MASSACHUSETTS WATER RESOURCES AUTHORITY

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Frederick A. Laskey
Executive Director

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REVISED

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, September 18, 2013

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

Time: 10:00 a.m.

AGENDA

A. Information

1. Internal Audit Department Activities Report
2. Delegated Authority Report – July and August 2013
3 FY2013 Fourth Quarter Orange Notebook
4. FY2013 Year-End Financial Update and Summary

B. Approvals

1. Delegation of Authority to Execute a Contract for the Purchase and Supply of Electric Power for the Deer Island Treatment Plant and Interval Accounts
2. Dental Insurance

C. Contract Amendments/Change Orders

1. Pretreatment Information Management System: Inflection Point Solutions, LLC: Contract 6177D, Amendment 3

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Internal Audit Department Activities Report

COMMITTEE: Administration, Finance & Audit

X INFORMATION
__ VOTE

John A. Mahoney, Director, Internal Audit
Preparer/Title

RECOMMENDATION:

For information only. Internal Audit annually presents to the Board the results of completed assignments and the objectives and status of active and planned assignments. Every quarter, Internal Audit utilizes the Orange Notebook to briefly discuss recently issued reports and to report on the status of open audit recommendations and cost savings. This staff summary includes a discussion of activities since Internal Audit's last report to the Board in September 2012.

DISCUSSION:

In FY13, Internal Audit recognized over $3.1 million in recoveries, avoided costs and projected savings. Staff completed a total of 31 assignments including internal audits, management advisory services, consultant incurred cost audits, consultant preliminary reviews, construction labor burden reviews and the review of the HEEC agreement, CNY lease and two non-professional service contracts.

Internal Audit's goal is to provide sufficient audit coverage to give reasonable assurance that internal management controls are functioning as intended and that only reasonable, allowable and allocable costs are paid to consultants, contractors and vendors. Audit coverage is provided through performance audits that analyze and evaluate MWRA programs and activities to determine if they are being carried out effectively and efficiently, compliance audits that focus on adherence to MWRA policies and procedures, contractual requirements, rules or regulations and management advisory services.

The development of the annual Work Plan assignments is based on Internal Audit's risk assessment of programs and management controls, and input from the Advisory Board and senior managers across the MWRA. The actual scheduling and completion of audit assignments is dependent on staff availability which can be impacted by control issues needing immediate attention, or by unscheduled special requests for management advisory services.

Attachment 1 lists assignments completed in FY13, assignments currently in process and additional assignments planned to commence in FY14.

INTERNAL AUDITS and MANAGEMENT ADVISORY SERVICES

DEER ISLAND AND CHELSEA JANITORIAL SERVICES

Deer Island and Chelsea facility janitorial services were provided by the same contractor under separate 3 year agreements. The Deer Island agreement had a not to exceed value of $1,861,260. The Chelsea agreement had a not to exceed value $309,200.

The objective of this review was to evaluate the contractor's compliance with the terms of each contract including staffing levels, payment of prevailing wage, employee background checks, contract submittals and the quality of services rendered.

IA found that the contractor provided only 80% of the required minimum staffing levels at Deer Island. Based on discussions with the Chelsea project manager and the result of a survey of employees, it was found that the contractor was not providing satisfactory cleaning services in Chelsea. In addition, the certified payrolls for both contracts were improperly prepared and small prevailing wage violations were noted.

Management Response

The findings were addressed with the contractor. As a result, a legal settlement was reached with the contractor and both contracts were terminated resulting in a total cost avoidance of $265,030.

MIS HARDWARE EQUIPMENT MANAGEMENT

The MIS equipment inventory contains 22 different categories of equipment. The estimated value of deployed equipment is $3 million. The objective of the audit was to identify and determine the adequacy of current controls to ensure effective asset protection.

A total of 36 recommendations were made to enhance MIS hardware management practices. Recommendations centered on improving the promptness and accuracy of inventory record keeping, maintaining an adequate separation of duties for the physical custody of hardware and record keeping, conducting periodic inventories, better utilizing the warehouse for the receipt and storage of equipment, limiting the number of devices kept as emergency back-up, deactivating personal devices (cell phones and pagers) in a more timely manner, and working toward a consolidated database for all equipment across the Authority.

Implementation of the recommendations will result in future savings from enhanced controls over cell phones, limiting the number of pieces of equipment kept for emergency backup and spares, and timely deactivation of pagers, air cards and phones.

Management Response

Management accepted the recommendations and corrective actions for 17 of the recommendations were completed before the final audit report was issued. Corrective actions for the remaining recommendations are underway. One recommendation dealing with the use of mandatory data fields in the inventory record will be addressed with the roll-out of a new platform to replace the current IT management system, Magic, which provides automated asset, incident and problem management.

CHELSEA FACILITY PHYSICAL SECURITY

During the review of MIS equipment management, Internal Audit observed a number of security conditions at the Chelsea facility, including the warehouse and several MIS controlled rooms used to store equipment.

A total of 31 recommendations were made. Recommendations affecting the entire facility included upgrading the Guard1 Plus software, replacing broken Detex buttons used to record guard rounds, increasing oversight of guard activities, including their response to alarms, and keeping the restricted employee list current.

