended approval of the FY14 Insurance Renewal Program (ref. agenda item A.1).

The meeting adjourned at 12:05 p.m.

* Approved as recommended at June 5, 2013 Board of Directors meeting.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 26, 2013
SUBJECT: Delegated Authority Report – May 2013



COMMITTEE: Administration, Finance & Audit


X INFORMATION
VOTE



Rachel C. Madden

Director, Administration & Finance

Barbie Aylward, Administrator
Frank Renda, Data & Information Coordinator
Preparer/Title



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 May 1 through May 31, 2013.

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.

DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMENDMENT/CO	COMPANY	FINANCIAL IMPACT
05/09/13	MISCELLANEOUS FENCING AND GUARD RAIL AWARD OF CHANGE ORDER 3 TO CONTRACT 6760T, MISCELLANEOUS FENCING AND GUARD RAIL, REDUCING THE QUANTITY OF BID ITEMS TO REFLECT ACTUAL QUANTITIES USED	6760T	3	STEELCO CHAIN LINK FENCE ERECTING CO. INC.	(\$59,935.00)
05/09/13	MISCELLANEOUS FENCING AND GUARD RAIL AWARD OF CHANGE ORDER 4 TO CONTRACT 6760T, ADD FENCING AND ASSIGN A PORTION OF THE CREDIT IN CHANGE ORDER 3 TO THE TYPE OF FENCING THAT IS NECESSARY TO BE INSTALLED BEFORE THE EXPIRATION OF THE CONTRACT	6760T	4	STEELCO CHAIN LINK FENCE ERECTING CO. INC.	\$44,405.40
05/09/13	THERMAL AND HYDRO POWER PLANT MAINTENANCE AWARD OF CHANGE ORDER 3 TO CONTRACT 5500, THERMAL AND HYDRO POWER PLANT MAINTENANCE; INCREASE IN NON EMERGENCY MAINTENANCE AND REPAIR, EMERGENCY MAINTENANCE AND REPAIR AND REPLACEMENT PARTS, BASED UPON REASONABLE ASSUMPTIONS AND PREVIOUS CONTRACT HISTORY	5500	3	O'CONNOR CONSTRUCTORS	\$45,575.00
05/09/13	NORTH MAIN PUMP STATION VARIABLE FREQUENCY DRIVE AND SYNCHRONOUS MOTOR REPLACEMENT, DEER ISLAND TREATMENT PLANT AWARD OF CHANGE ORDER 5 TO CONTRACT 6903, NORTH MAIN PUMP STATION VARIABLE FREQUENCY DRIVE AND SYNCHRONOUS MOTOR REPLACEMENT; FURNISH AND INSTALL AN ADDITIONAL 2,700 SQUARE FEET OF ETHYLENE PROPYLENE DIENE MONOMER MEMBRANE ROOFING SYSTEM ON THE NORTH MAIN PUMPING STATION ROOF	6903	5	J.F. WHITE CONTRACTING COMPANY	\$63,848.02
05/17/13	WESTON RESERVOIR DISINFECTION FACILITY ABOVEGROUND FUEL STORAGE TANK SYSTEM AWARD OF CONTRACT OP-203, WESTON RESERVOIR DISINFECTION FACILITY ABOVEGROUND FUEL STORAGE TANK SYSTEM, FOR FURNISHING AND INSTALLING A COMPLETE ABOVEGROUND DIESEL FUEL STORAGE SYSTEM, CONSISTING OF A TANK, PUMP EQUIPMENT, FUEL MANAGEMENT SYSTEM, TANK MONITORING SYSTEM, CONCRETE SLAB SUPPORT, CONNECTION TO THE ELECTRICAL SYSTEM, AND LANDSCAPE RESTORATION, WHICH REPLACES AN UNDERGROUND TANK REMOVED IN JUNE 2011	OP-203		TMC SERVICES INC, d/b/a TMC ENVIRONMENTAL	\$71,200.00
05/17/13	DEER ISLAND TREATMENT PLANT - LIGHTING IMPROVEMENTS PLAN PHASE 2 EXTERIOR AWARD OF CONTRACT 5519, DEER ISLAND TREATMENT PLANT LIGHTING IMPROVEMENTS PHASE 2 EXTERIOR, TO REPLACE 110 EXISTING HIGH-PRESSURE SODIUM EXTERIOR ROADWAY LIGHTING FIXTURES WITH NEW LED FIXTURES, RESULTING IN ENERGY SAVINGS AND REDUCED MAINTENANCE COSTS	5519		HORIZONS SOLUTIONS LLC	\$93,157.16
05/24/13	KEY PROJECT WORK CREW SERVICES AT DEER ISLAND AND NUT ISLAND AWARD OF CONTRACT 5518, KEY PROJECT WORK CREW SERVICES AT DEER ISLAND AND NUT ISLAND, FOR SUPPLEMENTAL GROUNDS-KEEPING AND PUBLIC ACCESS AREA CLEANING SERVICES AT DEER ISLAND AND NUT ISLAND	5518		ROCA, INC	\$50,000.00
05/24/13	OVERHEAD DOOR MAINTENANCE SERVICES, VARIOUS MWRA FACILITIES AWARD OF CONTRACT OP-212, OVERHEAD DOOR MAINTENANCE SERVICES, VARIOUS MWRA FACILITIES, FOR SCHEDULED PREVENTIVE MAINTENANCE, EMERGENCY AND NON-EMERGENCY CORRECTIVE MAINTENANCE, AND REPLACEMENT PARTS, FOR 80 OVERHEAD DOORS AT VARIOUS MWRA WATER AND WASTEWATER FACILITIES IN THE EASTERN PORTION OF MWRA'S SERVICE AREA	OP-212		COLLINS OVERHEAD DOOR, INC	\$81,800.00
05/24/13	WESTERN OPERATIONS FACILITIES GROUNDSKEEPING SERVICES AWARD OF CONTRACT OP-210, WESTERN OPERATIONS FACILITIES GROUNDSKEEPING SERVICES, TO PROVIDE GROUNDSKEEPING SERVICES AT THE JOHN J CARROLL WATER TREATMENT PLANT, NORUMBEGA COVERED STORAGE FACILITY AND RESERVOIR 3 IN FRAMINGHAM, FOR A 21 MONTH PERIOD	OP-210		SHADY TREE LANDSCAPING, INC	\$94,299.00

PURCHASING DELEGATED AUTHORITY ITEMS - MAY 1 - 31, 2013

DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT #	AMENDMENT	COMPANY	FINANCIAL IMPACT
5/9/13	HP PROLIANT SERVERS AWARD OF A PURCHASE ORDER, TO THE LOWEST RESPONSIVE BIDDER, FOR 3 HP PROLIANT SERVERS, TO ALLOW CONSOLIDATION OF ALL PRODUCTION-BASED VIRTUAL SERVERS ONTO A SINGLE, STANDARDIZED, RELIABLE, REDUNDANT INFRASTRUCTURE COMPRISED OF THESE 3 SERVERS, REDUCING MAINTENANCE, ADMINISTRATION AND ENERGY COSTS BY SHARING PHYSICAL RESOURCES	WRA-3622Q		P&J SYSTEMS, INC	\$43,401.00
5/9/13	PROCESS INFORMATION SOFTWARE ANNUAL MAINTENANCE AND SUPPORT AWARD OF A SOLE SOURCE PURCHASE ORDER FOR THE ANNUAL MAINTENANCE AND SUPPORT OF PROCESS INFORMATION SOFTWARE, FOR THE PERIOD JULY 1, 2013 THROUGH JUNE 30, 2014			OSI SOFT, LLC	\$70,522.50
5/9/13	HEWLETT-PACKARD ANNUAL MAINTENANCE AND SUPPORT AWARD OF A PURCHASE ORDER FOR THE ANNUAL MAINTENANCE AND SUPPORT OF HEWLETT PACKARD EQUIPMENT, UNDER STATE BLANKET AGREEMENT #ITC47, FOR THE PERIOD JULY 1, 2013 THROUGH JUNE 30, 2014	SC-#ITC47		HEWLETT-PACKARD COMPANY	\$173,707.24
5/9/13	SUPPLY AND DELIVERY OF SODIUM BISULFITE - DEER ISLAND AWARD OF A ONE-YEAR PURCHASE ORDER CONTRACT, TO THE LOWEST RESPONSIVE BIDDER, FOR THE SUPPLY AND DELIVERY OF SODIUM BISULFITE TO THE DEER ISLAND TREATMENT PLANT	WRA-3623		UNIVAR USA, INC	\$176,467.50
5/17/13	TRANSFORMERS AWARD OF A PURCHASE ORDER, TO THE LOWEST RESPONSIVE BIDDER, FOR 6 REPLACEMENT TRANSFORMERS FOR THE DEER ISLAND TREATMENT PLANT, TO BE PLACED IN INVENTORY FOR IMMEDIATE REPLACEMENT IN THE EVENT OF FUTURE TRANSFORMER FAILURES, MINIMIZING DOWNTIME	WRA-3621Q		NEEDHAM ELECTRIC SUPPLY CORP	\$27,340.00
5/17/13	INVASIVE PLANT CONTROL AT THE CHESTNUT HILL RESERVOIR AWARD OF A PURCHASE ORDER, TO THE LOWEST RESPONSIVE BIDDER, FOR INVASIVE PLANT CONTROL AT THE CHESTNUT HILL RESERVOIR	WRA-3607		AQUATIC CONTROL TECHNOLOGY, INC	\$89,450.00
5/17/13	DUMP TRUCKS AWARD OF A PURCHASE ORDER, TO THE LOWEST RESPONSIVE BIDDER, FOR 3 FREIGHTLINER DUMP TRUCKS, UNDER STATE BLANKET AGREEMENT #VEH93, REPLACING 3 EXISTING SIX-WHEEL DUMP TRUCKS THAT ARE BETWEEN NINE AND TWENTY YEARS OLD WHICH HAVE REACHED THE END OF THEIR USEFUL LIVES	WRA-3625Q - SC#VEH93		BOSTON FREIGHTLINER, INC	\$391,350.00
5/20/13	ULTRA-LOW SULFUR #2 DIESEL FUEL AWARD OF A PURCHASE ORDER, UNDER STATE BLANKET CONTRACT #ENE32, FOR 252,000 GALLONS OF ULTRA-LOW SULFUR #2 DIESEL FUEL FOR THE DEER ISLAND TREATMENT PLANT THERMAL/POWER PLANT	SC-#ENE32		GLOBAL MONTELLO GROUP	\$775,429.20
05/24/13	AQUARIUS SOFTWARE LICENSES AWARD OF A PURCHASE ORDER FOR 18 AQUARIUS SOFTWARE WORKSTATION AND SERVER LICENSES, CONSULTING SERVICES, TECHNICAL SUPPORT AND TRAINING, THE SOFTWARE WILL BE UTILIZED BY THE SOUTHBOROUGH QA DATA MANGEMENT GROUP FOR REPORTING TIME SERIES DATA FOR WATER QUALITY COMPLIANCE PURPOSES AND THE ENQUAD GROUP FOR EPA/DEP COMPLIANCE REPORTING	SC-#ITS42		SHI INTERNATIONAL	\$80,900.00
05/30/13	BATTERY BANK REPLACEMENTS AWARD OF A PURCHASE ORDER, TO THE LOWEST RESPONSIVE BIDDER, FOR BATTERY BANK REPLACEMENTS FOR THE ADMIN/LAB BUILDING, THE NORTH MAIN PUMP STATION AND THE WINTHROP TERMINAL FACILITY BUILDING, THESE BATTERY BANKS HAVE REACHED THE AGE AT WHICH DEER ISLAND'S BATTERY MAINTENANCE PROGRAM DICTATES THEY BE REPLACED, EVERY FOUR YEARS	WRA-3619Q		ATLANTIC BATTERY CO, INC	\$36,256.00
05/30/13	GIS SOFTWARE ANNUAL MAINTENANCE AND SUPPORT AWARD OF A PURCHASE ORDER FOR THE ANNUAL MAINTENANCE AND SUPPORT OF ARC GIS SOFTWARE, UNDER STATE BLANKET AGREEMENT #ITS48, FOR THE PERIOD JULY 1, 2013 THROUGH JUNE 30, 2014	SC-#ITS48		ESRI INC	\$39,650.00
05/30/13	FY 13 LAPTOPS REPLACEMENT AWARD OF A PURCHASE ORDER, TO THE LOWEST RESPONSIVE BIDDER, FOR 70 LAPTOP COMPUTERS, UNDER STATE BLANKET AGREEMENT #ITC47, REPLACING EXISTING LAPTOPS THAT ARE FIVE YEARS OLD AND OLDER, ADDRESSING INCREASED TECHNOLOGY REQUIREMENTS AND REDUCING OUT OF WARRANTY INVENTORY	WRA-3634Q - SC #ITC47		HUB TECHNICAL SERVICES	\$61,840.80
05/30/13	GRIT SCREW CLASSIFIER AWARD OF A PURCHASE ORDER, TO THE LOWEST RESPONSIVE BIDDER, FOR ONE GRIT SCREW CLASSIFIER FOR THE DEER ISLAND TREATMENT PLANT, AS A SPARE FOR THE WEST GRIT FACILITY, TO ENSURE IMMEDIATE RE-ESTABLISHMENT OF REDUNDANCY IN CASE OF A FAILURE	WRA-3610		OVIVO USA, LLC	\$95,816.00


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 26, 2013
SUBJECT: FY13 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 the financial update and variance highlights through May 2013, comparing actual spending to the FY13 Budget, and a year-end projection for the Current Expense Budget.

DISCUSSION:

Total year-to-date expenses are below budget by \$7.0 million or 1.2% mainly due to lower Direct Expenses of \$7.0 million and lower Indirect Expenses of \$381,000 offset by \$323,000 for the loss of Debt Service Assistance (DSA). Non-rate Revenues exceed the budget by \$1.7 million. This resulted in a net total favorable variance of \$8.6 million.

The month of May debt service savings were \$2.5 million which brought the year-to-date defeasance account balance to \$13.1 million. The savings from favorable short-term rates are projected to grow to \$16.7 million at year-end when all variable rate debt including commercial paper (estimated at \$3.3 million) are reconciled. Beyond the variable rate, staff are projecting an additional \$4.2 million in debt service savings based on the timing of the State Revolving Fund (SRF) payment requirements and the effect of not issuing the new money borrowing originally budgeted for this year, offset by \$350,000 for the loss of Debt Service Assistance. As a result, the total Capital Finance savings deposited into the defeasance account are projected to reach \$20.6 million by year-end. However, there are other projected surplus funds that will be used for the \$25 million defeasance approved by the Board.

Beyond Capital Finance related variances of \$20.6 million, staff project a surplus of approximately \$9.2 million at year-end of which \$7.8 million is for lower Direct Expenses, \$316,000 is for lower Indirect Expenses, and \$1.1 million is for greater than budgeted revenue. After the \$25 million defeasance, the total FY13 projected surplus is \$4.8 million.

Please refer to Attachment 4 for a more detailed comparison by line item.

Total Expenses were lower than budget by \$7.0 million or 1.2%.

	FY13 Budget (May)	FY13 Actual (May)	\$ Variance	% Variance
Direct Expenses	\$194.1	\$187.1	-\$7.0	-3.6%
Indirect Expenses	\$42.9	\$42.6	-\$0.3	-0.7%
Debt Service	\$342.9	\$343.2	\$0.3	0.1%
Total	\$579.9	\$572.9	-\$7.0	-1.2%

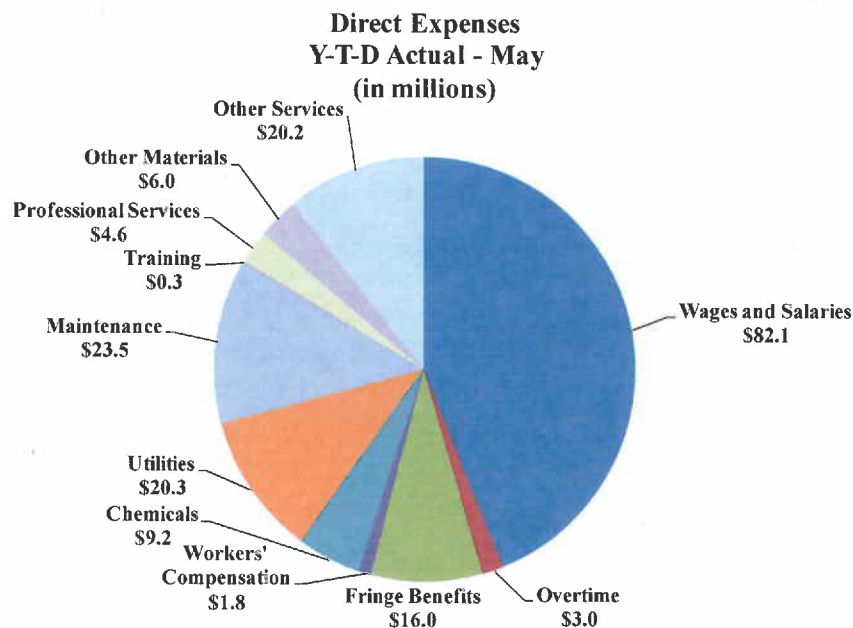
The largest variances year-to-date are driven by Direct Expenses which are lower than budget by \$7.0 million for wages and salaries, maintenance, utilities, other services, fringe benefits, professional services, overtime, and workers' compensation offset by overspending for other materials and chemicals.

Indirect Expenses are below budget by \$318,000 for lower Harbor Electric Energy (HEEC) maintenance expenses and Watershed related expenses due to an FY12 overaccrual, offset by higher insurance claims.

Staff also recognized the year-to-date loss of \$323,000 for Debt Service Assistance (DSA) as a result of the Governor's 9C budget cuts.

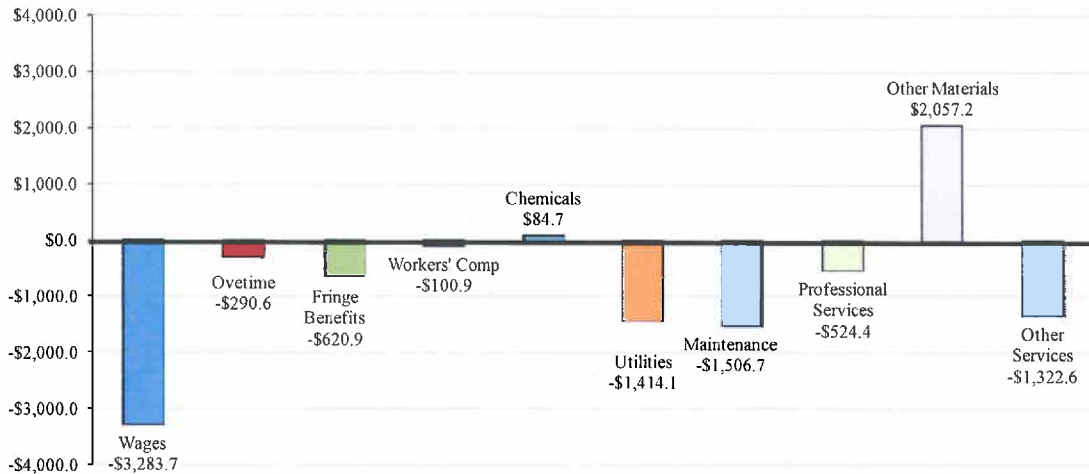
Direct Expenses

Direct Expenses total \$187.1 million, \$7.0 million or 3.6% less than budget. The chart below represents the make-up of direct expense spending by category.



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

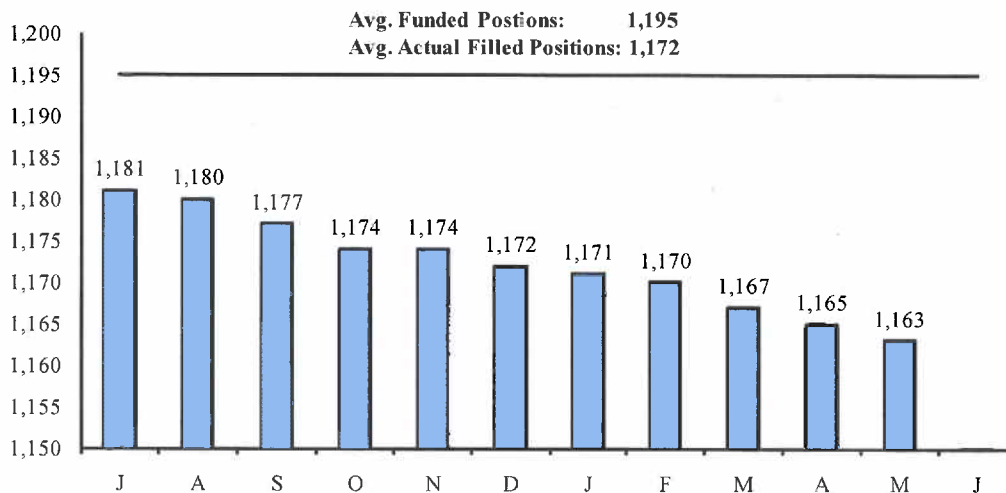
FY13 Direct Expense Variance (Year-To-Date May)
(in 000's)



Wages and Salaries

Wages and Salaries are underspent by \$3.3 million or 3.8% mainly as a result of lower than budgeted filled positions and the salary mix differential between staff retiring and new hires coming on board at lower rates. The average actual filled positions were 1,172 which is 23 positions lower than the 1,195 positions funded. Additionally, MWRA currently has 8 temporary employees.

FY13 MWRA Headcount Trend



Maintenance

Maintenance is underspent by \$1.5 million or 6.0% year-to-date. Services are lower than budget by \$2.3 million while materials are overspent by \$770,000. The underspending for services is at Deer Island mainly due to lower than budgeted janitorial costs, painting and coating services due to delay in contract start, and lower than projected need for medium/low voltage services and in Field Operations due to the timing of the Bellevue roofing replacement project, lower than budgeted spending for paving and fire alarm contract spending, and timing of instrumentation services.

Utilities

Utilities are underspent \$1.4 million or 6.5% mainly due to timing of delivery for Diesel Fuel at Deer Island and lower pricing at Deer Island and Field Operations and lower natural gas due to pricing offset by higher electricity costs of \$367,000 due to higher commodity pricing during the winter months primarily at Deer Island.

Other Services

Other Services are lower than budget by \$1.3 million or 6.2% mainly due to lower than budgeted sludge quantities. Sludge quantities year-to-date are approximately 5% lower, 99.3 tons per day versus 104.8 budgeted. The majority of the underspending for sludge is due to operational changes related to maintenance projects. The Other Services category is also underspent due lower than projected spending for contaminant monitoring and remediation activities.

Fringe Benefits

Fringe Benefits are underspent by \$621,000 or 3.7% year-to-date in FY13 mainly due to lower than budgeted health insurance costs resulting from lower headcount and because new employees contribute at a higher percentage (25% versus 20%) than employees hired before July 2003.

Professional Services

Professional Services are underspent by \$524,000 or 10.2% mainly due to lower than budgeted report preparation and as-needed services for the Harbor Monitoring program of \$149,000, timing of IT Strategic Plan initiatives of \$85,000, and lower than budgeted need for outside legal services of \$40,000.

Overtime

Overtime is underspent by \$291,000 or 8.8% mainly at Deer Island due to lower than budgeted wet weather response through May.

Workers' Compensation

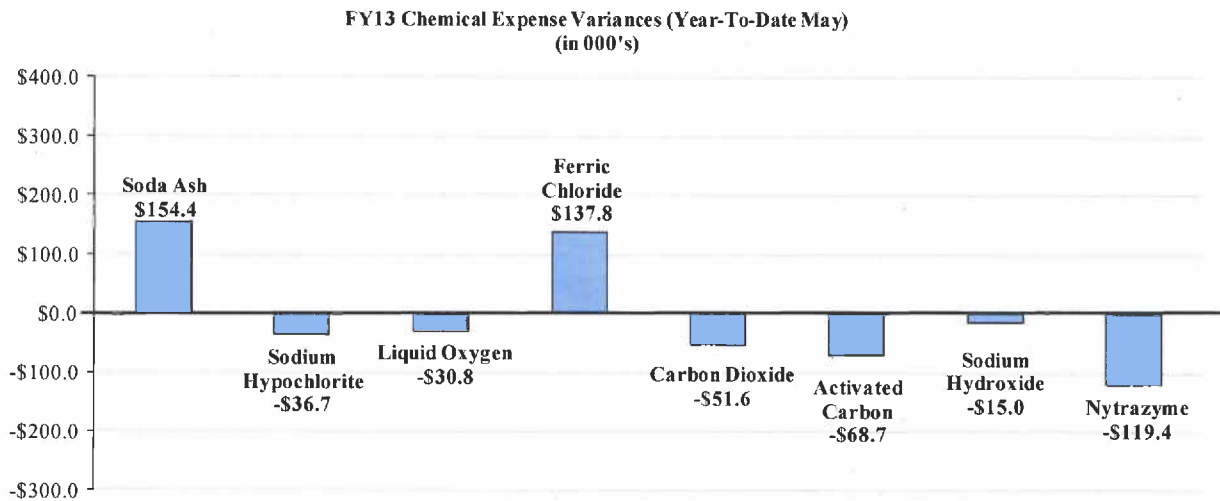
Workers' Compensation expenses are lower than budget by \$101,000 or 5.2%. To date, actual reserves are trending below budget by \$175,000 while actual payments are higher than budget by \$74,000. It should be noted that more than \$100,000 of the underspending is due to two cases for which we expect reimbursements from the secondary insurer.

Other Materials

Other Materials are higher than budget by \$2.1 million or 51.9% due to the purchase of the unbudgeted Motorola radios and the timing of vehicle purchases offset by lower than projected gravel purchases at Clinton.

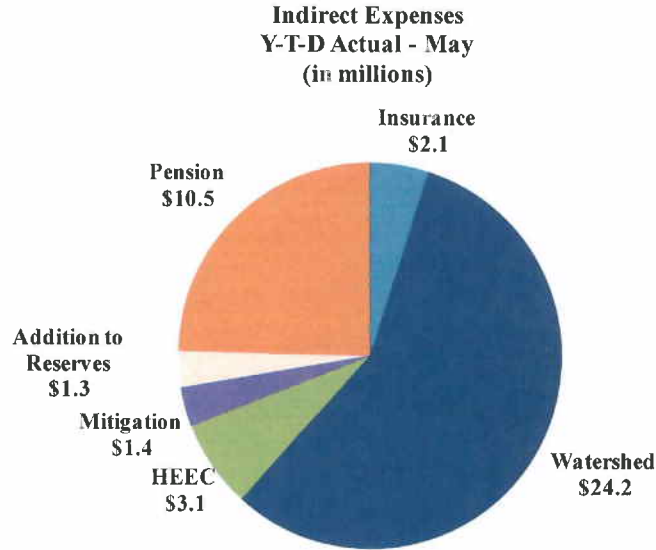
Chemicals

Chemicals are overspent by \$85,000 or 0.9% year-to-date. The majority of the variance is attributable to higher spending on Soda Ash due to price increases offset by lower than budgeted spending for Nitrazyme for corrosion control.



Indirect Expenses

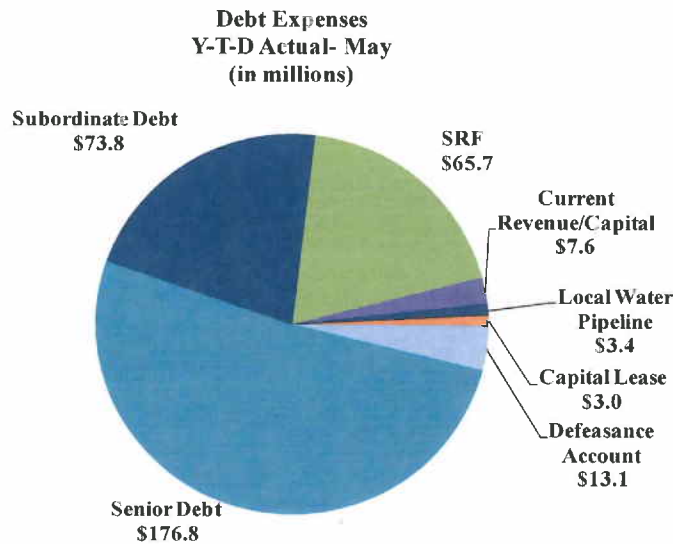
Indirect Expenses year-to-date total \$42.6 million, \$318,000 or 0.7% less than budget.



The majority of the year-to-date underspending on Indirect Expenses is for lower Harbor Electric Energy Company (HEEC) expenses of \$240,000 due to the timing of maintenance projects and lower Watershed expenses of \$200,000 due to a FY12 overaccrual offset by higher Insurance expenses of \$154,000 due to recognition of higher projected claims.

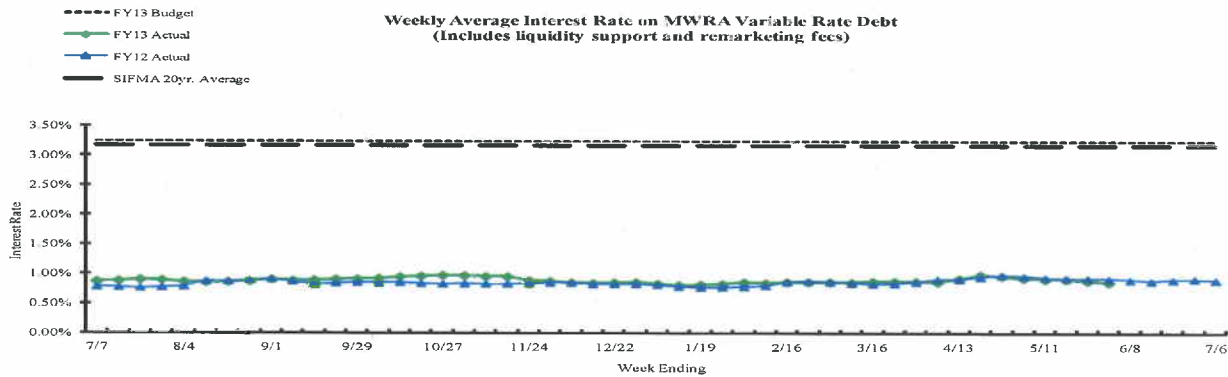
Debt Service Expenses

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 May totaled \$343.2 million which is higher than budget by \$323,000 after the transfer of \$13.1 million of a favorable year-to-date variance to the Defeasance Account and recognition of the loss of Debt Service Assistance (DSA) per the Governor's 9C budget cuts.

The graph below reflects the variable rate trend by month over the past year in comparison with FY12 Actuals and the FY13 Budget for the same period.



Revenue

Year-to-date revenue for FY13 totals \$588.2 million which is \$1.7 million or 0.3% higher than budget due to higher non-rate revenue of \$2.5 million offset by lower Investment Income of \$848,000 due to lower than budgeted short-term rates.

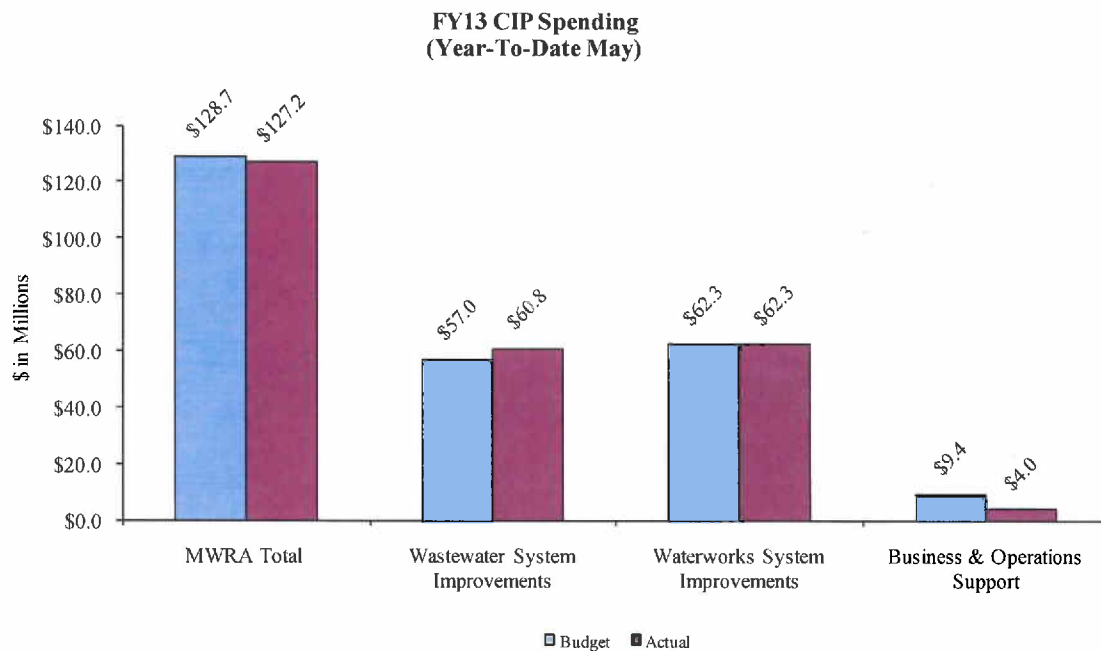
The higher Non-rate Revenue is due to \$701,000 for Profit/Loss for Disposal of Equipment/Land for the sale of land in Chelsea and sale of surplus vehicles and equipment, \$673,000 for higher net energy related revenue mostly for Charlestown Wind and Renewable Portfolio Standard (RPS) sales, \$433,000 is for Federal Emergency Management Agency (FEMA) reimbursements, and approximately \$375,000 for NSTAR and a variety of other vendor rebates and other smaller items.

FY13 Capital Improvement Program

Spending year-to-date in FY13 totals \$127.2 million, \$1.5 million or 1.2% lower than budget. In FY13, community-related program spending is unusual in that significantly larger loans and grants were requested by communities than expected. 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 (CSO's) projects, the underspending is \$31.2 million or 24.3%.

Overspending was reported in the Wastewater program of \$3.8 million offset by underspending in Business and Operations Support of \$5.4 million.

Spending By Program:



\$ in Millions	Budget	Actuals	\$ Var.	% Var.
Wastewater System Improvements				
Interception & Pumping	4.3	1.9	-2.4	-56.9%
Treatment	27.8	13.7	-14.1	-50.7%
Residuals	0.5	0.4	-0.2	-33.2%
CSO	22.5	24.5	2.0	8.8%
Other	1.8	20.4	18.6	1008.3%
Total Wastewater System Improvements	\$57.0	\$60.8	\$3.8	6.7%
Waterworks System Improvements				
Drinking Water Quality Improvements	39.7	31.9	-7.8	-19.7%
Transmission	15.1	15.8	0.8	5.0%
Distribution & Pumping	7.4	3.8	-3.7	-49.3%
Other	0.1	10.8	10.7	9865.8%
Total Waterworks System Improvements	\$62.3	\$62.3	\$0.0	0.0%
Business & Operations Support	\$9.4	\$4.0	-\$5.4	-57.1%
Total MWRA	\$128.7	\$127.2	-\$1.5	-1.2%

The main reasons for FY13 year-to-date overspending are:

1. **Wastewater Other** of \$18.6 million – primarily due to Inflow and Infiltration (I/I) community requests for grants and loans being greater than budgeted.
2. **Water Other** of \$10.7 million – primarily due to community requests for Local Water Pipeline Improvement Loans being greater than budgeted.
3. **Combined Sewer Overflow (CSOs)** of \$2.0 million – primarily for Cambridge Sewer Separation of \$2.8 million for greater than anticipated award and progress. Also, Reserved Channel Sewer Separation is over budget by \$1.3 million due to greater progress offset by North Dorchester Bay of \$1.0 million due to schedule shift and lower than projected need and additional nominal underspending on other projects for a cumulative effect of \$1.1 million.

The overspending was offset by underspending for:

1. **Wastewater Treatment** of \$14.1 million – mainly for delays for Electrical Equipment Upgrade Construction of \$1.1 million, Scum Skimmer Replacement of \$1.0 million, Power System Improvements of \$827,000, Expansion Joint repair – Construction 2 of \$714,000, Digester Modifications 1 & 2 Pipe Replacement of \$706,000, Thermal/Power Plant Boiler Control of \$667,000, and Gravity Thickener Center Column Construction of \$583,000, HVAC Equipment Replacement Design of \$547,000, Centrifuge Backdrive Replacement of \$544,000 and Fuel Pipe Abandonment of \$520,000, and net underspending on a variety of other projects totaling approximately \$6.9 million.
2. **Drinking Water Quality Improvements** of \$7.8 million – mainly for lower than budgeted spending for Spot Pond of \$6.6 million due to project delays, Quabbin Water Treatment Plant of \$513,000 due to schedule change and lower award value on Ultraviolet Disinfection Construction, Carroll Water Treatment Plant of \$480,000, and Blue Hills Covered Storage of \$261,000.
3. **Business and Operations Support** of \$5.4 million – mainly for lower spending on MIS projects of \$2.3 million due to timing of IT Strategic Plan implementation, Alternative Energy of \$2.3 million due to delay of Deer Island Phase 2 Wind Construction and lower than projected need for technical assistance, and lower Centralized Equipment Purchase of \$822,000 mainly due to timing of larger vehicle purchases.
4. **Water Distribution and Pumping** of \$3.7 million – mainly for lower spending on Northern Intermediate High of \$2.3 million primarily due to delays on Gillis Pump Station Improvements, Southern Spine Distribution Mains of \$681,000 due to Section 21, 43, & 22 Design CA/RI work and due to the credit change order on Section 107 Phase 2 Construction, Valve Replacement of \$381,000 due to less than anticipated change orders, and net underspending on a variety of other projects totaling approximately \$312,000.
5. **Wastewater Interception & Pumping** of \$2.4 million – mainly due to Prison Point Pump and Gear Boxes of \$744,000 due to timing, Melrose Sewer repayment of \$654,000 for past work budgeted in FY12 and received in FY13, and Braintree-Weymouth Relief

Facilities of \$802,000 offset by overspending on Upper Neponset Valley Sewer System of \$278,000 due to timing.

Construction Fund Balance

The construction fund balance was at \$151 million as of May 2013. Commercial Paper availability was at \$206 million to fund construction projects.

Attachment 1 – Variance Summary May 2013

Attachment 2 – Current Expense Variance Explanations

Attachment 3 – Capital Improvement Program Variance Explanations

Attachment 4 – FY13 Final versus FY13 Year-End Projection

ATTACHMENT 1

	May 2013 Year-to-Date					
	Period 11 YTD Budget	Period 11 YTD Actual	Period 11 YTD Variance	%	FY13 Approved	% Expended
EXPENSES						
WAGES AND SALARIES	\$ 85,336,512	\$ 82,056,411	\$ (3,280,101)	-3.8%	\$ 94,059,400	87.2%
OVERTIME	3,316,227	3,025,590	(290,637)	-8.8%	3,573,495	84.7%
FRINGE BENEFITS	16,670,422	16,049,563	(620,859)	-3.7%	18,241,926	88.0%
WORKERS' COMPENSATION	1,925,000	1,824,140	(100,860)	-5.2%	2,100,000	86.9%
CHEMICALS	9,118,822	9,203,477	84,655	0.9%	9,963,496	92.4%
ENERGY AND UTILITIES	21,747,257	20,333,145	(1,414,112)	-6.5%	23,127,198	87.9%
MAINTENANCE	25,042,814	23,536,159	(1,506,655)	-6.0%	28,229,070	83.4%
TRAINING AND MEETINGS	322,842	271,990	(50,852)	-15.8%	385,617	70.5%
PROFESSIONAL SERVICES	5,127,421	4,599,478	(527,943)	-10.3%	5,900,785	77.9%
OTHER MATERIALS	3,965,233	6,022,399	2,057,166	51.9%	5,591,291	107.7%
OTHER SERVICES	21,479,321	20,156,757	(1,322,564)	-6.2%	23,743,608	84.9%
TOTAL DIRECT EXPENSES	\$ 194,051,871	\$ 187,079,109	\$ (6,972,760)	-3.6%	\$ 214,915,886	87.0%
INSURANCE	\$ 1,936,500	\$ 2,090,350	\$ 153,850	7.9%	\$ 2,097,875	99.6%
WATERSHED/PILOT	24,381,392	24,181,004	(200,388)	-0.8%	26,413,175	91.5%
BECo PAYMENT	3,378,872	3,138,540	(240,332)	-7.1%	3,741,915	83.9%
MITIGATION	1,446,390	1,399,711	(46,679)	-3.2%	1,566,923	89.3%
ADDITIONS TO RESERVES	1,290,765	1,290,765	-	0.0%	1,398,329	92.3%
RETIREMENT FUND	10,474,376	10,490,247	15,871	0.2%	10,474,376	100.2%
TOTAL INDIRECT EXPENSES	\$ 42,908,295	\$ 42,590,617	\$ (317,678)	-0.7%	\$ 45,692,593	93.2%
STATE REVOLVING FUND	\$ 66,761,629	\$ 65,749,098	\$ (1,012,531)	-1.5%	\$ 73,804,552	89.1%
SENIOR DEBT	176,860,428	176,762,582	(97,846)	-0.1%	193,432,134	91.4%
DEBT SERVICE ASSISTANCE	(323,077)	-	323,077	-100.0%	(350,000)	0.0%
CURRENT REVENUE/CAPITAL	7,569,231	7,569,231	-	0.0%	8,200,000	92.3%
SUBORDINATE MWRA DEBT	85,707,706	85,707,706	-	0.0%	93,303,807	91.9%
LOCAL WATER PIPELINE CP	3,360,477	3,360,477	-	0.0%	3,640,517	92.3%
CAPITAL LEASE	2,969,594	2,969,594	-	0.0%	3,217,060	92.3%
VARIABLE DEBT	-	(11,953,685)	(11,953,685)	---	-	0.0%
DEFEASANCE ACCOUNT	-	13,064,063	13,064,063	---	-	0.0%
TOTAL DEBT SERVICE	\$ 342,905,988	\$ 343,229,066	\$ 323,077	0.1%	\$ 375,248,070	91.5%
TOTAL EXPENSES	\$ 579,866,154	\$ 572,898,792	\$ (6,967,361)	-1.2%	\$ 635,856,549	90.1%
REVENUE & INCOME						
RATE REVENUE	\$ 560,780,308	\$ 560,780,308	\$ -	0.0%	\$ 607,512,000	92.3%
OTHER USER CHARGES	7,146,765	7,102,890	(43,875)	-0.6%	7,766,692	91.5%
OTHER REVENUE	5,179,081	7,751,886	2,572,805	49.7%	6,116,845	126.7%
INVESTMENT INCOME	13,390,105	12,542,149	(847,956)	-6.3%	14,461,012	86.7%
TOTAL REVENUE & INCOME	\$ 586,496,259	\$ 588,177,233	\$ 1,680,972	0.3%	\$ 635,856,549	92.5%

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY13 Budget YTD May	FY13 Actuals YTD May	FY13 YTD Actual vs. FY13 Budget		Explanations
			\$	%	
<u>Direct Expenses</u>					
Wages & Salaries	85,336,512	82,052,819	(3,283,693)	-3.8%	Underspending is due to lower headcount, employees on unpaid leave status, and the salary mix differential between retirees and new hires. As of May the average filled positions were 1,172 which is 23 positions less than the 1,195 funded positions.
Overtime	3,316,227	3,025,590	(290,637)	-8.8%	Underspending mainly at Deer Island.
Fringe Benefits	16,670,422	16,049,563	(620,859)	-3.7%	Underspending for Health Insurance of \$477k, Medicare of \$82k, and Dental Insurance of \$27k mainly due to lower headcount.
Worker's Compensation	1,925,000	1,824,140	(100,860)	-5.2%	Underspending due to lower reserves of \$175k offset by higher payments of \$74k.
Chemicals	9,118,822	9,203,477	84,655	0.9%	Overspending mainly for Soda Ash of \$154k due to pricing offset by lower spending for Nitrazyme of \$119k for corrosion control.
Utilities	21,747,257	20,333,145	(1,414,112)	-6.5%	Underspending for Diesel Fuel of \$1.7 million due to lower than projected need at Deer Island and lower pricing at both Deer Island and Field Operations and lower Natural Gas of \$44k due to pricing offset by higher electricity costs of \$367k due to higher commodity pricing during the winter months primarily at Deer Island.
Maintenance	25,042,814	23,536,159	(1,506,655)	-6.0%	Maintenance Services are lower than budget by \$2.3 million mainly due to lower than projected need for services while materials are overspent by \$770k mainly due to timing.
Training & Meetings	322,842	271,990	(50,852)	-15.8%	Underspending related to less than projected need.