The warehouse and other secure rooms were identified as needing hardening by lengthening astragals on double doors, adding non-removable pin hinges, and installing security glass and a more secure roll-up shutter at the warehouse window.

Additional recommendations were made to strengthen control over access privileges to the MIS storage room by restricting key access to secure rooms only in emergencies and introducing a logbook to record the reason for entry to the room. There was also a need to strengthen controls for MIS equipment by using locked cabinets within the storage room and including a security cable when issuing a laptop.

Management Response

Management accepted the recommendations and corrective action for 19 of the recommendations were completed before the final audit report was issued. Corrective actions for the remaining recommendations are underway.

PURCASE CARD PROGRAM

The Purchase Card Program was established in July 1998 to provide an efficient and cost effective method of purchasing and paying for routine small dollar purchases up to $500 for non-inventory materials, supplies and specific miscellaneous services. As of September 2012 there were 79 cardholders. In FY12, purchases totaled $451,151 for an average of $37,596 per month.

The objective of this assignment was to assess staff compliance with the Purchasing Card Program's requirements as published in the Cardholder User Manual. Cardholders record

transactions on the Purchasing Transaction Log/Envelope with receipts placed in the envelope along with the monthly bank statement. The Operations Division has established an effective review process of purchase card activity by a designated liaison that performs an unannounced review of each envelope at least once a year.

In general, the purchase card program is functioning as intended. Recommendations were made to have A&F establish a review process similar to the Operations Division, to update the Cardholder User Manual to include an approval process for exceptions, and to keep the Master Cardholder List current.

Management Response

Management accepted and is implementing the recommendations.

CSO FINANCIAL ASSISTANCE AGREEMENTS

The Boston Water and Sewer Commission (BWSC), City of Cambridge and Town of Brookline have entered into Memoranda of Understanding and Financial Assistance Agreements with the MWRA to fund CSO projects required by the Federal Court Order in the Boston Harbor Case.

Internal Audit conducts periodic reviews to validate that the payments to these entities are deposited in the respective accounts from which withdrawals may be made for eligible design and construction costs and staff time (force account charges).

In FY13 reviews of the BWSC (2012), City of Cambridge (2010 -2011) and Town of Brookline (2011 through March 2013) were completed. The true-up identified adjustments of $90,421 for BWSC and $1,259,578 for Brookline.

OTHER MANAGEMENT ADVISORY SERVICES

Numerous management advisory services were completed in FY13. The assignments included reviews of OCC staffing levels, validation of emergency response plans located at numerous facilities, compiling data on selection committee attendance and scoring, preparing succession planning information, analyzing leak detection crew activities, performing two financial capability reviews of first ranked firms, and analyzing construction impact claims submitted by two businesses resulting in $67,935 in cost avoidance. A settlement with the former workers' compensation third party administrator resulted in a recovery of $35,000.

Annually, management advisory services also include calculating MWRA's fringe and indirect cost rates, performing financial capability reviews of bidders, verifying unemployment benefit calculations, and providing support and review services to the Fore River Railroad Corporation (FRRC). Annual savings from the lease of the engine house to the FRRC in FY2013 was $147,785.

CONTRACT AUDITS AND RELATED REVIEWS

In FY13, a total of $1,090,973 in savings was recognized from the following contract audit assignments.

CONSULTANT INCURRED COST AUDITS

Incurred cost audits determine if billed labor costs are supported by the consultant's time reports and project cost records, if other direct costs are supported by valid payments, if final indirect costs have been calculated in accordance with the contract, and that final rates have been properly applied to labor billings. The extent of fieldwork required to complete an assignment is based on a risk assessment that starts with an invoice analysis and a review of a consultant's annual cost disclosure submittals, and may include fieldwork conducted at the consultant's offices, or be limited to a desk review to verify that costs billed were supported.

In FY13, eight incurred cost assignments were completed. A total of $328,468 was recovered and $248,625 in billings was avoided.

CONSULTANT PRELIMINARY REVIEWS

Internal Audit reviews and accepts provisional indirect cost rates proposed by consultants for billing both new and active contracts. If a new contract has been awarded, Internal Audit will review the supporting documentation for proposed direct labor, indirect costs, or other direct costs, and notify Procurement and the project manager of any issues, including any unsupported proposed costs that might be available for re-allocation to another cost element. Approved provisional indirect cost rates are reported to project managers and Procurement as a reference source for reviewing invoices and pricing contract amendments.

In FY13, three consultant preliminary reviews were completed. A total of $10,221 in unsupported proposed costs was identified for potential reallocation.

CONSTRUCTION LABOR BURDEN REVIEWS

These reviews establish accurate labor burden rates to be used in the pricing of future change orders. Typical adjustments to contractor proposed rates include the application of effective versus statutory FICA, FUTA and SUTA rates, applying appropriate experience modifications and other adjustments to workers compensation rates, and determination of the basis for general liability and bond premium.

In FY13, seven labor burden rate reviews were completed with an estimated $60,462 in cost savings.

CONSTRUCTION CLAIM ANALYSIS

These reviews are undertaken at the request of project managers and/or Law Division to support negotiations or resolve construction claims and disputes. Audit procedures typically include obtaining a copy of the contractor's job cost report and validating payroll, material, equipment and costs against payroll registers, invoices and agreements. Costs are categorized as supported, unsupported or unresolved. Unsupported costs and costs that are specific to the claim are discussed in the report to assist Authority staff in the negotiation process.

In FY13, a prior year claim was settled by the Law Division that sustained $291,547 in costs questioned in a claim review and construction costs verification assignment.

GRIT AND SCREENINGS CONTRACT

The contract reviewed had a contract period from June 2011 through June 2013. It covered the pick-up and disposal of grit and screenings from 14 locations and lab testing services. The contract value was $1,576,995.

A review of the grit and screening contract included validation of pick-up procedures, including dewatering, clean-up, trucking and disposal at the approved landfill. Containers were also evaluated for size, cleanliness and proper marking and the accuracy of contract payments were verified. The review found that the contractor was storing filled trucks at Aggregate Recycling Corporation in Eliot, ME for up to several days before unloading at an approved landfill without written authorization from the MWRA.

Management subsequently issued written authorization for the overnight storage of filled trucks after the contractor provided evidence of approval from the Maine Department of Environmental Protection.

HARBOR ELECTRIC ENERGY CORPORATION (HEEC) 2011 & 2012 TRUE-UP

The purpose of this assignment was to verify the capacity and operations and maintenance (O&M) charges billed under the HEEC agreement for CY 2011 and 2012. The capacity charge uses a complex formula to determine the annual payment for the use of the cross-harbor cable. The major variable cost in the formula is the effective interest rate charged on the net value of the cable after depreciation. The effective interest rate takes into account the interest paid on HEEC's bonds less the interest earned on the debt service reserve. The O&M charge includes the labor costs and materials needed to maintain the cable and insurance for the cable.

In FY13, savings of $151,650 were recognized from earlier negotiated changes to both the gross investment base and effective interest rate calculations used in the capacity charge calculation.

Attachment 1

Status of Internal Audit Assignment FY 13 and FY 14

COMPLETED - FY13	Date	IN PROCESS	PLANNED for FY14	
Reviews of Agreements and Contracts				
CNY Lease Operating Cost Escalation	Jan-13	W. B. Mason	HEEC 2013 True-up	
DITP & Chelsea Janitorial Services	Jan-13	NEFCo	Vendor TBD (1)	
Grit & Screenings Disposal	Mar-13	Fore River Transportation Company		
HEEC 2011 True-up	Jul-12			
HEEC 2012 True-up	Jun-13			
Consultant Incurred Cost				
Beta Group	Jun-13	Black & Veatch	AECOM	
CH2M Hill	Mar-13	Bryant Associates	A1 Engineers	
City Point Partners	Aug-12	GEI	Brown & Caldwell	
FS&T	Mar-13	GZA	CDM	
Horsley Witten Group	Sep-12	Keville	Dewberry Goodkind	
Malcolm Pirnie	Oct-12	PBQ&D	EDA2	
PMA	Jun-13	Stantec	Green International	
Tetra Tech Rizzo Associates	Mar-13	Viscom Systems	Hatch Mott	
			Jacobs	
			SAR	
			SEA	
			Shaw Environmental	
Consultant Preliminary Reviews				**EST NTP**
DI North Main Pump 7062	Mar-13	WASM MEPA/Des/CA/RI 6539	DI Fire Alarm System Des 6904 $2.1M	Sep-13
DI TA 7399, 7400 & 7434	Mar-13		DI HVAC Replacement Des 7111 $3.5M	Oct-13
Sudbury Alternatives 7352	Feb-13		DI Sodium Hypochlorite Pipe Replace Design 6853 $2.2M	Nov-13
			DI Clarifier Rehab Des 7394 $3M	Nov-13
			DI Cryogenics Equip Replac Design 7139 $1.6M	Dec-13
			Residuals Facility Plan/EIR 7143 $1M	Jan-14
Construction Labor Burden Reviews				
DI Control Systems Upgrade 7057	Jan-13	Gillis P.S. Improvements 7260	CWTP Storage Tank Roof Drainage System 7376 $4M	May-14
DI Electric Upgrade 6901	May-13	NI Electrical & Conveyors 7313	DI Gravity Thickener Rehab 7428 $5.7M	Feb-14
DI Expansion Joints 6704	Aug-12		DI WTF VFD Replace 6875 $3.9M	Jun-14
DI Restore and Coat 5513	Nov-12		Rehab of Sect 186 & 4 7423	Dec-13
Quabbin UV 6776	Jan-13		Washusett Aqueduct Pump Station 7157 $45.6M	Apr-14
Wachusett Valves 7085C	Nov-12			
Watertown Sect Rehab 7222	Jun-13			
Construction Change Orders and Claims				
			Contractors TBD (2)	
Internal Audits & Management Advisories				**Requestor**
Brookline CSO FAA Jan 11 - Mar 13	May-13	Construction Cost Estimates	Construction Field Office Procedures	
BWSC CSO FAA 2012	Jun-13	Fleet Services (Follow-Up)	Continuous Auditing Survey	
Cambridge CSO FAA 2010-2011	Apr-13	Review of WAC	FOD Field Crew Activities	
Chelsea Facility Physical Security	Dec-12	Review of WSCAC	Lab QA/QC Procedures	OPS
MIS Hardware Equipment Management	May-13	Unmatched Receipts and Accruals	MBE and WBE Subcontracting Requirements	AACU
MWRA Fringe Benefit & Indirect Cost Rates	Jul-12	Cambridge CSO Eligibile Cost Review	Purchasing Unit	A&F
MWRA Staff Billing Rate for the FRRC	Jul-12		Records Retention and Management	A&F
Purchase Card Program	Jun-13			

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Delegated Authority Report – July and August 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 July through August 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.