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY13 Budget YTD May	FY13 Actuals YTD May	FY13 YTD Actual vs. FY13 Budget		Explanations
			\$	%	
Professional Services	5,127,421	4,603,070	(524,351)	-10.2%	Underspending due to lower than budgeted report preparation and as-needed services for the Harbor Monitoring program of \$149k, lower than budgeted need for as-needed Engineering services of \$89k and timing of IT Strategic Plan initiatives of \$85k.
Other Materials	3,965,233	6,022,399	2,057,166	51.9%	Overspending for Equipment/Furniture of \$1.8 million due to the receipt of unbudgeted Motorola radios and Vehicle Purchases of \$230k due to timing offset by lower Other Materials of \$83k mainly due to projected gravel purchases at Clinton.
Other Services	21,479,321	20,156,757	(1,322,564)	-6.2%	Underspending for Sludge Pelletization of \$753k due to lower quantities and Other Services of \$540k mainly due to the timing of contaminant monitoring and remediation activities, as well as lower than budgeted spending for the Historic Photo Digitization initiative.
Total Direct Expenses	194,051,871	187,079,109	(6,972,760)	-3.6%	
Indirect Expenses					
Insurance	1,936,500	2,090,350	153,850	7.9%	Overspending due to higher payments for claims of \$147k.
Watershed/PILOT	24,381,392	24,181,004	(200,388)	-0.8%	Underspending for lower Watershed Reimbursement due to a FY12 overaccrual.
HEEC Payment	3,378,872	3,138,540	(240,332)	-7.1%	Lower reimbursements of \$240k mainly due to the timing of maintenance projects.
Mitigation	1,446,390	1,399,711	(46,679)	-3.2%	Underspending due to lower mitigation charges.
Addition to Reserves	1,290,765	1,290,765	-	0.0%	
Pension Expense	10,474,376	10,490,247	15,871	0.2%	
Post Employee Benefits	-	-	-		
Total Indirect Expenses	42,908,295	42,590,617	(317,678)	-0.7%	

**ATTACHMENT 2
Current Expense Variance Explanations**

Total MWRA	FY13 Budget YTD May	FY13 Actuals YTD May	FY13 YTD Actual vs. FY13 Budget		Explanations
			\$	%	
Debt Service					
Debt Service	343,229,066	343,229,066	-	0.0%	Debt Service expenses are at budgeted levels after the transfer of \$13.1 million favorable short-term year-to-date variance to the Defeasance Account.
Debt Service Assistance	(323,077)	-	323,077	-100.0%	Reflects the loss of Debt Service Assistance (DSA) per the Governor's 9C budget cuts.
Total Debt Service Expenses	342,905,989	343,229,066	323,076	0.1%	
Total Expenses					
	579,866,154	572,898,792	(6,967,361)	-1.2%	
Revenue & Income					
Rate Revenue	560,780,308	560,780,308	-	0.0%	
Other User Charges	7,146,765	7,102,890	(43,875)	-0.6%	
Other Revenue	5,179,081	7,751,886	2,572,804	49.7%	Higher non-rate revenue is due to \$701k for Profit/Loss for Disposal of Equipment/Land for the sale of land in Chelsea and sale of surplus vehicles and equipment, \$673k in higher net energy-related revenue mostly for Charlestown Wind and Renewable Portfolio Standard (RPS) sales, \$433k for Federal Emergency Management Agency (FEMA) reimbursements, and approximately \$375k for NSTAR and other vendor rebates and other smaller items.
Rate Stabilization	-	-	-		
Investment Income	13,390,105	12,542,149	(847,957)	-6.3%	Lower Investment Income mainly due to lower than budgeted short-term interest rates.
Total Revenue	586,496,259	588,177,233	1,680,972	0.3%	
Net Revenue in Excess of Expenses	6,630,105	15,278,441	8,648,333		

**ATTACHMENT 3
Capital Improvement Program Variance Explanations**

	FY13 Budget YTD May	FY13 Actuals YTD May	YTD Actuals vs. Budget		Explanations
			\$	%	
Interception & Pumping (I&P)	\$4,295	\$1,850	(\$2,444)	-56.9%	Underspending for Prison Point Pump & Gearbox Rebuilds of \$744,000 due to schedule shift, Melrose Sewer reimbursement of \$654,000 for prior year's contractual obligations, Braintree-Weymouth Relief Facilities Wetlands Replication of \$375,000 due to timing, North System Hydraulic Study of \$239,000 due to time extension, DeLauri Pump Station Upgrades of \$210,000 due to schedule shift, and other underspending of \$1.0M. Offset by higher spending for Upper Neponset Valley Sewer System Land Acquisition of \$313,000 due to timing and Chelsea Creek Upgrades - Design/Construction Administration of \$298,000 and Cottage Farm Fuel System Upgrade of \$201,000 due to contractor progress.
Treatment	\$27,832	\$13,711	(\$14,121)	-50.7%	Underspending due to Electrical Equipment Upgrades - Construction 4 of \$1.1M, Scum Skimmer Replacement of \$1.0M, Power System Improvements - Construction of \$827,000 and Thermal Power Plant Boiler Controls Replacement of \$667,000, due to schedule shifts; Expansion Joint Repair - Construction 2 of \$714,000 and Gravity Thickener Center Columns Replacement of \$583,000 due to delayed notice-to-proceed; Digester Modules 1 & 2 Pipe Replacement of \$706,000 due to time required to empty digester; Fuel Pipe Abandonment project of \$520,000 due to lower award and schedule shift. Additional net underspending on a number of other projects totaling \$8.0M.
Residuals	\$536	\$358	(\$178)	-33.2%	

ATTACHMENT 3
Capital Improvement Program Variance Explanations

	FY13 Budget YTD May	FY13 Actuals YTD May	YTD Actuals vs. Budget		Explanations
			\$	%	
CSO	\$22,489	\$24,467	\$1,978	8.8%	Overspending on Cambridge Sewer Separation of \$2.8M for award greater than budgeted progress and the Reserved Channel Sewer Separation of \$1.3M due to greater contractor progress. Offset by underspending on North Dorchester Bay of \$1.0M primarily due to schedule shift on North Dorchester Outfall - Inspection and less than anticipated Construction Management Services on the Tunnel & Facilities, South Dorchester Bay Sewer Separation (Commercial Point) of \$352,000, and Morrissey Boulevard Drain of \$308,000 for less than anticipated design services.
Other Wastewater	\$1,844	\$20,436	\$18,592	-	Overspending on Infiltration and Inflow (I/I) due to community requests for grants and loans being greater than budgeted.
Total Wastewater	\$56,996	\$60,822	\$3,827	6.7%	
Drinking Water Quality Improvements	\$39,685	\$31,874	(\$7,811)	-19.7%	Underspending for Spot Pond Storage Facility of \$6.6M primarily due to delayed start of concrete work, Quabbin Water Treatment Plant of \$513,000 mainly for Ultraviolet Disinfection - Design/CA/RI and Construction due to schedule shifts, Carroll Water Treatment Plant of \$480,000 for CP7 Existing Facility Modifications and Fitout Construction due to schedule shifts and Ancillary Modifications - Construction 2 due to longer than anticipated lead time for specialized equipment and lower award offset by overspending for Carroll Water Treatment Plant Ultraviolet Disinfection Construction due to contractor progress, and Blue Hills Covered Storage of \$261,000.

ATTACHMENT 3
Capital Improvement Program Variance Explanations

	FY13 Budget YTD May	FY13 Actuals YTD May	YTD Actuals vs. Budget		Explanations
			\$	%	
Transmission	\$15,072	\$15,824	\$752	5.0%	Overspending for MetroWest Supply Tunnel of \$1.8M mainly due to contractor progress on Upper Hultman and Quabbin Transmission System of \$1.1M due to contractor progress on Oakdale Phase I Electrical Design and Construction contracts. Offset by lower spending on Long Term Redundancy Sudbury Aqueduct - MEPA Review of \$1.3M due to lower award and schedule change, and Quabbin Aqueduct & Winsor Pump Station Upgrades - Design of \$400,000 due to schedule shifts.
Distribution & Pumping	\$7,440	\$3,770	(\$3,670)	-49.3%	Underspending on Northern Intermediate High Redundancy & Storage of \$2.3M mainly due to schedule shift on Gillis Pump Station Improvements, Southern Spine Distribution Mains of \$681,000 mainly due to less than anticipated resident engineering and inspection services on Sections 21, 43 & 22 and a credit change order on Section 107 Phase 2 Construction, and Valve Replacement of \$381,000 mainly due to expected change orders being less than anticipated on Construction 7.
Other Waterworks	\$109	\$10,839	\$10,730	-	Overspending on Local Water Pipeline Assistance Program due to community requests for loans being greater than budgeted by \$10.7M.
Total Waterworks	\$62,306	\$62,307	\$1	0.0%	
Business & Operations Support	\$9,407	\$4,038	(\$5,370)	-57.1%	Underspending due to MIS-related projects of \$2.3M due to timing of IT Strategic Plan implementation, Alternative Energy of \$2.3M mainly due to delay of Deer Island Phase II Wind Construction and lower than projected as-needed technical assistance, and Centralized Equipment Purchases of \$822,000 due to timing of security equipment and vehicle purchases.
Total MWRA	\$128,708	\$127,167	(\$1,542)	-1.2%	

ATTACHMENT 4

FY13 Projection vs FY13 Approved Budget

TOTAL MWRA	FY13 Approved Budget	FY13 Projection	Change	
			FY13 Approved Budget vs FY13 Projection	
			\$	%
EXPENSES				
WAGES AND SALARIES	\$ 94,059,400	\$ 90,475,707	\$ (3,583,693)	-3.8%
OVERTIME	3,573,496	3,419,699	(153,797)	-4.3%
FRINGE BENEFITS	18,241,926	17,544,064	(697,862)	-3.8%
WORKERS' COMPENSATION	2,100,000	1,975,000	(125,000)	-6.0%
CHEMICALS	9,963,496	10,091,441	127,945	1.3%
ENERGY AND UTILITIES	23,127,198	22,644,960	(482,238)	-2.1%
MAINTENANCE	28,229,070	26,079,070	(2,150,000)	-7.6%
TRAINING AND MEETINGS	385,617	304,564	(81,053)	-21.0%
PROFESSIONAL SERVICES	5,900,785	5,176,434	(724,351)	-12.3%
OTHER MATERIALS	5,591,291	7,074,347	1,483,056	26.5%
OTHER SERVICES	23,743,608	22,342,058	(1,401,550)	-5.9%
TOTAL DIRECT EXPENSES	\$ 214,915,886	\$ 207,127,344	\$ (7,788,543)	-3.6%
INSURANCE	\$ 2,097,875	\$ 2,251,725	\$ 153,850	7.3%
WATERSHED/PILOT	26,413,175	26,309,530	(103,645)	-0.4%
HEEC PAYMENT	3,741,915	3,379,550	(362,365)	-9.7%
MITIGATION	1,566,923	1,546,923	(20,000)	-1.3%
ADDITIONS TO RESERVES	1,398,329	1,398,329	-	0.0%
RETIREMENT FUND	5,750,085	5,765,956	15,871	0.3%
POSTEMPLOYMENT BENEFITS/ ADDITIONAL PENSION DEPOSIT	4,724,291	4,724,291	-	0.0%
TOTAL INDIRECT EXPENSES	\$ 45,692,593	\$ 45,376,304	\$ (316,289)	-0.7%
DEBT SERVICE (before offsets)	\$ 375,598,070	\$ 371,361,714	\$ (4,236,356)	-1.1%
VARIABLE RATE DEBT	-	(16,661,374)	(16,661,374)	
DEFEASANCE ACCOUNT		20,547,730	20,547,730	
BOND REDEMPTION		-	-	
DEBT SERVICE ASSISTANCE	(350,000)	-	350,000	-100.0%
TOTAL DEBT SERVICE	\$ 375,248,070	\$ 375,248,070	\$ -	0.0%
TOTAL EXPENSES	\$ 635,856,549	\$ 627,751,718	\$ (8,104,832)	-1.3%
REVENUE & INCOME				
RATE REVENUE	\$ 607,512,000	\$ 607,512,000	\$ 0	0.0%
OTHER USER CHARGES	7,766,693	7,766,693	-	0.0%
OTHER REVENUE	6,116,844	8,216,844	2,100,000	34.3%
RATE STABILIZATION			-	
INVESTMENT INCOME	14,461,012	13,461,012	(1,000,000)	-6.9%
TOTAL REVENUE & INCOME	\$ 635,856,549	\$ 636,956,549	\$ 1,100,000	0.2%
 VARIANCE	 \$ -	 \$ (9,204,832)	 \$ (9,204,832)	

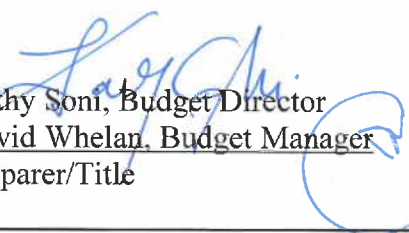
STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 26, 2013
SUBJECT: FY14 Final Capital Improvement Program



COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE


David Whelan, Budget Manager
 Preparer/Title


Rachel C. Madden
 Director, Administration and Finance

The FY14 Capital Improvement Program represents a significant milestone as FY14 is the first year of the next five-year cap. Most importantly, the FY14-18 cap marks the beginning of a new era for the MWRA in that for the first time, MWRA will be reducing its total bonded indebtedness over the cap period by paying off more principal on debt than the annual capital spending.

It is important to note that the proposed \$791.7 million spending cap is the lowest of any five-year period since 1990.

RECOMMENDATION:

1. To approve the FY14 Capital Improvement Program (CIP), with \$150.1 million spending level, including contingency.
2. To approve a capital budget spending cap for the five-year period FY14 through FY18 at \$791.7 million and annual spending as specified in the table below; provided further that spending for any year should not exceed the annual base-line cap by more than 20%, with the goal of spending at least 80% of the base-line cap; provided further that overall spending for FY14-18 does not increase.

	FY14*	FY15	FY16	FY17	FY18	FY14-18
Cap Spending (in millions)	\$ 145.8	\$ 159.1	\$ 166.4	\$ 161.3	\$ 159.1	\$ 791.7

* FY14 Cap funding includes spending, contingency, inflation and is offset by Chicopee Valley Aqueduct (CVA) adjustments.

In the event that the annual base-line cap limit is exceeded and/or the total five-year spending projection exceeds the five-year base-line cap, the Executive Director may request approval from the Board of Directors for higher spending.

3. To approve the Responses to the Advisory Board's Comments and Recommendation on MWRA's Fiscal Year 2014 Proposed Capital Improvement Program (Attachment D).

DISCUSSION:

The FY14 Final Capital Improvement Program represents an update to the FY14 Proposed program presented to the Board in December 2012.

The spending projections put forth today are the result of prioritizing the projects driven by the Master Plan, establishing realistic estimates based on the latest information, striking a balance between maintenance and infrastructure improvements, and taking some risks while ensuring there is adequate support for the core operations and to meet all regulatory operating permit requirements.

Recognizing that capital spending is an important component of the MWRA's long standing multi-year rates management strategy, staff took into consideration a variety of factors when establishing future projected spending levels. Factors such as the on-going economic challenges facing our communities, the Authority's goal to pay down its daunting outstanding debt of \$5.8 billion, the evolving nature of the CIP program from major new construction projects and mandated requirements to Asset Protection and Water Redundancy projects, and finally the Advisory Board recommendations, all contributed to shaping the program.

It should be noted that the FY14 Final CIP increased \$30.5 million from the FY14 Proposed CIP mostly for increased cost estimates for the remaining Cambridge Combined Sewer Overflow (CSO) projects which increased nearly \$21.0 million and expanded Asset Protection initiatives which increased \$6.0 million.

The FY14 Final CIP Cap for the FY14-18 period is \$791.7 million, a decrease of \$1.8 million or 0.2% from the FY14 Proposed CIP Cap. The cap presented today meets the Advisory Board recommendation that capital spending within the FY14-18 timeframe not exceed \$800 million.

FY14-18 Cap Spending

The FY14 Final CIP budget anticipates capital expenditures in the FY14-18 timeframe to total \$718.0 million. Including contingency of \$46.1 million and inflation of \$37.9 million offset by Chicopee Valley Aqueduct adjustments of \$10.3 million, the FY14 Final FY14-18 cap totals \$791.7 million which is \$348 million less than the average of the prior two five-year caps.

The Base-Line Cap

The FY14 Final CIP establishes the FY14-18 Base-Line cap at \$791.7 million with the following breakdown.

FY14 Final		FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures		\$142.5	\$147.6	\$149.3	\$141.8	\$136.8
Contingency		7.6	9.5	10.1	9.8	9.3	46.1
Inflation on Unawarded Construction		0.8	4.2	8.4	11.1	13.5	37.9
Less: Chicopee Valley Aqueduct Projects		(5.0)	(2.2)	(1.4)	(1.3)	(0.4)	(10.3)
FY14 Final FY14-18 Cap		145.8	159.1	166.4	161.3	159.1	\$791.7

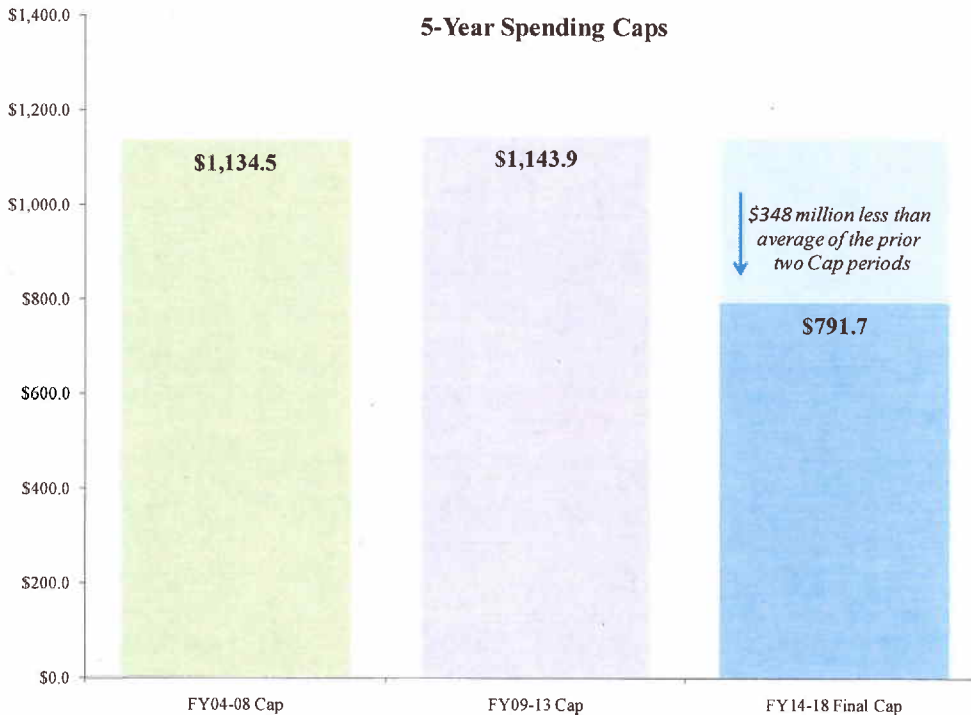
FY14 Final CIP Cap Comparison to the FY14 Proposed CIP Cap

The FY14 Proposed CIP FY14-18 cap cash flow totaled \$793.5 million with the following breakdown.

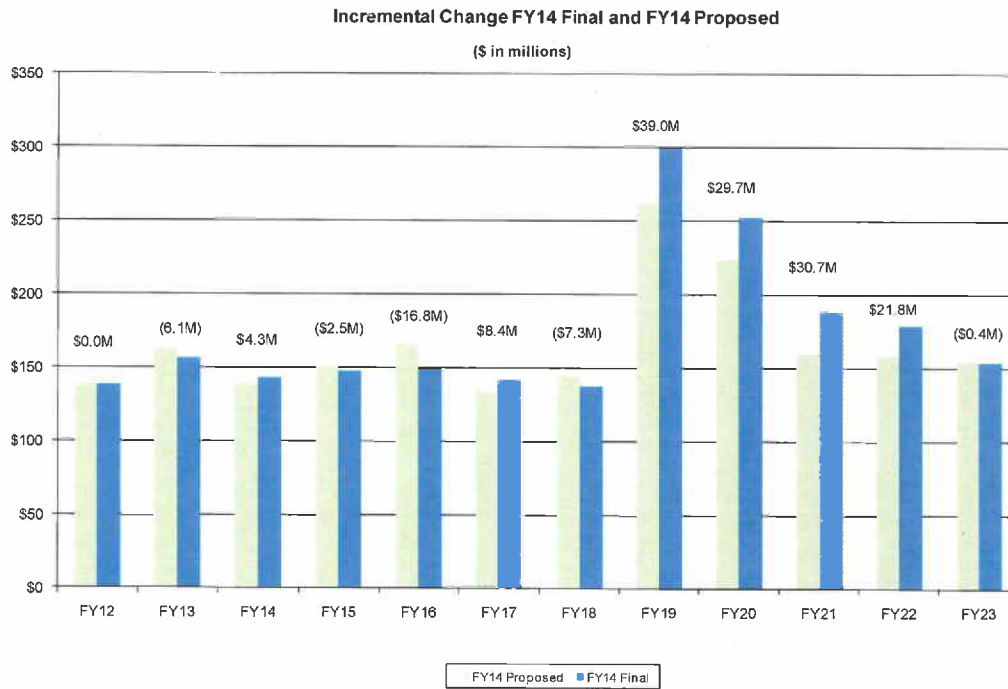
FY14 Proposed		FY14	FY15	FY16	FY17	FY18	Total FY14-18
	FY14 Proposed FY09-13 Cap		143.0	159.6	178.5	145.1	167.3

FY14 Draft Final vs. FY14 Proposed		FY14	FY15	FY16	FY17	FY18	Total FY14-18
	FY09-13 Cap (\$ Change)	\$2.8	(\$0.5)	(\$12.1)	\$16.2	(\$8.2)	(\$1.8)
	FY09-13 Cap (% Change)	2.0%	-0.3%	-6.8%	11.2%	-4.9%	-0.2%

The FY14 Final CIP FY14-18 cap cash flow totals \$791.7, a decrease \$1.8 million or 0.2% from the FY14 Proposed CIP and is \$348.0 million or 31.0% less than the \$1,139.2 million average of the prior two cap periods.



The table below shows the incremental change by fiscal year between the FY14 Final and FY14 Proposed CIP:

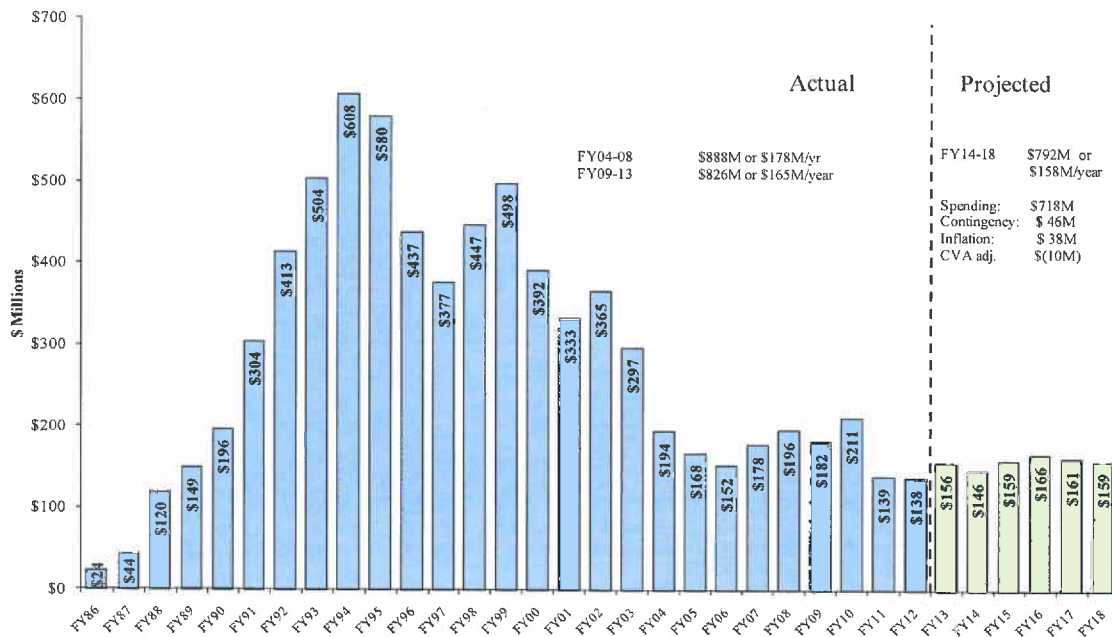


Some of the large changes between the FY14 Proposed and FY14 Final include:

- Increased cost estimates for the remaining Cambridge Combined Sewer Overflow (CSO) projects;
- More realistic award dates for Deer Island projects;
- Weston Aqueduct Supply Main 3 - six month delay;
- Prison Point Pump & Gear Box/Diesel Engine Upgrades, Alewife Brook Construction, and Siphon Structure Rehabilitation cost increases; and
- MIS structural changes to reflect the IT study recommendations and implementation schedule.

Historical Spending

The chart below captures the historical CIP spending through FY12 and projected spending with contingency to FY18 based on the FY14 Final CIP.



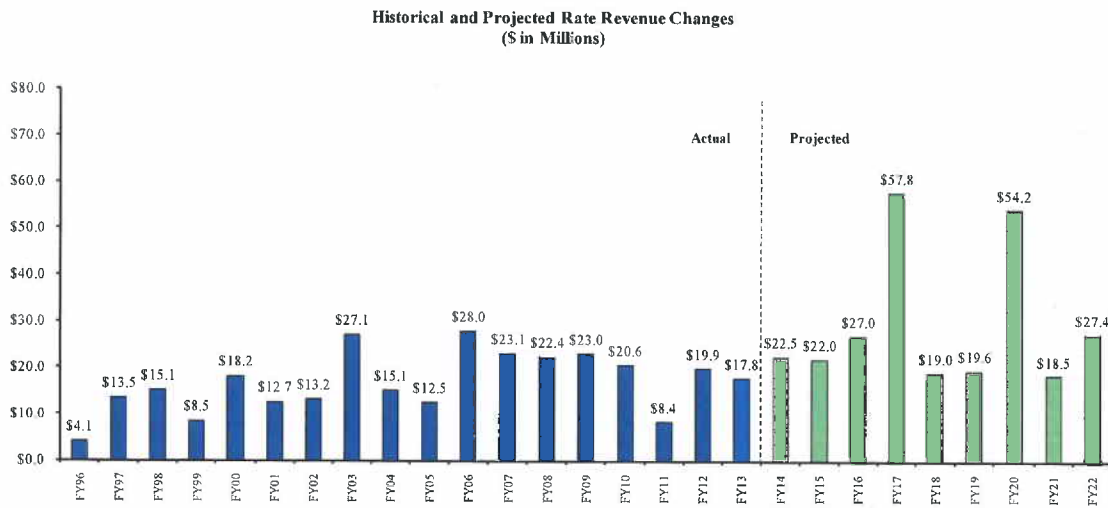
The five-year cap concept was introduced in the FY04 budget cycle and covered the FY04-08 period. The first cap level was established at \$1.134 billion.

The average spending for FY04-08 was \$178 million per year and based on the FY14 Final CIP, we are currently projecting that average spending during the current FY09-13 Cap will be \$165 million, and projected average annual spending during the FY14-18 Cap period will be just over \$158 million per year.

MWRA Capital Improvement Spending versus Debt Service

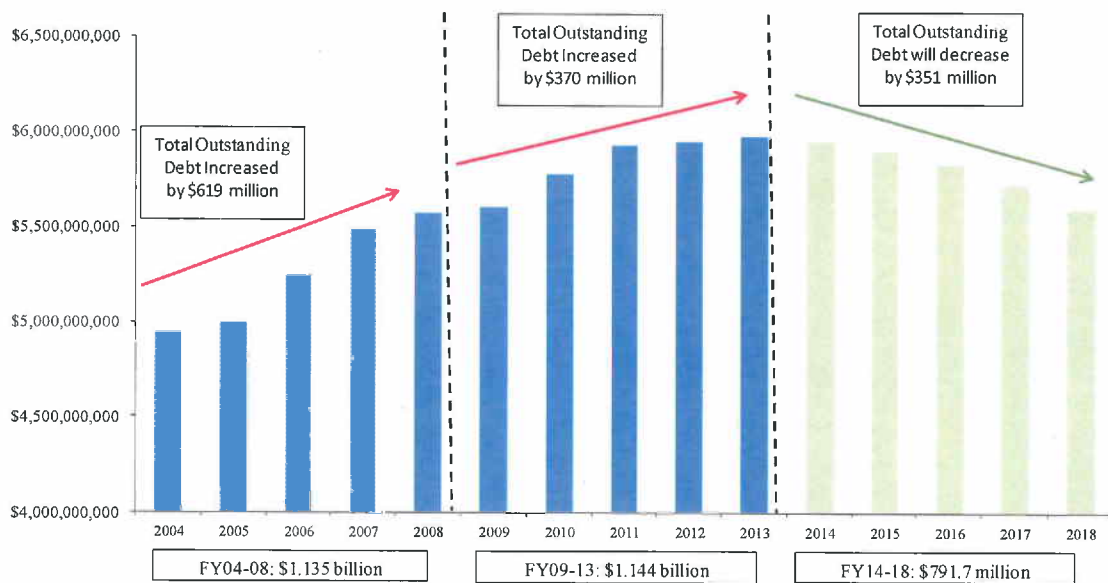
As of June 30th, MWRA's total debt will be \$5.8 billion which results in significant increases in debt service obligations in the upcoming years. The Authority's debt service obligation as a percent of total expenses has increased from 36% in 1990 to 60% in the FY14 Final Current Expense Budget.

The graph below shows the projected Rate Revenue Requirement changes updated with the FY14 CIP spending and debt service projections.



Through FY22, the Rate Revenue Requirement increases an average of \$27.0 million per year, mostly driven by Debt Service related expenses. However, for the first time, MWRA will be reducing its total bonded indebtedness over the next cap period.

MWRA's Outstanding Debt



As shown on the preceding page, MWRA staff projects a \$351 million decline in outstanding debt during the FY14-18 Cap period. Despite some challenging years ahead such as 2017 and 2020, the Authority's long-term rates management strategy has been working successfully over the years. Using various financial tools, including restructurings, refundings, defeasances, maximum use of the State Revolving Fund (SRF) program funding, controlling direct and indirect expenses, making voluntary pension payments whenever possible, and renegotiating bond indenture terms; have resulted in reasonable and predictable assessment increases over the years.

As the Authority continues on the path of conservative and responsible fiscal management, the future assessment rates continue to be reasonable and manageable for our member communities.

The Shift from Mandated Projects

Since 1985, nearly 80% of the Authority's spending has been on court mandated projects. Going forward, Asset Protection and Water System Redundancy projects will dominate future spending. The Pipeline Replacement and Rehabilitation, Energy program initiatives, and IT infrastructure updates will also be a continuing effort.

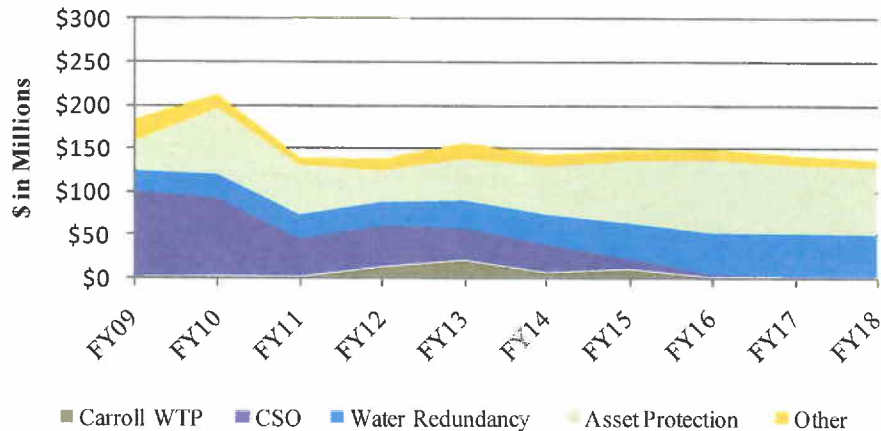
The table below captures the changing nature of the program in the future.

	Total Contract	FY09-13	FY14-18	Beyond 18
Asset Protection	\$ 1,944.0	\$ 252.0	\$ 370.1	\$ 686.4
Carroll WTP	\$ 433.3	\$ 39.4	\$ 21.0	\$ 0.1
Water Redundancy	\$ 1,851.2	\$ 138.4	\$ 223.1	\$ 627.0
CSO	\$ 863.4	\$ 316.5	\$ 48.1	\$ 1.3
Other	\$ 536.7	\$ 80.1	\$ 55.6	\$ (93.7)
Total	\$5,628.5	\$ 826.4	\$ 718.0	\$1,221.2
Asset Protection	34.5%	30.5%	51.6%	56.2%
Carroll WTP	7.7%	4.8%	2.9%	0.0%
Water Redundancy	32.9%	16.7%	31.1%	51.3%
CSO	15.3%	38.3%	6.7%	0.1%
Other	9.5%	9.7%	7.7%	-7.7%
Total	100.0%	100.0%	100.0%	100.0%

As presented above, Asset Protection and Water Redundancy initiatives account for 30.5% and 16.7% of FY09-13 spending. These percentages will grow substantially to 51.6% and 31.1% respectively for the FY14-18 timeframe.

The graph below displays the projected trend of expenditures by major category for the FY09-18 time period.

FY14 Final Expenditure Forecast by Major Category



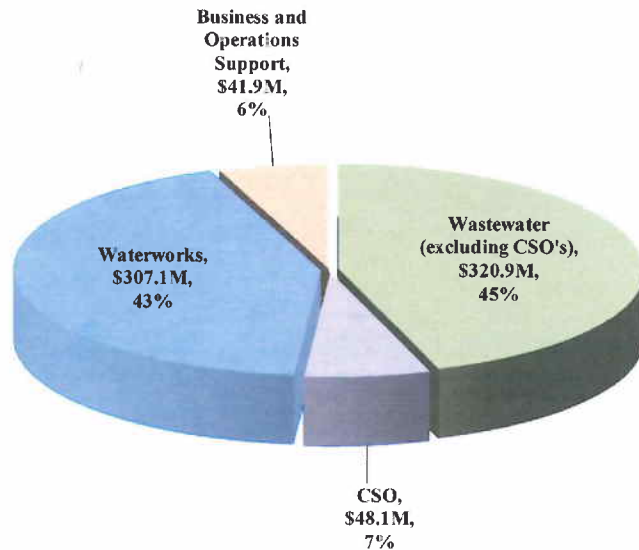
FY14 Final CIP Expenditures

The FY14 Final CIP contains future spending estimated at \$2.1 billion. The FY14 Final CIP (without contingency) includes planned expenditures of \$142.5 million for FY14 and total projected expenditures of \$718.0 million for the FY14-18 timeframe.

The table below represents the projected spending by the major project categories:

	Total Contract Amount	Payments Thru FY12	Remaining Balance	FY13	Total FY09-13	FY14	FY15	FY16	FY17	FY18	Total FY14-18	Beyond 18
Wastewater System Improvements	\$2,685.1	\$1,661.8	\$1,023.3	\$79.9	\$524.0	\$84.3	\$77.8	\$79.8	\$64.8	\$62.3	\$368.9	\$574.5
Interception & Pumping	846.5	518.6	327.9	2.3	32.7	13.1	22.2	28.9	28.8	25.3	118.4	207.3
Treatment	659.6	168.7	490.9	19.7	136.6	39.4	44.4	46.6	34.8	33.9	199.1	272.0
Residuals	168.0	64.2	103.9	0.4	0.8	0.4	0.3	0.2	0.2	0.5	1.5	101.9
CSO	888.1	802.3	85.8	36.4	316.5	32.3	11.3	3.6	0.1	0.8	48.1	1.3
Other Wastewater	122.9	108.1	14.8	21.0	37.4	(0.9)	(0.5)	0.5	1.0	1.7	1.8	(8.0)
Waterworks System Improvements	\$2,821.0	\$1,799.6	\$1,021.4	\$71.6	\$268.7	\$49.8	\$61.0	\$58.6	\$68.0	\$69.7	\$307.1	\$642.7
Drinking Water Quality Improvements	657.2	559.7	97.4	40.0	91.2	32.3	20.6	2.3	1.4	0.6	57.3	0.1
Transmission	1,186.0	737.9	448.1	18.0	83.0	6.4	25.6	23.6	18.9	5.6	80.0	350.1
Distribution & Pumping	948.4	384.1	564.3	4.5	67.5	10.7	13.4	29.3	43.9	57.3	154.6	405.2
Other Waterworks	29.4	117.9	(88.5)	9.0	27.0	0.5	1.4	3.4	3.8	6.2	15.2	(112.7)
Business & Operations Support	122.4	72.2	50.2	4.3	\$33.6	8.4	8.8	10.9	8.9	4.9	\$41.9	4.0
Total MWRA	\$5,628.5	\$3,533.6	\$2,094.9	\$155.8	\$826.4	\$142.5	\$147.6	\$149.3	\$141.8	\$136.8	\$718.0	\$1,221.2

The graph below illustrates a breakdown of the major program spending (in millions) for the FY14-18 timeframe.



Please refer to Attachment B for a more detailed project listing and projected cash flows.

Contingency

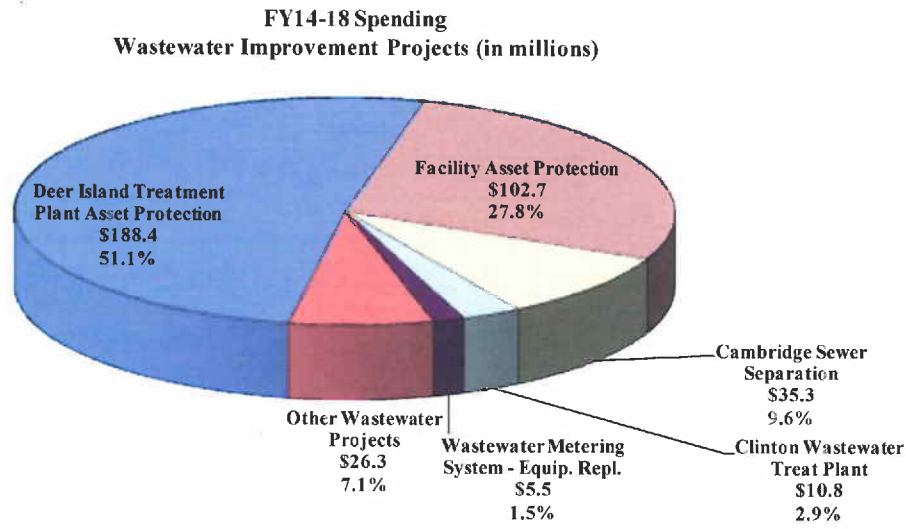
Contingency for each fiscal year is incorporated into the CIP to fund the uncertainties inherent to construction. The contingency budget is calculated as a percentage of budgeted expenditure outlays. Specifically, contingency is 7% for non-tunnel projects and 15% for tunnel projects. The contingency budget is \$7.6 million for FY14 and \$46.1 million for the FY14-18 timeframe.

Top 10 Projects – FY14-FY18 Cap Period

It is important to emphasize that the majority of spending within the Wastewater and Water Capital programs is concentrated in several larger projects with significant spending in the FY14-18 timeframe. These projects are either currently under construction or soon to be awarded. The top 5 projects for the Wastewater program total \$342.7 million for the FY14-18 period and represent 92.9% of the \$369.0 million total program.

Wastewater Improvement Projects	Total Contract Amount	FY14-18 Spending	% of Program
DI Treatment PI Asset Protection	\$606.8	\$188.4	51.1%
Facility Asset Protection	\$279.8	\$102.7	27.8%
Cambridge Sewer Separation	\$85.8	\$35.3	9.6%
Clinton Wastewater Treatment Plant	\$17.1	\$10.8	2.9%
Wastewater Metering System - Equipment Repl.	\$26.4	\$5.5	1.5%
Top 5 Wastewater Improvement Projects	\$1,015.9	\$342.7	92.9%
Other Wasterwater Projects	\$1,669.2	\$26.3	7.1%
Total Wastewater Program Spending	\$2,685.1	\$368.9	100.0%

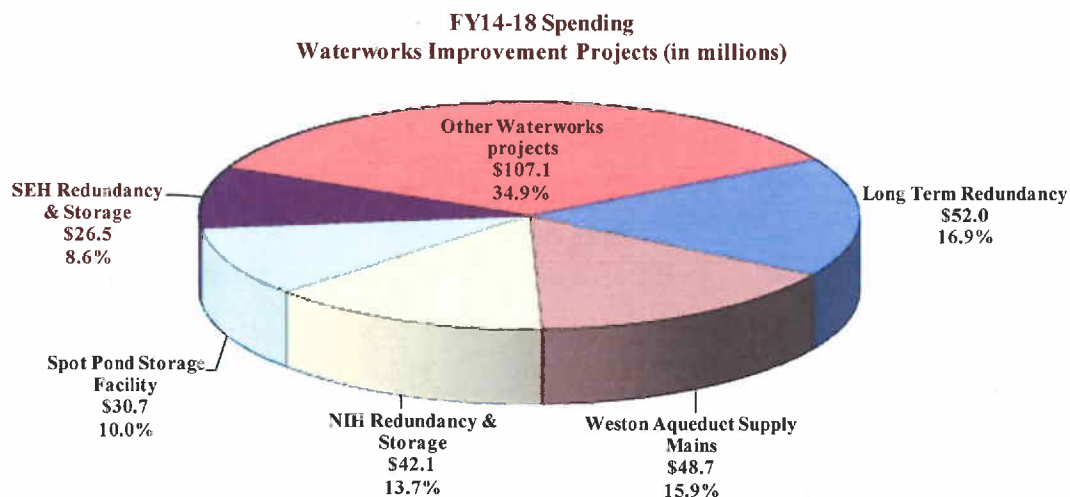
The breakdown of the \$369.0 million program by the major projects is illustrated below:



Similarly, the top 5 projects for the Waterworks program total \$200.0 million for FY14-18 and represent 65.1% of the \$307.1 million total program.

Waterworks Improvement Projects	Total Contract Amount	FY14-18 Spending	% of Program
Long Term Redundancy (Wachusett Pump Station)	\$375.4	\$52.0	16.9%
Weston Aqueduct Supply Mains	\$286.4	\$48.7	15.9%
NIH Redundancy & Storage	\$85.0	\$42.1	13.7%
Spot Pond Storage Facility	\$59.1	\$30.7	10.0%
SEH Redundancy & Storage	\$93.5	\$26.5	8.6%
Top 5 Waterworks Improvement Projects	\$899.4	\$200.0	65.1%
Other Waterworks projects	\$1,921.5	\$107.1	34.9%
Total Waterworks Program Spending	\$2,821.0	\$307.1	100.0%

The breakdown of the \$307.1 million program by the major projects is illustrated on the following graph:



Major Planned Contract Awards for Fiscal Year 2013:

In Fiscal Year 2014, 49 contracts totaling \$133.0 million are projected to be awarded. The largest ten projected contract awards are listed below and account for 66% of expected awards:

Project	Subphase	FY14 Budget Amount
Long Term Redundancy	Wachusett Aqueduct Pump Station Construction	\$45.6
Carroll Water Treatment Plant	Existing Facilities Modifications - CP7	6.1
DI Treatment Plant Asset Protection	Gravity Thickener Rehabilitation	5.8
SEH Redundancy & Storage	Redundancy/Storage Phase 1 Final Design/CA/RI	5.7
Facility Asset Protection	Prison Point/Cottage Farm Facilities	5.1
DI Treatment Plant Asset Protection	Digester Sludge Pump Replacement Phase 2	4.7
Carroll Water Treatment Plant	CWTP Storage Tank Roof Drainage System	4.1
Application Improvement Program	Enterprise Content Management	4.0
DI Treatment Plant Asset Protection	Winthrop Terminal Facility VFD Replacement - Construction	4.0
Facility Asset Protection	Rehabilitation of Sects 186 and 4 Construction	3.5
Top Ten Budget Awards in FY14		\$88.4

Future Risk Factors

There are still potential projects or required spending increases which are not yet funded as part of the FY14 Final CIP which are highlighted below:

- Residual Asset Protection or the funding to rehabilitate or replace the existing Residuals Plant needs to be determined;
- Sudbury Aqueduct – tunnel vs surface pipeline;
- North Metropolitan Trunk Sewer Rehabilitation;
- Chelsea Creek Headworks constructability; and
- New regulatory mandates always pose potential risk for increased future spending.

CIP Review and Adoption Process

In December, the MWRA transmitted the FY14 Proposed Capital Improvement Program to the Advisory Board for its review and comment. The Advisory Board issued their Integrated Comments and Recommendations in May. Please refer to Attachment D for the Authority's responses to the Advisory Boards Comments and Recommendations.