CONSTRUCTION/PROFESSIONAL SERVICES DELEGATED AUTHORITY ITEMS JULY 1 - 31, 2013

DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMENDMENT/CO	COMPANY	FINANCIAL IMPACT
07/01/13	**INSTRUMENTATION SYSTEMS SERVICES** AWARD OF CONTRACT TO THE LOWEST RESPONSIVE BIDDER TO PROVIDE SCHEDULED, ON-CALL, EMERGENCY AND NON-EMERGENCY PROCESS INSTRUMENTATION SYSTEMS SERVICES ON EQUIPMENT LOCATED AT VARIOUS MWRA FACILITIES FOR A TERM OF 365 CALENDAR DAYS	OP-214	AWARD	NEPONSET CONTROLS, INC.	$189,450.00
07/18/13	**HULTMAN AQUEDUCT INTERCONNECTIONS** DECREASE FOLLOWING BID ITEM QUANTITIES TO REFLECT ACTUAL QUANTITIES USED: INTERNAL INSPECTIONS AND REPAIRS OF HULTMAN AQUEDUCT; FIRE WATCH DETAILS; MANUFACTURER'S REPRESENTATIVE SERVICES DURING OPERATION OF EXISTING VALVES; UTILITIES ALLOWANCE FOR NEW POWER AND TELEPHONE LINES; MASSACHUSETTS TURNPIKE AUTHORITY TOLL ALLOWANCE; POLICE DETAIL SERVICES; TIME AND MATERIALS FOR INSTALLATION OF CATHODIC PROTECTION OF SECTION 80 PIPELINE AND REPLACEMENT OF JOINT SEALS BETWEEN SHAFT W AND VALVE CHAMBER W1	6975	28	BARLETTA HEAVY DIVISION, INC.	($189,450.00)
07/24/13	**FIRE ALARM SYSTEM SERVICE** AWARD OF CONTRACT TO THE LOWEST RESPONSIVE BIDDER TO PROVIDE TESTING AND MONITORING SERVICES, NON-EMERGENCY AND EMERGENCY FIRE ALARM SYSTEM SERVICES ON EQUIPMENT LOCATED AT VARIOUS MWRA FACILITIES FOR A TERM OF 730 CALENDAR DAYS	OP-205	AWARD	SIMPLEX GRINNELL LP	$396,222.00
07/24/13	**PIPE SUPPORTS FOR SLUDGE PIPELINES DEER ISLAND TREATMENT PLANT** AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER FOR THE INSTALLATION OF NEW PIPE SUPPORTS FOR SLUDGE PIPELINES LOCATED AT THE DEER ISLAND TREATMENT PLANT FOR A TERM OF 365 CALENDAR DAYS	7123A	AWARD	WALSH CONSTRUCTION COMPANY	$565,795.00
07/24/13	**ROOF REPLACEMENT AND COPING REPAIRS DEER ISLAND TREATMENT PLANT** AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER FOR ROOF REPLACEMENT AND COPING REPAIRS AS PART OF THE ON-GOING MAINTENANCE PROGRAM AT THE DEER ISLAND TREATMENT PLANT FOR A TERM OF 300 CALENDAR DAYS	7424	AWARD	TITAN ROOFING, INC.	$610,500.00

CONSTRUCTION/PROFESSIONAL SERVICES DELEGATED AUTHORITY ITEMS AUGUST 1 - 31, 2013

DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMENDMENT/CO	COMPANY	FINANCIAL IMPACT
08/13/13	**OAKDALE FACILITY PHASE 1A UPGRADE** FURNISH AND INSTALL 14-mm CLEAR LAMINATE FILM ON 66 PIECES OF TEMPERED GLASS IN EIGHT WINDOWS TO PREVENT INTRUSION INTO THE FACILITY; EXTEND CONTRACT TERM BY 73 CALENDAR DAYS FROM JULY 9, 2013 TO SEPTEMBER 20, 2013	7230	8	EWING ELECTRICAL CO., INC.	$56,615.76
08/13/13	**HULTMAN AQUEDUCT INTERCONNECTIONS** REHABILITATE 16-INCH VALVE AT MARLBOROUGH PUMP STATION AND FURNISH AND INSTALL A PRE-CAST CONCRETE MANHOLE; FURNISH AND INSTALL STEEL PLATE STOCK AND PERFORM FIELD WELDS INSIDE AND OUTSIDE OF THE 72-INCH TEE AT SHAFT 4; FURNISH AND INSTALL A GALVANIZED-STEEL CRADLE SUPPORT UNDERNEATH VALVE V4 INSIDE SHAFT 4 HEADHOUSE; REMOVE TRACK WELDS ON FLEXIBLE COUPLINGS ON FOUR VALVES AT SHAFT 4	6205	2	BARLETTA ENGINEERING CORP.	$87,770.00
08/13/03	**FIRE PROTECTION SPRINKLER SYSTEM SERVICE** AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER TO PROVIDE FIRE PROTECTION SPRINKLER SYSTEM TESTING SERVICE, NON-EMERGENCY AND EMERGENCY REPAIR SERVICES FOR EQUIPMENT LOCATED AT VARIOUS MWRA FACILITIES FOR A TERM OF 730 CALENDAR DAYS	OP-215	AWARD	SIMPLEX GRINNELL LP	$135,750.00
08/13/13	**ALEWIFE BROOK PUMP STATION REHABILITATION** INCREASE LEVEL OF EFFORT TO INCLUDE THE FOLLOWING RECOMMENDED DESIGN IMPROVEMENTS: FLOOD PROTECTION TO INCLUDE ADDING FLOOD BARRIERS TO BUILDING ENTRANCES AND RAISE NEW AND CRITICAL EQUIPMENT ABOVE FLOOD STAGE; REPLACMENT OF THE PROGRAMMABLE LOGIC CONTROLLER; ENERGY EFFICIENCY IMRPOVEMENTS TO INCLUDE REPLACMENT OF EXISTING DOORS AND WINDOWS ENERGY STAR-RATED HIGH EFFICIENCY UNITS AND MODIFYING SCREEN ROOM'S HVAC SYSTEM; MODIFICATIONS TO THE EXISTING CHIMNEY; EXTEND CONTRACT TERM BY SIX MONTHS FROM OCTOBER 29, 2016 TO APRIL 29, 2017	7034	1	FAY, SPOFFORD & THORNDIKE, LLC	$181,274.24
08/13/13	**MISCELLANEOUS FENCING** AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER FOR AS-NEEDED INSTALLATION AND REPAIR OF VARIOUS TYPES OF FENCING FOR A TERM OF 730 CALENDAR DAYS	6760V	AWARD	PREMIER FENCE, LLC	$473,528.00
08/21/13	**INTERCEPTOR CONNECTION RELIEF AND FLOATABLES CONTROL AT OUTFALL SOM01A** AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER FOR INTERCEPTOR CONNECTION RELIEF AND FLOATABLES CONTROL AT OUTFALL SOM01A FOR A TERM OF 122 CALENDAR DAYS	6953	AWARD	R. ZOPPO CORP.	$292,300.00
08/26/13	**BOILER AND WATER HEATER SERVICE** AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER TO PROVIDE PREVENTIVE MAINTENANCE SERVICES, EMERGENCY AND NON-EMERGENCY REPAIR SERVICES FOR BOILERS AND WATER HEATERS LOCATED AT VARIOUS FACILITIES FOR A TERM OF 730 CALENDAR DAYS	OP-217	AWARD	COOLING & HEATING SPECIALISTS, INC.	$363,777.00
08/29/13	**SERVICES FOR CONTINUOUS EMISSIONS MONITORING SYSTEM EQUIPMENT DEER ISLAND TREATMENT PLANT** AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER FOR CONTINUOUS EMISSIONS MONITORING SYSTEM EQUIPMENT SERVICES FOR TWO HIGH-PRESSURE BOILERS LOCATED AT THE DEER ISLAND TREATMENT PLANT FOR A TERM OF 730 CALENDAR DAYS	5520	AWARD	CK ENVIRONMENTAL, INC.	$98,240.00
08/29/13	**ELEVATOR MAINTENANCE AND REPAIR SERVICE AT VARIOUS AUTHORITY FACILITIES** AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER TO PROVIDE PREVENTIVE MAINTENANCE SERVICES, EMERGENCY AND NON-EMERGENCY REPAIR SERVICES FOR ELEVATORS LOCATED AT VARIOUS MWRA FACILITIES FOR A TERM OF 730 CALENDAR DAYS	OP-218	AWARD	BBE CORPORATION BUCKLEY ELEVATOR	$137,610.00