ATTACHMENTS:

- A. New Capital Projects Added to the FY14 CIP
- B. FY14 Final Expenditure Forecast at Project Level
- C. Comparison of the FY14 Final CIP and the FY13 Final CIP
- D. MWRA Responses to Advisory Board's FY14 Integrated CIP and CEB Comments and Recommendations

**ATTACHMENT A
New Capital Projects Added to the FY14 CIP**

Program	Project	Subphase	Total Contract Amount	FY09-13	FY14-18	Beyond FY18	Total Expenditures
Treatment	DITP Asset Protection	Sodium Bisulfite Tanks Rehabilitation	\$2,543,075	\$0	\$2,543,075		\$2,543,075
	Clinton Wastewater Treatment Plant	Clinton Roofing Rehabilitation	\$508,615	\$0	\$508,615		\$508,615
	Clinton Wastewater Treatment Plant	Clinton Facilities Rehabilitation	\$4,068,920	\$0	\$474,707	\$3,594,213	\$4,068,920
Distribution and Pumping	NHS Revere & Malden Pipeline	Section 56 Replacement/Saugus	\$10,000,000	\$0	\$4,240,000	\$5,760,000	\$10,000,000
Drinking Water Quality Improvements	Carroll Water Treatment Plant	CWTP - Asset Protection	\$500,000	\$0	\$500,000		\$500,000
Other Waterworks	Waterworks Asset Protection	Water Meter Upgrade Replacement	\$1,000,000	\$0	\$1,000,000		\$1,000,000
	Waterworks Asset Protection	Beacon Street Line Repair	\$1,000,000	\$0	\$1,000,000		\$1,000,000
SUMMARY:							
Total Wastewater Projects			\$7,120,610	\$0	\$3,526,397	\$3,594,213	\$7,120,610
Total Waterworks Projects			\$12,500,000	\$0	\$6,740,000	\$5,760,000	\$12,500,000
Total Projects			\$19,620,610	\$0	\$10,266,397	\$9,354,213	\$19,620,610

**ATTACHMENT B
FY14 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program / Project	Total Contract Amount	Payments through FY12	Remaining Balance	FY13	FY09 - FY13	FY14 - FY18	Beyond FY18
Total MWRA	5,628,539,326	3,533,594,910	2,094,944,416	155,786,106	826,387,409	717,957,835	1,221,200,445
Wastewater	2,685,135,203	1,661,795,832	1,023,339,371	79,888,316	524,013,165	368,929,500	574,521,539
Interception & Pumping	846,540,618	518,609,282	327,931,336	2,304,701	32,747,204	118,370,992	207,255,635
102 Quincy Pump Facilities	25,907,202	25,908,077	(875)	(875)	(875)		
104 Braintree-Weymouth Relief Facilities	233,869,249	228,063,541	5,805,708	601	13,032,618	1,364,106	4,441,000
105 New Neponset Valley Relief Sewer	30,300,303	30,300,303	0				
106 Wellesley Extension Replacement Sewer	64,358,543	64,358,543	0				
107 Framingham Extension Relief Sewer	47,855,986	47,855,986	0				
127 Cummingsville Replacement Sewer	8,998,768	8,998,767	0		43,382		
130 Siphon Structure Rehabilitation	5,603,338	939,770	4,663,568			4,581,224	82,344
131 Upper Neponset Valley Sewer System	54,174,078	53,860,692	313,386	313,386	1,024,421		
132 Corrosion & Odor Control	16,259,955	3,001,406	13,258,549		(1,404)	1,000,000	12,258,549
136 West Roxbury Tunnel	11,313,573	10,309,178	1,004,395	4,395	1,433,771		1,000,000
137 Wastewater Central Monitoring	20,482,201	19,782,201	700,000		5,834,465	700,000	
139 South System Relief Project	4,939,244	3,439,244	1,500,000		(645)		1,500,000
141 Wastewater Process Optimization	10,327,761	1,137,662	9,190,099	105,517	312,871	2,541,675	6,542,906
142 Wastewater Meter System - Equip. Replacement	26,437,912	5,137,912	21,300,000		49,147	5,530,769	15,769,231

**ATTACHMENT B
FY14 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program / Project	Total Contract Amount	Payments through FY12	Remaining Balance	FY13	FY09 - FY13	FY14 - FY18	Beyond FY18
143 Regional I/I Management Planning	168,987	168,987	0				
145 Facility Asset Protection	279,793,519	15,347,013	264,446,506	1,881,676	11,019,452	102,653,218	159,911,605
146 Deer Island Cross Harbor Tunnel	5,000,000	0	5,000,000				5,000,000
147 Randolph Trunk Sewer Relief	750,000	0	750,000				750,000
Treatment	659,597,220	168,695,431	490,901,788	19,735,852	136,637,223	199,137,875	272,029,060
200 DI Plant Optimization	33,455,815	33,455,815	0		296,298		
206 DI Treatment Plant Asset Protection	606,847,768	132,409,844	474,437,924	17,618,923	132,668,071	188,385,153	268,433,847
210 Clinton Wastewater Treatment Plant	17,058,617	755,538	16,303,079	1,956,144	2,366,899	10,752,722	3,594,213
211 Laboratory Services	2,235,019	2,074,234	160,785	160,785	1,305,955		
Residuals	168,020,224	64,156,045	103,864,180	406,309	751,506	1,548,749	101,909,122
261 Residuals	63,810,848	63,810,848	0				
271 Residuals Asset Protection	104,209,377	345,197	103,864,180	406,309	751,506	1,548,749	101,909,122
CSO	888,112,279	802,275,285	85,836,994	36,435,304	316,492,456	48,066,290	1,334,395
CSO MWRA Managed	434,901,991	429,187,262	5,714,729	1,316,576	161,053,669	4,085,152	313,000
339 North Dorchester Bay	223,059,718	221,540,523	1,519,195	398,972	82,897,402	807,221	313,000
347 East Boston Branch Sewer Relief	85,873,733	85,534,665	339,068	339,067	75,168,354		

**ATTACHMENT B
FY14 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program / Project	Total Contract Amount	Payments through FY12	Remaining Balance	FY13	FY09 - FY13	FY14 - FY18	Beyond FY18
348 BOS019 Storage Conduit	14,287,581	14,287,581	0		(44,067)		
349 Chelsea Trunk Sewer	29,779,319	29,779,319	0				
350 Union Park Detention Treatment Facility	49,583,406	49,583,406	0		(227,192)		
353 Upgrade Existing CSO Facilities	22,385,200	22,385,200	0				
354 Hydraulic Relief Projects	2,294,549	2,294,549	0				
355 MWR003 Gate & Siphon	4,005,409	148,942	3,856,467	578,537	727,479	3,277,931	
357 Charles River CSO Controls	3,633,077	3,633,077	0		2,531,693		
CSO Community Managed	402,894,739	323,528,806	79,365,933	35,069,940	150,919,200	44,295,990	
340 Dorchester Bay Sewer Separation (Fox Pt)	54,168,552	54,152,295	16,257		389,676	16,256	
341 Dorch Bay Sew Separation (Commercial Point)	64,775,652	60,451,470	4,324,182	696,445	6,257,325	3,627,737	
342 Neponset River Sewer Separation	2,444,394	2,444,394	0				
343 Constitution Beach Sewer Separation	3,768,888	3,768,888	0				
344 Stony Brook Sewer Separation	44,332,539	44,198,384	134,155	134,155	(721,285)		
346 Cambridge Sewer Separation	85,833,982	35,489,357	50,344,625	14,995,524	32,033,751	35,349,100	
351 BWSC Floatables Controls	932,979	932,979	0				
352 Cambridge Floatables Control	1,086,925	1,086,925	0		164,727		
356 Fort Point Channel Sewer Separation	12,006,708	12,006,708	0		3,715,550		

**ATTACHMENT B
FY14 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program / Project	Total Contract Amount	Payments through FY12	Remaining Balance	FY13	FY09 - FY13	FY14 - FY18	Beyond FY18
358 Morrissey Boulevard Drain	32,814,545	32,346,787	467,758		17,670,616	467,758	
359 Reserved Channel Sewer Separation	64,808,529	41,529,984	23,278,545	18,509,630	57,322,620	4,768,914	
360 Brookline Sewer Separation	25,977,385	25,263,178	714,207	734,186	24,725,764	(19,979)	
361 Bulfinch Triangle Sewer Separation	9,943,660	9,857,456	86,204		9,360,456	86,204	
CSO Planning & Support	50,314,549	49,559,217	755,332	48,788	4,519,587	(314,852)	1,021,395
Other Wastewater	122,865,861	108,059,788	14,806,073	21,006,150	37,384,776	1,805,595	(8,005,673)
128 I/I Local Financial Assistance	122,584,985	107,778,912	14,806,073	21,006,150	37,384,776	1,805,594	(8,005,673)
138 Sewerage System Mapping Upgrade	280,876	280,876	0				
Waterworks	2,820,956,187	1,799,565,147	1,021,391,040	71,568,125	268,742,364	307,133,761	642,688,141
Drinking Water Quality Improvements	657,172,228	559,732,487	97,439,742	40,049,471	91,232,007	57,311,272	79,000
542 Carroll Water Treatment Plant	433,252,898	391,220,222	42,032,676	20,927,488	39,435,441	21,026,188	79,000
543 Quabbin Water Treatment Plant	17,392,925	10,832,937	6,559,988	1,524,965	2,214,380	5,035,023	
544 Norumbega Covered Storage	106,674,146	106,674,146	0		101,670		
545 Blue Hills Covered Storage	40,703,606	39,969,816	733,790	133,824	21,214,786	599,966	
550 Spot Pond Storage Facility	59,148,654	11,035,366	48,113,288	17,463,194	28,265,730	30,650,095	

**ATTACHMENT B
FY14 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program / Project	Total Contract Amount	Payments through FY12	Remaining Balance	FY13	FY09 - FY13	FY14 - FY18	Beyond FY18
Transmission	1,185,971,524	737,867,886	448,103,638	18,006,199	82,989,625	80,006,992	350,090,446
597 Winsor Station Pipeline	27,256,312	1,389,157	25,867,155	81,998	1,432,873	5,006,817	20,778,339
601 Sluice Gate Rehabilitation	9,158,411	9,158,411	0				
604 MetroWest Tunnel	708,785,875	683,664,737	25,121,138	11,763,971	61,627,882	7,697,198	5,659,969
615 Chicopee Valley Aqueduct Redundancy	8,666,292	8,666,747	(455)	(455)	94,688		
616 Quabbin Transmission System	13,515,635	4,913,428	8,602,207	2,210,753	2,700,754	3,261,453	3,130,000
617 Sudbury/Weston Aqueduct Repairs	4,326,512	659,948	3,666,564		25,000	3,666,564	
620 Wachusett Reservoir Spillway Improvements	9,287,460	9,287,461	(1)		1,237,499		
621 Watershed Land	24,000,000	15,563,500	8,436,500	2,436,500	9,793,000	6,000,000	
623 Dam Projects	5,540,300	2,887,967	2,652,333	281,084	3,169,051	2,328,393	42,856
625 Long Term Redundancy	375,434,727	1,676,530	373,758,197	1,232,348	2,908,878	52,046,567	320,479,282
Distribution And Pumping	931,432,580	368,277,508	563,155,072	4,483,028	67,308,796	153,474,911	405,196,121
618 Northern High NW Transmission Section 70	1,000,000	0	1,000,000			1,000,000	
677 Valve Replacement	22,310,841	11,522,846	10,787,995	493,537	3,437,055	3,131,000	7,163,460
678 Boston Low Service - Pipe & Valve Rehab	23,690,864	23,690,863	0				
683 Heath Hill Road Pipe Replacement	19,358,036	19,358,036	0		(9,817)		
689 James L. Gillis Pump Station	33,419,006	33,419,007	(1)				

**ATTACHMENT B
FY14 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program / Project	Total Contract Amount	Payments through FY12	Remaining Balance	FY13	FY09 - FY13	FY14 - FY18	Beyond FY18
692 Northern High Service - Section 27 Improve.	1,042,789	123,646	919,143			177,506	741,637
693 NHS - Revere & Malden Pipeline Improve.	48,621,925	26,832,740	21,789,185		2,938,022	12,603,902	9,185,284
702 New Connecting Mains - Shaft 7 to WASM 3	33,351,346	10,960,807	22,390,539	7,349	5,649,430	10,824,000	11,559,190
704 Rehab of Other Pump Stations	55,057,852	30,057,852	25,000,000		12,072,270		25,000,000
706 NHS-Connecting Mains from Section 91	2,360,194	2,360,194	0				
708 Northern Extra High Service - New Pipelines	7,653,106	3,632,119	4,020,987	8,500	8,500	1,197,614	2,814,874
712 Cathodic Protection Of Distribution Mains	1,590,815	140,913	1,449,902			724,950	724,950
713 Spot Pond Supply Mains Rehab	66,243,122	60,980,157	5,262,965		501,659	2,975,000	2,287,965
714 Southern Extra High - Sections 41 & 42	3,657,243	3,657,243	0				
719 Chestnut Hill Connecting Mains	31,301,217	17,486,675	13,814,542		25,061	837,000	12,977,542
720 Warren Cottage Line Rehab	1,204,822	1,204,821	1				
721 South Spine Distribution Mains	73,568,223	36,406,074	37,162,149	534,598	19,330,738	1,157,742	35,469,801
722 NIH Redundancy & Storage	84,956,047	5,331,010	79,625,037	797,739	5,494,776	42,079,126	36,748,172
723 Northern Low Service Rehab - Section 8	22,439,870	2,320,986	20,118,884		2,263,003	754,088	19,364,790
724 Northern High Service - Pipeline Improve.	0	0	0		(1,600)		
725 Hydraulic Model Update	598,358	598,358	0				
727 SEH Redundancy & Storage	93,459,769	6,672,412	86,787,357	149,819	5,154,962	26,521,286	60,116,254

**ATTACHMENT B
FY14 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program / Project	Total Contract Amount	Payments through FY12	Remaining Balance	FY13	FY09 - FY13	FY14 - FY18	Beyond FY18
730 Weston Aqueduct Supply Mains	286,417,600	64,829,663	221,587,937	505,973	4,434,777	48,742,317	172,339,646
731 Lynnfield Pipeline	6,072,838	3,973,945	2,098,893	1,985,513	5,446,737	113,380	
732 Walnut St. & Fisher Hill Pipeline Rehab	2,717,140	2,717,141	0		563,223		
735 Section 80 Rehabilitation	9,339,557	0	9,339,557			636,000	8,703,557
Other Waterworks	46,379,855	133,687,266	(87,307,411)	9,029,427	27,211,936	16,340,586	(112,678,426)
753 Central Monitoring System	16,992,423	15,803,729	1,188,694	60,000	196,784	1,128,694	
763 Distribution Systems Facilities Mapping	1,798,919	1,036,368	762,551			762,551	
764 Local Water Infrastructure Rehab	7,487,762	7,487,762	0				
765 Local Water Pipeline Assistance Program	0	108,821,204	(108,821,204)	8,969,427	26,714,499	2,927,341	(120,717,974)
766 Waterworks Facility Asset Protection	20,100,751	538,203	19,562,548		300,653	11,522,000	8,040,548
Business & Operations Support	122,447,936	72,233,931	50,214,005	4,329,665	33,631,880	41,894,574	3,989,765
881 Equipment Purchase	18,482,592	10,108,351	8,374,241	1,355,320	6,206,564	7,018,921	
925 Technical Assistance	1,200,000	0	1,200,000			1,200,000	
930 MWRA Facility - Chelsea	9,813,633	9,813,633	0		(73,272)		
931 Business Systems Plan	24,475,309	24,288,747	186,562	174,521	2,455,188	12,038	
932 Environmental Remediation	1,478,802	1,478,802	0		10,602		
933 Capital Maintenance Planning & Development	15,700,745	8,269,656	7,431,089	1,785,183	6,335,459	5,645,907	

**ATTACHMENT B
FY14 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program / Project	Total Contract Amount	Payments through FY12	Remaining Balance	FY13	FY09 - FY13	FY14 - FY18	Beyond FY18
934 MWRA Facilities Management & Planning	2,150,535	370,533	1,780,002		370,533	1,780,002	
935 Alternative Energy Initiatives	28,230,370	16,985,111	11,245,259	628,381	17,021,449	6,965,278	3,651,600
940 Application Improvement Program	9,150,000	0	9,150,000	5,000	5,000	8,985,910	159,090
942 Information Security Program	1,292,950	357,641	935,309	143,773	501,414	791,536	
944 Information Technology Management Program	1,493,000	0	1,493,000			1,493,000	
946 IT Infrastructure Program	8,980,000	561,456	8,418,544	237,487	798,943	8,001,982	179,075

ATTACHMENT C
Comparison of the FY14 Final CIP and the FY13 Final
(\$000)

Program and Project	FY13 Final			
	Total Budget Amount	FY09-13	FY14-18	Beyond 18
Total MWRA	5,524,898	838,130	997,267	826,508
Wastewater	2,645,510	517,299	533,950	376,591
Interception & Pumping	822,656	37,483	156,752	140,253
102 Quincy Pump Facilities	25,908	-	-	-
104 Braintree-Weymouth Relief Facilities	233,735	14,203	4,499	-
105 New Neponset Valley Relief Sewer	30,300	-	-	-
106 Wellesley Extension Replacement Sewer	64,359	-	-	-
107 Framingham Extension Relief Sewer	47,856	-	-	-
127 Cummingsville Replacement Sewer	8,999	43	-	-
130 Siphon Structure Rehabilitation	2,671	30	1,702	-
131 Upper Neponset Valley Sewer	54,942	1,792	-	-
132 Corrosion & Odor Control	16,140	-	5,706	7,431
134 Ashland Extension Sewer	-	-	-	-
135 System Master Plan Interceptors	-	-	-	-
136 West Roxbury Tunnel	11,309	1,429	-	1,000
137 Wastewater Central Monitoring	20,839	6,241	650	-
139 South System Relief Project	4,939	(1)	188	1,313
140 Neponset Valley Relief Sewer	-	-	-	-
141 Wastewater Process Optimization	10,300	558	5,686	3,125
142 Wastewater Meter System-Equipment	26,578	210	8,586	12,691
143 Regional I/I Management Planning	169	-	-	-
145 Facility Asset Protection	257,863	12,977	124,609	114,068
146 D.I. Cross Harbor Tunnel Inspection	5,000	-	4,375	625
147 Randolph Trunk Sewer Relief	750	-	750	-
Treatment	626,107	156,257	270,123	147,933
200 DI Plant Optimization	33,456	296	-	-
206 DI Treatment Plant Asset Protection	580,900	151,601	264,005	147,933
210 Clinton Wastewater Treat Plant	9,538	3,075	6,118	-
211 Laboratory Services	2,214	1,285	-	-
Residuals	211,741	941	54,337	92,652
261 Residuals	63,811	-	-	-
271 Residuals Asset Protection	147,930	941	54,337	92,652

FY14 Final			
Total Budget Amount	FY09-13	FY14-18	Beyond 18
5,628,539	826,387	717,958	1,221,201
2,685,135	524,013	368,930	574,520
846,541	32,747	118,371	207,255
25,907	(1)	-	-
233,869	13,033	1,364	4,441
30,300	-	-	-
64,359	-	-	-
47,856	-	-	-
8,999	43	-	-
5,603	-	4,581	82
54,174	1,024	-	-
16,260	(1)	1,000	12,259
-	-	-	-
-	-	-	-
11,314	1,434	-	1,000
20,482	5,834	700	-
4,939	(1)	-	1,501
-	-	-	-
10,328	313	2,542	6,543
26,438	49	5,531	15,767
169	-	-	-
279,794	11,019	102,653	159,912
5,000	-	-	5,000
750	-	-	750
659,597	136,637	199,138	272,029
33,456	296	-	-
606,848	132,668	188,385	268,434
17,059	2,367	10,753	3,595
2,235	1,306	-	-
168,020	752	1,549	101,909
63,811	-	-	-
104,209	752	1,549	101,909

Change from FY13 Final			
Total Budget Amount	FY09-13	FY14-18	Beyond 18
103,642	(11,742)	(279,309)	394,693
39,625	6,715	(165,020)	197,931
23,885	(4,736)	(38,381)	67,062
(1)	(1)	-	-
134	(1,170)	(3,135)	4,441
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
2,932	(30)	2,879	82
(768)	(768)	-	-
120	(1)	(4,706)	4,828
-	-	-	-
-	-	-	-
5	5	-	-
(357)	(407)	50	-
-	-	(188)	188
-	-	-	-
28	(245)	(3,144)	3,418
(140)	(161)	(3,055)	3,076
-	-	-	-
21,931	(1,958)	(21,956)	45,844
-	-	(4,375)	4,375
-	-	(750)	750
33,490	(19,620)	(70,985)	124,096
-	-	-	-
25,948	(18,933)	(75,620)	120,501
7,521	(708)	4,635	3,595
21	21	-	-
(43,720)	(189)	(52,788)	9,257
-	-	-	-
(43,721)	(189)	(52,788)	9,257

ATTACHMENT C
Comparison of the FY14 Final CIP and the FY13 Final
(\$000)

Program and Project	FY13 Final			
	Total Budget Amount	FY09-13	FY14-18	Beyond 18
CSO	862,140	308,740	31,173	9
340 Dorchester Bay Sewer Separation (Fox Point)	54,187	390	35	-
341 Dorchester Bay Sewer Separation (Commercial Point)	64,725	6,472	3,363	-
342 Neponset River Sewer Separation	2,444	-	-	-
343 Constitution Beach Sewer Separation	3,769	-	-	-
344 Stony Brook Sewer Separation	44,333	(856)	134	-
346 Cambridge Sewer Separation	56,791	29,208	9,131	-
351 BWSC Floatables Controls	933	-	-	-
352 Cambridge Floatables Control	1,087	164	-	-
356 Fort Point Channel Sewer Separation	12,007	3,715	-	-
358 Morrissey Boulevard Drain	32,905	18,009	220	-
359 Reserved Channel Sewer Separation	64,330	50,776	10,837	-
360 Brookline Sewer Separation	25,998	24,726	-	-
361 Bulfinch Triangle Sewer Separation	9,986	9,489	-	-
339 North Dorchester Bay	226,562	83,997	3,523	-
347 East Boston Branch Sewer Relief	85,706	75,000	-	-
348 BOS019 Storage Conduit	14,288	(44)	-	-
349 Chelsea Trunk Sewer	29,779	-	-	-
350 Union Park Detention Treatment Facility	49,583	(227)	-	-
353 Upgrade Existing CSO Facilities	22,385	-	-	-
354 Hydraulic Relief Projects	2,295	-	-	-
355 MWR003 Gate & Siphon	4,098	838	3,260	-
357 Charles River CSO Controls	3,633	2,532	-	-
324 CSO Support	50,316	4,549	670	9
Other Wastewater	122,866	13,878	21,564	(4,256)
128 I/I Local Financial Assistance	122,585	13,878	21,564	(4,256)
138 Sewerage System Mapping Upgrade	281	-	-	-
Total Waterworks	2,769,093	279,095	437,691	449,914
Drinking Water Quality	654,097	99,436	46,111	-
542 Carroll Water Treatment Plant	430,036	41,292	16,031	-
543 Quabbin Water Treatment Plant	17,667	3,353	4,170	-
544 Norumbega Covered Storage	106,674	102	-	-
545 Blue Hills Covered Storage	40,687	21,361	436	-
550 Spot Pond Storage Facility	59,032	33,325	25,474	-

Program and Project	FY14 Final			
	Total Budget Amount	FY09-13	FY14-18	Beyond 18
CSO	888,111	316,492	48,066	1,334
340 Dorchester Bay Sewer Separation (Fox Point)	54,169	390	16	-
341 Dorchester Bay Sewer Separation (Commercial Point)	64,776	6,257	3,628	-
342 Neponset River Sewer Separation	2,444	-	-	-
343 Constitution Beach Sewer Separation	3,769	-	-	-
344 Stony Brook Sewer Separation	44,333	(721)	-	-
346 Cambridge Sewer Separation	85,834	32,034	35,349	-
351 BWSC Floatables Controls	933	-	-	-
352 Cambridge Floatables Control	1,087	165	-	-
356 Fort Point Channel Sewer Separation	12,007	3,716	-	-
358 Morrissey Boulevard Drain	32,815	17,671	468	-
359 Reserved Channel Sewer Separation	64,809	57,323	4,769	-
360 Brookline Sewer Separation	25,977	24,726	(20)	-
361 Bulfinch Triangle Sewer Separation	9,944	9,360	86	-
339 North Dorchester Bay	223,060	82,897	807	313
347 East Boston Branch Sewer Relief	85,874	75,168	-	-
348 BOS019 Storage Conduit	14,288	(44)	-	-
349 Chelsea Trunk Sewer	29,779	-	-	-
350 Union Park Detention Treatment Facility	49,583	(227)	-	-
353 Upgrade Existing CSO Facilities	22,385	-	-	-
354 Hydraulic Relief Projects	2,295	-	-	-
355 MWR003 Gate & Siphon	4,005	727	3,278	-
357 Charles River CSO Controls	3,633	2,532	-	-
324 CSO Support	50,315	4,520	(315)	1,021
Other Wastewater	122,866	37,385	1,806	(8,005)
128 I/I Local Financial Assistance	122,585	37,385	1,806	(8,005)
138 Sewerage System Mapping Upgrade	281	-	-	-
Total Waterworks	2,820,956	268,742	307,134	642,692
Drinking Water Quality	657,172	91,232	57,311	79
542 Carroll Water Treatment Plant	433,253	39,435	21,026	79
543 Quabbin Water Treatment Plant	17,393	2,214	5,035	-
544 Norumbega Covered Storage	106,674	102	-	-
545 Blue Hills Covered Storage	40,704	21,215	600	-
550 Spot Pond Storage Facility	59,149	28,266	30,650	-

Program and Project	Change from FY13 Final			
	Total Budget Amount	FY09-13	FY14-18	Beyond 18
CSO	25,971	7,753	16,893	1,325
340 Dorchester Bay Sewer Separation (Fox Point)	(18)	-	(19)	-
341 Dorchester Bay Sewer Separation (Commercial Point)	51	(215)	265	-
342 Neponset River Sewer Separation	-	-	-	-
343 Constitution Beach Sewer Separation	-	-	-	-
344 Stony Brook Sewer Separation	-	135	(134)	-
346 Cambridge Sewer Separation	29,043	2,826	26,218	-
351 BWSC Floatables Controls	-	-	-	-
352 Cambridge Floatables Control	-	1	-	-
356 Fort Point Channel Sewer Separation	-	1	-	-
358 Morrissey Boulevard Drain	(90)	(338)	248	-
359 Reserved Channel Sewer Separation	479	6,547	(6,068)	-
360 Brookline Sewer Separation	(21)	-	(20)	-
361 Bulfinch Triangle Sewer Separation	(42)	(129)	86	-
339 North Dorchester Bay	(3,502)	(1,100)	(2,716)	313
347 East Boston Branch Sewer Relief	168	168	-	-
348 BOS019 Storage Conduit	-	-	-	-
349 Chelsea Trunk Sewer	-	-	-	-
350 Union Park Detention Treatment Facility	-	-	-	-
353 Upgrade Existing CSO Facilities	-	-	-	-
354 Hydraulic Relief Projects	-	-	-	-
355 MWR003 Gate & Siphon	(93)	(111)	18	-
357 Charles River CSO Controls	-	-	-	-
324 CSO Support	(1)	(29)	(985)	1,012
Other Wastewater	-	23,507	(19,759)	(3,749)
128 I/I Local Financial Assistance	-	23,507	(19,758)	(3,749)
138 Sewerage System Mapping Upgrade	-	-	-	-
Total Waterworks	51,863	(10,353)	(130,557)	192,778
Drinking Water Quality	3,076	(8,204)	11,201	79
542 Carroll Water Treatment Plant	3,217	(1,857)	4,995	79
543 Quabbin Water Treatment Plant	(274)	(1,139)	865	-
544 Norumbega Covered Storage	-	-	-	-
545 Blue Hills Covered Storage	17	(146)	164	-
550 Spot Pond Storage Facility	117	(5,059)	5,176	-

ATTACHMENT C
Comparison of the FY14 Final CIP and the FY13 Final
(\$000)

Program and Project	FY13 Final				FY14 Final				Change from FY13 Final			
	Total Budget Amount	FY09-13	FY14-18	Beyond 18	Total Budget Amount	FY09-13	FY14-18	Beyond 18	Total Budget Amount	FY09-13	FY14-18	Beyond 18
Transmission	1,157,005	84,688	151,538	247,894	1,185,972	82,990	80,007	350,090	28,966	(1,698)	(71,532)	102,196
597 Winsor Station Pipeline	26,427	2,075	24,314	-	27,256	1,433	5,007	20,778	829	(642)	(19,307)	20,778
601 Sluice Gate Rehabilitation	9,158	-	-	-	9,158	-	-	-	-	-	-	-
604 MetroWest Tunnel	709,477	59,063	15,513	1,100	708,786	61,628	7,697	5,660	(691)	2,565	(7,816)	4,560
615 Chicopee Valley Aqueduct Redundancy	8,667	95	-	-	8,666	95	-	-	(1)	-	-	-
616 Quabbin Transmission System	13,526	2,903	3,718	2,480	13,516	2,701	3,261	3,130	(10)	(202)	(457)	650
617 Sudbury/Weston Aqueduct Repairs	4,308	25	3,648	-	4,327	25	3,667	-	19	-	19	-
620 Wachusett Reservoir Spillway Improvement	9,287	1,238	-	-	9,287	1,237	-	-	-	(1)	-	-
621 Watershed Land	19,000	10,794	-	-	24,000	9,793	6,000	-	5,000	(1,001)	6,000	-
622 Cosgrove/Wachusett Redundancy	-	-	-	-	-	-	-	-	-	-	-	-
623 Dam Projects	5,651	3,427	2,224	-	5,540	3,169	2,328	43	(111)	(258)	104	43
625 Long Term Redundancy	351,504	5,069	102,119	244,314	375,435	2,909	52,047	320,479	23,931	(2,160)	(50,072)	76,165
Distribution & Pumping	914,533	73,606	204,704	330,770	931,433	67,309	153,475	405,200	16,900	(6,297)	(51,229)	74,430
618 Northern High NW Tran Sections 70 & 71	1,000	-	1,000	-	1,000	-	1,000	-	-	-	-	-
677 Valve Replacement	22,392	4,092	4,511	5,209	22,311	3,437	3,131	7,163	(81)	(655)	(1,380)	1,954
678 Boston Low Service-Pipe & Valve Rehabilitation	23,691	-	-	-	23,691	-	-	-	-	-	-	-
683 Heath Hill Road Pipe Replacement	19,358	(10)	-	-	19,358	(10)	-	-	-	-	-	-
689 James L. Gillis Pump Station Rehabilitation	33,419	-	-	-	33,419	-	-	-	-	-	-	-
692 NHS - Section 27 Improvements	3,475	-	778	2,574	1,043	-	178	742	(2,432)	-	(600)	(1,832)
693 NHS - Revere & Malden Pipeline Improvement	37,276	2,938	4,494	5,950	48,622	2,938	12,604	9,185	11,346	-	8,110	3,235
702 New Connect Mains-Shaft 7 to WASM 3	32,763	5,680	10,664	11,101	33,351	5,649	10,824	11,559	588	(31)	160	458
704 Rehabilitation of Other Pump Stations	55,058	12,072	-	25,000	55,058	12,072	-	25,000	-	-	-	-
706 NHS-Connecting Mains from Section 91	2,360	-	-	-	2,360	-	-	-	-	-	-	-
708 Northern Extra High Service New Pipelines	7,479	13	2,908	925	7,653	9	1,198	2,815	174	(4)	(1,710)	1,890
712 Cathodic Protection Of Distribution Mains	1,527	-	-	1,386	1,591	-	725	725	64	-	725	(661)
713 Spot Pond Supply Mains Rehabilitation	66,187	502	4,725	482	66,243	502	2,975	2,288	56	-	(1,750)	1,806
714 Southern Extra High Sections 41 & 42	3,657	-	-	-	3,657	-	-	-	-	-	-	-
719 Chestnut Hill Connecting Mains	30,041	25	6,315	6,239	31,301	25	837	12,977	1,260	-	(5,478)	6,738
720 Warren Cottage Line Rehabilitation	1,205	-	-	-	1,205	-	-	-	-	-	-	-
721 South Spine Distribution Mains	72,465	19,958	1,013	33,885	73,568	19,331	1,158	35,470	1,103	(627)	145	1,585
722 NIH Redundancy & Storage	83,660	9,063	51,456	22,506	84,956	5,495	42,079	36,749	1,296	(3,568)	(9,377)	14,243
723 Northern Low Service Rehabilitation Section 8	21,698	2,268	4,149	15,222	22,440	2,263	754	19,366	742	(5)	(3,395)	4,144
724 Northern High Service - Pipeline Rehabilitation	-	(2)	-	-	-	(2)	-	-	-	-	-	-
725 Hydraulic Model Update	598	-	-	-	598	-	-	-	-	-	-	-
727 Southern Extra High Redundancy & Storage	101,849	5,311	11,998	82,873	93,460	5,155	26,521	60,116	(8,389)	(156)	14,523	(22,757)
730 Weston Aqueduct Supply Mains	276,166	6,081	100,111	109,072	286,418	4,435	48,742	172,341	10,252	(1,646)	(51,369)	63,269

ATTACHMENT C
Comparison of the FY14 Final CIP and the FY13 Final
(\$000)

Program and Project	FY13 Final				FY14 Final				Change from FY13 Final			
	Total Budget Amount	FY09-13	FY14-18	Beyond 18	Total Budget Amount	FY09-13	FY14-18	Beyond 18	Total Budget Amount	FY09-13	FY14-18	Beyond 18
731 Lynnfield Pipeline	5,563	5,050	-	-	6,073	5,447	113	-	510	397	113	-
732 Walnut St. & Fisher Hill Pipeline Rehabilitation	2,717	563	-	-	2,717	563	-	-	-	-	-	-
733 NHS Pipeline Rehabilitation 13-18 & 48	-	-	-	-	-	-	-	-	-	-	-	-
734 Southern Extra High Pipelines-Sections 30, 39,40, & 44	-	-	-	-	-	-	-	-	-	-	-	-
735 Section 80 Rehabilitation	8,928	-	582	8,346	9,340	-	636	8,704	412	-	54	358
Other	43,458	21,366	35,338	(128,750)	46,380	27,212	16,341	(112,677)	2,922	5,846	(18,997)	16,073
753 Central Monitoring System	16,992	326	1,000	-	16,992	197	1,129	-	-	(129)	129	-
763 Distribution Systems Facilities Mapping	1,799	-	763	-	1,799	-	763	-	-	-	-	-
764 Local Water Infrastructure Rehabilitation Assistance Program	7,488	-	-	-	7,488	-	-	-	-	-	-	-
765 Local Water Pipeline Improvement Loan Program	-	20,737	22,179	(133,993)	-	26,714	2,927	(120,718)	-	5,977	(19,252)	13,275
766 Waterworks Facility Asset Protection	17,179	303	11,396	5,243	20,101	301	11,522	8,041	2,922	(2)	126	2,798
Business & Operations Support	110,294	41,736	25,627	-	122,448	33,632	41,895	3,990	12,154	(8,104)	16,268	3,990
881 Equipment Purchase	16,744	7,561	3,925	-	18,483	6,207	7,019	-	1,739	(1,354)	3,094	-
925 Technical Assistance	1,200	400	800	-	1,200	-	1,200	-	-	(400)	400	-
930 MWRA Facility - Chelsea	9,814	(74)	-	-	9,814	(73)	-	-	-	1	-	-
931 Business Systems Plan	26,583	2,385	2,190	-	24,475	2,455	12	-	(2,108)	70	(2,178)	-
932 Environmental Remediation	1,479	11	-	-	1,479	11	-	-	-	-	-	-
933 Capital Maintenance Planning	10,617	6,286	611	-	15,701	6,335	5,646	-	5,084	49	5,035	-
934 MWRA Facilities Management	2,151	371	1,780	-	2,151	371	1,780	-	-	-	-	-
935 Alternative Energy Initiatives	27,225	19,680	6,954	-	28,230	17,021	6,965	3,652	1,005	(2,659)	11	3,652
940 Applicat Improv Program	3,800	787	3,013	-	9,150	5	8,986	159	5,350	(782)	5,973	159
942 Info Security Program ISP	1,000	700	300	-	1,293	501	792	-	293	(199)	492	-
944 Info Tech Mgmt Program	2,562	1,012	1,550	-	1,493	-	1,493	-	(1,069)	(1,012)	(57)	-
946 IT Infrastructure Program	7,120	2,616	4,504	-	8,980	799	8,002	179	1,860	(1,817)	3,498	179

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2014 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>1. Reduce the rate revenue requirement for the FY14 Current Expense Budget by \$2,510,662, resulting in a 3.49% wholesale rate increase including:</p> <p>a. Reducing the retirement fund expense line item by the \$2,151,996 associated with the increase associated with updated mortality tables to be introduced in FY15.</p> <p>b. Reduce the addition to reserves line item by \$358,666 to reflect the amount that would have been added to cover the \$2,151,996 being recommended for reduction from pension expense.</p>	<p>Agree to reduce the Rate Revenue Requirement (RRR) by \$2.5 million, to achieve an assessment increase of 3.49%.</p> <p>a. MWRA reduced the Rate Revenue Requirements for the Draft Final CEB by \$1.2 million resulting in an assessment increase of 3.7%. The RRR reductions included: Debt Service of \$784k, Direct Expenses of \$26k, Indirect Expenses of \$52k, and increased Revenue & Income of \$381k.</p> <p>At the direction of the Board, staff revisited all line items and further reduced the RRR by \$1.3 million to achieve an assessment increase of 3.49%. The additional RRR reduction of \$1.3 million included \$600k decrease to the retirement funding for the effect of the mortality tables, \$445k Direct Expense reduction, and \$233k in Indirect Expense reduction.</p> <p>b. The Operating Reserve Requirements in total were reduced by \$194k as result of the overall expense reductions.</p>
<p>2. Remove the Hatchery Pipeline project from the Proposed FY14 CIP.</p>	<p>The CVA-Hatchery pipeline project is proposing to eliminate the threat of water reservoir operations significantly impacting the McLaughlin Fish Hatchery (warm water spills from Quabbin Reservoir are more frequent due to declining water demand which could devastate the hatchery). Associated with the pipeline is a proposed hydropower facility. The hydropower project cannot and would not exist without the water supply pipeline. The generation of hydropower, and the value of the electricity generated in avoiding energy purchases for the new UV facility at Ware or for net metering and sale of power to the grid, will partially offset the cost of the pipeline. MWRA has received one grant from the Massachusetts Clean Energy Center already for 50% of the hydropower facility's cost. The hydropower facility is also the subject of a second grant from the Executive Office of Energy and Environmental Affairs Department of Energy Resources Leading By Example program that would cover the other 50% of the hydropower facility's project cost. The grant received, plus the grant sought, have milestones associated with them. Failure to move ahead with this project on a timely basis would result in loss of grant funding. Because of the project need, i.e., to address concerns associated with reservoir operations' adverse impact on the hatchery downstream, coupled with efforts to make the project more cost neutral, MWRA's position is that the Hatchery project should remain in the CIP.</p>
<p>3. With the exception of the Hatchery Pipeline, the Advisory Board endorses the Authority's Proposed capital spending cap for FY14 -18 as well as its Proposed FY14 CIP with the caveat that any updated assumptions incorporated into the Final FY14 CIP and capital spending cap calculation remain under the \$793.5 million in the Proposed FY14 CIP.</p>	<p>Agree. The Final FY14 Cap stands at \$791.7 million.</p>
<p>4. Advisory Board officially recommends that the \$4,976,411 in the Proposed CEB for "Other Post-Employment Benefits/Additional Pension Deposit" be added to the retirement fund as an optional payment.</p>	<p>Agree. This amount is included in the budget as Additional Pension Deposit.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2014 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
5. Reduce the FY14 Current Expense Budget by removing \$2,151,996 related to the updated mortality tables from the retirement fund expense line item.	Partially agree. Staff removed \$600,000 from the \$2,151,996, increase related to the mortality table changes, which will be required as of FY15. As discussed during the Board briefings, it is very desirable to include additional funds in FY14. Building in any additional funds in the FY14 Budget will lessen the significant increase required in FY15.
6. Reduce the Additions to Reserves line item by \$358,666.	The Additions to Operating Reserves were reduced by \$193,667.
7. Remove funding or require DCR to find alternative funding for any dam work that does not directly impact the water supply.	DCR Watershed is required by state law to maintain the dams acquired along with watershed land when the water system was developed. DCR Watershed works closely with MWRA to help maintain several of the major dams and dikes around the reservoirs. While much of the DCR Watershed investment in dam safety requirements (e.g. inspections, brush clearing) has not been substantial, there is one dam in Hubbardston (Brigham Pond Dam) that requires a more significant fix or costly removal. MWRA and DCR continue to discuss how to finance that project.
8. Design a co-digestion program to provide a financial benefit to the Authority significantly greater than the costs associated with co-digestion.	Agree. MWRA shares the Advisory Board's view that any long-term co-digestion program not merely be revenue-neutral, but rather revenue-positive. The planned program currently includes three phases of gradually increasing expansion and complexity – the bench-scale phase, now underway at UMass-Amherst; the pilot phase – with a target start-up of Spring 2014; and the full-scale phase – pending results of the pilot, with a possible startup some time in 2016-2017. In each of these phases, MWRA will vigorously seek out financial assistance from available sources to offset our expenses. In the first two phases, given that they are demonstration phases; the primary objective is really proof of concept, not revenue generation. We do expect to use the actual results and cost experiences from these two phases to make the final determination of financial viability prior to any long-term commitment.
9. Convene a working committee to explore new options for containing costs associated with PILOTs with relevant stakeholders, but not limited to, the Department of Revenue, the impacted communities, MWRA and staff, and the MWRA Advisory Board and staff.	Agree.
10. Have DCR pursue a "green" recertification of DWSP lands through the Forest Stewardship Council. This will provide an additional layer of oversight, openness, interaction, and assurance as DCR moves forward with its forestry management plan.	<p>Agree. MWRA staff strongly support the Advisory Board recommendation for "green certification" or for "sustainable forestry certification" by other respected certification bodies.</p> <p>DCR Watershed has committed to pursuing some type of "third party certification" for the watershed forestry program. The process may take several years as the program is restarted and forestry operations are conducted. The FY14 Water Supply Trust budget contains some funding for outside consulting regarding the evaluation of options for the "green" recertification, and DCR Watershed is committed to come back to the Trust with an update of the forestry program status and to discuss options of "green" recertification in the fall of 2013.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2014 Integrated CIP and CEB Recommendations and Comments

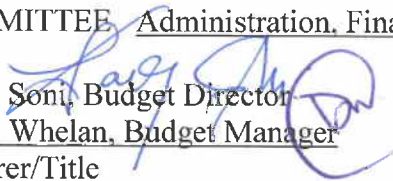
Advisory Board Recommendations/Comments	MWRA Responses
<p>11. Institute a sunset provision on the current terms of entrance fee payment with a date certain of June 30, 2014.</p>	<p>In 2012, the MWRA Advisory Board adopted recommendations to revise the terms of entrance fee payment for water system expansion to allow new water served communities to pay the entrance fee over 25 years, with no interest assessed, and to allow payment to start in the fourth year. The MWRA Board was apprised of the Advisory Board recommendation, but did not formally vote on revising the current entrance fee policy. In discussions with prospective communities, allowing payment of the entrance fee over 25 years appeared to be well received. MWRA staff urge that MWRA and the MWRA Advisory Board continue to keep open the possibility of payment of the entrance fee over 25 years with no interest. It may be an important incentive to communities evaluating local source and treatment options versus joining the MWRA water system. As experience has indicated, the process to become an MWRA water community may take a while, as communities weigh options very carefully, various Town meeting or City Council votes may be required, and there are regulatory processes that must be completed prior to application to MWRA. Even with a streamlined regulatory process in which participating agencies expedite reviews, a June 30, 2014 due date for application to MWRA is problematic.</p>
<p>12. Create a task force to look at all of the MWRA area approved septic sites to identify how to best regulate, monitor, and manage all sites to better guarantee proper disposal of septage.</p>	<p>Agree.</p>
<p>13. Because the Watershed Land Acquisition program has been so successful with a higher percentage of ownership/conservation restriction than originally intended at this time, the Advisory Board is recommending a change in approach to the land acquisition program. First, DCR should establish a list of the "top ten" most desired parcels of land from among their Priority 1 parcels (in executive session if need be to avoid impacting subsequent financial negotiations with the landowners). Second, only if these ten parcels of land become available either for purchase or conservation restriction should funds be expended from the Land Acquisition funds.</p>	<p>The DCR/MWRA land acquisition process has worked very successfully over the years to carefully assess possible projects at various stages of development. A team of DCR and MWRA experts is convened on a quarterly basis to scrutinize each possible project, with many rejected at initial or secondary stages. Project lists, along with detailed maps and analysis, are updated regularly. Given the limited funding, only the best parcels are brought forward to the MWRA Board for approval. The timing when desirable properties become available for conservation restrictions or purchase is unknown, thus limiting purchases to only the "top ten" first could prevent the acquisition of valuable watershed lands which may become available in the interim. DCR Watershed has also been successful in finding outside sources of funding and partnerships for some watershed acquisitions.</p>

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 26, 2013
SUBJECT: FY14 Final Current Expense Budget



COMMITTEE Administration, Finance & Audit


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

INFORMATION

VOTE


Rachel C. Madden
Director, Administration & Finance

The FY14 Proposed Current Expense Budget (CEB) submitted to the Advisory Board at the February 2013 Board meeting proposed a 3.9% combined assessment increase.

The Draft Final CEB presented to the Board at the June 5th budget hearings included a reduction of \$1.2 million Rate Revenue Requirement and a corresponding 3.7% assessment increase versus the Proposed CEB. The decreased Rate Revenue Requirement reflected a reduction in debt service expenses in recognition of larger than originally planned defeasance and increased energy related revenues. Although all other direct and indirect line items were also updated, they remained level funded versus the Proposed CEB.

Per the Board's direction at the hearing, staff revisited all major line items of the budget and evaluated options to further reduce the Rate Revenue Requirement by \$1.3 million to achieve a 3.49% assessment increase for FY14, in keeping with the Advisory Board's recommendation. Subsequently, staff made the following changes to the Draft Final CEB:

- *Reduced the optional pension funding for the effect of the new mortality table increases by \$600,000;*
- *Lowered direct expenses by \$445,000 in a variety of line items such as diesel fuel, sludge quantity assumptions, as-needed engineering services, etc; and*
- *Recognized the lower Operating Reserve requirement of \$183,000 based on these other expense reductions.*

For a line item comparison between the FY14 Proposed CEB to the FY14 Final CEB, please refer to Attachment A.

RECOMMENDATION:

1. To adopt the FY14 Final Current Expense Budget (CEB) set forth in Attachment A and Attachment B with current revenue and expenses of \$658.4 million.
2. To adopt the FY14 Final Operating Budget (Trustee's Budget) set forth in Attachment D.

DISCUSSION:

This staff summary presents the FY14 Final CEB. On June 5th, the Board of Directors held a hearing on the FY14 Draft Final CEB. Discussions and materials provided at the hearing outlined changes to the budget since the transmittal of the FY14 Proposed CEB in February 2013. The additional changes made to the FY14 Draft Final CEB are highlighted on the first page. Attachment A recaps the changes between the FY14 Proposed and FY14 Final CEB. Please note the FY14 Final CEB does not include receipt of any Debt Service Assistance (DSA).

Summary

The FY14 Final CEB recommends a combined increase in rates and charges of 3.5%. Capital Financing costs remain the largest component of the CEB, accounting for 60.3% of total expenses, and are projected to grow significantly in future years.

Total expenses of \$658.4 million include \$397.2 million or 60.3% for Capital Financing costs and \$261.2 million or 39.7% for operating expenses, of which \$214.4 million is for Direct Expenses and \$46.8 million is for Indirect Expenses. Total expenses increased \$22.6 million or 3.5% from the FY13 Approved Budget mainly due to a higher debt service requirement of \$21.6 million and higher Indirect Expenses of \$1.1 million mainly due to increased Pension Fund contributions and higher Watershed expenses primarily for greater Payment In Lieu of Taxes (PILOT) requirements. These increases were offset by lower Direct Expenses of \$542,000 mainly due to lower Other Services, Maintenance, and Utilities.

Non-rate Revenue for FY14 totals \$29.7 million, an increase of \$1.4 million or 4.8% from the FY13 Approved Budget. The FY14 Final Budget Non-Rate Revenue budget includes \$11.6 million in investment income, \$8.1 million in other user charges, \$6.4 million in other revenue, and \$3.5 million in Rate Stabilization funds. As compared with the FY13 Approved Budget, the increase in revenue is primarily driven by the use of Rate Stabilization funds of \$3.5 million partially offset by lower Investment Income of \$2.8 million.

The Rate Revenue Requirement for the FY14 Final Budget is \$628.7 million, an increase of \$21.2 million or 3.5% from the FY13 Approved Budget.

Table 1 on the following page provides a comparison of the FY14 Final and FY13 Approved Budget by major categories. Additional detail by line item and by Division is provided in Attachments B and C.

Table 1

**MWRA Current Expense Budget
FY14 Final versus FY13 Approved Budget**

(\$ in Millions)	FY13 Budget	FY14 Final	\$ Change	% Change
Directs	\$ 214.9	\$ 214.4	\$ (0.5)	-0.3%
Indirects	45.7	46.8	1.1	2.5%
Sub-Total Operating Expenses	\$ 260.6	\$ 261.2	\$ 0.6	0.2%
Capital Financing (before Offsets)	375.6	397.2	21.6	5.8%
Offsets: Bond Redemption ¹	-	-	-	
Variable Debt Savings	-	-	-	
Debt Service Assistance	(0.4)	-	0.4	-100.0%
Sub-Total Capital Financing	\$ 375.2	\$ 397.2	\$ 22.0	5.9%
Total Expenses	\$ 635.9	\$ 658.4	\$ 22.6	3.5%
Investment Income	\$ 14.5	\$ 11.6	\$ (2.8)	-19.6%
Non-Rate Revenue	13.9	14.6	0.7	5.0%
Rate Stabilization ¹	-	3.5	3.5	
Sub-Total Non-Rate Revenue	\$ 28.3	\$ 29.7	\$ 1.4	4.8%
Rate Revenue	607.5	628.7	21.2	3.5%
Total Revenue & Income	\$ 635.9	\$ 658.4	\$ 22.6	3.5%
FY14 Rate Revenue Increase		3.5%		
Combined Use of Reserves	\$ -	\$ 3.5		

¹ MWRA has two reserve funds (Bond Redemption and Rate Stabilization) which can be used at the discretion of the Authority to manage the Rate Revenue Requirement. Use of the Bond Redemption reduces total expenses and Rate Stabilization increases total revenue. Under the terms of the General Bond Resolution, the annual use of Rate Stabilization funds cannot exceed 10% of the year's senior debt service. Bond Redemption funds can be used only to retire or prepay outstanding debt. There is no annual limit on the amount of Bond Redemption funds used in a year, however the use is tied to the bonds' maturity dates and is utility specific.

EXPENSES:

Direct Expenses

FY14 Direct Expenses total \$214.4 million, a decrease of \$542,000 million or 0.3% from the FY13 Budget.