PURCHASING DELEGATED AUTHORITY ITEMS - JULY 1 - 31, 2013

DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT #	AMENDMENT	COMPANY	FINANCIAL IMPACT
7/1/13	**CHLOROPHYLL MONITORING AT CAPE ANN BUOY** AWARD OF A SOLE SOURCE PURCHASE ORDER TO CONTINUE PERMIT-REQUIRED CONTINUOUS CHLOROPHYLL (ONLY) MONITORING AT THE CAPE ANN BUOY FOR THE PERIOD JULY 1, 2013 TO JUNE 30, 2014			BOWDOIN COLLEGE	$30,000.00
7/1/13	**GENERAL MOTORS AUTOMOTIVE TRAINING** AWARD OF PURCHASE ORDER CONTRACT, TO THE LOWEST RESPONSIVE BIDDER, FOR MONTHLY GENERAL MOTORS AUTOMOTIVE TRAINING FOR FLEET SERVICES STAFF FOR THE PERIOD OF JULY 1, 2013 TO JUNE 30, 2014	WRA-3653Q		MASSACHUSETTS BAY COMMUNITY COLLEGE	$42,000.00
7/1/13	**CONTINUOUS MONITORING (WITHOUT CHLOROPHYLL) AT CAPE ANN BUOY** AWARD OF A SOLE SOURCE PURCHASE ORDER TO CONTINUE PERMIT-REQUIRED CONTINUOUS OCEANOGRAPHIC MONITORING (OTHER THAN CHLOROPHYLL) AT CAPE ANN BUOY FOR THE PERIOD JULY 1, 2013 TO JUNE 30, 2014			UNIVERSITY OF MAINE	$50,000.00
7/1/13	**BOTTOMLINE C-SERIES UPGRADE, TECHNICAL SUPPORT SERVICES AND TRAINING** AWARD OF A SOLE SOURCE PURCHASE ORDER, FOR BOTTOMLINE C-SERIES SOFTWARE AND TECHNICAL SUPPORT AND TRAINING SERVICES. THIS SOFTWARE IS USED BY FINANCE AND MIS FOR ALL CHECK PRINTER INTERACTIONS SUCH AS ELECTRONIC FUNDS TRANSFER, WEEKLY PAYROLL AND VENDOR CHECKS, INVOICES, W2 AND 1099'S. EXISTING VERSION IS UNDER EXTENDED SUPPORT, WHICH ENDS ON SEPTEMBER 2014. THE NEW C-SERIES SOFTWARE IS BROWSER-BASED AND WORKS ON A VIRTUALIZED ENVIRONMENT WHICH WILL ENHANCE BACKUP AND RECOVERY CAPABILITIES			BOTTOMLINE TECHNOLOGIES, INC.	$51,397.50
7/8/13	**ONE 250-HP REPLACEMENT MOTOR** AWARD OF PURCHASE ORDER CONTRACT, TO THE LOWEST RESPONSIVE BIDDER, FOR ONE 250-HP REPLACEMENT MOTOR FOR THE DELAURI PUMP STATION, AS A SPARE, DUE TO LONG MANUFACTURING LEAD TIMES FOR REPLACEMENT MOTORS	WRA-3616Q		MOTION INDUSTRIES, INC.	$26,950.00
7/8/13	**ONE AUTOMATED SOLID PHASE EXTRACTION SYSTEM UPGRADE** AWARD OF A SOLE SOURCE PURCHASE ORDER CONTRACT, FOR UPGRADE OF THE CENTRAL LABORATORY'S SOLID PHASE EXTRACTION SYSTEM, INCLUDES TWO NEW ADDITIONAL EXTRACTORS AND REPLACEMENT OF ONE EXISTING CONTROLLER			HORIZON TECHNOLOGY, INC.	$33,140.00
7/8/13	**MANHOLE FRAMES AND MANHOLE COVERS** AWARD OF A SOLE SOURCE PURCHASE ORDER CONTRACT, FOR ONE HUNDRED MANHOLE FRAMES AND ONE HUNDRED MANHOLE COVERS. WASTEWATER PIPELINE STAFF REPLACE APPROXIMATELY 100 FRAMES AND COVERS EACH YEAR. CHELSEA WAREHOUSE STOCKS THE MANHOLE FRAMES AND COVERS AND INVENTORY NEEDS TO BE PERIODICALLY REPLENISHED			EAST JORDAN IRON WORKS, INC.	$36,500.00
7/8/13	**PREVENTATIVE MAINTENANCE - LABORATORY ORGANICS INSTRUMENTS** AWARD OF A SOLE SOURCE PURCHASE ORDER CONTACT, FOR A PREVENTIVE MAINTENANCE SERVICE AGREEMENT FOR THE DEPARTMENT OF LABORATORY SERVICES' ORGANICS INSTRUMENTS AT DEER ISLAND CENTRAL LAB. THERE ARE 12 INSTRUMENTS TO BE COVERED UNDER THE NEW AGREEMENT, FOR A PERIOD OF ONE YEAR			AGILENT TECHNOLOGIES, INC.	$48,460.38
7/8/13	**AQUATIC INVASIVE MACROPHYTE SURVEY UPDATE** AWARD OF A PURCHASE ORDER CONTRACT, TO THE LOWEST RESPONSIVE BIDDER, FOR AN AQUATIC INVASIVE MACROPHYTE SURVEY UPDATE AT MWRA/DCR SOURCE AND EMERGENCY RESERVOIRS	WRA-3614		ESS GROUP, INC.	$54,900.00
7/8/13	**SUPPLY AND DELIVERY OF SODIUM HYDROXIDE TO DEER ISLAND TREATMENT PLANT** AWARD OF TWO SEPARATE ONE YEAR PURCHASE ORDER CONTRACTS, TO THE LOWEST RESPONSIVE BIDDERS, FOR THE SUPPLY AND DELIVERY OF SODIUM HYDROXIDE TO THE DEER ISLAND TREATMENT PLANT	WRA-3636		JCI JONES CHEMICAL, INC. BORDEN & REMINGTON CORPORATION	$215,000.00 $17,924.13
7/8/13	**SUPPLY AND DELIVERY OF SODIUM BISULFITE TO CARROLL WATER TREATMENT PLANT AND CLINTON WWTP** AWARD OF TWO SEPARATE ONE YEAR PURCHASE ORDER CONTRACTS, TO THE LOWEST RESPONSIVE BIDDERS, FOR THE SUPPLY AND DELIVERY OF SODIUM BISULFITE TO CARROLL WATER TREATMENT PLANT AND CLINTON WASTEWATER TREATMENT PLANT	WRA-3638		PVS CHEMICAL SOLUTIONS, INC. UNIVAR USA, INC.	$248,320.00 $44,502.75
7/16/13	**SUPPLY AND DELIVERY OF SODIUM BISULFITE TO VARIOUS WASTEWATER LOCATIONS** AWARD OF PURCHASE ORDER CONTRACT, TO THE LOWEST RESPONSIVE BIDDER, FOR THE SUPPLY AND DELIVERY OF SODIUM BISULFITE TO VARIOUS WASTEWATER LOCATIONS FOR A ONE YEAR PERIOD	WRA-3645		JCI JONES CHEMICAL, INC.	$77,000.00
7/24/13	**HEAVY DUTY, 4,000-FOOT-LONG SONAR COMMUNICATION CABLE AND REEL FOR INSPECTION TRUCK WRA-962** AWARD OF A SOLE SOURCE PURCHASE ORDER FOR A HEAVY DUTY, 4,000-FOOT-LONG SONAR COMMUNICATION CABLE AND REEL FOR INSPECTION TRUCK WRA-962, TO ALLOW STAFF TO INSPECT ALL THE SIPHONS WITHIN MWRA'S SYSTEM, INCREASING INSPECTION EFFICIENCIES WHILE PROVIDING LESS WEAR AND DOWN TIME ON EQUIPMENT			CUES, INC.	$39,480.00
7/24/13	**SUPPLY AND DELIVERY OF SODIUM HYPOCHLORITE TO VARIOUS MWRA WASTEWATER LOCATIONS** AWARD OF PURCHASE ORDER CONTRACT, TO THE LOWEST RESPONSIVE BIDDER, FOR THE SUPPLY AND DELIVERY OF SODIUM HYPOCHLORITE TO VARIOUS WASTEWATER LOCATIONS, FOR THE PERIOD JULY 31,2013 TO JULY 30,2014	WRA-3646		UNIVAR USA, INC.	$162,104.60
7/26/13	**ONE PUMP ROTATING ASSEMBLY FOR THE QUINCY PUMP STATION** AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER, FOR ONE PUMP ROTATING ASSEMBLY FOR THE QUINCY PUMP STATION TO HAVE AS A SPARE IN THE EVENT THAT ONE OF THE PUMPS REQUIRES REBUILDING	WRA-3583		YEOMANS CHICAGO CORP, GRUNDFOS, INC.	$47,760.00