- **Wages and Salaries** – The final budget includes \$94.9 million for wages and salaries as compared to \$94.1 million in the FY13 Budget, an increase of \$815,000 or 0.9% largely due to contractual agreements offset by lower funded positions. Of the \$94.9 million, \$93.0 million is for regular pay. The final budget assumes a headcount of 1,175 funded positions, 20 positions lower than the FY13 Budget. As always, new hires and backfills of vacant positions will be managed at the senior management level and addressed on a case-by-case basis.
- **Overtime** – The final budget includes \$3.6 million for overtime, essentially level funded with the FY13 Budget. The FY14 Budget assumes overtime will be limited to coverage, emergencies, and critical maintenance projects.
- **Fringe Benefits** – The final budget includes \$18.1 million for fringe benefits, a decrease of \$178,000 or 1.0% from the FY13 Budget.
- **Workers' Compensation** – The final budget includes \$2.0 million for workers' compensation, a decrease of \$100,000 or 4.8% from the FY13 Budget and is based on the average actual spending for FY10-12.
- **Chemicals** – The final budget includes \$10.7 million for chemicals, an increase of \$708,000 or 7.1% from the FY13 Budget. The majority of the increase in the budget is for projected chemical cost increases and increased usage of several chemicals based on historical trends and dosing changes.
- **Utilities** – The final budget includes \$22.8 million for utilities, a decrease of \$367,000 or 1.6% from the FY13 Budget. The budget assumes funding of \$16.3 million for electricity, \$3.6 million for diesel fuel, \$2.0 million for water and \$628,000 for natural gas. The FY14 Final energy and utilities budget reflects the most recent pricing outlook based on energy futures and the latest bids for contracts and updated assumptions for self-generation at Deer Island, green energy initiatives, along with efficiency improvements in Field Operations.
- **Maintenance** – The final budget includes \$27.8 million for maintenance projects, a decrease of \$467,000 or 1.7% from the FY13 Budget, which is approximately 4.0% above the average of FY12 actual spending and is in line with the FY13 projection. The lower spending is attributed to the large number of capital projects that are currently underway and planned for FY14.

- **Training and Meetings** – The final budget includes \$331,000 for training and meetings, a decrease of \$55,000 or 14.2% from the FY13 Budget mainly due to the elimination of some one-time training performed in FY13.
- **Professional Services** – The final budget includes \$6.1 million for professional services, an increase of \$183,000 or 3.1% from the FY13 Budget. The budget reflects funding for Security of \$1.8 million, regulatory monitoring of \$1.7 million, and Other professional services funding of \$1.2 million to support items such as the Authority-wide MIS initiatives, Treasury outside consulting support services, and energy audits.
- **Other Materials** – The final budget includes \$6.0 million for other materials, an increase of \$378,000 or 6.8% more than the FY13 Budget. The budget includes funding of \$1.7 million for vehicle purchases, \$1.1 million for vehicle expenses mostly for gasoline purchases, \$808,000 for lab and testing supplies, \$540,000 for equipment and furniture, and \$437,000 for computer hardware needs.
- **Other Services** – The final budget includes \$22.3 million for other services, a decrease of \$1.5 million or 6.2% from the FY13 Budget. The budget includes funding of \$13.8 million for sludge pelletization, \$3.3 million for Space/Lease Rentals and related expenses for the CNY and Chelsea facilities, and \$1.4 million for voice and data costs. The largest decrease, or \$762,000, is related to the decreased quantities and utility indices pertaining to the Sludge Pelletization contract.

Indirect Expenses

Indirect Expenses for FY14 are \$46.8 million, an increase of \$1.1 million or 2.5% more than the FY13 Budget. Below are the highlights of major changes:

- The FY14 Final Budget includes \$27.2 million for the Department of Conservation and Recreation (DCR) Office of Watershed Management, an increase of \$802,000 or 3.0% over the FY13 Budget. The budget is comprised of \$13.4 million for reimbursement of operating expenses net of revenues, \$8.2 million for Payment in Lieu of Taxes (PILOT), and \$5.6 million for debt service expenses on prior land purchases financed by the Commonwealth. The largest increases are for PILOT payments of \$600,000 and for the operating expenses net of revenues of \$202,000 mainly for contractual increases.
- The FY14 Final Budget includes \$12.4 million for the Pension Fund, an increase of \$2.0 million or 18.7% over the FY13 contribution. Of the \$12.4 million contribution, \$5.9 million represents the minimum required contribution for FY14 based on the most recent actuarial evaluation of January 1, 2011, \$5.0 million represents the redirection of Other Post Employment Benefit (OPEB) funding included in the FY14 Proposed Budget to the Pension Fund, and \$1.6 million reflects recognition of the projected increases associated with the revised mortality tables.

- The FY14 Final Budget includes \$3.3 million for the Harbor Energy Electric Company (HEEC), a decrease of \$395,000 or 10.6% from the FY13 Budget, primarily for special maintenance projects. The majority of funding is for the contractual repayment of the capital investment of the Deer Island electric cable and substation which provides electric power to the treatment plant.
- The FY14 Final Budget includes \$2.1 million for Insurance, and is primarily level funded from the FY13 Budget. The FY14 Final Budget was based on actual average spending for the past five years, FY08-12. It should be noted that the Board of Directors approved the MWRA FY14 Insurance program at the June 5th Board with a not-to-exceed amount for the Excess Liability coverage of \$300,000. Since then, staff have received final pricing for this item of \$285,000 which has been imbedded into the FY14 Final Budget.
- The Authority has complied with the GASB 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions (OPEB)*, by disclosing this liability in the year-end Financial Statements. As part of the multi-year strategy to address its unfunded liabilities for OPEB and pension holistically, the Board approved a strategy to aggressively pay down our pension liability and upon reaching full funding, move to address the OPEB obligation. This strategy was employed in FY08, FY09, FY10, FY12, and FY13 Budgets. It was temporarily halted in FY11 to achieve a 1.5% rate increase. In an effort to restore the Authority's long-term commitment for its liabilities, the \$5.0 million included for OPEB in the FY14 Final Budget, consistent with the planning estimates, has been redirected to the Pension Fund.
- Funding for the Operating Reserve for FY14 is \$1.2 million lower than the FY13 Budget. The Operating Reserve balance is in compliance with MWRA General Bond Resolution which requires a balance of one-sixth of annual operating expenses. Based on the FY14 Final CEB, the required balance is \$39.0 million versus the \$38.8 million required in FY13.

Capital Financing

As a result of the Authority's Capital Improvement Program, debt service as a percentage of total expenses (before offsets) has increased steadily from 36% in 1990 to 60% in the FY14 Final Current Expense Budget. Much of this debt service is for completed projects, primarily the Boston Harbor Project and the Integrated Water Supply Improvement Program. The MWRA's capital spending, from its inception, has been dominated by projects mandated by court order or regulatory requirements, which in total have accounted for 80% of capital spending to date. Going forward, and as the Combined Sewer Overflow (CSO) project winds down, greater emphasis and spending will be focused on asset protection and water redundancy initiatives.

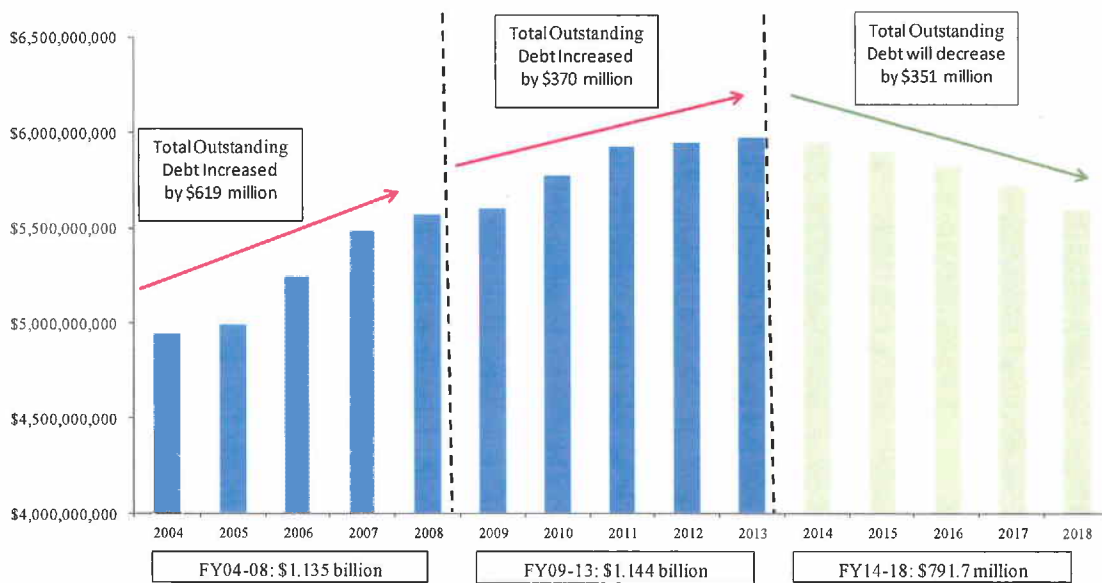
The Authority has actively managed its debt structure to take advantage of favorable interest rates. Tools used by the MWRA to lower borrowing costs and manage rates include current and advanced refunding of outstanding debt, maximizing the use of the subsidized State Revolving

Fund (SRF) debt, issuance of variable rate debt, swap agreements, and the use of surplus revenues to defease debt. The MWRA also uses Tax Exempt Commercial Paper to minimize the financing cost of construction in process.

As presented in the FY14 CIP staff summary, FY14 represents a significant milestone in that the Authority established the lowest five-year spending cap for FY14-18 period since 1990, resulting in lower borrowing requirements in future years.

Most importantly, MWRA will be reducing its total bonded indebtedness over the next five years as illustrated in the graph below.

MWRA's Outstanding Debt



The FY14 Final capital financing costs total \$397.2 million and remain the largest portion of the MWRA's budget, accounting for 60% of total expenses. No Debt Service Assistance (DSA) has been included in the FY14 Final Budget.

The FY14 Final Budget includes a targeted defeasance of \$25.0 million which will reduce debt service by approximately \$960,000 in FY14, \$10.2 million in FY15, and \$15.1 million in FY16.

The FY14 Final Budget assumes a 3.25% interest rate for variable rate debt which is the same level as in FY13. The Authority's variable rate debt assumption is comprised of three separate elements: the interest rate for the daily and weekly series, liquidity fees for the Standby Bond Purchase Agreement and Letter of Credit providers, and remarketing fees. While MWRA continues to experience unusually low interest rates, they are not reflective of historical averages and there is no guarantee that rates will stay low.

The FY14 Final capital financing costs increased by \$21.6 million or 5.8% compared to the FY13 Budget. This increase in the MWRA's debt service is the result of the new money issued in FY13 and projected FY14 issuances partially offset by the impact of the year-end defeasance.

The FY14 Final capital financing budget includes:

- \$204.5 million in principal and interest payments on MWRA's senior fixed rate bonds. This amount includes \$1.1 million to support issuance of \$100 million in June 2014;
- \$100.1 million in principal and interest payments on subordinate bonds;
- \$76.0 million in principal and interest payments on SRF loans. This amount includes \$3.7 million to support issuances of \$54 million in 2014;
- \$9.2 million to fund ongoing capital projects with current revenue and to meet coverage requirements;
- \$4.1 million to fund the interest expense related to the Local Water Pipeline Assistance Program; and
- \$3.2 million for the Chelsea Lease.

Revenue

FY14 non-rate revenue totals \$29.7 million, an increase of \$1.4 million or 4.8% from the FY13 Budget. The FY14 Final non-rate revenue budget includes:

- \$11.6 million in Investment Income, a decrease of \$2.8 million or 19.6% from the FY13 Budget due to lower average fund balances. The FY14 Final short-term interest rate assumption is .20%, 20 basis points lower than the .40% included in the FY13 Budget.
- \$8.1 million in Other User Charges, including \$4.6 million for Chicopee Valley Aqueduct (CVA) communities, \$1.5 million for Deer Island water usage, \$651,000 for entrance fees from member communities, and \$500,000 for the Commonwealth's partial reimbursement for Clinton Wastewater Treatment Plant expenses. Other User Charges are \$361,000 or 4.6% more than the FY13 Budget which is mainly due to Chicopee Valley communities assessment increases related to the Quabbin Treatment Plant Ultraviolet project.
- \$6.4 million in Other Revenue, including \$2.6 million from the sale of the Authority's Renewable Portfolio Credits and revenue from the demand response program, \$2.3 million in permit fees and penalties, and \$707,000 in energy revenue from wind, hydroelectric, and solar production. Other Revenue increased \$327,000 or 5.4% from the FY13 Budget mainly due to increased pricing for Renewable Portfolio Credit certificates and the projected revenue from renewable energy sources such as wind and solar.

- \$3.5 million in use of Rate Stabilization funds is planned in FY14 which results in a \$3.5 million increase versus FY13.

The Rate Revenue Requirement for FY14 is \$628.7 million, an increase \$21.2 million or 3.5% over the FY13 Budget. The Rate Revenue Requirement is the difference between total expenses of \$658.4 million less non-rate revenue of \$29.7 million.

Planning Estimates and Future Rate Increases

MWRA's planning estimates are projections based on a series of assumptions about future spending (operating and capital), interest rates, inflation, and other factors. MWRA uses the planning estimates to model and project what future rate increases might be based upon these assumptions, as well as to test the impact of changes to assumptions on future rate increases.

The planning estimates are not predictions of what rate increases will be but rather they provide the context and framework for guiding MWRA financial policy and management decision making that ultimately determine the level of actual rate increases on an annual basis.

Historically, the planning estimates were based on conservative financial assumptions. Conservative projections of future rate increases benefit the MWRA by providing assurance to the rating agencies that MWRA anticipates to raise revenues sufficient to pay for its operations and outstanding debt obligations now and over the long-term. Additionally, conservative forecasts of rate revenue increases enable member communities to adequately plan and budget for future payments to MWRA. These conservative assumptions are revised annually and adjusted to reflect more current conditions in the upcoming budget cycles.

Table 2 below presents the combined estimated future rate increases and household charges based on the FY14 Final Budget. The planning estimates shown below assume use of Rate Stabilization and Bond Redemption reserves through FY2023 to manage the rate increases but do not assume receipt of Debt Service Assistance (DSA) from the Commonwealth. For planning purposes, the yearly use of combined reserves is currently limited to a maximum of \$12 million. MWRA anticipates the release of additional reserves starting in FY16 as a result of Bond Indenture changes to mitigate rate increases in future years. The release reserves are reflected in these projections.

Table 2

Rates & Budget Projections										
FY14 Final CEB	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Total Rate Revenue (\$000)	\$ 628,721	\$ 651,551	\$ 678,509	\$ 736,413	\$ 755,600	\$ 775,286	\$ 829,570	\$ 847,999	\$ 875,457	\$ 845,784
Rate Revenue Change from Prior Year (\$000)	\$ 21,209	\$ 22,830	\$ 26,959	\$ 57,904	\$ 19,187	\$ 19,686	\$ 54,284	\$ 18,429	\$ 27,458	\$ (29,673)
Rate Revenue Increase	3.5%	3.6%	4.1%	8.5%	2.6%	2.6%	7.0%	2.2%	3.2%	-3.4%
Use of Reserves (\$000)	\$ 3,500	\$ 12,000	\$ 12,000	\$ 12,000	\$ 4,900	\$ 4,466	\$ 12,000	\$ -	\$ 12,000	\$ -

Estimated Household Bill

Based on annual water usage of 61,000 gallons	\$ 970	\$ 1,014	\$ 1,065	\$ 1,133	\$ 1,184	\$ 1,227	\$ 1,295	\$ 1,352	\$ 1,412	\$ 1,448
Based on annual water usage of 90,000 gallons	\$ 1,432	\$ 1,497	\$ 1,571	\$ 1,672	\$ 1,747	\$ 1,810	\$ 1,911	\$ 1,994	\$ 2,084	\$ 2,136

CEB Review and Adoption Process

In February, the MWRA transmitted the FY14 Proposed CEB to the Advisory Board for its review and comment. In June, the Advisory Board submitted their *Integrated Comments and Recommendations*. Responses to the Advisory Board’s review and comments are attached as Attachment F.

Attachments

- Attachment A - FY14 Final Budget vs. FY14 Proposed Budget
- Attachment B - FY14 Final Budget vs. FY13 Approved Budget
- Attachment C - FY14 Final Direct Expense Budget by Division
- Attachment D - FY14 Final Operating Budget (Trustee’s Budget)
- Attachment E - FY14 Final Budget vs. FY13 Projection (May)
- Attachment F - MWRA Responses to Advisory Board’s FY14 Integrated CIP and CEB Comments and Recommendations

ATTACHMENT A

FY14 Final Budget vs FY14 Proposed Budget

TOTAL MWRA	FY13 Budget	FY14 Proposed	FY14 Final	Change FY14 Final vs FY14 Proposed	
				\$	%
EXPENSES					
WAGES AND SALARIES	\$ 94,059,400	\$ 94,612,012	\$ 94,874,284	\$ 262,272	0.3%
OVERTIME	3,573,496	3,580,025	3,580,025	-	0.0%
FRINGE BENEFITS	18,241,926	17,613,825	18,063,825	450,000	2.6%
WORKERS' COMPENSATION	2,100,000	2,025,000	2,000,000	(25,000)	-1.2%
CHEMICALS	9,963,496	10,653,746	10,671,225	17,479	0.2%
ENERGY AND UTILITIES	23,127,198	22,989,800	22,760,588	(229,212)	-1.0%
MAINTENANCE	28,229,070	27,963,425	27,761,580	(201,845)	-0.7%
TRAINING AND MEETINGS	385,617	355,617	330,917	(24,700)	-6.9%
PROFESSIONAL SERVICES	5,900,785	5,873,902	6,083,402	209,500	3.6%
OTHER MATERIALS	5,591,291	6,044,284	5,969,470	(74,814)	-1.2%
OTHER SERVICES	23,743,608	23,134,268	22,278,700	(855,568)	-3.7%
TOTAL DIRECT EXPENSES	\$ 214,915,886	\$ 214,845,904	\$ 214,374,016	\$ (471,888)	-0.2%
INSURANCE	\$ 2,097,875	\$ 2,143,618	\$ 2,093,618	\$ (50,000)	-2.3%
WATERSHED/PILOT	26,413,175	27,214,833	27,214,833	-	0.0%
HEEC PAYMENT	3,741,915	3,386,970	3,346,854	(40,116)	-1.2%
MITIGATION	1,566,923	1,566,797	1,566,797	-	0.0%
ADDITIONS TO RESERVES	1,398,329	362,971	169,304	(193,667)	-53.4%
RETIREMENT FUND	5,750,085	8,055,103	7,455,103	(600,000)	-7.4%
POSTEMPLOYMENT BENEFITS/ ADDITIONAL PENSION DEPOSIT	4,724,291	4,976,411	4,976,411	-	0.0%
TOTAL INDIRECT EXPENSES	\$ 45,692,593	\$ 47,706,703	\$ 46,822,920	\$ (883,783)	-1.9%
DEBT SERVICE (before offsets)	\$ 375,598,070	\$ 398,010,515	\$ 397,226,267	\$ (784,248)	-0.2%
VARIABLE RATE DEBT				-	
VARIABLE RATE DEBT/OTHER				-	
BOND REDEMPTION				-	
DEBT SERVICE ASSISTANCE	(350,000)	-	-	-	
TOTAL DEBT SERVICE	\$ 375,248,070	\$ 398,010,515	\$ 397,226,267	\$ (784,248)	-0.2%
TOTAL EXPENSES	\$ 635,856,549	\$ 660,563,122	\$ 658,423,204	\$ (2,139,919)	-0.3%
REVENUE & INCOME					
RATE REVENUE	\$ 607,512,000	\$ 631,233,000	\$ 628,721,000	\$ (2,512,000)	-0.40%
OTHER USER CHARGES	7,766,693	8,198,509	8,127,379	(71,130)	-0.9%
OTHER REVENUE	6,116,844	5,850,795	6,444,291	593,496	10.1%
RATE STABILIZATION		3,500,000	3,500,000	-	0.0%
INVESTMENT INCOME	14,461,012	11,780,819	11,630,534	(150,285)	-1.3%
TOTAL REVENUE & INCOME	\$ 635,856,549	\$ 660,563,122	\$ 658,423,204	\$ (2,139,918)	-0.3%

ATTACHMENT B

FY14 Final vs FY13 Approved Budget

TOTAL MWRA	FY12 Actual	FY13 Budget	FY14 Final	Change FY14 Final vs FY13 Budget	
				\$	%
EXPENSES					
WAGES AND SALARIES	\$ 89,887,813	\$ 94,059,400	\$ 94,874,284	\$ 814,884	0.9%
OVERTIME	3,086,175	3,573,496	3,580,025	6,529	0.2%
FRINGE BENEFITS	17,662,544	18,241,926	18,063,825	(178,101)	-1.0%
WORKERS' COMPENSATION	1,600,726	2,100,000	2,000,000	(100,000)	-4.8%
CHEMICALS	9,271,528	9,963,496	10,671,225	707,729	7.1%
ENERGY AND UTILITIES	22,766,837	23,127,198	22,760,588	(366,610)	-1.6%
MAINTENANCE	26,776,012	28,229,070	27,761,580	(467,490)	-1.7%
TRAINING AND MEETINGS	184,229	385,617	330,917	(54,700)	-14.2%
PROFESSIONAL SERVICES	5,099,517	5,900,785	6,083,402	182,617	3.1%
OTHER MATERIALS	5,513,699	5,591,291	5,969,470	378,179	6.8%
OTHER SERVICES	22,985,817	23,743,608	22,278,699	(1,464,909)	-6.2%
TOTAL DIRECT EXPENSES	\$ 204,834,898	\$ 214,915,886	\$ 214,374,016	\$ (541,871)	-0.3%
INSURANCE	\$ 2,076,962	\$ 2,097,875	\$ 2,093,618	\$ (4,257)	-0.2%
WATERSHED/PILOT	25,629,604	26,413,175	27,214,833	801,658	3.0%
HEEC PAYMENT	3,561,130	3,741,915	3,346,854	(395,061)	-10.6%
MITIGATION	1,744,579	1,566,923	1,566,797	(126)	0.0%
ADDITIONS TO RESERVES	195,467	1,398,329	169,304	(1,229,025)	-87.9%
RETIREMENT FUND	5,488,792	5,750,085	7,455,103	1,705,018	29.7%
POSTEMPLOYMENT BENEFITS/ ADDITIONAL PENSION DEPOSIT	1,874,378	4,724,291	4,976,411	252,120	5.3%
TOTAL INDIRECT EXPENSES	\$ 40,570,912	\$ 45,692,593	\$ 46,822,920	\$ 1,130,327	2.5%
DEBT SERVICE (before offsets)	\$ 365,136,323	\$ 375,598,070	\$ 397,226,267	\$ 21,628,197	5.8%
VARIABLE RATE DEBT				-	
BOND REDEMPTION				-	
DEBT SERVICE ASSISTANCE	(384,323)	(350,000)	-	350,000	-100.0%
TOTAL DEBT SERVICE	\$ 364,752,000	\$ 375,248,070	\$ 397,226,267	\$ 21,978,197	5.9%
TOTAL EXPENSES	\$ 610,157,810	\$ 635,856,549	\$ 658,423,204	\$ 22,566,653	3.5%
REVENUE & INCOME					
RATE REVENUE	\$ 589,700,000	\$ 607,512,000	\$ 628,721,000	\$ 21,209,000	3.49%
OTHER USER CHARGES	7,264,794	7,766,693	8,127,379	360,686	4.6%
OTHER REVENUE	5,655,582	6,116,844	6,444,291	327,447	5.4%
RATE STABILIZATION	1,091,780		3,500,000	3,500,000	
INVESTMENT INCOME	16,267,462	14,461,012	11,630,534	(2,830,478)	-19.6%
TOTAL REVENUE & INCOME	\$ 619,979,621	\$ 635,856,549	\$ 658,423,204	\$ 22,566,655	3.5%

ATTACHMENT C

FY14 Final Direct Expense Budget by Division

Division	FY13 Budget	FY14 Final	Change FY14 Final to FY13 Budget	
			\$	%
Executive	\$1,136,599	\$1,178,114	\$41,515	3.7%
Emergency Preparedness	2,528,605	2,850,290	\$321,685	12.7%
Planning*	0	0	\$0	N/A
Administration and Finance	46,232,667	45,330,636	-\$902,031	-2.0%
Law	1,824,588	1,703,734	-\$120,854	-6.6%
Affirmative Action	570,069	579,127	\$9,058	1.6%
Internal Audit	673,743	681,486	\$7,743	1.1%
Public Affairs	1,122,627	1,208,106	\$85,479	7.6%
Operations	160,826,987	160,842,524	\$15,537	0.0%
Total Authority	\$214,915,886	\$214,374,016	-\$541,871	-0.3%

* In the FY14 Final Budget, the Planning Division (historically a separate division) is combined with the Operations Division for comparison purposes.

ATTACHMENT D

**Massachusetts Water Resources Authority
Fiscal Year 2014 Operating Budget for Filing with the Trustee
Pursuant to Section 712 of General Bond Resolution Adopted January 24, 1990**

(\$000s)

Projected Monthly Deposits:

Fund	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Operating	\$17,716	\$22,145	\$17,716	\$17,716	\$22,145	\$17,716	\$17,716	\$22,145	\$17,716	\$17,716	\$22,145	\$17,716	\$230,313
Debt Service & Coverage	30,556	38,195	30,556	30,556	38,195	30,556	30,556	38,195	30,556	30,556	38,195	30,556	397,226
Debt Service Reserve	---	---	---	---	---	---	---	---	---	---	---	---	0
CORE	---	---	---	---	---	---	---	---	---	---	---	---	0
Commonwealth Obligations	---	---	3,352	---	---	3,352	---	---	11,552	---	---	8,960	27,215
Operating Reserve	13	16	13	13	16	13	13	16	13	13	16	13	169
Insurance Reserve	---	---	---	---	---	---	---	---	---	---	---	---	0
Renewal & Replacement Reserve	---	---	---	---	---	---	---	---	---	---	---	---	0
Rate Stabilization Reserve	269	337	269	269	337	269	269	337	269	269	337	269	3,500
Total	\$48,554	\$60,693	\$51,906	\$48,554	\$60,693	\$51,906	\$48,554	\$60,693	\$60,106	\$48,554	\$60,693	\$57,515	\$658,423

ATTACHMENT F

MWRA's Responses to the Advisory Board's FY2014 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>1. Reduce the rate revenue requirement for the FY14 Current Expense Budget by \$2,510,662, resulting in a 3.49% wholesale rate increase including:</p> <p>a. Reducing the retirement fund expense line item by the \$2,151,996 associated with the increase associated with updated mortality tables to be introduced in FY15.</p> <p>b. Reduce the addition to reserves line item by \$358,666 to reflect the amount that would have been added to cover the \$2,151,996 being recommended for reduction from pension expense.</p>	<p>Agree to reduce the Rate Revenue Requirement (RRR) by \$2.5 million, to achieve an assessment increase of 3.49%.</p> <p>a. MWRA reduced the Rate Revenue Requirements for the Draft Final CEB by \$1.2 million resulting in an assessment increase of 3.7%. The RRR reductions included: Debt Service of \$784k, Direct Expenses of \$26k, Indirect Expenses of \$52k, and increased Revenue & Income of \$381k.</p> <p>At the direction of the Board, staff revisited all line items and further reduced the RRR by \$1.3 million to achieve an assessment increase of 3.49%. The additional RRR reduction of \$1.3 million included \$600k decrease to the retirement funding for the effect of the mortality tables, \$445k Direct Expense reduction, and \$233k in Indirect Expense reduction.</p> <p>b. The Operating Reserve Requirements in total were reduced by \$194k as result of the overall expense reductions.</p>
<p>2. Remove the Hatchery Pipeline project from the Proposed FY14 CIP.</p>	<p>The CVA-Hatchery pipeline project is proposing to eliminate the threat of water reservoir operations significantly impacting the McLaughlin Fish Hatchery (warm water spills from Quabbin Reservoir are more frequent due to declining water demand which could devastate the hatchery). Associated with the pipeline is a proposed hydropower facility. The hydropower project cannot and would not exist without the water supply pipeline. The generation of hydropower, and the value of the electricity generated in avoiding energy purchases for the new UV facility at Ware or for net metering and sale of power to the grid, will partially offset the cost of the pipeline. MWRA has received one grant from the Massachusetts Clean Energy Center already for 50% of the hydropower facility's cost. The hydropower facility is also the subject of a second grant from the Executive Office of Energy and Environmental Affairs Department of Energy Resources Leading By Example program that would cover the other 50% of the hydropower facility's project cost. The grant received, plus the grant sought, have milestones associated with them. Failure to move ahead with this project on a timely basis would result in loss of grant funding. Because of the project need, i.e., to address concerns associated with reservoir operations' adverse impact on the hatchery downstream, coupled with efforts to make the project more cost neutral, MWRA's position is that the Hatchery project should remain in the CIP.</p>
<p>3. With the exception of the Hatchery Pipeline, the Advisory Board endorses the Authority's Proposed capital spending cap for FY14 -18 as well as its Proposed FY14 CIP with the caveat that any updated assumptions incorporated into the Final FY14 CIP and capital spending cap calculation remain under the \$793.5 million in the Proposed FY14 CIP.</p>	<p>Agree. The Final FY14 Cap stands at \$791.7 million.</p>
<p>4. Advisory Board officially recommends that the \$4,976,411 in the Proposed CEB for "Other Post-Employment Benefits/Additional Pension Deposit" be added to the retirement fund as an optional payment.</p>	<p>Agree. This amount is included in the budget as Additional Pension Deposit.</p>

ATTACHMENT F

MWRA's Responses to the Advisory Board's FY2014 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
5. Reduce the FY14 Current Expense Budget by removing \$2,151,996 related to the updated mortality tables from the retirement fund expense line item.	Partially agree. Staff removed \$600,000 from the \$2,151,996, increase related to the mortality table changes, which will be required as of FY15. As discussed during the Board briefings, it is very desirable to include additional funds in FY14. Building in any additional funds in the FY14 Budget will lessen the significant increase required in FY15.
6. Reduce the Additions to Reserves line item by \$358,666.	The Additions to Operating Reserves were reduced by \$193,667.
7. Remove funding or require DCR to find alternative funding for any dam work that does not directly impact the water supply.	DCR Watershed is required by state law to maintain the dams acquired along with watershed land when the water system was developed. DCR Watershed works closely with MWRA to help maintain several of the major dams and dikes around the reservoirs. While much of the DCR Watershed investment in dam safety requirements (e.g. inspections, brush clearing) has not been substantial, there is one dam in Hubbardston (Brigham Pond Dam) that requires a more significant fix or costly removal. MWRA and DCR continue to discuss how to finance that project.
8. Design a co-digestion program to provide a financial benefit to the Authority significantly greater than the costs associated with co-digestion.	Agree. MWRA shares the Advisory Board's view that any long-term co-digestion program not merely be revenue-neutral, but rather revenue-positive. The planned program currently includes three phases of gradually increasing expansion and complexity – the bench-scale phase, now underway at UMass-Amherst; the pilot phase – with a target start-up of Spring 2014; and the full-scale phase – pending results of the pilot, with a possible startup some time in 2016-2017. In each of these phases, MWRA will vigorously seek out financial assistance from available sources to offset our expenses. In the first two phases, given that they are demonstration phases; the primary objective is really proof of concept, not revenue generation. We do expect to use the actual results and cost experiences from these two phases to make the final determination of financial viability prior to any long-term commitment.
9. Convene a working committee to explore new options for containing costs associated with PILOTs with relevant stakeholders, but not limited to, the Department of Revenue, the impacted communities, MWRA and staff, and the MWRA Advisory Board and staff.	Agree.
10. Have DCR pursue a "green" recertification of DWSP lands through the Forest Stewardship Council. This will provide an additional layer of oversight, openness, interaction, and assurance as DCR moves forward with its forestry management plan.	<p>Agree. MWRA staff strongly support the Advisory Board recommendation for "green certification" or for "sustainable forestry certification" by other respected certification bodies.</p> <p>DCR Watershed has committed to pursuing some type of "third party certification" for the watershed forestry program. The process may take several years as the program is restarted and forestry operations are conducted. The FY14 Water Supply Trust budget contains some funding for outside consulting regarding the evaluation of options for the "green" recertification, and DCR Watershed is committed to come back to the Trust with an update of the forestry program status and to discuss options of "green" recertification in the fall of 2013.</p>

ATTACHMENT F

MWRA's Responses to the Advisory Board's FY2014 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>11. Institute a sunset provision on the current terms of entrance fee payment with a date certain of June 30, 2014.</p>	<p>In 2012, the MWRA Advisory Board adopted recommendations to revise the terms of entrance fee payment for water system expansion to allow new water served communities to pay the entrance fee over 25 years, with no interest assessed, and to allow payment to start in the fourth year. The MWRA Board was apprised of the Advisory Board recommendation, but did not formally vote on revising the current entrance fee policy. In discussions with prospective communities, allowing payment of the entrance fee over 25 years appeared to be well received. MWRA staff urge that MWRA and the MWRA Advisory Board continue to keep open the possibility of payment of the entrance fee over 25 years with no interest. It may be an important incentive to communities evaluating local source and treatment options versus joining the MWRA water system. As experience has indicated, the process to become an MWRA water community may take a while, as communities weigh options very carefully, various Town meeting or City Council votes may be required, and there are regulatory processes that must be completed prior to application to MWRA. Even with a streamlined regulatory process in which participating agencies expedite reviews, a June 30, 2014 due date for application to MWRA is problematic.</p>
<p>12. Create a task force to look at all of the MWRA area approved septic sites to identify how to best regulate, monitor, and manage all sites to better guarantee proper disposal of septage.</p>	<p>Agree.</p>
<p>13. Because the Watershed Land Acquisition program has been so successful with a higher percentage of ownership/conservation restriction than originally intended at this time, the Advisory Board is recommending a change in approach to the land acquisition program. First, DCR should establish a list of the "top ten" most desired parcels of land from among their Priority 1 parcels (in executive session if need be to avoid impacting subsequent financial negotiations with the landowners). Second, only if these ten parcels of land become available either for purchase or conservation restriction should funds be expended from the Land Acquisition funds.</p>	<p>The DCR/MWRA land acquisition process has worked very successfully over the years to carefully assess possible projects at various stages of development. A team of DCR and MWRA experts is convened on a quarterly basis to scrutinize each possible project, with many rejected at initial or secondary stages. Project lists, along with detailed maps and analysis, are updated regularly. Given the limited funding, only the best parcels are brought forward to the MWRA Board for approval. The timing when desirable properties become available for conservation restrictions or purchase is unknown, thus limiting purchases to only the "top ten" first could prevent the acquisition of valuable watershed lands which may become available in the interim. DCR Watershed has also been successful in finding outside sources of funding and partnerships for some watershed acquisitions.</p>


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 26, 2013
SUBJECT: Final FY14 Water and Sewer Assessments



COMMITTEE: Administration, Finance & Audit

X VOTE
INFORMATION

 Kathy Soni, Budget Director
Leo Norton, Assistant Manager, Rates, Revenue
and Finance
Preparer/Title


Rachel C. Madden
Director, Administration, Finance

The FY14 Proposed Current Expense Budget (CEB) included a Rate Revenue Requirement of \$631,233,000, a 3.9% increase over FY13. Based on updated information, including an increase in the planned defeasance resulting from the projected FY13 operating surplus, the FY14 Draft Final CEB presented to the Board at the June 5th budget hearing included a Rate Revenue Requirement of \$629,990,000, an increase of 3.7%.

Per the Board's direction, staff are now submitting for approval Final FY14 Water and Sewer Assessments which reflects a Rate Revenue Requirement of \$628,721,000. This is a \$2.5 million reduction from Preliminary FY14 Assessments and results in a 3.49% combined assessment increase over FY13.

The Rate Revenue Requirement is allocated to MWRA communities based on their respective shares of CY12 MWRA water use, the average of CY10-CY12 wastewater flows and corresponding strength of flows, and population data.

RECOMMENDATION:

To adopt the following effective July 1, 2013:

- 1) Water system assessments of \$203,216,774 and sewer system assessments of \$425,504,226 for Fiscal Year 2014.
- 2) FY14 sewer assessments of \$500,000 for the Town of Clinton and \$195,825 for the Lancaster Sewer District.
- 3) FY14 charge to the City of Worcester of \$129,071 which represents approximately 7.9% of the direct operating expenses for the Clinton Wastewater Treatment Plant.
- 4) FY14 water assessments of \$3,253,485 for the City of Chicopee, \$684,611 for South Hadley Fire District #1, and \$709,198 for the Town of Wilbraham.
- 5) A wholesale water rate of \$3,124.91 per million gallons.
- 6) A retail sewer rate of \$6,444.16 per million gallons.

DISCUSSION:

The Final FY14 Current Expense Budget includes a Rate Revenue Requirement of \$628,721,000, an increase of 3.49% over the FY13 requirement.

	FY14 Final	FY13 Approved	\$ Change from FY13	% Change from FY13
Water	\$203,216,774	\$196,001,401	\$ 7,215,373	3.68%
Sewer	425,504,226	411,510,599	\$13,993,627	3.40%
Total	\$628,721,000	\$607,512,000	\$21,209,000	3.49%

Attachment I summarizes FY14 wholesale water and sewer charges for each MWRA community.

The estimated impact of the FY14 assessment increase on the MWRA portion of the average household bill for water and sewer service in a fully served MWRA community that uses close to the system average of 61,000 gallons of water per year is \$14.

Community charges in the MWRA service area vary widely based on local decisions, water usage, and sewer flows. Each community has its own strategies and policies with respect to water and sewer revenue matters. Local decisions are based on strategies regarding enterprise fund accounting, recovery of revenue to meet system improvement needs, use of rate stabilization funds and community specific policies. Therefore, the estimated household impact is not necessarily indicative of the rates proposed by each community.

Water Assessments

MWRA calculates water assessments for customer communities by apportioning the water rate revenue requirement according to each community's share of total water use for the most recent calendar year. FY14 assessments are based on each community's share of CY12 water use of 65.031 billion gallons, a 0.6% increase compared to CY11 water use of 64.636 billion gallons. Changes in FY14 water assessments for customer communities compared to FY13 assessments vary considerably, depending on each community's use of water and how that use factors into their share of the water system in CY12 compared to CY11. This is particularly true for communities that receive only part of their water from MWRA.

Preliminary FY14 assessments were calculated based on preliminary CY12 water use as of February 2013. Since February, minor revisions to CY12 water use for several communities resulted in FY14 assessment impacts for BWSC (-\$21,112), Melrose (-\$3,782), Stoneham (-\$13,449), Waltham (-\$3,011), and Woburn (-\$1,069). These adjustments represent 0.4% or less of each community's preliminary FY14 assessment.

The following graph illustrates the water Rate Revenue Requirement for the past 5 years. The changes from FY13 to FY14 are primarily the result of increased debt service related to water utility rehabilitation and improvements.

MWRA Water Rate Revenue Requirement

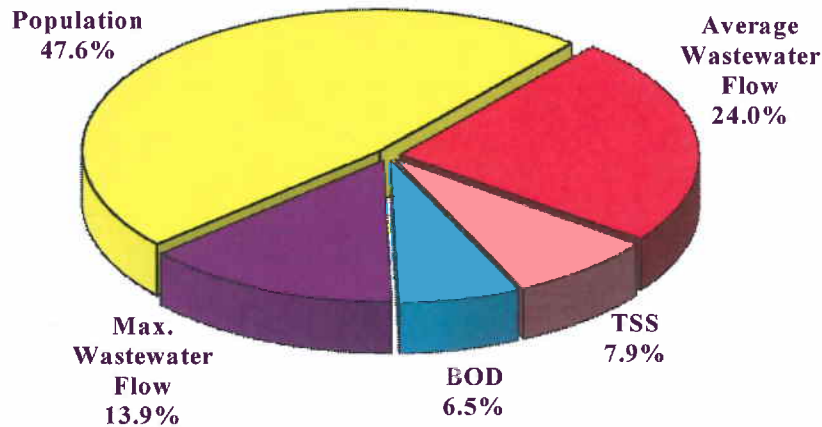


Sewer Assessments

MWRA allocates sewer assessments based on each community's share of the following allocation parameters: annual wastewater flow, maximum month flow, strength of flow, census population, and sewer population.

On average, approximately 52% of a community's FY14 sewer assessment is based on each community's share of wastewater flow and strength of flow (total suspended solids-TSS and biochemical oxygen demand-BOD), and approximately 48% is based on population as illustrated in the graph below.

Allocation of Total Sewer Utility Assessment

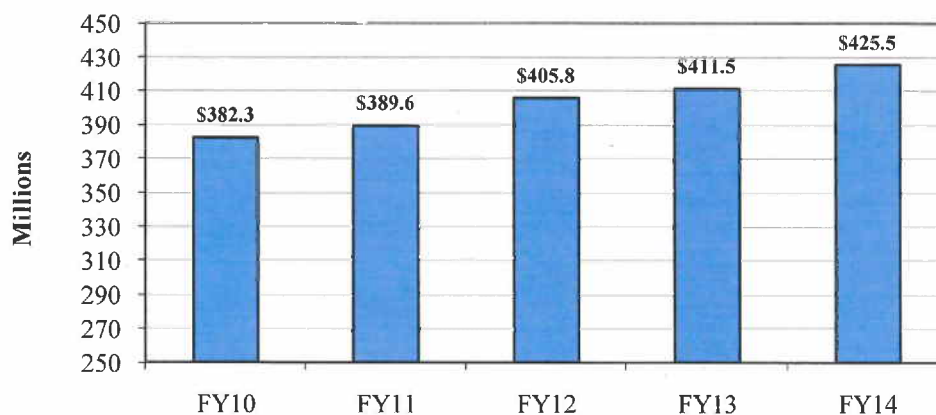


Both the preliminary and final FY14 assessment for population were calculated using the most recent (July 2011) community population estimates from the U.S. Census Bureau, as well as the percentage of total population receiving municipal sewer service reported by each MWRA community.

Preliminary FY14 assessments were calculated using the average of CY10, CY11 and CY12 wastewater flows and strength of flows as of February 2013. Since February, staff have revised CY12 flows for several communities resulting in assessment impacts for Boston (-\$80,796), Brookline (+\$112,602), Framingham (+\$59,601), Needham (+\$47,246), Newton (+\$119,316), and Somerville (-\$21,103). These adjustments represent less than 0.9% of each community's preliminary FY14 assessment.

The graph below illustrates the sewer Rate Revenue Requirement for the past 5 years. The change from FY13 to FY14 is primarily the result of increased debt service related to sewer utility rehabilitation and improvements.

MWRA Sewer Rate Revenue Requirement



Clinton Sewer Service Area Assessments

FY14 operating and maintenance (O&M) and capital expenses attributable to the Clinton Wastewater Treatment Plant are \$2,454,133, an increase of 1.2% from FY13 expenses. This includes a 3.7% increase in capital expenses related primarily to the digester cleaning/rehabilitation project.

In accordance with MWRA's Clinton Sewer Service Area rate methodology adopted in 1991, the City of Worcester is charged approximately 7.9% of the direct operating expenses for the Clinton Wastewater Treatment Plant. FY14 direct operating expenses for the plant total \$1,631,539, resulting in an FY14 charge of \$129,071 for the City of Worcester. Worcester has been paying this annual charge to MWRA or its predecessors since 1914.

The Town of Clinton and the Lancaster Sewer District are allocated proportional shares of the remaining expenses based on annual metered wastewater flow to the Clinton WWTP. Based on FY14 expenses and CY12 wastewater flows, FY14 charges are \$195,825 for the Lancaster Sewer District and \$2,129,236 for the Town of Clinton. However, pursuant to Chapter 307, Section 8 of the Acts of 1987, Clinton is only liable for the first \$500,000 of its share of O&M and capital costs. *Attachment 2* details the expenses and corresponding charges for the Clinton Sewer Service Area.

CVA Water Assessments

Based on the FY14 CIP and CEB for the Chicopee Valley Aqueduct (CVA) water system, the FY14 system assessment is \$4,647,295, an increase of 7.5% from FY13 assessments. This is primarily the result of a 6.4% increase in budgeted capital expenses, including expenses related to the UV Water Treatment project at the Quabbin Water Treatment Plant.

MWRA's CVA water assessment methodology allocates CVA assessments to the three communities served by the CVA system based on their share of prior calendar year water use. Based on CY12 water use, FY14 assessments are as follows:

- **Town of Chicopee:** \$3,253,485 (+ 6.4%)
- **South Hadley Fire District #1:** \$ 684,611 (+ 4.5%)
- **Town of Wilbraham:** \$ 709,198 (+16.3%)

In addition to the impact of the budget for FY14, each community's CY12 water use relative to the system total accounts for assessment changes that are higher or lower than the system average of 7.5%. The Town of Wilbraham has been advised of their increased water use.

Attachment 3 details the expenses and corresponding assessments for the CVA Water Service Area.

Wholesale Water Rate

MWRA's wholesale water rate per million gallons is applied to customers purchasing MWRA water on a pay-as-you-go basis (including customers with emergency agreements). Examples include the Department of Conservation and Recreation, the Department of Youth Services, and the Walter E. Fernald State School. The wholesale water rate for FY14 is \$3,124.91 per million gallons. The FY14 CEB includes revenue of \$148,760 from these customers.

Retail Sewer Rate

MWRA provides direct retail sewer service to Regis College in Weston and the New England Center for Children in Southborough. In accordance with MWRA Policy #OP.11, Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, both entities are charged a modified per million gallon "retail" rate that captures both sanitary and non-sanitary flows. Based on FY14 sewer assessments, the FY14 retail sewer rate will be \$6,444.16 per million gallons. The FY14 CEB includes revenue of \$65,678 from these customers.

ATTACHMENTS:

1. Final FY14 Water and Sewer Assessments
2. Clinton Wastewater Treatment Plant: FY14 Sewer User Charge Determination
3. FY14 Chicopee Valley Aqueduct System Assessment

MWRA Fully Served Water and Sewer Customers	Final FY13 Water Assessment	Final FY14 Water Assessment	Percent Change from FY13	Final FY13 Sewer Assessment	Final FY14 Sewer Assessment	Percent Change from FY13	Final FY13 Combined Assessment	Final FY14 Combined Assessment	Dollar Change from FY13	Percent Change from FY13
ARLINGTON	\$4,706,235	\$4,553,819	-3.2%	\$7,404,065	\$7,661,286	3.5%	\$12,110,300	\$12,215,105	\$104,805	0.9%
BELMONT	2,263,350	2,516,559	11.2%	4,593,647	4,652,803	1.3%	6,856,997	7,169,362	312,365	4.6%
BOSTON (BWSC)	71,651,462	73,408,095	2.5%	116,347,350	122,165,554	5.0%	187,998,812	195,573,649	7,574,837	4.0%
BROOKLINE	5,656,061	5,906,771	4.4%	12,401,739	12,675,295	2.2%	18,057,800	18,582,066	524,266	2.9%
CHELSEA	3,406,236	3,524,702	3.5%	6,451,121	6,833,214	5.9%	9,857,357	10,357,916	500,559	5.1%
EVERETT	4,334,567	4,486,488	3.5%	7,243,065	7,612,435	5.1%	11,577,632	12,096,923	521,291	4.5%
FRAMINGHAM	7,355,228	7,645,878	4.0%	10,385,748	10,691,353	2.9%	17,740,976	18,337,231	596,255	3.4%
LEXINGTON	5,145,927	5,555,065	8.0%	6,954,177	7,014,300	0.9%	12,100,104	12,569,365	469,261	3.9%
MALDEN	6,053,825	6,264,071	3.5%	11,319,673	11,761,795	3.9%	17,373,498	18,026,866	652,368	3.8%
MEDFORD	5,534,818	5,520,265	-0.3%	10,766,699	10,943,641	1.6%	16,301,517	16,463,906	162,389	1.0%
MELROSE	2,405,858	2,519,249	4.7%	5,437,804	5,646,906	3.9%	7,843,662	8,168,155	324,493	4.1%
MILTON	2,718,549	2,834,490	4.3%	4,985,169	4,999,997	0.3%	7,703,718	7,834,487	130,769	1.7%
NEWTON	9,695,370	10,333,024	6.8%	18,917,866	20,152,363	1.2%	29,613,236	30,485,387	872,151	2.9%
NORWOOD	3,372,954	3,133,277	-7.1%	5,967,178	6,147,982	3.0%	9,340,132	9,281,259	(58,873)	-0.6%
QUINCY	9,889,803	10,147,276	2.6%	18,073,247	18,635,986	3.1%	27,963,050	28,783,262	820,212	2.9%
READING	1,811,212	1,854,203	2.4%	4,326,182	4,499,328	4.0%	6,137,394	6,353,531	216,137	3.5%
REVERE	4,362,470	4,353,201	-0.2%	9,486,795	9,920,985	4.6%	13,849,265	14,274,186	424,921	3.1%
SOVERVILLE	6,167,896	6,440,071	4.4%	13,887,278	14,595,600	5.1%	20,055,174	21,035,671	980,497	4.9%
STONEHAM	3,104,419	3,262,031	5.1%	4,357,938	4,452,189	2.2%	7,462,357	7,714,220	251,863	3.4%
WALTHAM	7,792,300	7,809,194	0.2%	12,485,924	12,759,248	2.2%	20,278,224	20,568,442	290,218	1.4%
WATERTOWN	2,925,467	2,945,405	0.7%	5,471,720	5,654,172	3.3%	8,397,187	8,599,577	202,390	2.4%
WINTHROP	1,387,397	1,429,691	3.0%	3,036,088	3,161,934	4.1%	4,423,485	4,591,625	168,140	3.8%
TOTAL	\$171,741,404	\$176,442,825	2.7%	\$301,300,473	\$312,640,366	3.8%	\$473,041,877	\$489,083,191	\$16,041,314	3.4%

MWRA Sewer and Partial Water Customers	Final FY13 Water Assessment	Final FY14 Water Assessment	Percent Change from FY13	Final FY13 Sewer Assessment	Final FY14 Sewer Assessment	Percent Change from FY13	Final FY13 Combined Assessment	Final FY14 Combined Assessment	Dollar Change from FY13	Percent Change from FY13
CANTON	\$2,138,489	\$1,414,000	-33.9%	\$3,313,092	\$3,460,713	4.5%	\$5,451,581	\$4,874,713	(\$576,868)	-10.6%
NEEDHAM	964,345	1,271,018	31.8%	5,381,187	5,423,810	0.8%	6,345,532	6,694,828	349,296	5.5%
STOUGHTON	700,394	758,402	8.3%	4,420,052	4,364,713	-1.3%	5,120,446	5,123,115	2,669	0.1%
WAKEFIELD	1,617,772	1,604,779	-0.8%	5,512,303	5,549,601	0.7%	7,130,075	7,154,380	24,305	0.3%
WELLESLEY	854,839	1,423,735	66.6%	5,078,134	5,246,821	3.3%	5,932,973	6,670,556	737,583	12.4%
WILMINGTON	296,556	125,176	-57.8%	2,241,570	2,408,266	7.4%	2,538,126	2,533,442	(4,684)	-0.2%
WINCHESTER	974,666	1,127,860	15.7%	3,634,180	3,718,082	2.3%	4,608,846	4,845,942	237,096	5.1%
WOBBURN	2,535,816	3,549,339	40.0%	8,959,770	9,134,120	1.9%	11,495,586	12,683,459	1,187,873	10.3%
TOTAL	\$10,082,877	\$11,274,309	11.8%	\$38,540,288	\$39,306,126	2.0%	\$48,623,165	\$50,580,435	\$1,957,270	4.0%

MWRA Sewer-only Customers	Final FY13 Water Assessment	Final FY14 Water Assessment	Percent Change from FY13	Final FY13 Sewer Assessment	Final FY14 Sewer Assessment	Percent Change from FY13	Final FY13 Combined Assessment	Final FY14 Combined Assessment	Dollar Change from FY13	Percent Change from FY13
ASHLAND				\$2,081,319	\$2,175,735	4.5%	\$2,081,319	\$2,175,735	\$94,416	4.5%
BEDFORD				2,909,153	2,968,529	2.0%	2,909,153	2,968,529	59,376	2.0%
BRAINTREE				7,597,309	7,759,278	2.1%	7,597,309	7,759,278	161,969	2.1%
BURLINGTON				4,723,848	4,846,498	2.6%	4,723,848	4,846,498	122,650	2.6%
CAMBRIDGE				20,768,232	21,224,419	2.2%	20,768,232	21,224,419	456,187	2.2%
DEDHAM				4,864,300	4,924,268	1.2%	4,864,300	4,924,268	59,968	1.2%
HINGHAM SEWER DISTRICT				1,513,205	1,562,020	3.2%	1,513,205	1,562,020	48,815	3.2%
HOLBROOK				1,434,900	1,495,280	4.2%	1,434,900	1,495,280	60,380	4.2%
NATICK				4,634,401	4,903,457	5.8%	4,634,401	4,903,457	269,056	5.8%
RANDOLPH				5,393,673	5,561,761	3.1%	5,393,673	5,561,761	168,088	3.1%
WALPOLE				3,300,822	3,373,364	2.2%	3,300,822	3,373,364	72,542	2.2%
WESTWOOD				2,317,405	2,362,136	1.9%	2,317,405	2,362,136	44,731	1.9%
WEYMOUTH				10,131,271	10,400,989	2.7%	10,131,271	10,400,989	269,718	2.7%
TOTAL				\$71,669,838	\$73,557,734	2.6%	\$71,669,838	\$73,557,734	\$1,887,896	2.6%

MWRA Water-only Customers	Final FY13 Water Assessment	Final FY14 Water Assessment	Percent Change from FY13	Final FY13 Sewer Assessment	Final FY14 Sewer Assessment	Percent Change from FY13	Final FY13 Combined Assessment	Final FY14 Combined Assessment	Dollar Change from FY13	Percent Change from FY13
LYNNFIELD WATER DISTRICT	\$401,149	\$467,594	16.6%				\$401,149	\$467,594	\$66,445	16.6%
MARBLEHEAD	1,825,752	1,990,555	9.0%				1,825,752	1,990,555	164,803	9.0%
NAHANT	309,977	349,194	12.7%				309,977	349,194	39,217	12.7%
SAUGUS	3,151,506	2,963,455	-6.0%				3,151,506	2,963,455	(188,051)	-6.0%
SOUTHBOROUGH	595,717	695,113	16.7%				595,717	695,113	99,396	16.7%
SWAMPSCOTT	1,661,956	1,781,628	7.2%				1,661,956	1,781,628	119,672	7.2%
WESTON	1,684,844	1,898,881	12.7%				1,684,844	1,898,881	214,037	12.7%
TOTAL	\$9,630,901	\$10,146,420	5.4%				\$9,630,901	\$10,146,420	\$515,519	5.4%

MWRA Partial Water-only Customers	Final FY13 Water Assessment	Final FY14 Water Assessment	Percent Change from FY13	Final FY13 Sewer Assessment	Final FY14 Sewer Assessment	Percent Change from FY13	Final FY13 Combined Assessment	Final FY14 Combined Assessment	Dollar Change from FY13	Percent Change from FY13
DEDHAM-WESTWOOD WATER DISTRICT	\$28,781	\$124,703	333.3%				\$28,781	\$124,703	\$95,922	333.3%
LYNN (LWSC)	259,592	242,626	-6.5%				259,592	242,626	(16,966)	-6.5%
MARLBOROUGH	2,753,457	3,184,761	15.7%				2,753,457	3,184,761	431,304	15.7%
NORTHBOROUGH	883,118	1,022,003	15.7%				883,118	1,022,003	138,885	15.7%
PEABODY	621,271	779,127	25.4%				621,271	779,127	157,856	25.4%
TOTAL	\$4,546,219	\$5,353,220	17.8%				\$4,546,219	\$5,353,220	\$807,001	17.8%
SYSTEMS TOTAL	\$196,001,401	\$203,216,774	3.7%	\$411,510,599	\$425,504,226	3.4%	\$607,512,000	\$628,721,000	\$21,209,000	3.5%

Massachusetts Water Resources Authority
Clinton Wastewater Treatment Plant
Sewer User Charge Determination

BUDGETED EXPENSES: Draft Final FY2014	
Clinton Direct Operating Expenses:	\$1,631,539
MWRA Support Allocation:	352,664
Subtotal O&M Expenses:	\$1,984,203
Total Debt Service Expenses:	\$469,930
Total Clinton Service Area Expenses	\$2,454,133
Less Revenue (City of Worcester Payment)	-129,071
Clinton WWTP Rate Revenue Requirement:	\$2,325,062

WASTEWATER FLOW and FLOW SHARES:	CY2012		
	Town of Clinton Flow	Lancaster Sewer District Flow	Total Wastewater Flow
Average Daily Flow (MGD)	2.465	0.227	2.692
Average Flow (MG/YR)	899.761	82.751	982.512
Proportional Share of Flow	91.58%	8.42%	100.0%

Sewer User Charge Determination

TOWN OF CLINTON	
O&M Expenses	\$1,984,203
Less Revenue (City of Worcester Payment)	-129,071
O&M Expenses to be Recovered	\$1,855,132
Clinton's Share of Flow	91.58%
Clinton's Share of O&M Costs	\$1,698,885
Total Clinton O&M Charge	\$1,698,885

Debt Service Costs to be Recovered	\$469,930
Clinton's Share of Wastewater Flow	91.58%

Total Clinton Debt Service Charge	\$430,351
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Total Clinton O&M and Debt Service Charge	\$2,129,236
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Less MWRA Water Ratepayer Subsidy -1,629,236

Billable Charge to the Town of Clinton as per CH. 307, Section 8 The Acts of 1987	\$500,000
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LANCASTER SEWER DISTRICT	
O&M Expenses	\$1,984,203
Less Revenue (City of Worcester Payment)	-129,071
O&M Expenses to be Recovered	\$1,855,132
Lancaster's Share of Flow	8.42%
Lancaster's Share of O&M Costs	\$156,246
Total Lancaster Sewer District O&M Charge	\$156,246

Debt Service Costs to be Recovered	\$469,930
Lancaster's Share of Wastewater Flow	8.42%

Total Lancaster Sewer District Debt Service Charge	\$39,579
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Total Lancaster O&M and Debt Service Charge	\$195,825
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Billable Charge to Lancaster Sewer District	\$195,825
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Billable Sewer User Charges and Payment Schedule

Sewer Customer	Billable Charges
Town of Clinton	\$500,000
Lancaster Sewer District	\$195,825
Total Sewer Charges	\$695,825

Payment 1 on or before Sept 15, 2013	Payment 2 on or before Nov 15, 2013	Payment 3 on or before Feb 15, 2014	Payment 4 on or before May 15, 2014
\$125,000	\$125,000	\$125,000	\$125,000
\$48,956	\$48,956	\$48,956	\$48,956
\$173,956	\$173,956	\$173,956	\$173,956

Massachusetts Water Resources Authority
 Chicopee Valley Aqueduct System Assessment
 Fiscal Year: 2014

SYSTEM ASSESSMENTS


	FY14	Prior Period Adujstments	FY14 Net Operating Assessment
Operating Assessment			
Chicopee	\$1,324,411	(\$3,580)	\$1,320,831
South Hadley Fire District #1	278,780	(775)	278,005
Wilbraham	288,572	(751)	287,821
TOTAL	\$1,891,763	(\$5,106)	\$1,886,657

	FY14	Prior Period Adujstments	FY14 Net Capital Assessment
Capital Assessment			
Chicopee	\$1,966,411	(\$33,757)	\$1,932,654
South Hadley Fire District #1	413,917	(7,310)	406,606
Wilbraham	428,455	(7,078)	421,377
TOTAL	\$2,808,782	(\$48,145)	\$2,760,637

	FY14	Prior Period Adujstments	FY14 Net Assessment
TOTAL ASSESSMENTS			
Chicopee	\$3,290,822	(\$37,336)	\$3,253,485
South Hadley Fire District #1	692,697	(8,086)	684,611
Wilbraham	717,027	(7,829)	709,198
TOTAL	\$4,700,545	(\$53,251)	\$4,647,295

TOTAL ASSESSMENTS	FY14	FY13	CHANGE	
			Dollars	Percent
Chicopee	\$3,253,485	\$3,056,914	\$196,571	6.4%
South Hadley Fire District #1	684,611	655,277	29,334	4.5%
Wilbraham	709,198	609,677	99,522	16.3%
TOTAL	\$4,647,295	\$4,321,867	\$325,427	7.5%

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 26, 2013
SUBJECT: Amendment 3 to Memorandum of Understanding with the Department of Public Safety for Electrical Inspections

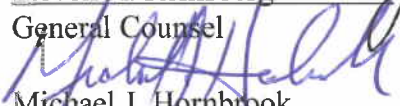
COMMITTEE: Administration, Finance & Audit

John V. Navoy, Associate General Counsel
A. Navanandan, P.E., Director, Construction
Preparer/Title

INFORMATION

VOTE


Steven A. Remsberg
General Counsel


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to execute Amendment 3 to the Memorandum of Understanding with the Department of Public Safety, substantially in the form attached hereto, to provide electrical inspection services for Authority projects and operations in an amount not to exceed \$50,000, for a term of twenty-four months, from July 1, 2013, through June 30, 2015.

DISCUSSION:

Pursuant to the Authority's enabling legislation, the Department of Public Safety ("DPS") has "exclusive jurisdiction and responsibility with respect to projects and operations of the Authority for inspection, approvals, enforcement, permitting and licensure" authorized or required by the state building code.

Through long standing agreements between DPS and MWRA, DPS has provided electrical permits and has performed electrical inspections for MWRA construction projects as part of DPS's issuance of building permits and Certificates of Occupancy. This arrangement started with the Boston Harbor Project and since March 2000 has expanded to other MWRA construction projects and in-house electrical work. The electrical inspections were historically performed by DPS staff.

In September 2007, MWRA was advised by DPS that due to both its lack of a qualified electrical inspector in-house, and budgetary constraints, DPS would no longer provide electrical inspections for MWRA projects or in-house electrical work. MWRA was advised that DPS had

contracted with an outside individual to perform electrical inspections. However, funding to allow DPS to perform inspections was limited to work performed for the Convention Center and the Saltonstall Building only and not for MWRA projects. While MWRA disagreed with DPS's interpretation of its responsibilities in this regard, the reality of the situation was that DPS would not fund MWRA inspections, and MWRA's enabling act does not require that DPS provide inspection services free of charge.

On January 16, 2008, because staff believed that the efficient and safe prosecution of MWRA projects depended, in large part, upon the prompt and consistent interpretation of the electrical code and related regulations, the Board authorized the Executive Director to enter into a Memorandum of Understanding (MOU) with DPS to provide permitting and the services of an electrical inspector for MWRA work. In return, MWRA would pay for DPS inspections at the contract rate of \$110 per hour.

On June 29, 2011, the Board authorized execution of Amendment 2 to the MOU extending the term of the MOU for an additional two years. In accordance with that Amendment, the MOU is now due to expire on June 30, 2013. The services under the MOU have been satisfactorily performed in a timely manner and have been effective in meeting MWRA's needs. Under Amendment 2, from July 1, 2009 through May 31, 2011, MWRA has paid a total of \$21,644 for electrical inspection services (of the not-to-exceed amount of \$50,000). Staff anticipate that there may be approximately an additional \$5,000 in billings to be received for services rendered before the expiration date of June 30, 2013.

Staff believe that it is important that DPS continue to be the sole permitting and inspecting agency for MWRA capital projects and in-house work. Amendment 3 would extend the term of the MOU through June 30, 2015. The hourly rate that MWRA will pay for DPS inspection services is approximately the same for the balance of 2013 and 2014 as the rate paid under Amendment 2. The rate for the first six months of 2015 has not been established yet. In the event that the hourly rate increases in 2015, staff will return to the Board to obtain approval of any increased rates. Therefore, staff recommend that the Board authorize the Executive Director to execute Amendment 3 to the MOU so that this relationship with DPS will be continued.

BUDGET/FISCAL IMPACT:

An expenditure of \$25,000 per fiscal year can be absorbed within the FY14 and FY15 CIP Budgets.

ATTACHMENT:

Copy of Amendment 3 to the MOU

MEMORANDUM OF UNDERSTANDING
BETWEEN THE DEPARTMENT OF PUBLIC SAFETY
AND
THE MASSACHUSETTS WATER RESOURCES AUTHORITY
AMENDMENT NUMBER 3

WHEREAS, the Department of Public Safety ("Department") through the Board of Building Regulations ("BBRS") administers the provisions of chapter 143 of the General Laws; and

WHEREAS, pursuant to chapter 92, App. §1-8(k) of the General Laws, the Commissioner of Public Safety or his designee is granted exclusive jurisdiction and responsibility with respect to projects or operations of the Massachusetts Water Resources Authority ("MWRA") authorized or required by MGL chapter 143 or any regulation adopted pursuant to chapter 802 of the Acts of 1972; and

WHEREAS, the Department and the MWRA (collectively referred to as the "Parties") entered into a Memorandum of Understanding dated February 6, 2008 ("MOU") whereby the Department would provide the services of an Electrical Inspector to perform electrical inspections on MWRA projects and issue appropriate permits, including electrical permits, on MWRA projects, and the MWRA would pay the actual costs of such electrical services performed by the Department's Electrical Inspector; and

WHEREAS, the Department and the MWRA entered into Amendment 2 which extended the Term of the MOU from June 30, 2011 through and including June 30, 2013; and

WHEREAS, the term of the MOU is due to expire as of June 30, 2013; and

WHEREAS, the Parties have found that MOU has been efficient and effective in providing such necessary services with regard to MWRA projects; and

WHEREAS, the Parties wish to continue with the performance of the MOU and want to therefore extend the term of the MOU from June 30, 2013 through June 30, 2015.

NOW THEREFORE, in consideration of the mutual covenants of the Parties, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree that the MOU is extended and amended as follows:

1) Section II, Paragraph 1 is amended as follows:

In line 3, **CHANGE** "FY 2012 and FY 2013" to "FY 2014 and FY 2015" respectively.

2) Section II, Paragraph 2 is amended as follows:

DELETE Paragraph 2 in its entirety; **REPLACE** with the following Paragraph 2:

“2. The MWRA shall pay for electrical services performed by the Department’s Electrical Inspector from July 1, 2013 through June 30, 2015 at a rate per hour as agreed between the Department and the Department’s Electrical Inspector for inspection services. Such rates are provided in Schedule A attached hereto and incorporated herein. The MWRA shall pay for the electrical inspections directly to the Department’s Electrical Inspector.”

3) Section IV, Term, is amended as follows:

In line 1, **DELETE** " through June 30, 2013"; **INSERT** in its place "through June 30, 2015".

All other terms and conditions of the MOU remain unchanged.

The undersigned hereby execute this Amendment Number 3 to Memorandum of Understanding on behalf of the Department of Public Safety and the Massachusetts Water Resources Authority.

DATED this ____ day of _____, 2013.

Thomas G. Gatzunis, P.E., C.B.O.
Commissioner
Department of Public Safety

Frederick A. Laskey,
Executive Director
Massachusetts Water Resources
Authority

AMENDMENT 3

SCHEDULE A

<u>CALENDAR YEAR</u>	<u>RATE/ HOUR</u>
2013	\$95.76
2014	\$95.75
2015	TBD

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 26, 2013
SUBJECT: Automatic Vehicle Locator Tracking System
Location Technologies, Inc.
Contract A586



COMMITTEE: Administration, Finance & Audit

Russell J. Murray, Director, MIS
Susan A. McAree, Manager, Policy & Planning
Richard P. Trubiano, Deputy Chief Operating Officer
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 A586, Automated Vehicle Locator Tracking System, to the lowest qualified bidder, Location Technologies, Inc., and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$354,152, for a contract term of 1,095 days from the Notice to Proceed.

DISCUSSION:

Staff developed the procurement for an Automatic Vehicle Locator (AVL) System contract to monitor MWRA vehicles. The system will be used by MWRA managers and supervisors to track approximately 385 MWRA vehicles and operator-driven pieces of equipment.

Implementing an AVL system will better enable MWRA to:

- Improve efficiency and employee accountability;
- Respond more quickly to emergencies;
- Enhance driver and vehicle safety;
- Reduce fuel costs;
- Track vehicle progress to sites throughout the day, and collect mileage electronically; and
- Monitor unauthorized vehicle usage.

The recommended system will provide real-time transmission of vehicle location and other data utilizing vehicle-installed hardware, cell towers, and global positioning system radar. The AVL system will provide web-based map and/or report form data for vehicles in MWRA's service area, which extends south to Hingham, north to Lynn, west to Ludlow/Ware, and east to the Deer Island Treatment Plant.

In the process of evaluating AVL systems, MWRA staff met with staff from Boston Water & Sewer Commission (BWSC), Brookline DPW, the City of Boston, and a for-profit heating services company to review their existing systems. Staff also spoke with and observed system demonstrations from several vendors. Based on these meetings and discussions, staff identified features and capabilities that best meet MWRA's objectives. These features include the ability to:

- Locate any MWRA vehicle at any time;
- Plot a vehicle's route on a map to see at a glance where it is or where it has been;
- Enter an address requiring an immediate response or action and find the closest vehicle to that address based on a specified search radius;
- See all vehicles in a particular defined area;
- Replay vehicle activity for given time frames and locations;
- Add many landmarks (e.g., MWRA facilities) and "geo-fences" (geographically restricted areas);
- Provide alerts that can be sent via e-mail or mobile phone to selected users (sample alerts would include entering or exiting geo-fenced areas, excessive speeds, extended idling time, lengthy stops, etc.); and
- Provide a variety of daily, weekly, and monthly reports as needed to synthesize and summarize vehicle data.

Prior to going out to bid, MWRA met with all of its bargaining units and has entered into a Memorandum of Understanding (MOU) with each unit regarding the procurement and use of an AVL system. The MOUs provide a system use review process, guidelines for follow-up on AVL data indicating staff non-conformance with MWRA policies, and data handling and distribution protocols.

Procurement Process

Staff developed the AVL system procurement as a three-year, low-bid lease agreement with business capacity, insurance, data privacy, and security threshold requirements, with the possibility of two additional one-year extensions, subject to mutual agreement of terms. It also includes a provision to purchase the devices for a nominal sum at the end of the agreement.

Staff recommended the use of a service/lease procurement (as opposed to a software and hardware purchase) given the rapid changes in software and hardware technology. A lease arrangement will allow MWRA to more quickly initiate AVL use since there will be no need to develop and procure additional separate contracts for hardware installation or cell phone communications, and there will be no transition time needed for MWRA's MIS Department to install and configure the system on in-house servers. The lease arrangement also consolidates and places full responsibility with the AVL vendor to make the system work, which reduces MWRA's risk relative to major upfront costs for software/hardware purchase and installation. If any problems with the system develop, it will be the vendor's responsibility to quickly resolve them.

The system will be hosted by the AVL vendor and will not require customization (beyond input of fleet data and service area facility location information). Payment for this system will be on the basis of a monthly unit price per vehicle. For this unit price, the selected AVL vendor will provide all necessary goods and services required to produce the reports that MWRA has requested, and provide:

- Web-based access to program software;
- Vehicle hardware, installation, and warranty;
- Staff training and on-going technical support;
- Software upgrades (as produced); and
- Secure storage and monthly delivery of all data collected by the system.

The Automated Vehicle Locator Tracking System Request for Qualifications/Bids (RFQ/B) was advertised on February 12, 2013. A primary requirement of the RFQ/B was that the vendor could demonstrate that it had been regularly and continuously engaged in providing fleet management tracking services for at least three years and had successfully performed services during such time period under at least two contracts of similar size, scope, nature, and level of complexity as MWRA's contract.

Fifteen timely bids were received from companies across the country. Thirteen vendors that appeared to meet the requirements included in the RFQ/B were shortlisted, and their cost envelopes were opened with the following results:

<u>BIDDERS</u>	<u>PRICE*</u>
Transcore, LP	\$320,270
Location Technologies, Inc.	\$354,152
Synovia	\$354,920
Network Fleet Inc.	\$373,527
Vehicle Tracking Solutions	\$409,028
T-Mobile/ Forward Thinking Solutions	\$457,102
Radio Satellite Strategies, Inc.	\$521,240
GPS/ N.A.	\$527,228
Fleetmatics	\$533,610
Sagequest	\$535,535
Reltronics	\$548,842
Clevest Solutions	\$600,935
AT&T	\$600,936

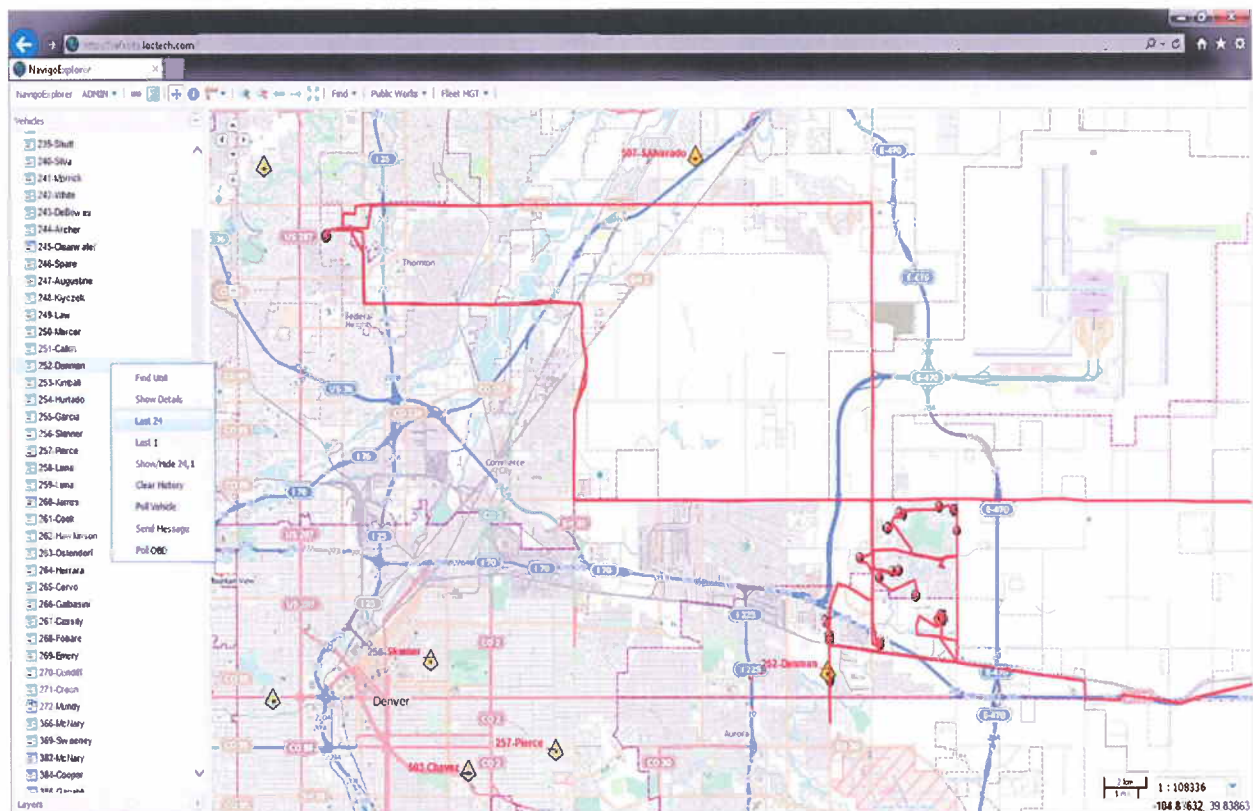
*The prices listed are those as supplied by the vendors.

A post-bid qualification process of the Apparent Low Bidder was then conducted, as provided for in the RFQ/B. Although Transcore, LP was the Apparent Low Bidder, after extensive reference checks and subsequent confirmation from the firm; it became clear that Transcore, LP had no demonstrated experience providing the required satellite and cellular transmission

product to external clients, but rather, primarily offered only satellite tracking devices. Therefore, it was determined that Transcore was not the Apparent Low Bidder.

Location Technology, Inc. was then named as the Apparent Low Bidder, and its product and services were confirmed, through the post-bid qualification process (which included a live on-site demonstration), to meet RFQ/B requirements. Location Technology, Inc. is located in Kansas City, Missouri, and has manufactured and installed AVL and wireless data systems for nearly 20 years. Location Technology's system demonstration confirmed that it provides the required mapping and reporting functions. As part of the demonstration, test units were installed on two MWRA vehicles and they were satisfactorily tracked on routes from Deer Island to the Quabbin Reservoir.

Below is one representative example of the types of mapping/reporting capabilities of Location Technologies' system. It depicts a 24-hour trip route map, which tracks the route a vehicle traveled – the red line indicates the route of the day.



Reference checks from Location Technology's similar-sized fleet installations were positive, indicating reliable system operation and good customer service. A review of financial data indicates that the firm is financially stable.

Based on the vendor's bid price, satisfactory product demonstration, and positive references, staff recommend the award of Contract A586 to Location Technologies, Inc. in the bid amount of \$354,152, out of which MWRA will pay a monthly unit price per vehicle of \$21.94 for the term of the contract.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the FY14 Current Expense Budget and adequate funds will be included in the Proposed FY15 and FY16 Current Expense Budgets to cover this contract. With the tracking of approximately 385 vehicles used by an estimated number of more than 500 staff, even a small increase in efficiency and reduced vehicle costs will result in the system paying for itself.

MBE/WBE PARTICIPATION:

There were no MBE/WBE requirements established for this procurement.



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
A. Pappastergion
B. Swett

to be held on

Wednesday, June 26, 2013

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

Time: Immediately following AF&A Comm.

AGENDA

A. Approvals

1. Approval of New Wastewater Advisory Committee Member

B. Contract Awards

1. Nut Island Headworks Electrical and Conveyors Improvements: J.F. White Contracting Co., Contract 7313

C. Contract Amendments/Change Orders

1. Supply and Delivery of Odor and Corrosion Control Chemicals for the Framingham Extension Sewer and Framingham Extension Relief Sewer: Siemens Water Technologies, WRA 3417, Amendment 1

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Wastewater Policy and Oversight Committee

June 5, 2013

A meeting of the Wastewater Policy and Oversight Committee was held on June 5, 2013 at the Authority headquarters in Charlestown. Chairman Walsh presided. Present from the Board were Messrs. Barrera, Carroll, Cotter, Flanagan, Foti, Pappastergion, Swett and Vitale. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Mike Hornbrook, John Vetere, and Bonnie Hale. The meeting was called to order at 12:05 p.m.

Approvals

***Wastewater Advisory Committee Contract**

The Committee recommended approval of the renewal of the contract with the Wastewater Advisory Committee (ref. agenda item A.1).

Contract Amendments/Change Orders


***Crane Maintenance Service: Safeway Overhead Crane Service, Inc., Contract OP-200, Change Order 1**

Staff described the need for the change order, and the Committee recommended approval of Change Order 1 (ref. agenda item B.1).

The meeting adjourned at 12:10 p.m.

* Approved as recommended at June 5, 2013 Board of Directors meeting.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 26, 2013
SUBJECT: Approval of New Member to the Wastewater Advisory Committee

COMMITTEE: Wastewater Policy & Oversight

INFORMATION
 VOTE

Wendy S. Leo, Program Manager, Marine Data
Preparer/Title 

Kevin A. McCluskey
Director, Public Affairs 

RECOMMENDATION:

To approve the addition of Zhanna Davidovitz 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 established during the planning of the new Deer Island Treatment Plant. WAC's members include citizen advocates, representatives from the MWRA Advisory Board, Massachusetts Area Planning Council, watershed associations, the engineering and business communities, and science and education fields.

The current Agreement between WAC and MWRA provides that WAC shall have a maximum of twenty members approved by MWRA's Board of Directors; the Agreement prohibits alternates or designees. 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 Downes. On June 5, 2013, the Board approved the new Agreement with WAC for FY14.

In accordance with the current Agreement, the WAC Chairman has nominated the following individual for membership:

Zhanna Davidovitz is a resident of Belmont, a town served by MWRA. She is an environmental officer in the Environment, Health and Safety Office of the Massachusetts Institute of Technology (MIT) in Cambridge, which is an MWRA industrial user. She has more than 20 years of experience in addressing a wide spectrum of environmental compliance and regulatory issues. She is responsible for a variety of projects at MIT, including wastewater discharges.

The current ten members on WAC are: Mary Adelstein, citizen advocate; Stephen Greene (WAC Chairman), Howland-Greene Consultants; Bill Katz, citizen (retired from Industry); Tabor Keally, Neponset River Watershed Association; Karen Lachmayr, Harvard University; Martin Pillsbury, Metropolitan Area Planning Council; Vincent Spada, SEA Consultants; Maggie Atanasov, MWRA Advisory Board; Beth Miller, independent engineer; and Craig Allen, Commonwealth Research Group, Inc.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director *F. A. Laskey*
DATE: June 26, 2013
SUBJECT: Nut Island Headworks Electrical and Conveyors Improvements
J.F. White Contracting Co.
Contract 7313

COMMITTEE: Wastewater Policy & Oversight

Jae R. Kim, Chief Engineer
David K. Pottle, Program Manager
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 7313, Nut Island Headworks Electrical and Conveyors Improvements, to the lowest responsible and eligible bidder, J.F. White Contracting Co., and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$4,740,000, for a contract term of 500 calendar days from the Notice to Proceed.

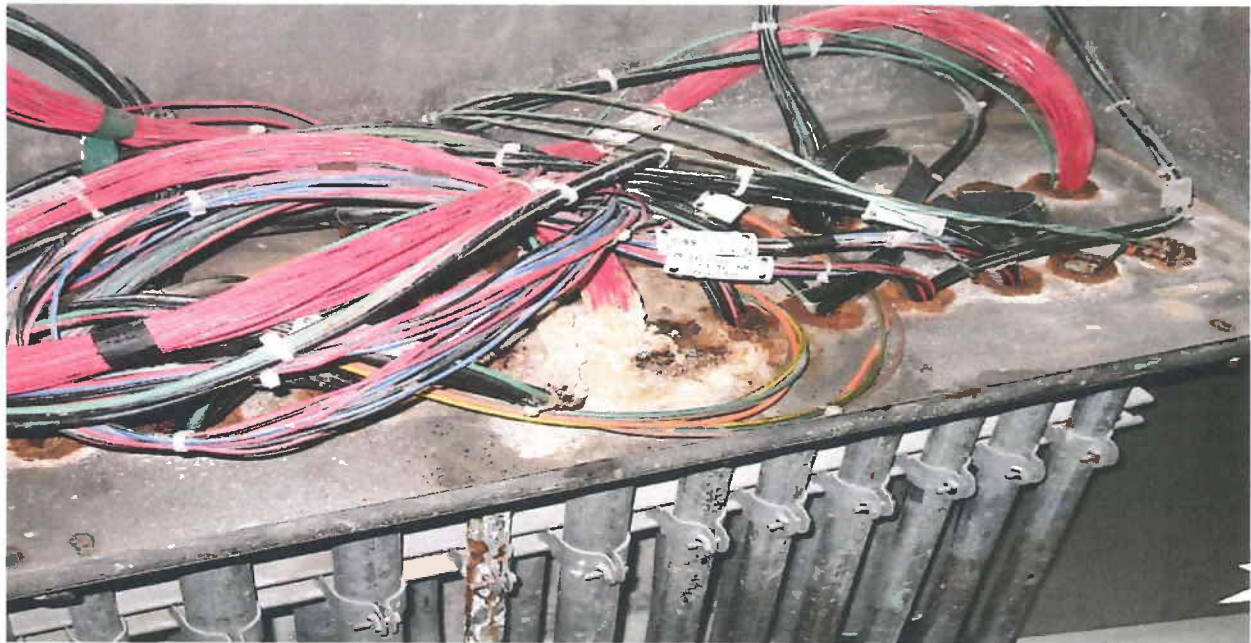
DISCUSSION:

The Nut Island Headworks, located in the Hough's Neck section of Quincy (pictured below and shown on Attachment A), was placed into operation in 1998 (Prior to the completion of the cross-harbor tunnel, the site housed the Nut Island Treatment Plant.) The facility provides screening and grit removal, flow metering, and flow control for Deer Island's Lydia Goodhue (South System) Pump Station. The facility receives flow from almost the entire MWRA south collection system. The Nut Island Headworks serves 22 communities and has a peak hydraulic capacity of 360 million gallons per day.



Tidally-influenced groundwater has infiltrated floor-slab-embedded electrical conduits in the bottom level of the headworks. Over time, this infiltration has caused corrosion of the electrical wiring and conduits (see pictures below and on the following pages). This corrosion can impact the operational reliability of critical pieces of equipment, including pumps, blowers, and the odor control system. Under this contract, all embedded electrical components below high-tide level will be replaced with ceiling- and surface-mounted components.

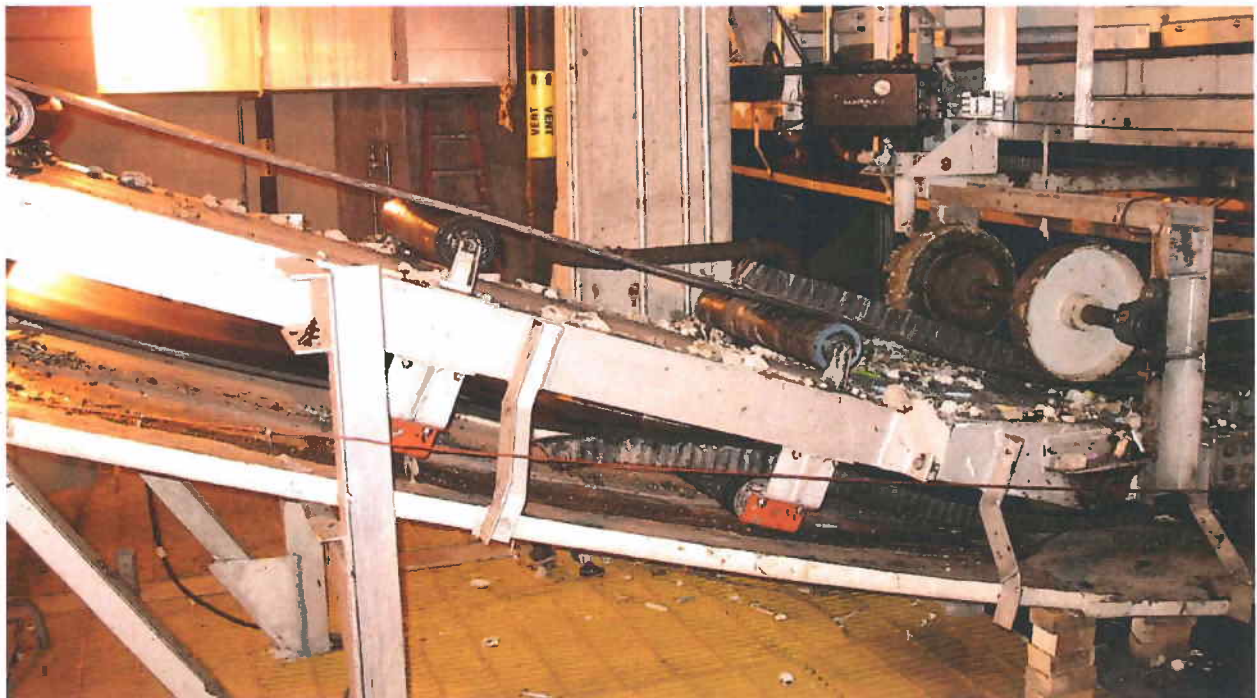
The Nut Island Headworks utilizes a network of three screenings conveyors and six grit conveyors to remove the grit and screenings from the lower levels of the facility to the ground floor for ultimate disposal at a licensed landfill under a separate, competitively bid contract. The harsh environment in which these conveyors operate has led to significant operational and maintenance problems, including difficulty maintaining belt alignment and belt and roller wear. The conveyors are no longer capable of fully containing the material as it moves along the belts. To improve the operation of the grit and screenings conveyors, Contract 7313 also includes replacement of belt scrapers, enclosure of vertical belts, installation of wider drip pans and replacement of the inclined screenings conveyor.



Corroded Pullbox



Corroded Conduits



Inclined Screenings Conveyor



Vertical Screenings Conveyors

Procurement Process

Contract 7313, designed by Malcolm Pirnie/Arcadis U.S., Inc., was advertised on April 20, 2013, and competitively bid in accordance with Chapter 149 of Massachusetts General Laws. General bids were received and opened on June 13, 2013 from four contractors as follows:

<u>Bidder</u>	<u>Bid Amount</u>
J.F. White Contracting Co.	\$4,740,000
Fischbach & Moore Electric Group, LLC	\$5,460,000
Annese Electrical Services, Inc.	\$6,464,000
Dagle Electrical Construction Corp.	\$6,853,333
<i>Engineer's Estimate</i>	<i>\$7,800,000</i>

J.F. White's bid is 39% lower than the Engineer's Estimate and the average of all four bids is almost 25% lower than the Engineer's Estimate. It is clear from the bids received that the methodology employed in the development of the Engineer's Estimate differed from the methodology used by the contractors in preparing their bids.

J.F. White's bid is 13% lower than the next lowest bidder. J.F. White was contacted to discuss the bid to determine why there is such a large variance from the Engineer's Estimate. The information obtained indicates the primary reason for the difference between the bid and the Engineer's Estimate resulted from the number of labor hours estimated to perform the work. J.F. White's labor estimate was developed utilizing its in-house project cost/history database, which is based on previously completed projects (including several MWRA projects) that involved similar types of electrical work, such as cable trays, PVC-coated rigid steel conduit, and disconnection and reconnection of existing equipment. The Engineer's Estimate for labor hours included 10,000 more hours than J.F. White's labor estimate.

In addition, Malcolm Pirnie/Arcadis has acknowledged that it incorrectly used a labor rate of \$95 per hour for electricians, not the prevailing wage rate (approximately \$73 per hour) in developing its Engineer's Estimate. Further, while the prevailing wage rate schedule allows a ratio of two apprentices to three electricians, the Engineer's Estimate erroneously assumed no apprentices would be used. MWRA staff believe it is reasonable to assume that J.F. White's bid includes the allowable 2:3 ratio. Factoring in the apprentice rate of approximately \$45 per hour, the blended apprentice:electrician rate over the course of the job would translate into a cost difference of approximately \$1,498,235 or nearly 49% of the total cost difference between the Engineer's Estimate and J.F. White's bid.

J.F. White also indicated that the general work items, such as temporary facilities, environmental protection, health and safety, and submittals, plus overhead and profit, represent 20% to 30% of its bid, or a range of \$950,000 to \$1,400,000. The Engineer's Estimate for these items was \$1,900,000 which represents 16% - 31% of the total cost difference between the Engineer's Estimate and J.F. White's bid.

Based on discussions with J.F. White, MWRA staff and Malcolm Pirnie/Arcadis U.S., Inc. believe that J.F. White understands the full nature and scope of this project. References were checked and found to be favorable. It should be noted that J.F. White Contracting Co. is currently working on Contract 6903, North Main Pump Station Variable Frequency Drive and Synchronous Motor Replacement, and Contract 7057, Waste Sludge Centrifuges Power and Controls Systems Upgrade, both on Deer Island.

MWRA staff and the Design Engineer have concluded that J.F. White Contracting Co. is qualified to perform the work and that its bid price is reasonable, complete, and includes the payment of prevailing wage rates, as required. Therefore, MWRA staff recommend that Contract 7313 be awarded to J.F. White Contracting Co. as the lowest responsible and eligible bidder.

BUDGET/FISCAL IMPACT:

The FY13 CIP includes a budget of \$7,066,166 for Contract 7313. This contract is \$4,740,000, or \$2,326,166 under budget.

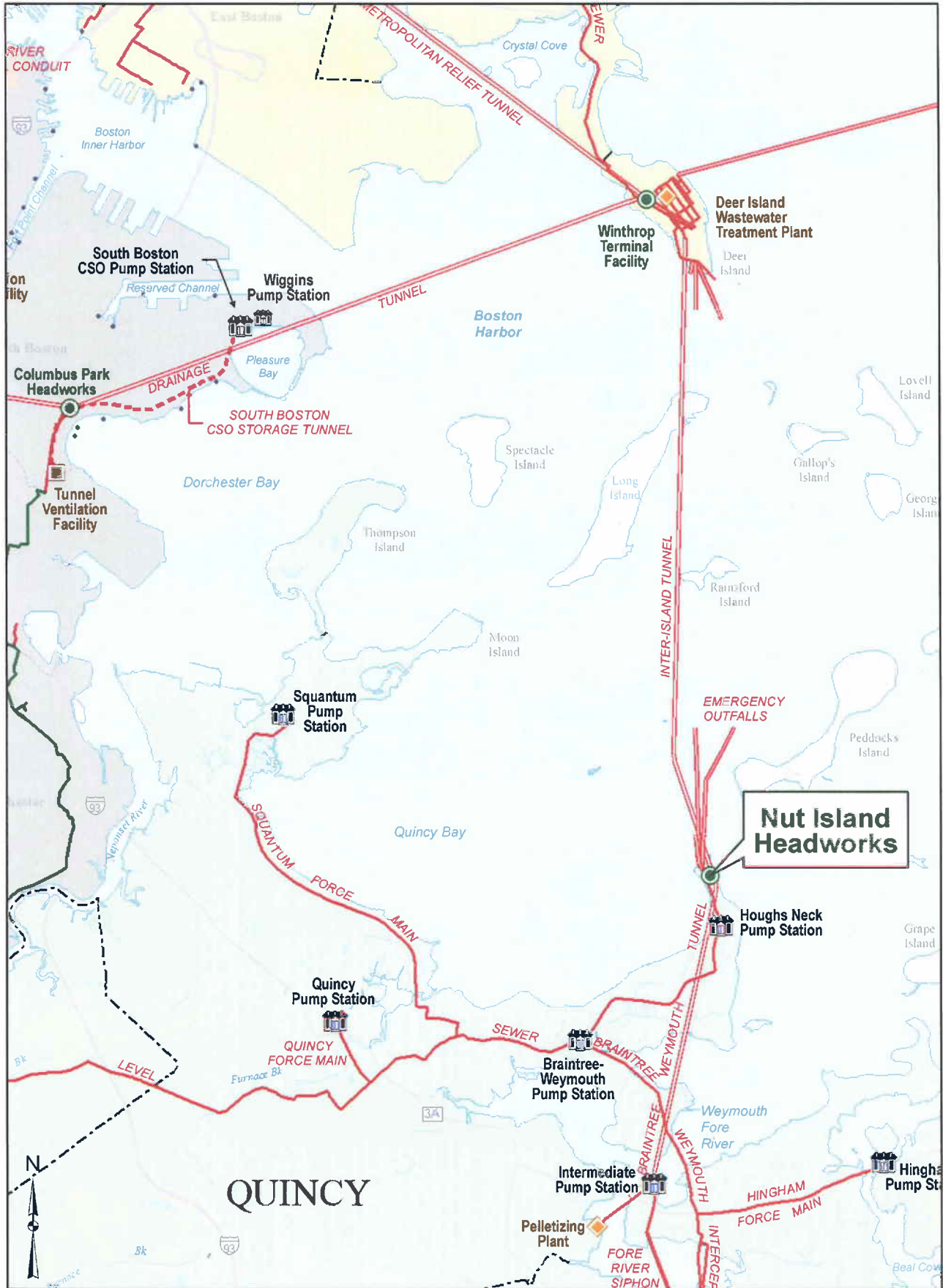
D/MBE and D/WBE/PARTICIPATION:

The D/MBE and D/WBE participation requirements for this project are 3.40% and 3.80%, respectively. The Affirmative Action & Compliance Unit has reviewed the bids and determined that J.F. White Contracting Co.'s bid is responsive to these requirements.

ATTACHMENT:

Attachment A – System Map Showing Nut Island Headworks

Attachment A



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director *F. A. Laskey*
DATE: June 26, 2013
SUBJECT: Supply and Delivery of Odor and Corrosion Control Chemicals for the Framingham Extension Sewer and Framingham Extension Relief Sewer
Siemens Water Technologies
Bid WRA-3417, Amendment 1

COMMITTEE: Wastewater Policy & Oversight

 INFORMATION
 X VOTE

Richard P. Trubiano, Deputy Chief Operating Officer
Michele S. Gillen, Deputy Director, Administration and Finance
Preparer/Title

Michael J. Hornbrook
Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Amendment 1 to the purchase order contract under Bid WRA-3417, for the supply and delivery of odor and corrosion control chemicals for the Framingham Extension Sewer and Framingham Extension Relief Sewer, with Siemens Water Technologies, exercising the first of two one-year extension options that were included in the original bid, for an amount not to exceed \$311,240, increasing the purchase order amount from \$311,240 to \$622,480, and extending the contract term from July 1, 2013 to June 30, 2014.

DISCUSSION:

MWRA has been addressing odor and corrosion issues in the Framingham Extension Sewer (FES) and the Framingham Extension Relief Sewer (FERS) – see attached map – for several years during the warmer months when temperatures and hydrogen sulfide levels in these sewer lines typically rise beyond target levels.



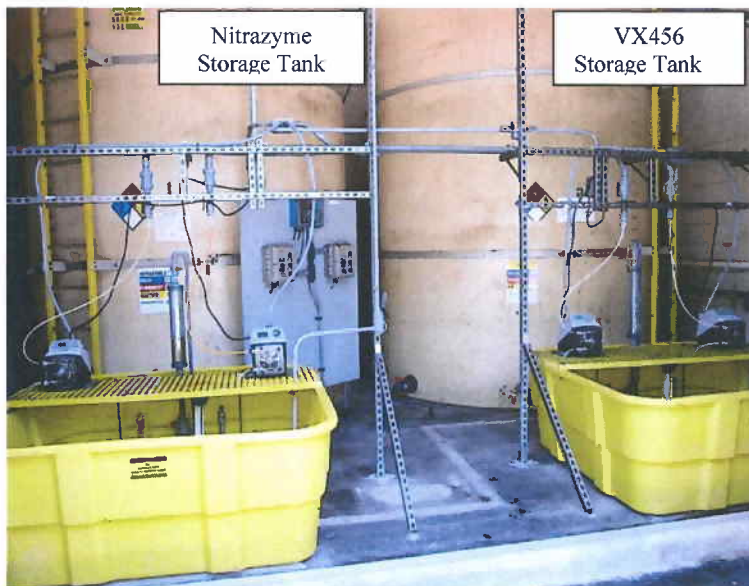
One control strategy (along with other efforts described below) involves chemical injection treatment at the Framingham (“Arthur Street”) Pump Station (shown in the picture above). In 2002, staff conducted a pilot study that involved injecting a combination of

two chemicals into the sewer line during the warmer months. The chemicals successfully reduced atmospheric hydrogen sulfide gas levels on a consistent basis by two-thirds. Because of the success of the pilot study, MWRA has been using these two chemicals – one is a nitrate-based product called Nitrazyme, and the other is a sodium-chlorite product, simply called “VX456” – ever since.

Chemical treatment is discontinued in the winter as the colder weather keeps hydrogen sulfide gas in these sewers below the target level of 20 parts per million. It also should be noted that air space hydrogen sulfide gas entering the Framingham Pump Station has been reduced over the years as a result of ongoing MWRA, community, and industry odor and corrosion control efforts, in turn reducing MWRA’s chemical treatment requirements.

In 2010, MWRA staff completed a renovation of the chemical dispensing system (shown on the right), which included new pumps and meters, allowing staff to more accurately and efficiently control chemical dosing.

In 2012, the Executive Director, under delegated authority, approved the award of a competitively bid, one-year contract for Nitrazyme and VX456 to Siemens Water Technologies for an amount not to exceed \$311,240.



Related Information

It is important to note that chemical treatment represents only one facet of MWRA’s overall efforts. In addition to chemical treatment, MWRA’s long-term strategy for odor and corrosion control in the FES and downstream interceptors includes industrial and municipal controls. High strength dischargers of biochemical oxygen demand (BOD) and sulfate are regulated through industrial user permits with local limits that are applicable from April through November of each year. Municipalities are required, under their municipal permits, to meet an aqueous sulfide limit from April through November, also. The towns of Ashland and Framingham also have on-going chemical addition programs, as well as supplemental engineering solutions, underway to minimize the amount of sulfide at the locations where their sewers enter MWRA’s interceptor. Natick, Needham and Wellesley continue regular sewer maintenance to maintain compliance with the limit. The graphs on the following two pages indicate that the actions taken by MWRA, the municipalities, and the industries continue to be a success in the overall reduction in odor and corrosion – BOD, sulfate, and sulfide are within or below the desirable ranges in the FES at the indicator locations.

FIGURE 1
Average BOD Concentration by Year for each Sample Location
2000 through 2012

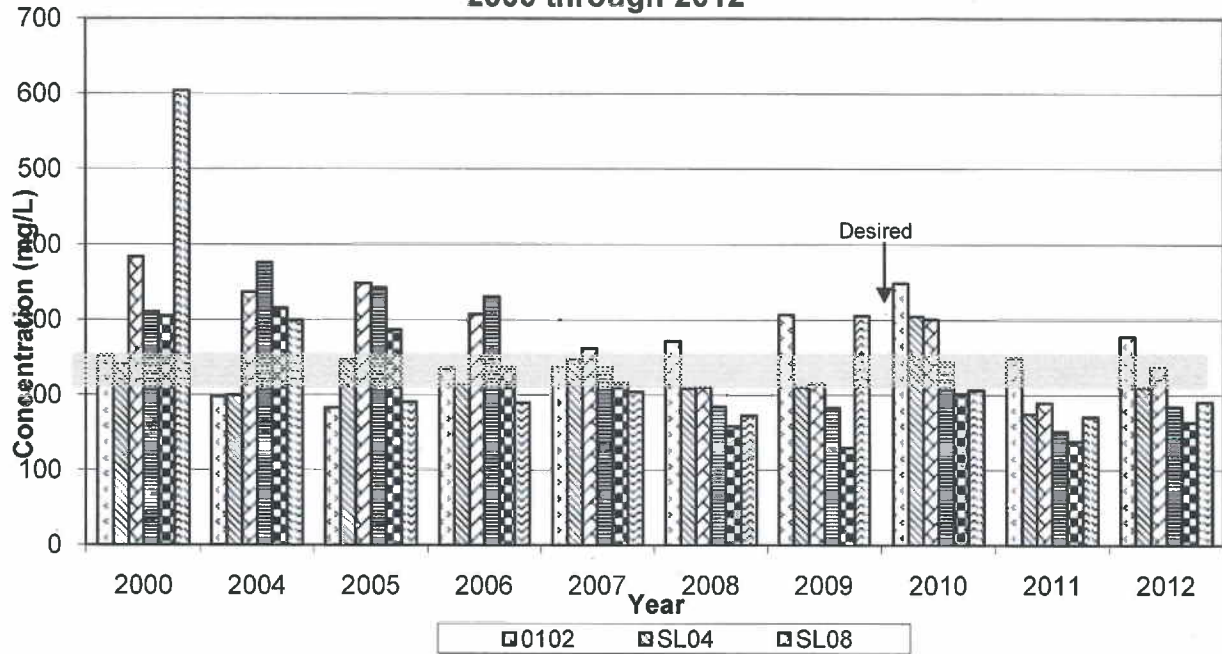


FIGURE 2
Average Sulfate Concentration by Year for each Sample Location
2000 through 2012

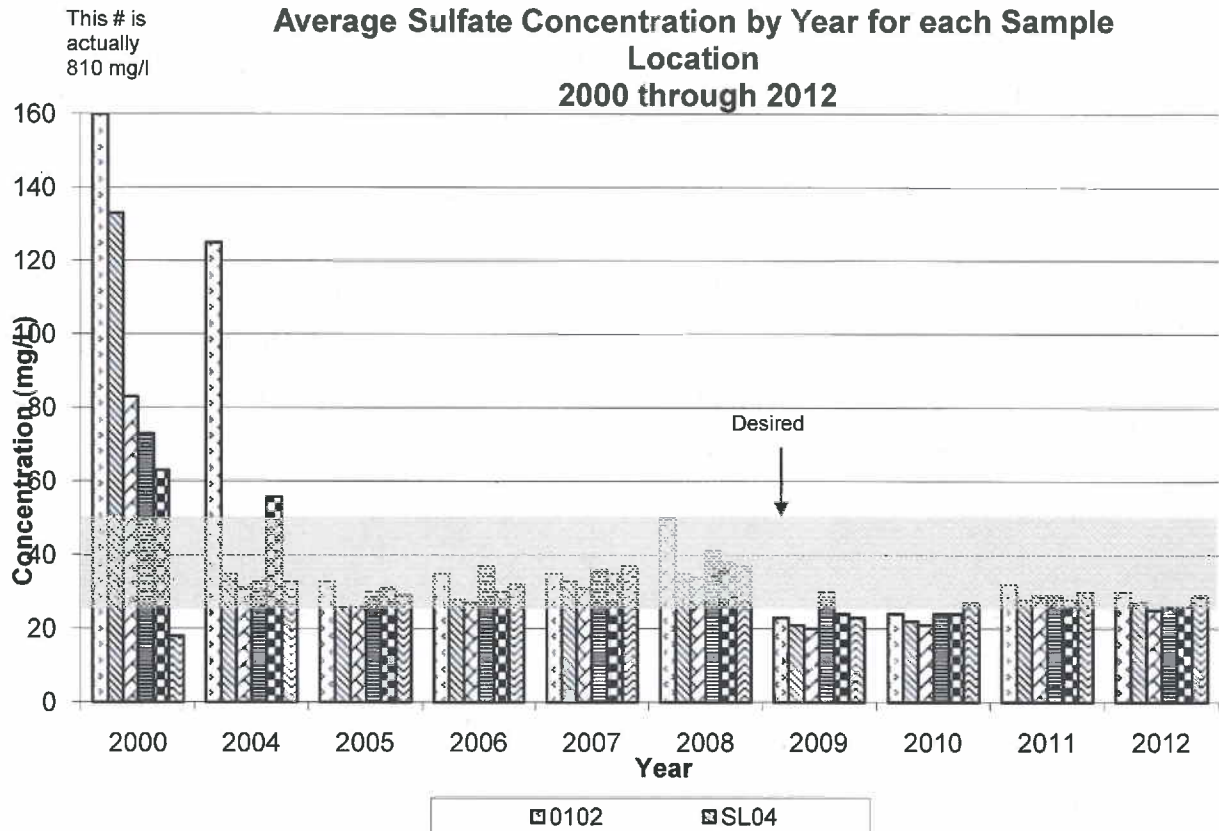
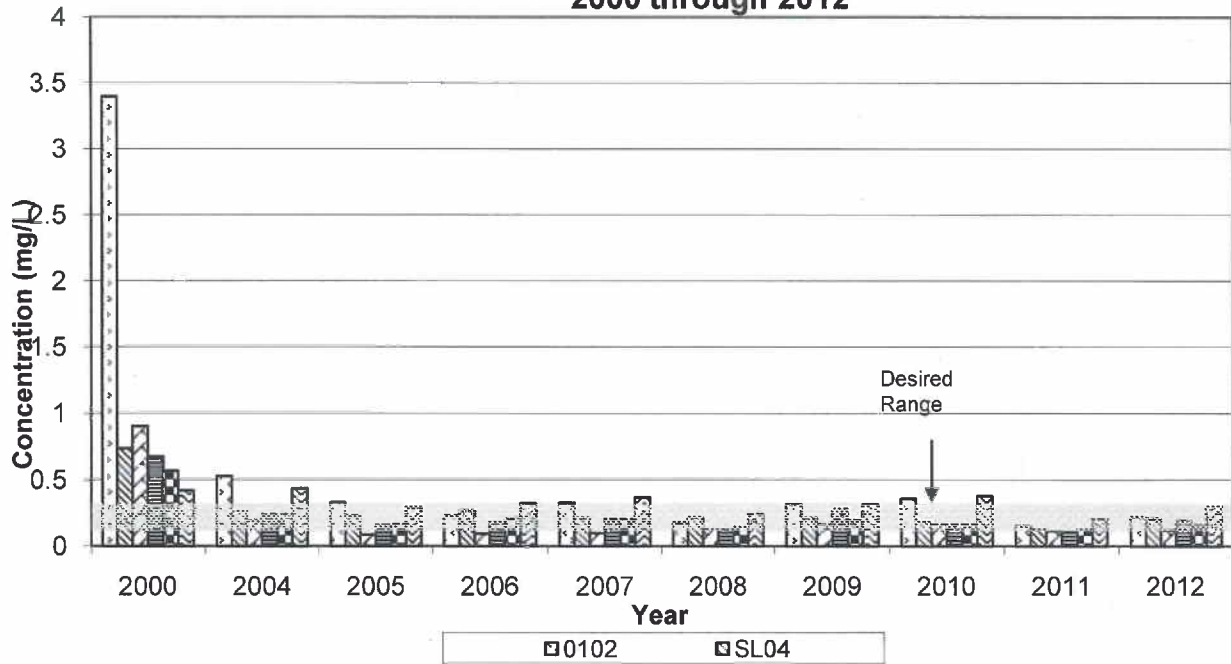


FIGURE 3
Average Sulfide Concentration by Year for each Sample
Location
2000 through 2012



This Amendment

The original bid specifications included two additional one-year extension options that could be exercised by MWRA if recommended by staff. MWRA’s total expenditure during the first year of the contract was only \$224,055.94, which was less than anticipated because summer 2012 was slightly cooler and wetter than usual. However, there will always continue to be chemical usage variations year to year depending on weather and/or operational activities.

There is no doubt that the combination of these two chemicals successfully reduces hydrogen sulfide gas levels in the FES and FERS below the target 20 ppm. Therefore, staff recommend that the first of two possible one-year extension options be approved.

Siemens has agreed to hold the original bid prices for both chemicals. Under the contract, MWRA is paying \$1.46 per gallon for Nitrazyme and \$9.43 per gallon for VX456.

CONTRACT SUMMARY:

	<u>Amount</u>	<u>Time</u>	<u>Dated</u>
Original Contract:	\$311,240	One Year	07/01/12
Proposed Amendment 1:	\$311,240	One Year	Pending
Revised Contract:	\$622,480	Two Years	

BUDGET/FISCAL IMPACT:

There are sufficient funds for Amendment 1 in the Operations Division's FY14 Current Expense Budget.

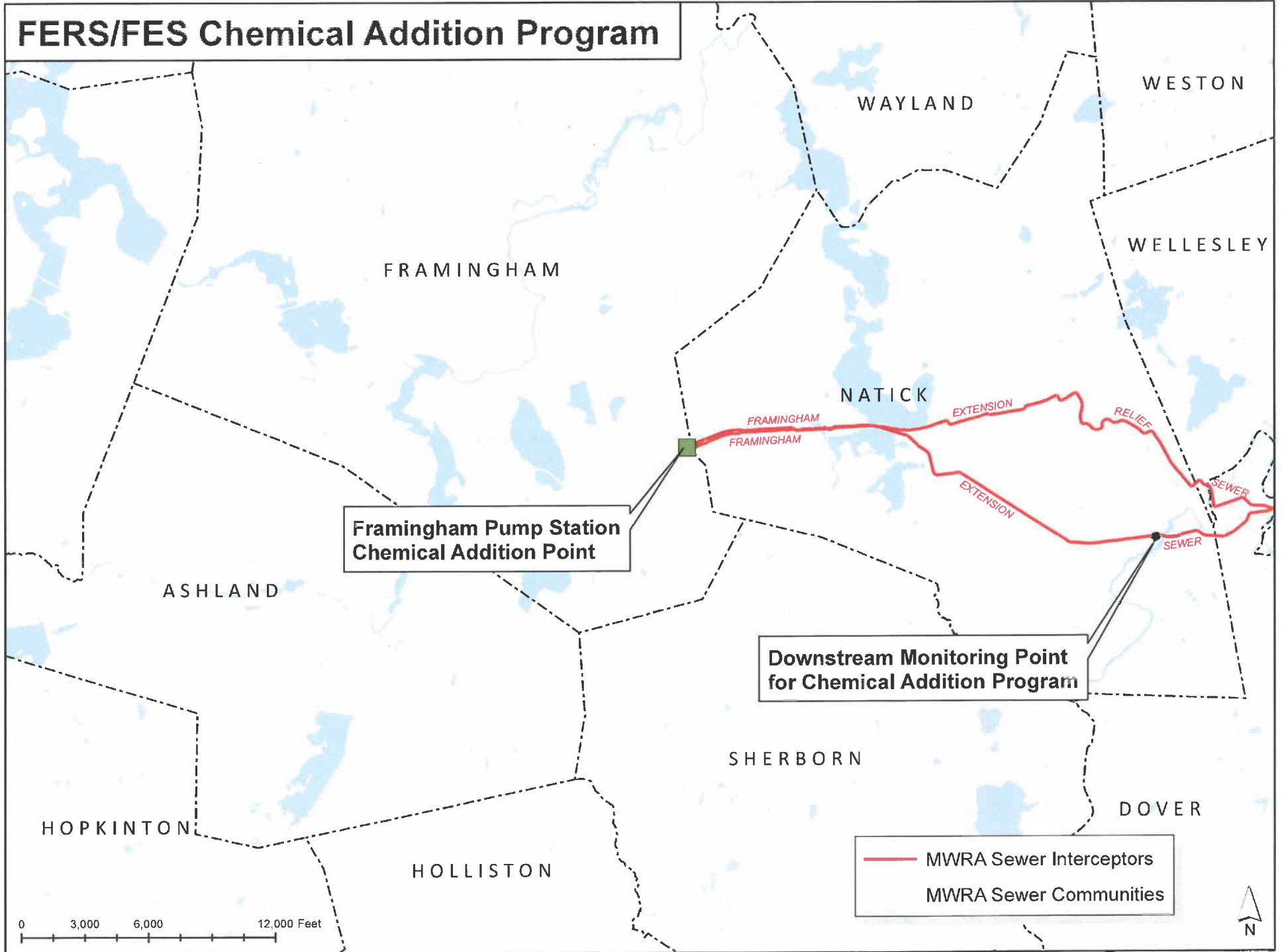
MBE/WBE PARTICIPATION:

Siemens Water Technologies is not a certified Minority- or Women-owned business.

ATTACHMENT:

Map of FERS/FES Chemical Addition Program

FERS/FES Chemical Addition Program





MASSACHUSETTS WATER RESOURCES AUTHORITY

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Executive Director

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WATER POLICY AND OVERSIGHT COMMITTEE MEETING

Chair: A. Pappastergion
Vice-Chair: B. Swett
Committee Members:
J. Carroll
J. Foti
J. Walsh

to be held on

Wednesday, June 26, 2013

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

Time: Immediately following Wastewater Comm.

AGENDA

A. Information

1. Weston Aqueduct Supply Main 3, Contract 6539 – Supplemental Information

B. Approvals

1. Emergency Water Supply Agreement with the Town of Hudson

C. Contract Awards

1. Weston Aqueduct Supply Main 3 - Design, Construction Administration and Resident Engineering Services: Fay, Spofford & Thorndike, LLC, Contract 6539
2. Gillis Pump Station Improvements: Baystate Electric, Contract 7260

D. Contract Amendments/Change Orders

1. Aquatic Invasive Macrophyte Control at the Wachusett Reservoir: Aquatic Control Technology, Inc., Bid WRA-3434, Amendment 1

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Water Policy and Oversight Committee

June 5, 2013

A meeting of the Water Policy and Oversight Committee was held on June 5, 2013 at the Authority headquarters in Charlestown. Chairman Pappastergion presided. Present from the Board were Messrs. Barrera, Carroll, Cotter, Flanagan, Foti, Pappastergion, Swett and Vitale. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Mike Hornbrook, Steve Estes-Smargiassi, Josh Das, Jae Kim, Fred Brandon, Michele Gillen, and Bonnie Hale. The meeting was called to order at 12:10 p.m.

Information

2012 Annual Water Quality Report (Consumer Confidence Report)

Staff handed out copies of the report, and Mr. Laskey and the Board members complimented all those who had worked on preparing it.

Approvals

*Water Supply Citizens Advisory Committee Contract

The Committee recommended approval of the renewal of the contract with the Water Supply Citizens Advisory Committee (ref. agenda item B.1).

Contract Awards

*Weston Aqueduct Supply Main 3 - Design, Construction Administration and Resident Engineering Services: Fay, Spofford & Thorndike, LLC, Contract 6539

Staff gave a presentation on the work to be performed under this contract. There was extensive discussion and question and answer on the consultant selection process, as the recommended consultant's price was 10% higher than the 2nd ranked bidder, who was deemed qualified to perform the work. Staff explained all the selection criteria and the selection committee process, and why the Committee felt that FST proposed the best technical approach that could ultimately result in a lower cost to complete the project. The Committee voted to postpone consideration of the item, with Messrs. Barrera and Swett opposed (ref. agenda item C.1).

The meeting adjourned at 12:40 p.m.

* Approved as recommended at June 5, 2013 Board of Directors meeting.

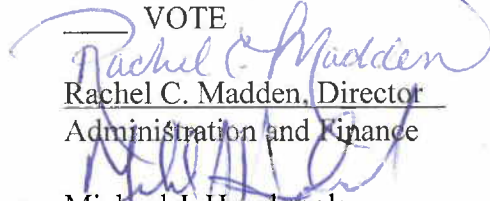
STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 26, 2013
SUBJECT: Weston Aqueduct Supply Main 3: Design, Construction Administration and Resident Engineering Services
Contract 6539 – Supplemental Information



COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE



Rachel C. Madden, Director
Administration and Finance

Jae R. Kim, P.E., Chief Engineer

Michele S. Gillen, Deputy Director, Administration and Finance
Preparer/Title

Michael J. Hornbrook
Chief Operating Officer

On June 5, 2013, the Board postponed any action related to staff's recommendation to award Contract 6539, Weston Aqueduct Supply Main 3: Design, Construction Administration and Resident Engineering Services, to Fay, Spofford & Thorndike, LLC (FS&T). Staff recommended FS&T because the Selection Committee was unanimous in its determination that FS&T had submitted a superior overall proposal that included an overwhelmingly stronger project team with more directly related experience, making it worth the additional cost. FS&T, along with its proposed team members, CDM Smith and Green International Affiliates, has successfully completed multiple similar projects for MWRA, and collectively, this team will bring to the WASM 3 project the critically important knowledge and understanding of the hydraulics of MWRA's complicated regional water system. The Selection Committee recognized that this proven experience provided FS&T with a platform to demonstrate its exceptional and proven record of successful management of difficult and complex projects on the critical WASM 3 project. The Selection Committee determined that for this technically challenging \$160 million project, the quality, experience and approach of the FS&T team, although not having the lowest initial cost, should result in overall cost savings to MWRA upon project completion. This staff summary provides the Board with some additional detail on MWRA's procurement and selection process for this contract in support of staff's recommendation.

RECOMMENDATION:

For information only.

DISCUSSION:

Staff utilize different procurement processes for professional services contracts based on the nature, magnitude, complexity, importance, or difficulty of the intended project. The most common types

include a variety of evaluative processes, where a Selection Committee evaluates weighted criteria and recommends selection of the overall best proposal. A second type is a bid process, where a committee identifies all qualified proposals and the lowest price proposal among the qualified bidders is selected.

The proposals in an evaluative process are judged and ranked according to relative, pre-assigned numerical weights (points) for multiple criteria (cost, experience, past performance, key personnel, technical approach and capacity, and M/WBE participation) – with no criteria weighted higher than cost. Alternatively, in a bid process the non-cost criteria (experience, past performance, key personnel, technical approach and capacity, and M/WBE participation) are considered on a qualified/not qualified basis, after which the lowest cost proposal is selected.

For the most complex, lengthy projects, staff are likely to utilize a two-step, evaluative process involving a Request for Qualifications (RFQ), followed by a Request for Proposals (RFP). In that process, those firms that satisfy certain basic qualifications are invited to submit a more detailed proposal based upon a more fully defined scope of services. When this procurement process is selected, it is because it affords MWRA the ability to select the best overall proposal and the most qualified firm for that project, not necessarily at the lowest cost. This process was selected for the WASM 3 project.

It is important to note that MWRA is fairly unique in that unlike many other public entities, it *always* includes a cost criterion in the evaluation process for all of its professional services procurements. Many agencies utilize a “Quality Based Selection” process, whereby the firm is selected on the sole basis of project-specific expertise and experience. Once selected, the awarding agency will then enter into negotiations with the selected firm to arrive at a mutually agreeable cost.

Contract 6539 Selection Process

For this project, a two-step, RFQ followed by an RFP, procurement process for the WASM 3 Rehabilitation/Replacement project was utilized for the following reasons:

- It is an extremely complex project that will require large-diameter pipe rehabilitation and replacement through 10 miles of highly, congested areas with many utility conflicts and relocations a key cost and schedule consideration;
- It is an unusually long-duration project expected to take at least 13 years. Construction is scheduled to start in 2018 and substantial completion of all work is expected in 2025;
- The project will involve construction through multiple towns. It includes design and construction services of three separate construction contracts through six communities: Weston, Waltham, Belmont, Arlington, Somerville, and Medford; and
- The project must be designed, sequenced, and constructed so as to not impact MWRA’s ability to provide adequate quantity and quality of water to 250,000 people in eight communities, which will require hydraulic expertise and knowledge of complex, regional water systems.

Staff firmly believe that the complexity and cost of this project, at \$160 million, warrants the upfront investment of selecting a firm with the best proposal, even if not at the lowest initial cost, because it

will ultimately lead to a better overall project and save MWRA money in the future by avoiding project delays and cost overruns.

MWRA received four qualification statements in the first phase (the RFQ phase does not consider cost) of this procurement (from Chester, IEN/Shaw, Dewberry, and Fay, Spofford and Thorndike, LLC (FS&T)). The Selection Committee felt that Chester and IEN/Shaw had serious shortcomings in their qualifications, both for the firms, and with their proposed key personnel. Furthermore, there was concern about their capacity to provide the services. Neither firm was shortlisted by the Selection Committee.

An RFP was then developed and issued to the two shortlisted firms, FS&T and Dewberry. The RFP included a more fully defined scope of services. The scope of work in a professional services procurement, unlike the specifications in a construction services procurement, is a statement of the owner's project and a request to propose an approach to completing the project in the most efficient and effective way. It is not a request simply for a price, although cost is important. It is an invitation for professionals to use creativity, expertise, and judgment. Therefore, it is expected that different proposers will offer different resources, ideas, approaches, and costs to perform the services requested.

The Selection Committee considered the overall competitiveness of the price, but also the salary rates, level of effort, distribution of hours, and appropriateness of assigned labor classifications. The Committee evaluated the experience of the key personnel assigned to various tasks, the technical approach (e.g., addressing the approach to environmental assessment and permitting, geotechnical and hazardous materials issues, mapping, public participation, preparation of reports, design, construction administration, and resident engineering and inspection), the organizational and management approach, and the proposed M/WBE participation.

Selection & Scoring Summary

After reviewing, scoring, and ranking the two proposals, the Selection Committee was unanimous in its determination that FS&T had submitted the best overall proposal. Scoring was based on the selection criteria of cost, key personnel, technical approach, organization & management, and M/WBE participation. Seventy percent of the proposal scoring was based on non-cost-related selection criteria. It is important to note that FS&T was ranked higher than Dewberry in all selection criteria except cost. Information from the Selection Committee selection criteria discussions on these criteria are summarized below.

Key Personnel

The Selection Committee members were in agreement that FS&T's proposal included an overwhelmingly stronger project team with more directly related experience than Dewberry. FS&T, along with its proposed team members, CDM Smith and Green International Affiliates, also has exceptional knowledge and understanding of the hydraulics of MWRA's water system, critically important in the WASM 3 project.

FS&T's proposed Project Manager, who will direct project strategy and key decision making, has a lengthy, proven record of accomplishment on key MWRA projects, as well as other similar non-

MWRA projects. These include the MetroWest Water Supply Tunnel, the Hultman Interconnections, the Metropolitan System Redundancy Plan, and the New York City Valve Chamber Reconstruction and Connections. He is a seasoned professional with 37 years of experience in waterworks projects. Backing the Project Manager are other seasoned professionals with proven records of accomplishment on MWRA projects.

The Selection Committee was also in agreement that for other key project team positions, such as Lead Engineer for Final Design, and Lead Engineer for Engineering Services During Construction and Resident Engineer during Construction, FS&T proposed individuals with clearly more directly related experience compared to Dewberry. All of these key positions will be required to complete a project of this complexity and size in a cost-effective manner.

FS&T scored significantly higher in Key Personnel criteria than did Dewberry.

Cost Evaluation

The following represents the total costs proposed by each firm to complete this project:

Total Cost		
FS&T	Dewberry	Difference
\$15,482,625	\$14,196,045	\$1,286,580

Dewberry’s total cost is approximately 9% lower than FS&T’s and overall, Dewberry scored higher than FS&T in the cost selection criteria given the importance of consideration of lower contract costs. However, the difference in scores between FS&T and Dewberry in this key area of cost was lessened by the Selection Committee’s determination that FS&T had a more balanced distribution of hours among the preliminary design, construction administration, and project management and control tasks, and among various labor classifications.

Also, Dewberry’s proposal does not identify specific line items for key tasks required in the scope of services that are necessary to support and facilitate the design and MEPA approval process for the project. These tasks include base mapping, wetland investigations, archaeological studies, air quality and noise evaluations and the services of an arborist. By contrast, FS&T’s proposal, although higher, identified specific costs for these tasks, which the Selection Committee felt was reflective of FS&T’s experience and clear understanding of what will be required in such a lengthy and complex project.

Other Selection Criteria Results

The firms were also scored in the categories of technical approach, organization & management approach, and M/WBE participation. FS&T was ranked higher in each of these categories, although the scoring was closer.


CONCLUSION:

In the end, the Selection Committee voting resulted in significantly higher points awarded to FS&T in key personnel, which outweighed the higher (though less significantly different) points awarded to Dewberry in cost. These results, combined with closer scores in the other categories, drove the ultimate ranking of FS&T as the number one ranked and recommended firm.

Therefore, staff strongly recommend that FS&T be awarded this important project based upon a comparison of the two firms and the proposals put forth by both. FS&T clearly has superior directly related personnel resources and experience that staff believe will lead to successful completion of this project and will save MWRA money in the long-term by avoiding delays and cost overruns.

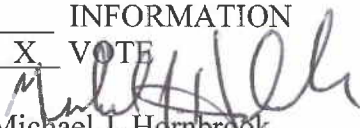
Staff will submit the original staff summary recommending award of Contract 6539 to FS&T to the Board for re-consideration at this meeting based upon the additional supplemental information provided.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 26, 2013
SUBJECT: Emergency Water Supply Agreement with the Town of Hudson

COMMITTEE: Water Policy & Oversight

Pamela Heidell, Policy and Planning Manager
Preparer/Title

INFORMATION
 VOTE


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to execute a six-month Emergency Water Supply Agreement with the Town of Hudson substantially in the form filed with the records of the meeting as an Attachment to this staff summary, and contingent upon approval by the Hudson Board of Selectmen and an Inter-Municipal Agreement between Hudson and Marlborough for the conveyance of MWRA water through Marlborough to Hudson.

DISCUSSION:

Overview

On June 3, 2013, the Town of Hudson Department of Public Works notified MWRA that it required an emergency transfer of water into its distribution system since two of its wells have been removed from service. Hudson indicated that one well (the Cranberry Bog well) was temporarily off-line for well cleaning, redevelopment, and pump replacement. The other well, the Kane Well, has been off-line since October 1, 2012 due to high manganese levels. With both wells out of service, the existing water supply had dropped to a low level. Consequently, Hudson requested an emergency water supply withdrawal from MWRA for one week. Hudson can access MWRA water through an existing emergency interconnection with the City of Marlborough. In accordance with MWRA Policy OP#5, *Emergency Water Supply Withdrawals*, and its provisions for short-term emergency withdrawals of 30 days or less, MWRA's Chief Operating Officer approved the withdrawal. Hudson began withdrawals on June 3, at an average of 0.5 million gallons per day. On June 16, Hudson requested that provisions be made to extend the emergency withdrawal period. This is the first six month emergency withdrawal request from Hudson.

In its emergency water supply withdrawal request to MWRA, Hudson indicated its emergency request was due to uncertainty regarding the use of the Cranberry Bog Well in the near future. Cranberry Well is a 1 mgd well that has also had water quality issues. Both the Cranberry Bog Well and the Kane Well are the subject of a long-term corrective action plan and a DEP

Administrative Consent Order (ACO) issued on June 14, 2013 and which extends until December 31, 2014. Hudson's long-term corrective action plan includes the construction of transmission mains from both the Cranberry Bog Well and the Kane Well to Hudson's Chestnut Street Filtration Plant, along with instrumentation and process modifications at the Treatment Plant. The ACO requires that the Kane Well remain off-line until the transmission main and treatment facility upgrades have been constructed and approved for operation by DEP. It also requires monthly water quality monitoring of the Cranberry Bog well, requires Hudson to take the Cranberry Bog well off-line for evaluation if the levels of iron and manganese exceed secondary maximum contaminant levels, and requires DEP approval prior to putting the well back on line.

In addition to the Cranberry Bog Well and the Kane Well, Hudson's water sources include the Chestnut Wells 1, 2 and 3 and Gates Pond, a surface water supply. The combined capacity of the Chestnut Wells and Gates Pond is approximately 3.6 mgd. Hudson's average day demand on an annual basis is 2.42 mgd, with maximum day demands in the summer of 3.95 mgd. If both the Cranberry Bog Well and Kane Well are off-line, demand can exceed supply. Hudson has requested an average withdrawal from MWRA of 0.5 mgd, in the event that the Cranberry Bog well has reoccurring water quality issues.

Hudson would receive MWRA water through an emergency 8-inch metered connection located on the Hudson/Marlborough line on North Robin Hill Road.

In accordance with O.P.#05, Emergency Water Supply Withdrawals, a premium charge of 10% of the prevailing rate will be assessed for all water provided under the emergency. The operational details and arrangements between Hudson and Marlborough are in place, and an Inter-Municipal Agreement between the Towns will govern terms for the sale. Pursuant to #O.P. 05, the inter-municipal agreement should be in place prior to MWRA's approval. However, in this instance, approval of the MWRA Board of Directors is sought prior to, but contingent upon, the execution of the Inter-Municipal Agreement by July 15, 2013. This is due to the fact that there was insufficient time for the governing bodies in Hudson and Marlborough to review and approve an Inter-Municipal Agreement prior to the June 26 Board meeting. The Hudson Board of Selectmen will meet on July 1, 2013 at which time approval will be sought to approve execution of both the Emergency Water Supply Agreement with MWRA and the Hudson/Marlborough Inter-Municipal Agreement.

Emergency Water Supply Approval Criteria (Policy #OP.05)

Under MWRA Policy #OP.05, Emergency Water Withdrawals, several requirements and criteria must be met. These include:

- *There must be no negative impact on the MWRA water system and member communities.* Hudson's withdrawal would have no negative impact on the MWRA system. Water would be supplied via Marlborough's connection to MWRA which is not constrained.
- *A long-term plan to remedy supply deficiencies must be developed.* As noted above, the Town has developed a long-term corrective action plan that includes the design and

construction of transmission mains for both the Kane Street and Cranberry Bog Well and instrumentation and process modifications to its existing Chestnut Street Greensand Filtration Plant. Its ACO with DEP includes a series of milestones for development of bid specifications, permitting, and construction. In the coming months, MWRA also hopes to meet with Hudson to discuss the merits of admission to the MWRA water system.

- *DEP must declare that an emergency exists.* In this instance, the DEP did not issue a Declaration of Emergency, but instead amended an existing Administrative Consent Order (ACO) to refer to the emergency purchase of water. In the ACO, MassDEP acknowledges that the loss of one or two water sources for several months, and during periods of high demand, will stress the remaining sources of water and acknowledged “the purchase from Marlborough as an emergency source.” The ACO also indicates that for the duration of the Consent Order, Hudson is provided temporary relief from the requirements of the Interbasin Transfer Act. The ACO between DEP and Hudson is included as an Attachment to MWRA’s emergency agreement with Hudson.
- *The applicant community does not use MWRA water supply as a chronic emergency back-up supply without equitable contribution for the fair asset value of the MWRA waterworks system.* Hudson is authorized to take emergency water for the duration of the ACO which shall expire on December 31, 2014. The proposed emergency water supply agreement covers the period July 3, 2013 to January 2, 2014. Should Hudson desire emergency withdrawals beyond the six-month period indicated in the Agreement, approvals for from the Advisory Board and the Board of Directors will be required for any subsequent six-month Emergency Water Supply Agreement. Pursuant to OP#5, Emergency Supply Agreement Period 2 and Period 3 require annual payments associated with asset value contribution payments.

Pursuant to OP#5, a community requesting an emergency water supply withdrawal must also submit a detailed description of water conservation and water accountability programs undertaken. The ACO between Hudson and DEP indicates that the Town must meet all of the water conservation requirements of its Water Management Act permit which include:

- A water system audit
- Annual calibration of meters
- Leak detection and repair
- Conservation Pricing, including an increasing rate structure and analysis of effectiveness and adjustments as necessary
- Public education

Contents of Emergency Water Supply Agreement

The Agreement limits water withdrawals to an average rate of 0.5 mgd. Pursuant to the Agreement, all withdrawals must be metered.

During the term of the Agreement, Hudson is required to use all feasible sources of non-MWRA

water to meet demand and to institute and continue all practicable water conservation measures. The Agreement also requires Hudson to adhere to all conditions and requirements contained in the DEP ACO.

The Agreement reflects MWRA's charges for emergency withdrawals, including a premium charge added to the prevailing rate, as discussed below.

BUDGET/FISCAL IMPACT:

Pursuant to #O.P.05, water taken for the first emergency withdrawals is charged at the prevailing rate plus a 10% premium charge on that rate. MWRA will review monthly use information to determine and assess the surcharge amounts.

ATTACHMENTS:

Draft Emergency Water Supply Agreement
DEP Administrative Consent Order

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

Parties.

This Emergency Water Supply Agreement (“Agreement”) is by and between the Massachusetts Water Resources Authority (“MWRA”), and the Town of Hudson (“Hudson”) hereinafter jointly referred to as the “Parties,” and documents the agreement and understanding of the Parties regarding the arrangement whereby MWRA will supply water to Hudson through an interconnection that Hudson has with Marlborough, a MWRA served water community and whereby will purchase a portion of its water supply from the MWRA through Marlborough on an as-needed, emergency basis for a period not exceeding six months ending on January 2, 2014.

Recitals.

- R.1. The MWRA was created by the Massachusetts legislature in December, 1984 to operate, regulate, finance, and modernize the waterworks and sewerage systems servicing the greater metropolitan Boston area. Operating pursuant to the terms of Section 8(d) of its Enabling Act, chapter 372 of the Acts of 1984 (the “Act”), and pursuant to the Policies and Procedures for Emergency Water Supply Connections of its Board of Directors, the MWRA may enter into arrangements to provide emergency supplies of water to any local body of the Commonwealth, provided certain conditions are met.
- R.2. Hudson is a duly constituted municipal corporation of the Commonwealth of Massachusetts (“Commonwealth”).
- R.3. Marlborough is supplied by the MWRA and Hudson has an emergency interconnection through Marlborough to the MWRA water supply system.
- R.4. Hudson’s water sources include five wells (Chestnut Street Wells #1, #2, and #3, Kane Well and Cranberry Bog Well) and one surface water source, Gates Pond. Kane Well has been off-line since October 2012 due to water quality concerns associated with iron and manganese levels. Water quality results for Cranberry Bog Well have also at times indicated iron and manganese levels in excess of the Secondary Maximum Contaminant Level (“SMCL”). Hudson submitted a long term corrective action plan to DEP for the reduction of iron and manganese concentration in drinking water in which Hudson proposed to construct transmission mains from each well to the Hudson Chestnut Street Filtration Plant.

- R.5. On June 14, the Massachusetts Department of Environmental Protection (MassDEP) issued an Administrative Consent Order (“ACO”) to Hudson to remain in effect until December 31, 2014. The ACO directs that effective immediately, Hudson shall cease using the Kane Well until the transmission main and treatment facility upgrades have been constructed and approved for operation by MassDEP. The ACO directs Hudson to submit monthly water quality monitoring results of iron and manganese from the Cranberry Bog well for the duration of the ACO; if the SMCL for iron and/or manganese is exceeded in the finished water, Hudson shall take the Cranberry Bog Well offline and evaluate the need for additional cleaning and obtain MassDEP approval prior to putting the well back on line. The ACO is included as Attachment A to this Agreement.
- R.6 In the ACO, MassDEP acknowledges that the loss of one or two water sources for several months, and during periods of high demand, will stress the remaining sources of water and states that after Hudson has met all of the water conservation requirements of its Water Management Act permit, it grants permission to Hudson, among other things, to purchase water from Marlborough as an emergency source to meet Hudson’s demand. It also states that Hudson is subject to the Interbasin Transfer Act for the purchase of water from Marlborough, because a portion of Marlborough’s water supply is purchased from MWRA, and that for the duration of the ACO, Hudson is provided temporary relief from the requirements of the Interbasin Transfer Act.
- R.7 On June 19, 2013, the Town of Hudson notified MWRA that its available sources of water were not sufficient to meet demand and requested emergency water supply withdrawal and activate its emergency connection with Marlborough.
- R.8. On October 11, 2006, the MWRA’s Board of Directors adopted a revised Policy for Emergency Water Supply Withdrawals, OP.05 (the Policy) which includes criteria and a process for approving requests for emergency withdrawals.
- R.9. Hudson has applied to the MWRA to use emergency interconnections to the MWRA system through Marlborough to supplement Hudson’s available sources on an as-needed basis.
- R.10. The MWRA has determined that it can supply Hudson with an emergency water supply for a period not exceeding six months under this Agreement without jeopardizing its ability to supply its member communities and without exceeding the safe yield of its water supply system.
- R.11. Hudson must comply with all applicable legal and regulatory requirements.
- R.12. Pursuant to MWRA Policy, this agreement is considered an Emergency Supply Agreement Period One.

Agreement.

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

1. Hudson will activate its emergency interconnection with Marlborough for a period up to six months ending on January 2, 2014 in accordance with the terms of this Agreement, subject to termination in accordance with numbered paragraph 11 below.
2. Hudson may take water from the emergency interconnection at an average rate of 0.5 million gallons per day. Any increase beyond the stated limits on water use will require a revision to the Emergency Water Supply Agreement.
3. The transfer of water from the MWRA through Marlborough to Hudson shall not extend beyond a period of six months, unless Hudson submits an application for an additional emergency water supply withdrawal and the MWRA's Board of Directors and Advisory Board approve the additional emergency water supply withdrawal. In considering withdrawals beyond six months, the MWRA will consider Hudson's efforts to implement its long range corrective action plan and comply with DEP Administrative Consent Order, and to implement water conservation program.
4. During the six month term of this Agreement, Hudson shall institute and continue all practicable conservation measures including, but not limited to, a water conservation public education program; 100% metering; leak detection surveys and rehabilitation programs; conservation pricing for water services; and a local by-law governing outdoor water use with appropriate enforcement measures such as fines and water shutoff for non-compliance. Hudson shall actively administer and enforce such local by-law.
5. Hudson shall submit to MWRA a monthly report on water use, water conservation program results, and the status of the emergency for the preceding quarter.
6. Hudson shall comply with all the conditions of any DEP Administrative Consent Order.
7. During the term of this Agreement the MWRA shall bill Marlborough for both the total volume of water used by Hudson, as metered by Marlborough, and will bill Hudson directly for the 10% surcharge on prevailing rate mandated by the Policy. Marlborough shall bill Hudson for water used in accordance with the terms of the inter-municipal agreement between the parties. Hudson shall remit its payments to Marlborough for the total volume of water used in accordance with the terms of the inter-municipal agreement between the parties. Hudson will remit its payments for the 10% surcharge to MWRA directly.
8. The parties agree that the emergency withdrawal authorized under this Agreement is not appropriate for or intended to provide a permanent water supply to Hudson. Any request by Hudson for a permanent partial water supply from MWRA shall require full consideration of all alternatives, including effective water conservation and leak detection, and shall be subject to all approvals required under Section 8 (d) of Chapter 372 of the Acts of 1984, MWRA policies, and under applicable state law and regulations.

10. Any dispute arising between the MWRA and Hudson under the terms of this Agreement shall be resolved in accordance with the dispute resolution process set forth at 360 C.M.R. 1.00.
11. This Agreement covers the period from July 3, 2013 to January 2, 2014 provided, however, that the MWRA reserves the right to terminate this Agreement at any time due to unforeseen circumstances such as inadequate supply, insufficient hydraulic capacity and other conditions related to the safe supply of existing users and operational requirements of the MWRA's waterworks system.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed on this _____ day of _____, 2013 by their duly authorized representatives.

MASSACHUSETTS WATER
RESOURCES AUTHORITY

By:

Frederick A. Laskey
Executive Director

TOWN OF HUDSON

By:

Paul W. Blazer
Executive Assistant

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

In the matter of:)
)
)
Town of Hudson)
)

File No.: ACO-CE-13-5D005

ADMINISTRATIVE CONSENT ORDER

I. THE PARTIES

1. The Department of Environmental Protection (“Department” or “MassDEP”) is a duly constituted agency of the Commonwealth of Massachusetts established pursuant to M.G.L. c. 21A, § 7. MassDEP maintains its principal office at One Winter Street, Boston, Massachusetts 02108, and its Central Regional Office at 627 Main Street, Worcester, Massachusetts 01608.
2. Town of Hudson (“Respondent”) is a Massachusetts municipal corporation with its principal offices located at 78 Main Street, Hudson, Massachusetts 01749. Respondent’s mailing address for purposes of this Consent Order is 1 Municipal Drive, Hudson, Massachusetts 01749.

II. STATEMENT OF FACTS AND LAW

3. MassDEP has primary enforcement responsibility for the requirements of the Federal Safe Drinking Water Act, 42 U.S.C. §300f et seq. and the regulations promulgated there under. MassDEP implements and enforces statutes and regulations of the Commonwealth of Massachusetts for the protection of the public drinking water supply, including, without limitation, M.G.L. c. 111, §5G and §160, and the Drinking Water Regulations at 310 CMR 22.00; the Cross Connections, Distribution System Protection Regulations at 310 CMR 22.22; and the Underground Injection Control Regulations at 310 CMR 27.00. MassDEP, pursuant to M.G.L. c. 111, §160, may issue such orders as it deems necessary to ensure the delivery of fit and pure drinking water by public water systems to all consumers. MassDEP, pursuant to M.G.L. c. 111, §5G, may require by order the provision and operation of such treatment facilities as it deems necessary to ensure the delivery of a safe water supply to all consumers. MassDEP has authority under M.G.L. c. 21A, § 16 and the Administrative Penalty Regulations at 310 CMR 5.00 to assess civil administrative penalties to persons in noncompliance with the laws and regulations set forth above.
4. MassDEP’s Drinking Water Regulations at 310 CMR 22.02 define a public water system as a system for the provision to the public of water for human consumption, through pipes or

other constructed conveyances, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year. 310 CMR 22.02 also defines a supplier of water as “any person who owns or operates a public water system.”

5. Respondent owns and operates a Public Water System, Hudson Water Division, (“HWD”) located in the Town of Hudson, Massachusetts, and serves a drinking water population of approximately 18,790 persons per day. The HWD is registered with MassDEP as a Community Public Water System, PWSID 2141000, pursuant to 310 CMR 22.00 et seq.

6. The following facts and allegations have led MassDEP to issue this Consent Order:

- A. Respondent currently obtains its water from five wells (Chestnut Street Wells #1, #2, and #3, Kane Well, and Cranberry Bog Well), and one surface water source, Gates Pond.
- B. Respondent has a Water Management Act withdrawal permit, #9P21414102 (“Permit”) that allows HWD to withdraw up to 0.95 million gallons per day (MGD) from Chestnut Street Wells #2 and #3.
- C. Respondent has a Water Management Act withdrawal registration, #21414102 (“Registration”) that allows HWD to withdraw up to 2.0 MGD from Chestnut Street Well #1, Kane Well, Cranberry Bog Well, and Gates Pond.
- D. On February 28, 2008, the Hudson Board of Health requested assistance from MassDEP with resolving discolored water complaints from HWD customers from the Sconset Village residential neighborhood.
- E. On April 4, 2008, MassDEP received a letter from Respondent attributing the cause of the discolored water to a high concentration of iron in the water from the Cranberry Bog Well and a high concentration of manganese in the water from the Kane Well. Respondent outlined corrective actions it would take in the fall of 2008 to resolve the discolored water issue which included taking the wells off-line, having them cleaned and redeveloped, flushing the water system, and monitoring iron and manganese levels while flushing.
- F. The secondary maximum contaminant level “SMCL” for iron is of 0.3 mg/L and 0.05 mg/L for manganese in accordance with 310 CMR 22.07D(1). Respondent reported to MassDEP iron concentrations from sampling conducted from the Cranberry Bog Well on January 8, 2008 of 1.3 mg/L and manganese levels of 0.12 mg/L. For the Kane Well, Respondent reported to MassDEP iron concentrations from sampling conducted on July 10, 2007 of 1.5 mg/L and manganese concentrations of 0.81 mg/L. Reporting sampling data from Respondent of both these wells for iron and manganese have shown concentrations in excess of the SMCL’s.

- G. On May 27, 2008, MassDEP issued a letter to Respondent acknowledging its commitment per Respondent's April 2, 2008 letter to cleaning and redeveloping both Cranberry Bog Well and the Kane Well in the fall of 2008, and stated that MassDEP may require treatment for the removal of iron and manganese if the well rehabilitation was not successful.
- H. Respondent redeveloped both wells in 2009. The well redevelopment temporarily reduced the concentration of iron in the Cranberry Bog Well, but had no effect on the manganese concentration in the Kane Well.
- I. On January 29, 2010, MassDEP issued a sanitary survey report of the HWD that required Respondent to submit a long-term corrective action plan to resolve the water quality issues arising from the continued high concentration of iron in the Cranberry Bog Well and high concentration of manganese in the Kane Well by March 31, 2010. Respondent failed to submit the plan by the deadline.
- J. On April 1, 2011, MassDEP sent an email to Respondent requesting distribution system monitoring for manganese to be conducted at its Total Coliform routine sites and report the results to MassDEP; provide an operational plan describing the use of sources with levels of manganese entering the distribution system above 0.3 mg/L; and provide a corrective action plan indicating how the system plans to reduce manganese levels to below the SMCL (0.05 mg/L) in the system.
- K. On October 31, 2011, Respondent submitted to MassDEP an operational plan/interim corrective action plan for the water system to reduce the concentration of iron and manganese in the distribution system. The plan indicated that usage of the Kane Well and Cranberry Bog Well would be minimized.
- L. In August 2012, MassDEP received complaints of discolored water from HWD customers in the Sauta Farms neighborhood.
- M. On November 8, 2012, MassDEP issued a sanitary survey report of the September 2012 inspection of the HWD. In the report, MassDEP again required Respondent to submit the long-term corrective action plan to resolve the water quality issues arising from high concentration of iron in the Cranberry Bog Well and high concentration of manganese in the Kane Well that was required by MassDEP's 2010 sanitary survey report.
- N. Water quality results for the Cranberry Bog Well obtained in 2013 showed the concentration of iron to be 1.31 mg/L and the concentration of manganese to be 0.119 mg/L, which exceed the SMCL of 0.3 mg/L for iron and 0.05 mg/L, for manganese, respectively.

- O. Water quality results for the Kane Well obtained in 2012 showed the concentration of iron to be 0.33mg/L and the concentration of manganese to be 0.92 mg/L, which also exceed the SMCL of 0.3 mg/L for iron and 0.05 mg/L for manganese, respectively. In addition, the concentration of manganese in the Kane Well exceeds the United States Environmental Protection Agency's Health Advisory Value of 0.3 mg/L.
- P. On December 14, 2012, MassDEP met with Respondent to discuss its failure to take permanent actions to correct the discolored water issue.
- Q. On December 20, 2012, Respondent submitted a long term corrective action plan for the reduction of iron and manganese concentrations in the drinking water in which Respondent proposed to construct a transmission line to pump Kane Well to the Chestnut Street Greensand Filtration Plant. Respondent also proposed bi-annual cleaning of Cranberry Bog Well, to be increased to annual cleaning dependent on water quality results for iron and manganese.
- R. On January 18, 2013, Respondent informed MassDEP that the long-term corrective action plan had changed and that a transmission main for each well to the Chestnut Street Greensand Filtration Plant would be constructed.
- S. MassDEP accepted Respondent's long term corrective action plan as a reasonable means to resolve the water quality issues.
- T. On May 6, 2013 Respondent placed two warrant articles for financing the construction cost for the transmission mains and treatment facility upgrades on annual town meeting warrant. These articles were passed at the town meeting.
- U. On June 3, 2013, Respondent activated the emergency interconnection with Marlborough Water Department for the purposes of supplementing their supply on a temporary basis to meet demand while Kane and Cranberry Bog Wells are offline. Marlborough purchases a portion of its water from MWRA and has agreed to sell Hudson water.

III. DISPOSITION AND ORDER

For the reasons set forth above, MassDEP hereby issues, and Respondent hereby consents to, this Order:

7. The parties have agreed to enter into this Consent Order because they agree that it is in their own interests, and in the public interest, to proceed promptly with the actions called for herein rather than to expend additional time and resources litigating the matters set forth above. Respondent enters into this Consent Order without admitting or denying the facts or allegations set forth herein. However, Respondent agrees not to contest such facts and allegations for purposes of the issuance or enforcement of this Consent Order.

8. MassDEP's authority to issue this Consent Order is conferred by the statutes and regulations cited in Part II of this Consent Order.
9. Respondent shall perform the following actions:
 - A. Effective immediately, Respondent shall cease using the Kane Well until the transmission main and treatment facility upgrades have been constructed and approved for operation by MassDEP.
 - B. Effective July 1, 2013, Respondent shall submit to MassDEP monthly monitoring results of iron and manganese in both the raw and finished water from Cranberry Bog Well for the duration of this Consent Order. If the SMCL for iron and/or manganese is exceeded in the finish water, Respondent shall take the Cranberry Bog well offline and evaluate the need for additional cleaning and obtain MassDEP approval prior to putting the well back on line.
 - C. By December 15, 2013, Respondent shall submit to MassDEP the design, plans, and specifications for the construction of the transmission mains for both the Kane Well and the Cranberry Bog Well and instrumentation and process modifications to the existing Chestnut Street Filtration Plant with transmittal permit application BRP WS25 (Water Treatment Facility Modification) for review and approval.
 - D. By January 31, 2014, Respondent shall submit to MassDEP a copy of the posted bidding advertisements for the water system improvements in accordance with the permit approval.
 - E. By March 15, 2014, Respondent shall submit to MassDEP confirmation that the contract for system improvements has been awarded.
 - F. By December 15, 2014, Respondent shall complete the construction of the transmission mains for the Kane and Cranberry Bog Wells, and instrumentation and process modifications at the Chestnut Street Treatment Plant in accordance with the conditions and requirements of the BRP WS 25 permit approval.
 - G. By December 31, 2014, Respondent shall have obtained all necessary federal, state and local permits and approvals to place the upgraded facilities into service, shall have commenced full operation of the Chestnut Street Filtration Plant, and shall notify MassDEP for a final inspection for approval to place the upgraded treatment facilities at the Chestnut Street and the Kane and Cranberry Bog Wells into service.
10. MassDEP acknowledges that the loss one or two water sources for several months, and during periods of high demand, will stress the remaining sources of water. After Respondent has met all of the water conservation requirements of its Water Management Act ("WMA") permit, referenced in paragraph 6B above, MassDEP grants permission to the Respondent to temporarily exceed the maximum daily withdrawal limit of Chestnut Street Well #2 (1.0 MGD) and Chestnut

Street Well #3 (0.7MGD) as stated in Respondent's WMA permit and purchase water from Marlborough as an emergency source to meet Hudson's demand. The volume of water pumped Hudson's own sources and the supplemental water purchased from Marlborough shall not exceed Respondent's total WMA permitted volume. The temporary approval to exceed the maximum withdrawal limits and purchase from Marlborough as an emergency source shall expire no later than December 31, 2014. Hudson is subject to the Interbasin Transfer Act (IBTA) for the purchase of water from Marlborough, because a portion of Marlborough's water supply is purchased from the MWRA. For the duration of this Order, Hudson is provided temporary relief from the requirements of the IBTA.

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

Marielle Stone, Drinking Water Section Chief
Department of Environmental Protection
627 Main Street
Worcester, Massachusetts 01608.

Such notices, submittals and other communications shall be considered delivered by Respondent upon receipt by MassDEP.

12. Actions required by this Consent Order shall be taken in accordance with all applicable federal, state, and local laws, regulations and approvals. This Consent Order shall not be construed as, nor operate as, relieving Respondent or any other person of the necessity of complying with all applicable federal, state, and local laws, regulations and approvals.

13. All engineering work performed pursuant to this Consent Order shall be under the general direction and supervision of a qualified professional engineer registered in Massachusetts experienced in Drinking Water Treatment Design. Any contractual relationship between Respondent and the engineer for work required hereunder shall require the engineer, as a condition of the contract, to implement work consistent with the provisions of this Consent Order.

14. Respondent understands, and hereby waives, its right to an adjudicatory hearing before MassDEP on, and judicial review of, the issuance and terms of this Consent Order and to notice of any such rights of review. This waiver does not extend to any other order issued by the MassDEP.

15. This Consent Order may be modified only by written agreement of the parties hereto.

16. MassDEP hereby determines, and Respondent hereby agrees, that any deadlines set forth in this Consent Order constitute reasonable periods of time for Respondent to take the actions described.

17. Force Majeure

A. MassDEP agrees to extend the time for performance of any requirement of this Consent Order if MassDEP determines that such failure to perform is caused by a Force Majeure event. The failure to perform a requirement of this Consent Order shall be considered to have been caused by a Force Majeure event if the following criteria are met: (1) an event delays performance of a requirement of this Consent Order beyond the deadline established herein; (2) such event is beyond the control and without the fault of Respondent and Respondent's employees, agents, consultants, and contractors; and (3) such delay could not have been prevented, avoided or minimized by the exercise of due care by Respondent or Respondent's employees, agents, consultants, and contractors.

B. Financial inability and unanticipated or increased costs and expenses associated with the performance of any requirement of this Consent Order shall not be considered a Force Majeure Event.

C. If any event occurs that delays or may delay the performance of any requirement of this Consent Order, Respondent shall immediately, but in no event later than 5 days after obtaining knowledge of such event, notify MassDEP in writing of such event. The notice shall describe in detail: (i) the reason for and the anticipated length of the delay or potential delay; (ii) the measures taken and to be taken to prevent, avoid, or minimize the delay or potential delay; and (iii) the timetable for taking such measures. If Respondent intends to attribute such delay or potential delay to a Force Majeure event, such notice shall also include the rationale for attributing such delay or potential delay to a Force Majeure event and shall include all available documentation supporting a claim of Force Majeure for the event. Failure to comply with the notice requirements set forth herein shall constitute a waiver of Respondent's right to request an extension based on the event.

D. If MassDEP determines that Respondent's failure to perform a requirement of this Consent Order is caused by a Force Majeure event, and Respondent otherwise complies with the notice provisions set forth in paragraph C above, MassDEP agrees to extend in writing the time for performance of such requirement. The duration of this extension shall be equal to the period of time the failure to perform is caused by the Force Majeure event. No extension shall be provided for any period of time that Respondent's failure to perform could have been prevented, avoided or minimized by the exercise of due care. No penalties shall become due for Respondent's failure to perform a requirement of this Consent Order during the extension of the time for performance resulting from a Force Majeure event.

E. A delay in the performance of a requirement of this Consent Order caused by a Force Majeure event shall not, of itself, extend the time for performance of any other requirement of this Consent Order.

18. Respondent is a Permittee, as that term is defined in 310 CMR 4.02, for the purpose of assessing and collecting annual compliance assurance fees pursuant to M.G.L. c. 21A, §18 and M.G.L. c. 21E, §3B.

19. The provisions of this Consent Order are severable, and if any provision of this Consent Order or the application thereof is held invalid, such invalidity shall not affect the validity of other provisions of this Consent Order, or the application of such other provisions, which can be given effect without the invalid provision or application, provided however, that MassDEP shall have the discretion to void this Consent Order in the event of any such invalidity.

20. Nothing in this Consent Order shall be construed or operate as barring, diminishing, adjudicating or in any way affecting (i) any legal or equitable right of MassDEP to issue any additional order or to seek any other relief with respect to the subject matter covered by this Consent Order, or (ii) any legal or equitable right of MassDEP to pursue any other claim, action, suit, cause of action, or demand which MassDEP may have with respect to the subject matter covered by this Consent Order, including, without limitation, any action to enforce this Consent Order in an administrative or judicial proceeding.

21. This Consent Order shall not be construed or operate as barring, diminishing, adjudicating, or in any way affecting, any legal or equitable right of MassDEP or Respondent with respect to any subject matter not covered by this Consent Order.

22. This Consent Order shall be binding upon Respondent and upon Respondent's successors and assigns. Respondent shall not violate this Consent Order and shall not allow or suffer Respondent's employees, agents, contractors or consultants to violate this Consent Order. Until Respondent has fully complied with this Consent Order, Respondent shall provide a copy of this Consent Order to each successor or assignee at such time that any succession or assignment occurs.

23. Respondent shall pay stipulated civil administrative penalties to the Commonwealth in accordance with the following schedule if Respondent violates any provision of this Consent Order:

For each day, or portion thereof, of each violation, Respondent shall pay stipulated civil administrative penalties in the following amounts:

<u>Period of Violation</u>	<u>Penalty per day</u>
1 st through 15 th days	\$ 250.00 per day
16 th through 30 th days	\$ 500.00 per day
31 st day and thereafter	\$ 1,000.00 per day

Stipulated civil administrative penalties shall begin to accrue on the day a violation occurs and shall continue to accrue until the day Respondent corrects the violation or completes performance, whichever is applicable. Stipulated civil administrative penalties shall accrue regardless of whether MassDEP has notified Respondent of a violation or act of noncompliance. All stipulated civil administrative penalties accruing under this Consent Order shall be paid within thirty (30) days of the date MassDEP issues Respondent a written demand for payment. If simultaneous violations occur, separate penalties shall accrue for separate violations of this

Consent Order. The payment of stipulated civil administrative penalties shall not alter in any way Respondent's obligation to complete performance as required by this Consent Order. MassDEP reserves its right to elect to pursue alternative remedies and alternative civil and criminal penalties which may be available by reason of Respondent's failure to comply with the requirements of this Consent Order. In the event MassDEP collects alternative civil administrative penalties, Respondent shall not be required to pay stipulated civil administrative penalties pursuant to this Consent Order for the same violations.

Respondent reserves whatever rights it may have to contest MassDEP's determination that Respondent failed to comply with the Consent Order and/or to contest the accuracy of MassDEP's calculation of the amount of the stipulated civil administrative penalty. Upon exhaustion of such rights, if any, Respondent agrees to assent to the entry of a court judgment if such court judgment is necessary to execute a claim for stipulated penalties under this Consent Order.

24. Failure on the part of MassDEP to complain of any action or inaction on the part of Respondent shall not constitute a waiver by MassDEP of any of its rights under this Consent Order. Further, no waiver by MassDEP of any provision of this Consent Order shall be construed as a waiver of any other provision of this Consent Order.

25. Respondent agrees to provide MassDEP, and MassDEP's employees, representatives and contractors, access at all reasonable times to the public water system for purposes of conducting any activity related to its oversight of this Consent Order. Notwithstanding any provision of this Consent Order, MassDEP retains all of its access authorities and rights under applicable state and federal law.

[No Further Text Appears On This Page]

26. The undersigned certify that they are full authorized to enter into the terms and conditions of this Consent Order and to legally bind the party on whose behalf they are signing this Consent Order.

27. This Consent Order shall become effective on the date that it is executed by MassDEP.

**Consented To:
Town Of Hudson**

By: _____
Paul W. Blazer, Executive Assistant
78 Main Street
Hudson, MA 01749

Date: _____

Federal Employer Identification No.: _____

**Issued By:
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

By: _____
Lee Dillard Adams, Regional Director
Central Regional Office
627 Main Street
Worcester, Massachusetts 01608
Telephone (508) 792-7650

Date: _____

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 5, 2013
SUBJECT: Weston Aqueduct Supply Main 3: Design, Construction Administration and Resident Engineering Services
Fay, Spofford & Thorndike, LLC
Contract 6539

COMMITTEE: Water Policy & Oversight

 INFORMATION

VOTE


Rachel C. Madden, Director

Administration and Finance


Michael J. Hombrook

Chief Operating Officer

Jae R. Kim, P.E., Chief Engineer
Joseph R. Araujo, Program Manager
Preparer/Title

RECOMMENDATION:

To approve the recommendation of the Selection Committee to award Contract 6539, Weston Aqueduct Supply Main 3: Design, Construction Administration and Resident Engineering Services, to Fay, Spofford & Thorndike, LLC, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$15,482,625, for a contract term of 4,840 days from the Notice to Proceed.

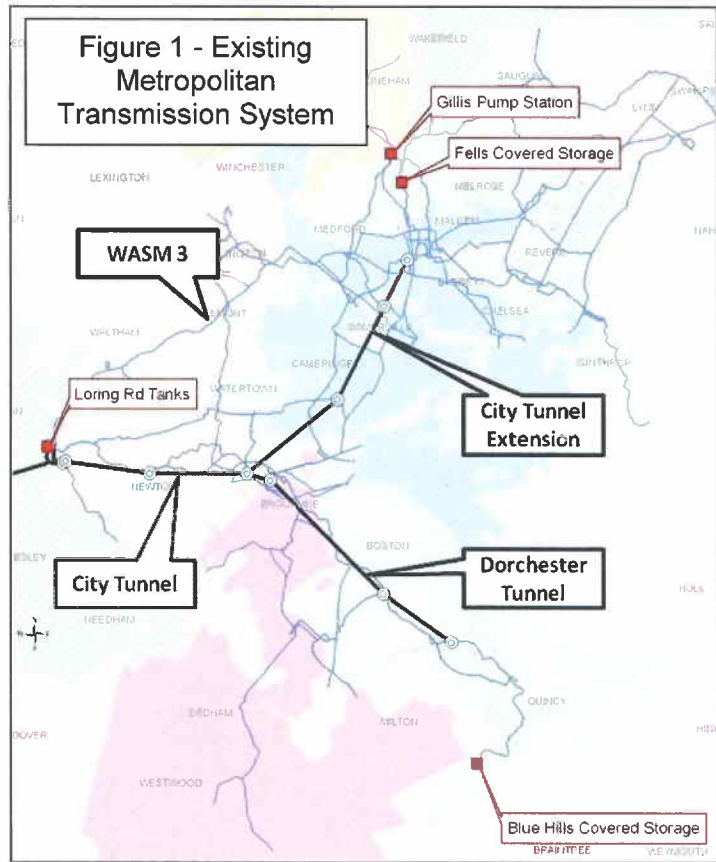
DISCUSSION:

The current metropolitan water distribution tunnel system, consisting of the City Tunnel, the City Tunnel Extension, and the Dorchester Tunnel, is reliant on surface connections and valves that require maintenance and repair. Many of these critical facilities are now more than 60 years old (see Figure 1 on the following page). MWRA's existing water transmission system east of Shaft 5 lacks redundancy to allow a shutdown of the metropolitan distribution tunnel facilities for inspections and repairs to be made, or to respond to emergency leaks or major breaks.

In the event of an emergency or planned repair of the City Tunnel or its connections, the Sudbury Aqueduct, with its water supply from the Sudbury/Framingham open reservoir system, would need to be brought online. Extensive use of the Chestnut Hill Emergency Pump Station and some open distribution system storage facilities, including Spot Pond and Chestnut Hill Reservoir, would also be required. The Sudbury Aqueduct and Chestnut Hill Reservoir were brought into emergency service during the May 1, 2010 water main break supplementing peak demand needs. If the metropolitan water distribution tunnels were to be closed today, supply to the north is limited by the

capacity of the existing Weston Aqueduct Supply Main 3 (WASM 3) pipeline requiring significant water use restrictions, and a "boil water" order would be placed in effect.

In July 2010, staff presented to the Board a proposed redundancy plan, which would allow shutdowns of the metropolitan tunnel system in the event of an emergency or for maintenance, while providing an uninterrupted potable water supply to all service areas. The plan included a southern component (Sudbury Aqueduct Pressurization and Connections) and a northern component (WASM 3 Replacement and Rehabilitation). Contract 6539 addresses the work required to implement the northern component of the proposed redundancy plan. A separate contract to address the southern component is currently in the preliminary design phase.



This contract will provide preliminary design, final design, construction administration, and resident engineering and inspection services for the replacement and rehabilitation of WASM 3. The project will replace 7.3 miles of the existing 56-inch and 60-inch-diameter steel pipe through Weston, Waltham and Belmont with a new 72-inch-diameter pipeline, and will rehabilitate the remaining 2.7 miles of the existing 56-inch and 60-inch steel water main through Arlington, Somerville and Medford. WASM 3 supplies water to 250,000 people in eight communities in the Northern High and Northern Extra High pressure zones, and provides emergency supply to additional communities further east in the Northern High distribution system. The pipeline was originally built in 1926 and 1927 and has had numerous leaks due to pitting corrosion. In addition, the lower portion of the pipeline is under capacity to support emergency needs of the Northern High system. The increased capacity with the 72-inch pipeline will provide emergency supply to 14 Northern High communities via the Gillis Pump Station. The attached Figure 2 shows the location of WASM 3 with respect to the communities it serves during normal and emergency scenarios.

This contract will encompass the design and construction services of multiple construction packages over a 13-year period in order to maintain consistency in the design and coordination of the work. This approach has been found to be beneficial in the past for large multi-phased projects such as the MetroWest Tunnel, the Hultman Aqueduct Interconnections, WASM 4 Rehabilitation, Spot Pond Supply Mains Rehabilitation, Southern Spine Distribution Improvements and WASM 1 & 2 Rehabilitation. Maintaining one designer throughout the entire project will allow efficiencies in the subsequent design and construction phases by refining documents for each contract based on lessons

learned, including design improvements and contract controls. MWRA will issue separate Notices to Proceed for Final Design phase and Construction Administration and Resident Engineering/Inspection services phase for each of the three construction packages.

The significant overall length of the project is driven by the fact that during construction, WASM 3 will need to be taken out of service sequentially, in three separate sections, to ensure an uninterrupted water supply to all of the communities it serves, and to prevent low system pressures. A variety of temporary interconnections and other system improvements, including a new 36-inch pipeline in Waltham that is currently under design, will be utilized to replace the function of each WASM 3 section that is taken out of service for replacement or rehabilitation. Each construction contract will address the work required for the particular section of WASM 3 that is taken out of service. One contract will replace the existing WASM 3 line through Weston and Waltham. A second contract will replace WASM 3 through Belmont, and the third contract will rehabilitate WASM 3 through Arlington, Somerville and Medford, as shown in attached map. Construction is scheduled to start in 2018 and Substantial Completion of all work is expected in 2025.

Procurement Process

A two-step procurement process was utilized for this project. A Request for Qualifications (RFQ) was issued; followed by a Request for Proposals (RFP) issued only to those firms that were pre-qualified and short-listed through the RFQ phase.

A Selection Committee consisting of five voting members and three non-voting members was formed to score and rank the proposals. Recognizing the importance of this project, the appointed voting members of the Selection Committee consisted of senior MWRA staff, who understand the critical needs of the water transmission system.

The RFQ required firms to submit information on: Qualifications/Key Personnel (40 points), Past Performance on Authority Projects (20 points); Similar Experience/Past Performance on Non-Authority Projects (25 points); Capacity (15 points). On January 16, 2013, Qualifications Statements were received from four proposers: Chester Engineers, Inc. (Chester), Dewberry Engineers, Inc. (Dewberry), Fay, Spofford & Thorndike, LLC (FS&T), and International Engineering Network, LLC/Shaw (IEN/Shaw). The Selection Committee evaluated the Qualifications Statements and voted to short-list two teams. The two short-listed teams were: Dewberry and FS&T. Chester was not shortlisted because the Selection Committee felt that the firm lacked key personnel with qualifications and experience designing large diameter pipelines and also lacked experience with Massachusetts bidding and environmental permitting laws. IEN/Shaw was not short-listed because the Selection Committee felt that the firm lacked large pipeline design and permitting experience in North America and also lacked references.

The RFP was issued to Dewberry and FS&T on February 25, 2013 and included the following criteria: Cost (30 points), Key Personnel (30 points), Technical Approach (25 points), Organization and Management Approach (10 points), and MBE/WBE Participation (5 points) for a total maximum score of 100 points.

On March 29, 2013, the two shortlisted teams submitted Proposals. The following is a summary of the costs and level of effort for each consultant team:

Proposer	Proposed Cost	Level of Effort (Total Hours)
FS&T	\$15,482,625	99,849
Dewberry	\$14,196,045	100,492

The Selection Committee met to discuss and rank the Proposals. All of the scores from the Selection Committee members were totaled to determine the first-ranked team. The following is a summary of scores and rankings for each team:

Proposer	Total Final Score	Order of Preference* Points	Ranking
FS&T	425	5	1
Dewberry	397	10	2

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

The Selection Committee unanimously voted to award the project to FS&T. FS&T will be supported by several other firms, including CDM Smith and Green International Affiliates. The Selection Committee members were in agreement that FS&T and its team members will provide well-qualified personnel who have extensive and relevant experience in the analysis of alternatives, the operational requirements of MWRA's complex water transmission system, the planning and design of large-diameter pipelines, and effective community coordination and Massachusetts Environmental Protection Act (MEPA) approval. FS&T prepared MWRA's Water Transmission Redundancy Plan in 2011 and the firm fully understands the project requirements and intricacies. Selection Committee members were in unanimous agreement that the critical importance of this project – providing redundancy for approximately half of the Metropolitan Boston area's water demands, and requiring significant cost recommendations in the consideration and selection of the alternatives that could potentially include short sections of micro-tunneling through congested downtown areas – appropriately warrants the qualified and experienced staff, technical approach, and higher cost proposed by FS&T.

Although FS&T's total proposed cost was 9% higher than the cost proposed by Dewberry, most of that cost difference is attributed to expenses that will be incurred to prepare topographical maps for the pipeline route, to accurately locate existing utilities along the route, and to acquire information to support the MEPA approval process. The additional up-front expenditure proposed by FS&T for identifying and mapping utilities is expected to yield clearer design documents and reduce construction change orders, which will save significant time and money during construction. The total direct labor costs proposed by both FS&T (\$4,186,498) and Dewberry (\$4,014,775) are relatively similar but Dewberry's distribution of those costs between the various tasks was not consistent with the scope.

The Selection Committee was in agreement that FS&T's proposal represented a better understanding of the project's complexities and, thus, represented a better value for MWRA. FS&T and its team members have provided consulting services on a number of important and complex MWRA projects, including the MetroWest Tunnel, the Hultman Aqueduct Rehabilitation, the rehabilitation of WASMs 1, 2, and 4, and the Carroll Water Treatment Plant. FS&T provided a detailed technical approach, which would include developing a plan to ensure uninterrupted service to communities while the project is under construction. The Selection Committee felt that this was one key example of how the firm demonstrated its understanding of the complexities of this project. Staff believe that the qualifications and expertise proposed by FS&T will result in a more cost-effective design and better project management, resulting in overall savings to MWRA over the long term.

The Selection Committee concluded that the Dewberry team, although capable of performing the work, could not match the depth and experience offered by FS&T and its team members, and the firm was not as strong, or as qualified as FS&T to complete this very important and complex project.

Based on the ranking of the Selection Committee, staff recommend the award of this contract to Fay, Spofford & Thorndike, LLC for the proposed amount of \$15,482,625.

BUDGET/FISCAL IMPACT:

The FY13 CIP includes a budget of \$31,524,268 for Contract 6539. The recommended contract amount is \$15,482,625 based on FS&T bid. The budgeted amount was based on three separate design projects assuming Design, Contract Administration, and Resident Inspection at 20% of the estimated construction cost. As it has been the case in the past few years, this bid also reflects current favorable market conditions. Also, combining the design packages resulted in an economy of scale for overall design services, as well as more efficient turn-around of bid documents.

MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract were established at 7.18% and 5.77%, respectively. FS&T included 23% MBE and 7.57% WBE participation.

ATTACHMENT:

Map - WASM 3 Service Area

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 26, 2013
SUBJECT: Gillis Pump Station Short-Term Improvements
Bay State Regional Contractors, Inc.
Contract 7260



COMMITTEE: Water Policy & Oversight

 INFORMATION

 X VOTE



Rachel C. Madden, Director
Administration and Finance



Michael J. Hornbrook
Chief Operating Officer

Jae R. Kim, P.E., Chief Engineer
Jorge Silva, Sr. Staff Engr., Electrical
Preparer/Title

RECOMMENDATION:

To approve the award of Contract 7260, Gillis Pump Station Short-Term Improvements, to the lowest responsible and eligible bidder, Bay State Regional Contractors, Inc., and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$1,858,000, with a contract term of 300 calendar days from the Notice to Proceed.

DISCUSSION:

MWRA's Northern Intermediate High service area provides water to the communities of Reading, Stoneham, Wakefield, Wilmington, Winchester, and Woburn through a single 48-inch pipeline (Section 89), which is fed by the Gillis Pump Station at Spot Pond in Stoneham (pictured on the right and also shown on Attachment A).



The Gillis Pump Station was built in 1898 and was originally a steam driven pump station but was later converted to a diesel-driven pump station. The last major renovation at the station occurred in 1995 when the diesel pumps were converted to electrically driven pumps.

The Gillis Pump Station boosts water pressure from MWRA's High service area to supply average day demands of 9.4 mgd (million gallons per day) to the Northern Intermediate High service area and 2.8 mgd to the High System Fells Covered Storage service area. The pump station is also designed to pump up to 60 mgd of untreated water out of the Spot Pond Reservoir in an emergency to serve the Northern Intermediate and Northern High service areas.

Six of the existing eight pumps in the station are constant-speed pumps and the remaining two are two-speed pumps. Five of the eight pumps in the station are dedicated to serving the Bear Hill Storage Tank in Stoneham; three of the pumps are dedicated to the Fells Reservoir Storage Tank. The purpose of this project is to provide a range of constant-speed, dual-speed, and variable-frequency drive pumps to each of the service area storage tanks.

These improvements will increase water supply reliability by providing the ability to operate the pump station under emergency conditions if a water storage tank needs to be removed from service due to a water main break or other event. The improvements will also result in more efficient operation and higher energy efficiency. NSTAR has pre-approved an energy-efficiency incentive rebate in the amount of \$173,084 upon completion of this project. The standby pumps will remain constant-speed and dual-speed to reduce maintenance requirements while still providing sufficient emergency pumping needs.

Among the items of work included in this contract are:

- the replacement of one of the three existing 17-mgd, constant-speed pumps (pictured below) with a smaller, more energy-efficient 2.8-mgd to 7.1-mgd pump with a variable frequency drive, which is sized for normal operating conditions. The new pump and variable frequency drive will provide more reliable water service as mentioned above and will reduce energy consumption during normal operations, while the remaining two constant-speed 17-mgd pumps will continue to be available for emergency use;
- the addition of two more variable frequency drives on two existing pumps (see discharge lines 5 and 6 in the picture on the following page); and
- the addition of a hydraulic pressure relief system (one valve per pump) to further protect the water distribution system from water hammer resulting from a sudden and unanticipated power failure. (Water hammer is a pressure surge or wave caused when water in motion is forced to stop or change direction suddenly, potentially causing damage to pipes or equipment further along the pipeline.)



Pump 1 (constant-speed) motor to be replaced with new pump and VFD.



Discharge piping for pumps 4 through 7, left to right (VFDs will be added to Pumps 5 and 6)

Procurement Process

Contract 7260 was advertised and competitively bid in accordance with Chapter 149 of Massachusetts General Laws. General bids were received and opened on May 30, 2013; the results are presented on the following page.

<u>Bidders</u>	<u>Bid Amount</u>
<i>Engineer's Estimate</i>	<i>\$1,773,553</i>
Bay State Regional Contractors Inc.	\$1,858,000
Delta Control DBA Harding & Smith	\$2,089,000
Walsh Construction Co	\$2,108,031
William Collins Co.	\$2,115,000
RJV Construction Corp.	\$2,168,031
R. H. White Construction	\$2,170,472
MECo Environmental	\$2,198,500
Albanese D&S Inc.	\$2,323,000
WES Construction Corp.	\$2,563,831
Lydon Co. LLC	\$2,769,495

The Design Engineer, Dewberry Engineers, Inc., and MWRA staff reviewed the bids and qualifications of Bay State Regional Contractors, Inc. Bay State Regional Contractors' bid price is \$84,447 or 4.8% higher than the Engineer's Estimate. The bid price was discussed with Bay State Regional Contractors, Inc. and the firm demonstrated a complete understanding of the work

and confirmed that its bid includes the payment of prevailing wages. The Contractor indicated that it will perform all of the specified contract work with the exception of the filed sub-bid categories of HVAC and electrical. Staff believe that the Contractor carried an appropriate amount in its bid for materials and equipment leaving the general contractor's work as the competitive price component. The Contractor stated that it submitted a very competitive bid price as a business decision to win the job. Having reviewed the low bid and after discussing it with the Contractor, staff have determined that the bid price is reasonable, complete, and includes the payment of prevailing wage rates, as required.

References were checked and found to be favorable. Bay State Regional Contractors, Inc. has recently performed work on several drinking water facilities for local municipalities in Massachusetts, including one MWRA-served community. The Contractor has offices in Yarmouthport and Auburn, Massachusetts. Staff are of the opinion that Bay State Regional Contractors, Inc. 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 Contract 7260 to Bay State Regional Contractors, Inc. as the lowest responsible and eligible bidder.

BUDGET/FISCAL IMPACT:

The FY13 CIP includes funding of \$3,770,016 for Contract 7260. The cost estimate was updated in the FY14 Draft Final CIP to \$2,019,900, mostly due to updated cost estimates based on the completed design. Upon completion of this project, MWRA will receive a pre-approved energy efficiency incentive rebate from NSTAR in the amount of \$173,084.

MBE/WBE PARTICIPATION:

The Affirmative Action and Compliance Unit has determined that there are no MBE or WBE subcontracting requirements for this project as there are limited subcontracting opportunities.

ATTACHMENT A - Gillis Pump Station Locus Map

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 26, 2013
SUBJECT: Three-Year Contract to Provide Aquatic Invasive Macrophyte Control at the Wachusett Reservoir
Aquatic Control Technology, Inc.
Bid WRA-3434, Amendment 1

COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE

Jae Kim, P.E., Chief Engineer
John Gregoire, Program Manager, Reservoir Operations
Michele S. Gillen, Deputy Director, Administration and Finance
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Amendment 1 to Purchase Order Contract WRA-3434, a three-year contract to provide aquatic invasive macrophyte control at the Wachusett Reservoir, with Aquatic Control Technology, Inc., for an amount not to exceed \$36,290, increasing the contract amount from \$83,565 to \$119,855, and extending the contract term by four months, from July 1, 2015 to October 31, 2015.

BACKGROUND:

The Wachusett Reservoir is a major component of the drinking water supply system for greater Boston and the MetroWest communities. In August 2001, a pioneering colony of eurasian water-milfoil (*myriophyllum spicatum*) was observed for the first time in Oakdale Basin, one of three basins in the upper reaches of the reservoir system (see map on the following page). Eurasian watermilfoil is an exotic, invasive species of macrophyte known to aggressively displace native vegetation and grow to nuisance densities with associated impairments to water quality. Prior to 2001, this plant was restricted to the uppermost component of the reservoir system, Stillwater Basin, where its distribution has been monitored since 1999. The density of invasive plant infestation of Stillwater Basin is heavy and, at the time of discovery, aside from dredging, there was no viable alternative to eradicate the plants.

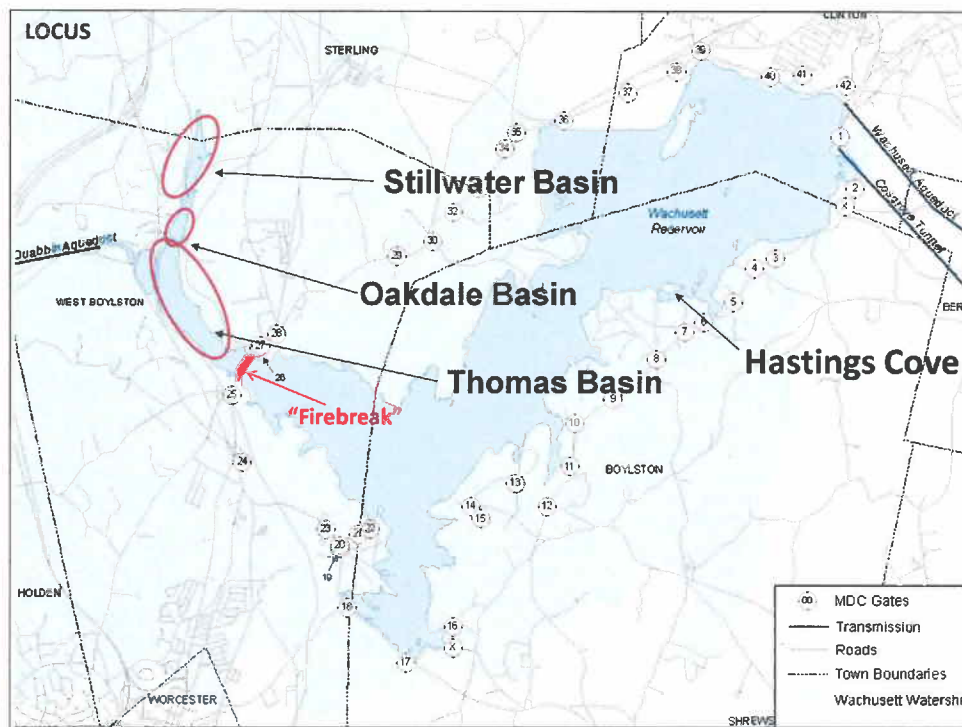
A decision was made to keep the plant in check in this basin by seasonally removing plants immediately downstream, combined with other control methods such as benthic barriers to smother plants, and the seasonal deployment of a series of floating fragment barriers to screen plant fragments.

In May 2012, the Executive Director, under delegated authority, approved the award of a three-year purchase order contract for aquatic macrophyte control at Wachusett Reservoir (under Bid WRA-3434) to Aquatic Control Technologies. MWRA has contracted these services since 2002. The contract requires two seasonal efforts of diver hand-pulling of invasive plants from the Oakdale and Thomas Basins – an initial harvesting operation and a late-season harvesting operation to address any re-growth. The contract also requires pre-season surveys to guide upcoming work.

The success of this approach since it began in 2002 was measured by the annual removal of invasive plants from the downstream basins, and the fact that these plants were kept within the basin system and did not colonize the main body of the reservoir.

However, in summer 2012, pioneering eurasian watermilfoil plants were discovered in (and removed from) the main basin of the reservoir, which led staff to revisit the options for addressing the source of the plants in the heavily infested, upstream Stillwater Basin.

One of those options involved a new method of invasive plants control, which recently has come into widespread use – Diver Assisted Suction Harvesting (DASH). Under a separate competitively bid procurement, the Board approved the award of a contract to provide a full seasonal effort with three DASH platforms to remove all the invasive plants from the Stillwater Basin. Contract WRA-3590 was awarded to Aqualogic, Inc. on March 13, 2013, in the bid amount of \$397,560. This work began on May 15, 2013 and will continue through October 15, 2013. Staff will evaluate the success of that effort and determine next steps as this program continues.



DISCUSSION:

This Amendment

Staff have identified three specific additional invasive control tasks that they are recommending be added to Aquatic Control Technologies' contract under Amendment 1 to Contract WRA-3434.

At Wachusett Reservoir, pre-season surveys prior to control work have identified the presence of a 1/3-acre patch of variable leaf milfoil in the northern basin of Wachusett Reservoir. This dense and well-established patch is located in the westernmost corner of Hastings Cove (shown on the previous map and pictured more closely on the right). This patch of milfoil must be removed to prevent its spread to other shallow areas in the northern basin.



Staff are of the opinion that the most effective approach to removing all of this isolated plant is utilizing the new DASH method described above, which has shown early promise in the Stillwater Basin. Aquatic Control Technologies, Inc. has experience in utilizing the DASH method and staff recommend that the firm perform this additional work. The total cost for this effort is \$3,920.

The second task is associated with underwater mapping utilizing a new technology ("ciBioBase") at Stillwater Basin in Wachusett Reservoir. Staff are of the opinion that this work will provide MWRA with detailed maps of the existing densities of plant coverage and biomass in the Basin relative to the current DASH contractor's removal efforts (Aqualogic, Inc. under WRA-3590). The cost for this task is \$1,500.

Because of time sensitivity, staff are recommending the inclusion of a third task into this contract under Amendment 1. This task is for the hand-harvesting treatment and control of a highly invasive plant known as "brittle naiad" (*najas minor*) at the Blue Hills Reservoir (shown in the picture on the right).

Staff are recommending the inclusion of this task under an existing invasives control contract because it is the fastest and most efficient way to



address this particular invasive plant, which has been found to be out-competing the plants that were added as part of the site restoration requirements of the Blue Hills Covered Storage project. In contrast to the Wachusett sites that are now utilizing the DASH method, this invasive plant is widely scattered in small patches across a four-acre area and as such, is better addressed with diver hand-pulling to allow for selective removal of the coverage while allowing the native plants to thrive, and ultimately for MWRA to meet the project's site restoration requirements.

If approved, beginning in July 2013, this task will occur during the next three summers and will involve both an early-season diver hand-harvesting and a late summer harvesting to address any re-growth.

The cost for this task is \$30,870. Staff are of the opinion that Aquatic Control Technologies, Inc. is very qualified and has the capacity to perform this additional work.

The total recommended amount of Amendment 1 for all three tasks is \$36,290 with no increase in contract term.

BUDGET/FISCAL IMPACT:

Field Operations' FY14 Current Expense Budget includes sufficient funding for Amendment 1.

MBE/WBE PARTICIPATION:

Aquatic Control Technologies, Inc. is not a certified Minority- or Women-owned business.



MASSACHUSETTS WATER RESOURCES AUTHORITY

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

Frederick A. Laskey
Executive Director

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PERSONNEL & COMPENSATION COMMITTEE MEETING

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

to be held on

Wednesday, June 26, 2013

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

Time: Immediately following Water Comm.

A. Approvals

1. PCR Amendments – June 2013
2. Appointment of Project Manager, PIMS, Toxic Reduction and Control
3. Appointment of Senior Program Manager, OCC

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Personnel and Compensation Committee

June 5, 2013

A meeting of the Personnel and Compensation Committee was held on June 5, 2013 at the Authority headquarters in Charlestown. Vice-Chairman Cotter presided. Present from the Board were Messrs. Barrera, Carroll, Flanagan, Foti, Pappastergion, Swett, Vitale and Walsh. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Bob Donnelly, and Bonnie Hale. The meeting was called to order at 12:40 p.m.

Approvals

***PCR Amendments – June 2013**

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

The meeting adjourned at 12:42 p.m.

* Approved as recommended at June 5, 2013 Board of Directors meeting.

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 26, 2013
SUBJECT: June PCR Amendments



COMMITTEE: Personnel and Compensation

INFORMATION

X VOTE


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


Rachel C. Madden
Director, Administration & Finance

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 Administration and Finance Division.

These amendments include:

1. Title change to a vacant position (Sr. Systems Manager to Systems Administrator III) in the MIS Department, A & F Division to address current information technology needs.
2. Title and grade change for a filled position (Messenger Courier to Mail Services Coordinator) in the Facility Maintenance Department, A & F Division, to reflect increased responsibilities.

One amendment requires approval by the Personnel and Compensation Committee. The second amendment requires Board approval after review by the Personnel and Compensation Committee.

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.

BUDGET/FISCAL IMPACT:

These PCR amendments will result in an annual salary cost of approximately \$4,996. Staff will ensure that the cost increases associated with these PCR amendments will not result in spending over the approved FY14 Wages and Salaries budget.

ATTACHMENTS:

New/Old Job Descriptions

**MASSACHUSETTS WATER RESOURCES AUTHORITY
POSITION CONTROL REGISTER AMENDMENTS
FISCAL YEAR 2013**

PCR AMENDMENTS REQUIRING PERSONNEL & COMPENSATION COMMITTEE APPROVAL - June 26, 2013

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
P31	Administration & Finance MIS 8610077	V	T	Sr. Systems Manager	6	12	Systems Administrator III	6	12	N/A	N/A - N/A	\$0 - \$0	To meet the information technology needs of the department
PERSONNEL & COMP COMMITTEE TOTAL =					1		TOTAL					\$0 - \$0	

PCR AMENDMENTS REQUIRING BOARD APPROVAL - June 26, 2013

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
B27	Administration & Finance Facilities Maintenance 8740004	F	T,G	Messenger Courier	1	10	Mail Services Coordinator	1	17	\$38,934	\$43,930 - \$43,930	\$4,996 - \$4,996	To meet staffing needs in CNY facility
BOARD TOTAL =					1		SUBTOTAL:					\$4,996 - \$4,996	
GRAND TOTAL =					2		TOTAL ESTIMATED COSTS:					\$4,996 - \$4,996	

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

POSITION: Senior Systems Manager

PCR#:

DEPARTMENT: MIS

DIVISION: Administration & Finance

BASIC PURPOSE:

Senior systems manager team leader for assigned to MWRA network sites. Provides technical expertise for the installation, operation, upgrading and use of Microsoft operating systems including NT and Windows 2000. Supervises the operation, support, and maintenance of assigned systems and network devices.

SUPERVISION RECEIVED:

Works under the general supervision of the Network & Systems Manager and/or Technical Operations Manager as responsibilities dictate.

SUPERVISION EXERCISED:

Exercises supervision of system managers, assigned technical support analysts, project and contract resources.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Provides MWRA Microsoft network/server operating system and network device technical leadership and support.
- Performs system management functions for assigned NT/2000 systems and network devices.
- Develops and implements standards and procedures for assigned NT/2000 systems and network devices.
- Manages assigned staff which may include systems supervisors, technical support analysts, IS Project leaders, etc.

- Develops plans and leads implementation teams for NT/2000 and network device improvements and upgrades, according to established interoperability and communications standards.
- Provides system management for MS-Exchange as assigned.
- Develop custom tools and implement solutions to facilitate administration of large NT/2000, network utilities and network devices.
- Identifies & troubleshoots NT/2000 as well as network problems, to ensure stable and healthy systems and network.
- Supports routing technology in order to efficiently use the existing network bandwidth and provide redundancy.
- Analyzes, tests and migrates applications to new servers with programming staff.
- Documents operating procedures to conform to MWRA standards.
- Optimizes available resources through management of shared resources, monitoring of system performance and reviewing system utilization.
- Participates with appropriate applications support groups and end-user community to provide and shape the assigned resources to meet the business needs.
- Leads vendor contact for certain NT/2000 products and network device support including frequent contact with a variety of vendors for new product evaluations.
- Coordinates with peers on systems and network device performance.
- Trains and supports Compute Center staff on appropriate NT/2000 products and network device functions.
- Participates in occasional off-site travel, extended hours and weekend work.
- Shares in on-call and emergency response tasks.

SECONDARY DUTIES:

Perform related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year college program in computer science or related field. Advanced degree preferred.
- (B) Five (5) to seven (7) years experience in network support; two (2) years experience in a supervisory or project management capacity.
- (C) Any equivalent combination of education and/or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Technical knowledge of and demonstrated experience with a large network, NT network Operating System, routing, LANs, WANs, TCP/IP Protocol, NT security, Registry Editor, NT Profiles, Domain models and trusts, IIS, Intranet web server, and PCs.
- (B) Proficiency with the following required: Office 98/2000, WINS, Express 2000, Exchange security, cross platform migration, browsers, firewalls, and e-mail systems.
- (C) Experience with Nortel network devices, Intel's LANdesk, Microsoft's Performance Monitor, Network Monitor, Netshield and Sniffer network analyzer preferred.
- (D) Ability to diagnose effectively and interpret problems on a variety of NT and network devices.
- (E) Excellent technical project management, interpersonal, written and oral communication skills are required.

SPECIAL REQUIREMENTS:

MCSE.

TOOLS AND EQUIPMENT USED:

Mini-computer consoles, tape and disk storage systems, various network and peripheral devices and office equipment as normally associated with the use of telephone, personal computers including word processing and other software, copy and fax machines.

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

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

While performing the duties of this job, the employee works in a computer center, network closets and occasionally works in various field settings. The employee regularly works near moving mechanical parts, and is occasionally exposed to risk of vibration and electromagnetic radiation. The employee is occasionally exposed to risk of electrical shock. The Computer Center also uses automatically discharging chemicals to suppress fire.

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

June 2001



MWRA
POSITION DESCRIPTION

POSITION: Systems Administrator III

PCR#:

DEPARTMENT: MIS

DIVISION: Administration & Finance

BASIC PURPOSE:

Manages and integrates the organization's networks, servers and storage in a multiple platform and operating systems environment. Incorporates long-term system, operations and administration requirements in information systems planning documents. Researches vendor products and recommends purchases, development or enhancements of hardware/software that will improve the reliability and performance of system.

SUPERVISION RECEIVED:

Works under the general supervision of the Network and Systems Manager. On specific IT projects may be supervised by a team lead or project manager.

SUPERVISION EXERCISED:

Exercises supervision of assigned vendor resources and IT Project Team.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- System Administration:
 - Servers
 - Supports and performs all System Management functions for current operating systems supporting MWRA data processing environments.
 - Development of scripts to perform administrative tasks.
 - Storage
 - Responsible for support of current storage and backup systems
 - Develops and implements backup scripts and jobs for all MWRA systems
 - Conducts backups for current operating environments. Maintains onsite backup records and logs. Restores files and file systems as needed.
 - Networks
 - Provides technical support for MWRA authentication services in a heterogynous

- enterprise-wide network environment.
 - Provides proactive management of variety of local area network (LAN), wide area network (WAN) and wireless network devices.
 - Provides technical support for MWRA voice, video and data traffic
- Applications:
 - Provides application administration and technical support for MWRA's email and mobile device systems.
- Participates and prepares for Disaster Recovery planning and test activities.
- Incident and Problem Management
 - Respond to events, and reported outages to correct and resolve issues
 - Investigate root cause and determine systemic solutions for identified environment problems
- System Documentation:
 - Documents operating procedures to conform to MWRA standards
 - Develops capacity management reports for capacity planning efforts
 - Documents system configurations for networks, servers and storage environments
- System Performance Monitoring, Management and Design
 - Keeps abreast of the latest technologies and solutions, and provides expertise to the MIS Management Team in evaluating and selecting appropriate solutions.
 - Monitors networks, servers and storage for event management and coloration

OTHER DUTIES:

- Shares in on-call rotation and emergency response tasks as needed.
- Participates in occasional off-site travel, extended hours and weekend work.
- Perform related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience

- (A) A four (4) year college program in management science, engineering management, computer science or related fields; and
- (B) Five (5) to seven (7) years experience, in network and systems management, or;
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Proficiency with Backup technology, and entire range of functionality and configuration. Experience with one or more of Backup products, such as Data Protector, Backupexec, Netbackup and or Networker, as well as SDLT and LTO tape libraries.

- (B) Experience with Network Storage, SAN environment, HP Command View interface, virtualized environment and vSphere ESX/ESXi.
- (C) Ability to troubleshoot problems utilizing the OSI seven-layer model. Technical knowledge and experience with large networks, network switching and routing protocols, LANs, WANs, VoIP ,TCP/IP Protocol, and Cisco Networking products.
- (D) In-depth knowledge of MS Windows OS, Active Directory including Group Policy, Kerberos, and LDAP. Extensive experience with Exchange 2010, troubleshooting, management, and automation. Experience integrating BlackBerry Enterprise Server and ActiveSync with Exchange 2010 and scripting knowledge of PowerShell is desired.
- (E) Knowledge of Unix operating systems, VI editor, and shell scripts. HP-UX Itanium experience is preferred.
- (F) Understanding of Building Automation and Control systems and associated set point control, HVAC, Fire Alarm, and UPS systems as applied to the Environmental Alarm System.
- (G) Excellent technical project management, interpersonal, written and oral communication skills are required.

PREFERRED CREDENTIALS

Information Technology Infrastructure Library (ITIL) Foundation Certification, Microsoft Certified Solutions Engineer (MCSE), Cisco Certified Network Engineer (CCNE), VMware Data Center Virtualization Certifications: VCAP – Data Center Administration and VCAP – Data Center Design, and one of the current storage infrastructure certification (e.g. HP, NetApp or EMC).

TOOLS AND EQUIPMENT USED:

Mini-computer consoles, tape and disk storage systems, various network and peripheral devices and office equipment as normally associated with the use of telephone, personal computers including word processing and other software, copy and fax machines.

PHYSICAL DEMANDS:

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

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

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

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

WORK ENVIRONMENT:

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

While performing the duties of this job, the employee works in a computer center, network closets and occasionally works in various field settings. The employee regularly works near moving mechanical parts, and is occasionally exposed to risk of vibration and electromagnetic radiation. The employee is occasionally exposed to risk of electrical shock. The Computer Center also uses automatically discharging chemicals to suppress fire.

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

June 2012



MWRA
POSITION DESCRIPTION

POSITION: Messenger/Courier

PCR#:

DIVISION: Support Services

DEPARTMENT: Central Support

BASIC PURPOSE:

Assists the Supervisor of Transport/Courier as assigned.

SUPERVISION RECEIVED:

Works under the general supervision of the Supervisor of Transport/Courier.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Operates shuttle services on a regular time and route schedule using various MWRA vehicles.
- Picks up and delivers packages and MWRA employees to various locations in the Metropolitan Boston area and Charlestown Navy Yard.
- Maintains vehicles such as cleaning inside and outside, checking all fluids, checking the pressure and making other small repairs if requested by the Supervisor.
- Cross-trains as backup and may fill in for one or more of the following: Reproduction Clerk, Receptionist, Secretary, Inventory Control Coordinator or Mail Clerk.
- Provides some job orientation to employees in like positions.
- Weighs mail and parcels to determine appropriate charges, prepares mail, and parcels for pickup by vendors.

- Separates and sorts all incoming US first class mail, parcels and interoffice mail on an established schedule and distributes in proper mail slots. Accepts, records and notifies recipients of all incoming parcels.
- Prepares and maintains all tracking logs and provides supervisor with monthly statistics and reports.
- Researches and appropriately dispatches all incorrectly addressed mail and parcels.
- Assists and consults with staff in preparing special mailings.
- Ships and receives procurement bids and other important documents.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Basic reading, writing, mathematical, oral communication skills as normally attained through a high school education; or
- (B) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Familiarity with courier and delivery services function including knowledge of the metropolitan Boston area.
- (B) Ability to follow written and oral instruction and work independently.
- (C) Skill in the operation of the listed tools and equipment.
- (D) Good physical condition with strength and ability to facilitate the handling of bulky and/or heavy mail containers and packages.

SPECIAL REQUIREMENTS:

A valid Massachusetts Commercial License (CDL) Class B with endorsements for air brakes or ability to obtain within 6 months of appointment.

TOOLS AND EQUIPMENT USED:

Motor vehicle, mobile and vehicle radios, handcarts, power and hand tools.

PHYSICAL DEMANDS:

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

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

April 2006



MWRA
POSITION DESCRIPTION

POSITION: Mail Services Coordinator

PCR#:

DIVISION: Administration & Finance

DEPARTMENT: Facilities Management

BASIC PURPOSE:

Manages the MWRA Navy Yard Motor Pool and Mailroom, and assists with dispatching responsibilities and administrative recordkeeping.

SUPERVISION RECEIVED:

Works under the general supervision of the Supervisor, Transport / Courier /Mail

SUPERVISION EXERCISED:

Assists in supervising Messenger/Couriers assigned to the Navy Yard Facility.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Provides vehicle or other transportation to staff as requested. Makes schedule changes as necessary to meet changing priorities and emergency needs.
- Maintains daily, weekly, and monthly vehicle usage tracking database and provides required reports.
- Works with vehicle maintenance to ensure all preventive maintenance requirements are met and emergency maintenance is reported and addressed in a timely and efficient manner.
- Maintains vehicles in a safe, clean, reliable condition. Checks vehicle's fuel, fluids, pressures and lights daily.

- Dispatches drivers and vehicles for delivery and pickup of packages and passengers as requested.
- Operates shuttle services on a regular time and route schedule using various MWRA vehicles.
- Picks up and delivers packages and MWRA employees to various locations in the Metropolitan Boston area and Charlestown Navy Yard.
- Picks up mail from the Charlestown Post Office and drops off mail at the end of each day.
- Processes all outgoing mail and package deliveries. Sorts and distributes all incoming mail.
- Maintains postage meter and other mail room equipment.
- Weighs mail and parcels to determine appropriate charges, prepares mail, and parcels for pickup by vendors.
- Separates and sorts all incoming US first class mail, parcels and interoffice mail on an established schedule and distributes in proper mail slots. Accepts, records and notifies recipients of all incoming parcels.
- Assists and consults with staff in preparing special mailings.
- Ships and receives procurement bids and other important documents. Notifies Procurement upon arrival of bid documents.
- Cross-trains as backup and may fill in for one or more of the following: Receptionist, Secretary and Messenger/ Courier.
- Provides some job orientation to employees in like positions.
- Prepares and maintains all tracking logs and provides supervisor with monthly statistics and reports.
- Researches and appropriately dispatches all incorrectly addressed mail and parcels.

SECONDARY DUTIES:

- Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Basic reading, writing, mathematical and oral communication skills as normally acquired through a high school education or the equivalent; and
- (B) Excellent customer service skills as demonstrated by (2) to (3) years experience in a service position; and
- (C) Familiarity with courier and delivery services function including knowledge of the metropolitan Boston area as acquired through one (1) to three (3) years of related experience; or
- (D) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of computers as obtained through high school or post high school education or experience.
- (B) Ability to be flexible and respond quickly to changes in customer needs.
- (C) Ability to follow written and oral instruction and work independently
- (D) Skill in the operation of the listed tools and equipment.

SPECIAL REQUIREMENTS:

Valid Massachusetts Commercial Drivers License (CDL) Class B with endorsements for air brakes.

TOOLS AND EQUIPMENT USED:

Motor vehicle, mobile and vehicle radios, handcarts, power and hand tools. Office machines as normally associated with the use of telephone, personal computer, including word processing and other software, copy and fax machine.

PHYSICAL DEMANDS:

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

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

June 2013

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 26, 2013
SUBJECT: Appointment of Project Manager, PIMS, Toxic Reduction and Control



COMMITTEE: Personnel and Compensation

INFORMATION
 VOTE

Richard P. Trubiano, Deputy Chief Operating Officer
Carolyn M. Fiore, Director, Toxic Reduction and Control
Preparer/Title



Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of Lori Paradice to the position of Project Manager, PIMS, in the Toxic Reduction and Control Department (Unit 9, Grade 25) at the recommended salary of \$90,752.09, to be effective June 29, 2013.

DISCUSSION:

The position of Project Manager, PIMS (pretreatment information management system), was created through a Position Control Register amendment approved by the Board on March 13, 2013. This position is responsible for managing all of the day-to-day projects and tasks related to information management of MWRA's EPA-approved pretreatment program.

The Project Manager, PIMS duties include: representing the TRAC Department's interests in ongoing and future development of pretreatment information systems and their associated applications; developing reports for the department and Senior Management from PIMS and the laboratory information management system (LIMS) databases; developing and implementing a PIMS QA/QC plan to insure database integrity and reliable information; developing standard operating procedures for staff interactions with PIMS; serving as the primary liaison with MWRA's MIS staff for issues related to pretreatment software and associated applications; and participating in the development and roll-out of MWRA compliance plan for EPA's Cross-Media Electronic Reporting Rule, often referred to as CROMERR.

Organizationally, the Project Manager, PIMS, reports to the Program Manager of Compliance (see the attached Organization Chart).

Selection Process

This position was posted internally and two applications were received. Managers from Operations and the Affirmative Action and Compliance Unit interviewed both candidates and determined that Lori Paradice possesses the knowledge, skills, and experience required for this position.

Ms. Paradice has 26 years of experience at MWRA working in the TRAC Department in a variety of progressively responsible positions. Prior to starting at MWRA, Ms. Paradice worked at ENSR Consulting and Engineering in its environmental laboratory. She began her MWRA career in 1986 as a chemical assistant in the Industrial Waste Program. She was promoted to the position of Sampling Associate in 1987, and in 1990, she again was promoted to the position of Industrial Waste Inspector, which was later changed to the position of Industrial Coordinator.

Through her experience, Ms. Paradice has gained a thorough knowledge of MWRA's pretreatment program. She has served as an expert on multiple software upgrades within TRAC and volunteered to serve as a "Project Champion" on the PIMS software implementation. She actively participated in the business requirements development process by proposing, reviewing, and providing relevant topic-specific feedback. She also conducted system acceptance testing, document generation development and testing, implementation testing, and post-implementation bug-fix identification and testing. Ms. Paradice has been actively engaged in PIMS software testing and improvement since the PIMS "Go-Live" in 2008. In her role in the PIMS implementation, Ms. Paradice has demonstrated strong communication skills, project management skills, and analytical skills.

Ms. Paradice earned an Associate of Science degree in Ecology and Environmental Technology in 1981 from Paul Smith's College, and a Bachelor of Science in Environmental Chemistry in 1983 from the State University of New York, College of Environmental Science and Forestry.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the Operations Division's FY13 Current Expense Budget to fund this position. The recommended salary is in accordance with guidelines established in Unit 9's current collective bargaining agreement.

ATTACHMENTS:

Resume of Lori Paradice
Position Description
Organization Chart

LORI PARADICE

Experience

Massachusetts Water Resources Authority, Chelsea, MA 1986 to present

Industrial Wastewater Inspector/Industrial Coordinator 1990 to present

- Conduct all inspection, permitting, and initial enforcement activities for industrial facilities, water treatment plants, and discharging landfills in assigned territory in the MWRA district
- Explain Pretreatment Program and associated permitting, reporting, and compliance requirements to representatives of regulated facilities
- Determine applicability of federal, state, and MWRA regulations and calculate federal categorical limits as needed
- Coordinate with industry contacts, municipal officials, and other agencies to facilitate the efficient issuance of and compliance with Sewer Use Discharge Permits
- Draft MWRA Sewer Use Discharge Permits, inspection reports, and other correspondence using current department software
- Review permitted sewer user analytical data to determine compliance with MWRA and Federal regulations
- Coordinate with department staff to provide permitted user information in support of their duties
- Prioritize workload to ensure department pretreatment goals are met
- Train new Industrial Wastewater Inspector/Industrial Coordinator staff

Sampling Associate 1987 to 1990

- Collected wastewater samples from industrial facilities, combined sewer overflows, and sewer treatment plants to assure compliance with MWRA Rules & Regulations and MWRA's NPDES permit
- Operated a variety of field equipment including autosamplers, flowmeters, and continuous pH meters
- Performed work in confined spaces using SCBA, gas meter, fall protection, and other personal protective equipment
- Trained new sampling staff

Chemical Assistant 1986 to 1987

- Conducted literature research on MWRA regulated pollutants, sampling methods, and related topics as assigned

ENSR Consulting and Engineering, Concord, MA 1984 to 1986

Inorganic Analyst 1984 to 1986

- Prepared environmental samples, conducted Atomic Absorption Spectroscopy and Inductively Coupled Plasma Spectroscopy metals analyses, conducted miscellaneous inorganic parameter analyses using a variety of laboratory tools and instruments, and reviewed and reported data

Lori Paradice

Related Experience

- Department software upgrade projects - Provided business practice and user needs information to consultants and MIS staff to aid in software development. Conducted software testing, troubleshooting, and training of staff.
 - TRACIS Upgrade: 1997-2000
 - Permit TRACking Application: 1998-2004
 - PIMS: 2007-2010 bulk, on-going assistance as needed
- Clinton Local Limits Review project - Met with consultants and MWRA staff, reviewed and commented on task order and consultant draft proposals
- TRAC's Guidance Manual update workgroup with regard to policy and business practices - Met with peers and workgroup members to recommend changes to department procedural policies

Education

State University of New York, College of Environmental Science and Forestry, Syracuse, NY 1981 to 1983
Bachelor of Science in Environmental Chemistry

Paul Smiths College, Paul Smiths, NY 1979 to 1981
Associate of Science in Ecology and Environmental Technology

Certifications and Affiliations

- 40-hour OSHA 29 CFR 1910.120 Hazardous Waste Site Operations Certified (most recent 8-hour refresher 4/12/12)
- MBCR RWP training for contractors (valid until 4/4/13)
- MBTA ROW training (valid 5/9/13)

**MWRA
POSITION DESCRIPTION**

POSITION: Project Manager, PIMs

PCR#:

DIVISION: Operations

DEPARTMENT: Toxic Reduction and Control Department

BASIC PURPOSE:

Manages the day-to-day projects related to information management of the MWRA's EPA-approved pretreatment program. Coordinates MWRA's pretreatment program database needs with MIS staff and project consultants. Represents the TRAC Department's interests in ongoing future development of pretreatment information systems and their associated software applications (LIMS, GIS, CROMERR) and successor applications.

SUPERVISION RECEIVED:

Works under the general supervision of the Program Manager of Compliance.

SUPERVISION EXERCISED:

Exercises supervision of professional and support employees.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages day-to-day issues with PIMS as they arise. Researches problems, logs bugs, proposes temporary work-arounds to enable staff to meet their short and long term pretreatment program requirements and recommends long term solutions.
- Develops reports for Department and outside use from the PIMS and LIMS databases.
- Develops and implements PIMS QA/QC plan to ensure database integrity and reliable information
- Develops standard operating procedures for TRAC staff interactions with PIMS in accordance with QA/QC plan.

- Reviews functionality of PIMS and identifies ways to leverage the existing system functionality to improve efficiency and effectiveness of TRAC staff. Recommends enhancements for improved efficiencies. Develops forms and templates and updates PIMS as necessary.
- Participates in the development and roll-out of the CROMERR compliance plan. Works closely with TRAC staff and managers to support pretreatment program objectives using PIMS and other IS resources.
- Works closely with MIS to ensure that the TRAC Department is effectively using the Authority's MIS resources.
- Serves as the primary liaison with MIS Department for issues related to pretreatment software and associated applications.

SECONDARY DUTIES:

- Provides on-going training and user support for PIMS and related systems.
- Assesses systems performance and works with users to identify system needs and determine appropriate hardware/software/training/procedural improvements.
- Prepares data requests to meet the needs of the TRAC and Legal Department or other MWRA groups.
- Provides capital and current expense budget input for computer related equipment and software purchases.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelors degree in environmental or related sciences, environmental engineering, computer sciences, or related field; Masters degree preferred; and
- (B) Five (5) to seven (7) years of experience in project management, application development or database management.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of principles and practices of National Pretreatment Program or related field required.

- (B) Demonstrated proficiency in data analysis, database development, management and planning.
- (C) Demonstrated ability in a variety of computing environments, particularly Oracle Discoverer, structured query language (SQL) or Microsoft Access strongly preferred.
- (D) Knowledge of MWRA's PIMS, LIMS and geographic information systems, particularly ARC/VIEW and ARC/INFO preferred.
- (E) Excellent interpersonal, oral and written communication skills.

SPECIAL REQUIREMENTS:

A valid Massachusetts Drivers license

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

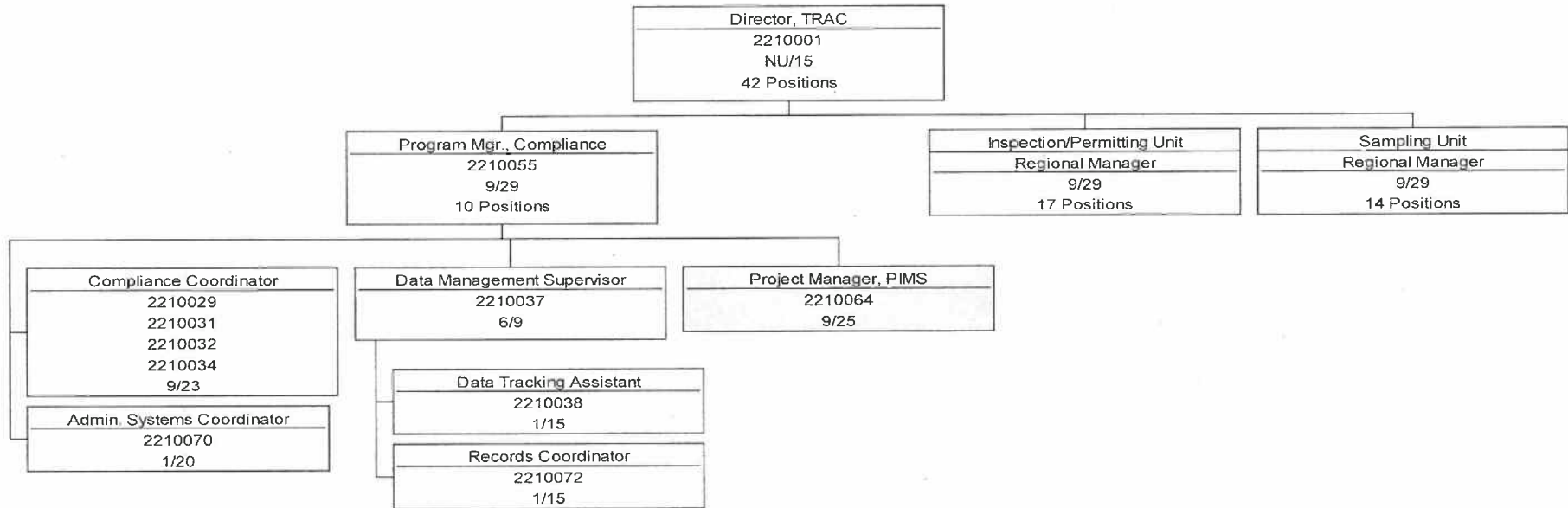
The employee must regularly lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision and the ability to adjust focus.

WORK ENVIRONMENT:

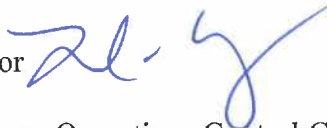
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. While performing the duties of this job, the employee regularly works in an office environment.

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

Programs, Policy & Planning TRAC




STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 26, 2013
SUBJECT: Appointment of Senior Program Manager, Operations Control Center

COMMITTEE: Personnel and Compensation

 INFORMATION
 X VOTE

John P. Vetere, Deputy Chief Operating Officer
Mark H. Johnson, Director, Metropolitan Operations
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of Mr. Michael J. McCarthy to the position of Senior Program Manager, Operations Control Center (Unit 9, Grade 30), at the recommended salary of \$110,334.12, effective July 13, 2013.

DISCUSSION:

The position of Senior Program Manager, Operations Control Center (OCC) will become vacant upon the retirement of the incumbent on July 12, 2013. Organizationally, the Senior Program Manager, OCC position reports to the Director, Metropolitan Operations. The position is responsible for supervising 14 water operations staff (9 area supervisors and 5 operators) that work in the Metropolitan OCC at Chelsea on rotating shifts, 24 hours a day, 7 days a week.

The Metropolitan water system provides an average of 167 million gallons per day and serves more than 2 million people. The OCC staff operate and control 11 water pump stations and 11 water storage tanks, and monitor the numerous community water meters throughout the system for pressure and flow. The position is also responsible for the coordination of any required maintenance on the pumps, motors, electrical systems, SCADA controls, and valves at the pump stations and tanks, and is involved with water quality analysis and troubleshooting.

Selection Process

The position was posted internally as it was recognized that there were a number of qualified candidates with the requisite experience and knowledge within MWRA's existing workforce. Three candidates applied for the position, all of which were determined to have met the minimum qualifications. All three candidates were interviewed by the Deputy Chief Operating

Officer for Operations, Engineer and Construction, the Director of Human Resources, and the Director, Metropolitan Operations. Upon completion of the interviews, it was determined that Michael J. McCarthy was the best candidate to fill the position.

Mr. McCarthy has 19 years of civil engineering and water system experience. He began his career at MWRA in 1993. Between 1993 and 2001, he held positions as a senior field service technician, project engineer, and project manager. He performed leak detection surveys, developed operations plans, provided engineering support for the valve program, served as responsible person on water line and pump station operations, managed MWRA's 8(m) permits, and represented Operations for construction contracts. During his time as project engineer and project manager, Mr. McCarthy was responsible for the start-up of five rehabilitated water pump stations.

In 2001, he was promoted to the position of Work Coordination Center Manager, where he has been responsible for the development of the Operations Division's automated work order program utilizing the "Maximo" database system. As the Work Coordination Center Manager, he manages a staff of 10 planner/schedulers in the development of job plans for the various trades and programs in the department, coordinating the maintenance and repair of pumps, motors, valves, and generators.

Mr. McCarthy has always been a "hands-on" manager in the field taking an active role in contributing to the diagnosis of equipment issues, and the acquisition of new equipment when needed to provide the most efficient operation of MWRA's water facilities. He has managed numerous technical reviews of complicated 8(m) permit applications, including the recently concluded Mass DOT "FAST 14" bridge program on Interstate 93, to avoid impacts to MWRA's water system in the area.

Mr. McCarthy earned a Bachelor of Science degree in Civil Engineering from the Rochester Institute of Technology. He is a registered professional engineer in Massachusetts, and has a grade D4 water distribution license.

BUDGET/FISCAL IMPACT:

Adequate funds for this position are included in the Operations Division's FY14 CEB. The recommended salary is in accordance with guidelines established in current MWRA collective bargaining agreements.

ATTACHMENTS:

Resume of Michael J. McCarthy
Position Description, Senior Program Manager, Operations Control Center
Metropolitan Water Operations Organization Chart

Michael J. McCarthy

Objective To apply my educational and professional experience to assist in the operation and maintenance of a water/wastewater utility.

Education **Rochester Institute of Technology, Rochester, New York**
Bachelor of Science degree in Civil Engineering Received March 1993

Professional Experience **Massachusetts Water Resources Authority, Boston, MA**
Work Coordination Center Manager, Field Operations Department (July 2001 - Present)

Manage the Work Coordination Group and oversee the various activities including planning, scheduling materials acquisition and dispatch for the maintenance programs within the Field Operations Department. Manage MWRA 8(m) Permit Program, DIGSAFE Program and Trench and Excavation Safety Permit Program.

- Coordinate with other managers to ensure effective and economical use of materials and staff.
- Oversee all aspects of data quality of the Field Operation Department's database.
- Oversee the development and distribution of maintenance management reports.
- Perform QA/QC functions including inspection reporting, work order backlog monitoring, productivity and cost analysis information.
- Develop, in conjunction with other Field Operation Department managers, comprehensive work practices that ensure proper data integrity.
- Provide overall oversight for the Waterworks 8(m) permit program, which includes the management of permitting for all waterworks facilities.
- Manage DIGSAFE program for MWRA water distribution mains located in Brookline, Chelsea and Saugus.
- Provide overall oversight for the Trench and Excavation Safety permit program, which includes the management of permitting for all in house excavation sites.

Project Manager, Operations Engineering (July 1999 -- July 2001)

Managed engineering coordination efforts for design and construction activities affecting the continuous operation and quality of the water transmission and distribution facilities.

- Managed Waterworks 8(m) permit program.
- Represented Operations Department at construction kick-off and coordination meetings and coordinated Operations Department roles and responsibilities during construction and start-up.
- Coordinated detail record and record drawing review as well as maintenance of department engineering records.
- Developed Operation Plans for major operations and acted as the Responsible Person for these operations, which required making on the spot decision-making.
- Managed design reviews for both in-house and consultant designs.

Project Engineer, Distribution Section (January 1995 – July 1999)

Provided hydraulic support for all in-house Distribution Section operations and construction work completed by in-house forces and contractors. Provided engineering support for all maintenance work completed on MWRA distribution system.

- Prepared and updated valve maintenance program schedule and coordinated maintenance with Pumping Division and all MWRA service communities.
- Maintained valve database to ensure that reliable, accurate information was available on valve characteristics and conditions.
- Performed hydraulic model computer simulation runs to support maintenance work completed on the distribution system and during emergency situations.
- Completed design reviews for both in-house and consultant designs.

Senior Field Service Technician (September 1993 - January 1995)

Performed leak detection of MWRA distribution system and communities using leak correlator and sonic leak detection equipment. Conducted meter testing using pitot-type flow tests.

- Assisted in training of MWRA communities in leak detection methods.
- Assisted general construction inspectors when needed.

U.S. Naval Reserve Mobile Construction Battalion 27 (May 1996 – May 2004)

Lieutenant – Company Commander, Assistant Charlie Company Commander, Assistant Operations Officer,

Prepared Company for mobilization and embarkation readiness. Supervised and was responsible for 170 personnel.

- Maintained training in combat and construction readiness in preparation for activation.
- Managed construction project (utilizing 40 personnel) located at Kings Bay, GA, which entailed the replacement and rehabilitation of multiple support buildings.
- Completed various construction projects during weekend drills and annual activation.

Licenses	Licensed Professional Engineer (MA Lic #45124), Grade IV Water Distribution License (License #5210), Grade II Water Treatment License (License #23805), Grade IV Wastewater Collections License (License #C-4253)
Professional Affiliations	American Society of Civil Engineers, American Water Works Association, American Society of Military Engineers
Computer Skills	Excel, WordPerfect, Access, Crystal Reports, Telog, Microsoft Office Package, MAXIMO CMMS

References available upon request

**MWRA
POSITION DESCRIPTION**

POSITION: Senior Program Manager, Operations Control Center

PCR#: 3385001

DIVISION: Waterworks

DEPARTMENT: Operations

BASIC PURPOSE:

Oversees the Metropolitan Operations Control Center (OCC), which monitors and/or controls all pumping stations, storage tanks, pressure reducing valves and meters. Required to be on-call for emergencies twenty-four (24) hours a day, seven (7) days a week.

SUPERVISION RECEIVED:

Works under the general supervision of the Director of Metropolitan Operations.

SUPERVISION EXERCISED:

Supervises area supervisors and operators on 24/7 shifts.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages the water pump stations, water storage tanks, pressure reducing valves and meters in the Metropolitan water system to ensure continuous water service within the MWRA system and to the customer communities.
- Responds to alarms or hydraulic issues communicated by the OCC staff on a 24/7 basis.
- Coordinates maintenance, equipment repair, facilities maintenance, and SCADA needs with Equipment, Facilities Maintenance, and SCADA managers and staff.
- Works toward a harmonious personnel relations and positive staff morale. Performs performance reviews, investigates employee complaints, addresses employee conflicts, initiates disciplinary actions, prepares for collective bargaining and identifies and proposes organizational changes to address changing needs.
- Identifies training needs and implements appropriate in-house or consultant-led training programs.

- Manages unit budget. Assesses resources needed to effectively manage unit, prepares budget request and in-depth justification, explains budget variances and controls unit spending to ensure overall budget compliance.
- Monitors, reports and continually improves staff productivity through staff skills development, strategic planning, Standard Operating Procedures (SOPs) improvements and research and implementation of technology advances.
- Ensures that the unit's SOPs effectively communicate the unit's proper operating procedures and are being utilized by staff. Develops, documents and continually evaluates effectiveness of standard operating procedures and facility manuals.
- Ensures that all staff is properly trained. Ensures that all staff is familiar with, has been trained on, and is utilizing MWRA Safety Policy and Procedures.
- Establishes SOPs for monitoring and control of the Metropolitan water system.
- Oversees training of area supervisors and operators regarding hydraulic monitoring including use of the SCADA system, routine pump station and water tank inspections and emergency response.
- Establishes SCADA system reporting and data archival requirements for each facility.
- Conducts emergency response assessments for all major Metropolitan incidents to evaluate the effectiveness of the SCADA system and SOPs in identifying, diagnosing and responding to the incident.
- Participates in preparing for collective bargaining and hears Step-One grievances.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Knowledge of principles and practices of engineering as normally attained through a four (4) year college program in civil or mechanical or electrical engineering; and
- (B) Understanding of water systems operations (e.g., water pumping stations, tanks, hydraulics, SCADA systems) as acquired by eight (8) to ten (10) years related experience, of which at least four (4) years is in a supervisory capacity; or
- (C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Proficiency in the use of PC software for word processing, spreadsheets and databases required.
- (B) Excellent oral and written communication skills required. Demonstrated organization and coordination abilities.
- (C) Ability to manage 24/7 operations.
- (D) Maximo, equipment maintenance, and operational/maintenance data collection (i.e. Inspection Manager) experience desired.

SPECIAL REQUIREMENTS:

Grade 3D Drinking Water Supply Facilities Operator License required, with ability to obtain Grade 4D Drinking Water Supply Facilities Operator License within one year of appointment.

TOOLS AND EQUIPMENT USED:

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 duties.

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools, or controls and reach with hands and arms. The employee is regularly required to stand and walk. The employee is frequently required to sit and talk or hear. The employee is occasionally 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. Specific vision abilities required by this job include close vision and the ability to adjust focus.

WORK ENVIRONMENT:

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

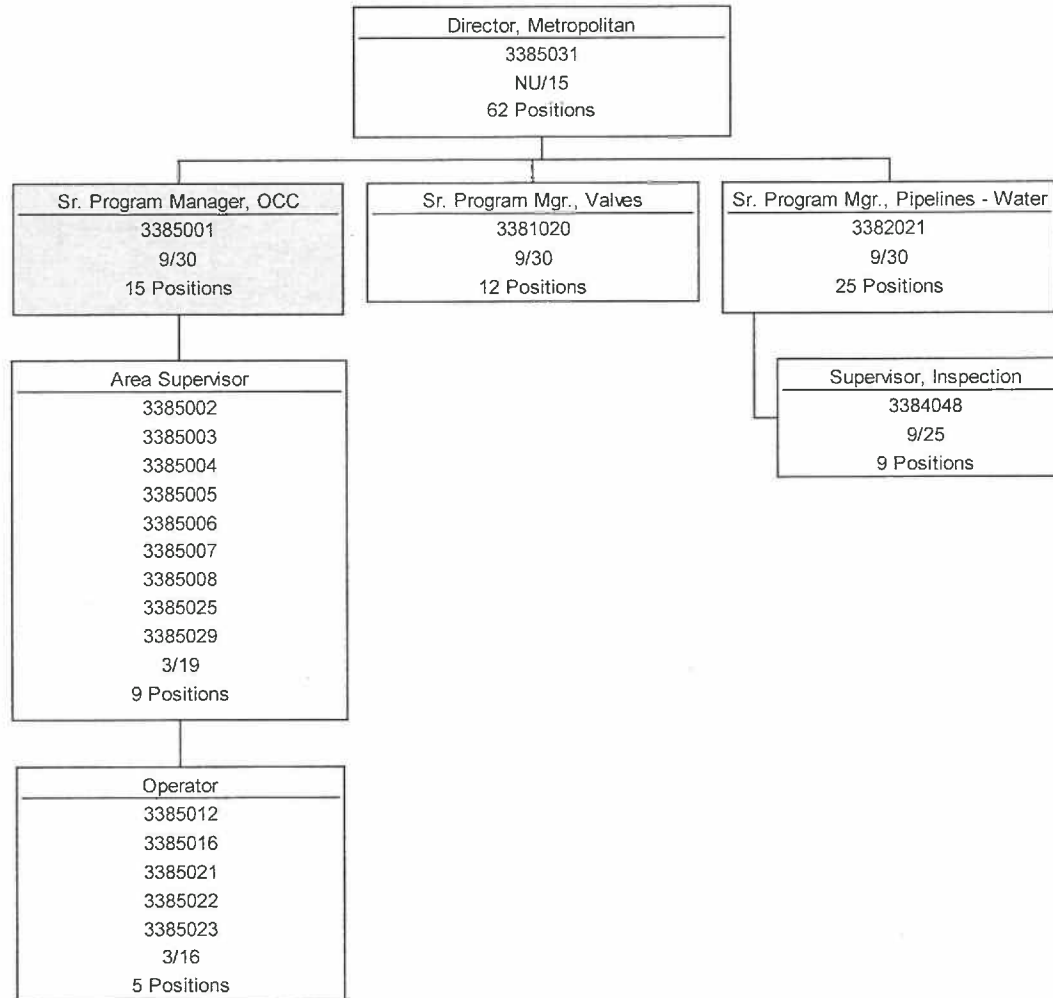
While performing the duties of this job, the employee occasionally works in outside weather conditions. The employee occasionally works near moving mechanical parts, and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in

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 moderately quiet, except when at pump stations, where the noise level can be similar to an industrial facility.

April, 2013

Operations - Metro Water O&M - Organization Chart





MASSACHUSETTS WATER RESOURCES AUTHORITY

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

Frederick A. Laskey
Chairman
B. Sullivan
Executive Director
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

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

to be held on

Wednesday, June 26, 2013

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

Time: 1:00 p.m.

AGENDA

I. APPROVAL OF MINUTES

II. REPORT OF THE CHAIR

III. REPORT OF THE EXECUTIVE DIRECTOR

IV. BOARD ACTIONS

A. Approvals

1. Final FY14 Capital Improvement Program (ref. AF&A B.1)
2. Final FY14 Current Expense Budget (ref. AF&A B.2)
3. Final FY14 Water and Sewer Assessments (ref. AF&A B.3)
4. Amendment 3 to Memorandum of Understanding with the Department of Public Safety for Electrical Inspections (ref. AF&A B.4)
5. Approval of New Wastewater Advisory Committee Member (ref. WW A.1)
6. Emergency Water Supply Agreement with the Town of Hudson (ref. W B.1)
7. PCR Amendments – June 2013(ref. P&C A.1)
8. Appointment of Project Manager, PIMS, Toxic Reduction and Control (ref. P&C A.2)
9. Appointment of Senior Program Manager, OCC (ref. P&C A.3)

B. Contract Awards

1. Automated Vehicle Locator Tracking System: Location Technologies, Inc., Contract A586 (ref. AF&A C.1)
2. Nut Island Headworks Electrical and Conveyors Improvements: J.F. White Contracting Co., Contract 7313 (ref. WW B.1)
3. Weston Aqueduct Supply Main 3 - Design, Construction Administration and Resident Engineering Services: Fay, Spofford & Thorndike, LLC, Contract 6539 (ref. W C.1)
4. Gillis Pump Station Improvements: Baystate Electric, Contract 7260 (ref. W C.2)

C. Contract Amendments/Change Orders

1. Supply and Delivery of Odor and Corrosion Control Chemicals for the Framingham Extension Sewer and Framingham Extension Relief Sewer: Siemens Water Technologies, WRA 3417, Amendment 1 (ref. WW C.1)
2. Aquatic Invasive Macrophyte Control at the Wachusett Reservoir: Aquatic Control Technology, Inc., Bid WRA-3434, Amendment 1 (ref. W D.1)

V. CORRESPONDENCE TO THE BOARD

VI. OTHER BUSINESS

VII. EXECUTIVE SESSION

A. Real Estate

1. Watershed Land Acquisition Approval

VIII. ADJOURNMENT

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Board of Directors

June 5, 2013

A meeting of the Board of Directors of the Massachusetts Water Resources Authority was held on June 5, 2013 at the Authority headquarters in Charlestown. Chairman Sullivan presided. Present from the Board were Barrera, Carroll, Cotter, Flanagan, Foti, Swett, Vitale and Walsh. Ms. Wolowicz and Mr. Pappastergion were 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 1:15 p.m.

APPROVAL OF MINUTES

Upon a motion duly made and seconded, it was

Voted to approve the revised minutes of the Board of Directors' meeting of May 15, 2013, as presented and filed with the records of the meeting.

BOARD ACTIONS

APPROVALS

MWRA FY14 Insurance Program Renewal

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to award to the lowest eligible and responsive bidders, insurance policies, bonds and contracts for services for MWRA's FY14 Insurance Program, for the period beginning July 1, 2013, through June 30, 2014, for the premiums and fees

described below, and incorporated by reference for the record, for a total program amount not to exceed \$1,709,284:

1. Workers' Compensation Excess Policy with N.Y. Marine, submitted by broker Willis of Massachusetts, with a \$25 million limit and a \$500,000 self-insured retention, for a premium of \$127,311;
2. Property Policy (including Boiler & Machinery coverage) with FM Global Insurance Co., with various limits of coverage with a \$2.5 million self-insured retention, for a premium of \$710,130;
3. General Liability Policy (including Automobile Liability, Marine Liability, Wharfingers, and Employment Practice Liability) with Lexington Insurance Company submitted by broker Richards Robinson Sheppard, with a \$25 million limit and a \$2.5 million self-insured retention, for a premium of \$420,264;
4. Excess Liability Policies with insurance companies to be determined and submitted by broker Richards Robinson Sheppard, providing a combined total of \$75 million of coverage in excess of primary coverage for a total combined premium not to exceed \$300,000;
5. Public Official's Liability Policy with Hiscox Insurance Co., submitted by broker Wells Fargo Insurance Services, with a \$5 million limit and a \$1 million deductible, for a premium of \$48,932;
6. Fiduciary Liability Policy with Chubb Insurance Co., submitted by broker Wells Fargo Insurance Services, with a \$5 million limit and a \$1 million deductible, for a premium of \$8,600;
7. Public Official's/Crime Bond with The Hartford Insurance Co., submitted by broker William Gallagher Associates, with a \$1 million limit and a \$25,000 deductible for a premium (including commission) of \$6,397;
8. Treasurer's Bond with a \$1 million limit with a vendor to be determined in an amount not to exceed \$3,300, with a one year term beginning 2/5/14; and
9. Broker contracts with Richards Robinson Sheppard for an amount of \$65,000; Willis of Massachusetts for an amount of \$10,250; and Wells Fargo Insurance Services for an amount of \$9,100, with a term beginning from notice of award through June 30, 2014.

Wastewater Advisory Committee Contract

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to execute a contract, substantially in the form presented and filed with the records of the meeting, with the Wastewater Advisory Committee for a term of one year, from July 1, 2013 to June 30, 2014, with a total contract cost of \$64,168.00.

Water Supply Citizens Advisory Committee Contract

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to execute a contract, substantially in the form presented and filed with the records of the meeting, with the Water Supply Citizens Advisory Committee for a term of one year, from July 1, 2013 to June 30, 2014, with a total contract cost of \$96,528.00.

PCR Amendments – June 2013

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.

CONTRACT AWARDS

Weston Aqueduct Supply Main 3 Design, Construction Administration and Resident Engineering Services: Fay, Spofford & Thorndike, LLC, Contract 6539

There was general discussion. Upon a motion duly made and seconded, it was

Voted to postpone consideration of the matter.

CONTRACT AMENDMENTS/CHANGE ORDERS

Crane Maintenance Service: Safeway Overhead Crane Service, Inc., Contract OP-200, Change Order 1

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order No. 1 to increase the amount of Contract No. OP-200 with Safeway Overhead Crane Service, Inc., Crane Maintenance Service, in an amount not to exceed \$68,470.20, with no increase in contract term; and to authorize the Executive Director to approve additional change orders as may be needed to Contract No. OP-200 in amounts not to exceed the aggregate of \$50,000.00, in accordance with the Management Policies of the Board of Directors.

OTHER BUSINESS

Extension of Contract for Executive Director

Upon a motion duly made and seconded, it was

Whereas, on May 15, 2013 the Board of Directors voted to rate the performance of Frederick A. Laskey, Executive Director, for Fiscal Year 2013 as Excellent, voted to extend the term of the Executive Director's employment agreement and appointment as Executive Director by one year to June 30, 2016.

Extension of Contract for Chief Operating Officer

Upon a motion duly made and seconded, it was

Voted to extend the term of the employment agreement with Michael J. Hornbrook, Chief Operating Officer, by one year to May 31, 2016.

EXECUTIVE SESSION

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

Yes

No

Abstain

Barrera
Carroll
Cotter
Flanagan
Foti
Swett
Vitale
Walsh
Sullivan

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

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

DRAFT
* * * *
EXECUTIVE SESSION

* * * *

The meeting returned to open session at 1:45 p.m. and adjourned.