POSITION CONTROL REGISTER (PCR) LOC

DATE OF CHANGE	POSITION TITLE
8/17/2013	Operator

PURCHASING DELEGATED AUTHORITY ITEMS - August 1 - 31, 2013

DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT #	AMENDMENT	COMPANY	FINANCIAL IMPA
8/13/13	**ONE SPARE MIXER GEAR REDUCTION DRIVE** AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER, FOR ONE MIXER GEAR REDUCTION DRIVE FOR THE DEER ISLAND TREATMENT PLANT, AS A SPARE UNIT TO ALLOW FOR REDUNDANCY DURING OVERHAUL OF THE EXISTING UNITS	WRA-3612		PHILADELPHIA MIXING SOLUTIONS	$71,285.00
8/13/13	**TWENTY IBM SMART CLOUD CONTROL DESK (SCCD) CONCURRENT LICENSES** AWARD OF A PURCHASE ORDER FOR TWENTY IBM SMART CLOUD CONTROL DESK (SCCD) CONCURRENT LICENSES, UNDER STATE BLANKET CONTRACT ITS41, AS PART OF A PROJECT TO REDUCE THE NUMBER OF DATABASES USED TO TRACK THE LIFECYCLE OF MWRA'S ASSETS	SC-ITS41		IBM CORPORATION	$110,640.00
8/13/13	**SCADA SOFTWARE MAINTENANCE AGREEMENT** AWARD OF A SOLE SOURCE PURCHASE ORDER, FOR RENEWAL OF SCADA SOFTWARE MAINTENANCE AND TECHNICAL SUPPORT FOR A ONE YEAR PERIOD			GE INTELLIGENT PLATFORMS, INC.	$124,752.00
8/16/13	**ANNUAL MAINTENANCE AND SUPPORT OF PORTIA INVESTMENT MANAGEMENT SOFTWARE** AWARD OF A SOLE SOURCE PURCHASE ORDER FOR MAINTENANCE AND SUPPORT OF PORTIA INVESTMENT MANAGEMENT SOFTWARE. SOFTWARE ALLOWS TREASURY TO MANAGE MWRA FIXED INVESTMENTS AND TRACK INTERESTS AND HOLDINGS, FOR THE PERIOD NOVEMBER 1, 2013 TO OCTOBER 31, 2014			SS&C TECHNOLOGIES, INC.	$30,252.00
8/21/13	**IT RESEARCH AND CONSULTING SERVICES SUBSCRIPTION** AWARD OF A PURCHASE ORDER FOR AN IT RESEARCH AND CONSULTING SERVICES SUBSCRIPTION TO GARTNER, INC., FOR THE PERIOD OF JULY 1, 2013 THROUGH JUNE 30, 2014 UNDER STATE BLANKET AGREEMENT ITS38	SC-ITS38		GARTNER, INC	$68,175.00
8/21/13	**DATA BACKUP STORAGE SYSTEM** AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER, FOR THE DATA DOMAIN DE-DUPLICATION STORAGE SYSTEM, TO BE USED FOR DATA BACKUP AND RECOVERY. THIS NEW SYSTEM CAN REPLICATE BACKUP AND ARCHIVE DATA OFFSITE FASTER WITH MINIMAL BANDWIDTH FOR SAFE, TAPE-FREE DISASTER RECOVERY. THE SYSTEM WILL PROVIDE FLEXIBLE REPLICATION TOPOLOGIES TO OPTIMIZE MWRA BACKUPS	WRA-3654Q/SC-ITC47		ADVIZEX TECHNOLOGIES	$579,798.30
8/26/13	**TESTING OF SIX NITRILE RUBBER INNER SEALS** AWARD OF A PURCHASE ORDER FOR NITRILE RUBBER SEAL TESTING SERVICES UNDER MWRA SPECS FOR THE MWWST PROJECT. THE SCOPE OF WORK WILL INCLUDE ANALYSIS, TESTING AND COMPARISONS BETWEEN THE PHYSICAL AND CHEMICAL PROPERTIES, INCLUDING HARDNESS AND STRENGTH, REQUIRED OF INNER SEALS MADE OF EPDM RUBBER			ALTRAN SOLUTIONS	$30,000.00
8/26/13	**GAS DETECTORS** AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR 95 NEW PERSONAL GAS DETECTORS AND RELATED ACCESSORIES, REPLACING EXISTING UNITS THAT ARE AT THE END OF THEIR RELIABLE AND SERVICEABLE LIFE	WRA-3660		POND TECHNICAL SALES, INC.	$120,784.80
8/29/13	**REPLACEMENT TRANSFORMER - CRITICAL NEED** AWARD OF A CRITICAL NEED PURCHASE ORDER FOR A REPLACEMENT TRANSFORMER, TO THE LOWEST RESPONSIVE BIDDER, TO REPLACE THE FAILED TRANSFORMER AT THE INTERMEDIATE PUMP STATION			INFRA-RED BUILDING SYSTEMS, INC.	$69,656.10

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: FY13 Fourth Quarter Orange Notebook

COMMITTEE: Administration, Finance & Audit

X INFORMATION
VOTE

Michael J. Hornbrook
Chief Operating Officer

Stephen Estes-Smargiassi, Director, Planning
Preparer/Title

Rachel C. Madden, Director
Administration and Finance

RECOMMENDATION:

For information only. The Board of Directors Report on Key Indicators of MWRA Performance (the Orange Notebook) is prepared at the close of each quarter of the fiscal year.

DISCUSSION:

The Orange Notebook presents performance indicators for operational, financial, workforce, and customer service parameters tracked by MWRA management each month. Significant outcomes for the quarter are noted below.

Water Supply and Source Water Management

In reporting on the 3rd Quarter, staff noted that, although MWRA reservoir levels were normal, yields had been below long-term averages for more than a year. The Massachusetts Drought Task Force was meeting at that time and was discussing potential droughts in non-MWRA areas of the state. Although the dry trend continued through April and May, June rainfall and reservoir yields were significantly higher than normal. Quabbin Reservoir storage increased by 24 billion gallons, a 5.8% increase, ending the quarter at 96.1% full, well within normal operating range. (Page 28)

Deer Island and Clinton Wastewater Treatment Plant Operations

Deer Island officially received the National Association of Clean Water Agencies' Platinum Award for Peak Performance for the 2012 operational year, which recognizes outstanding compliance with MWRA's National Pollutant Discharge Elimination System (NPDES) permit limits. The Platinum Award is given in recognition of 100% compliance with NPDES permits over a consecutive five-year period. This is Deer Island's second consecutive Platinum Award for having operated with no permit violations from 2007 through 2012. (Page 3)

As with Quabbin, the same wet June weather conditions also influenced operations at the Deer Island and Clinton Wastewater Treatment Plants. There were 10.5 inches of rain in June compared to a typical month of June rainfall amount of around 4 inches. Even with the very wet June, wastewater flow at the Deer Island plant was 7% lower than normal for the quarter (367.6 mgd vs. 394.7 mgd). Total plant flow for the entire fiscal year was approximately 9% lower. (Page 2)

Even with the significantly wetter June, the 12-month running average flow at the Clinton Plant remained below the NPDES permit limit for the tenth consecutive month. (Page 30)

Energy and Self-Generation

April marked the second year anniversary of the startup of both the solar installations on the roof of the Deer Island Grit Facility and on the ground of the South Parking Lot. May marked the five-year anniversary of the startup of the solar installation on the roof of the Deer Island Residuals Odor Control Facility. These solar installations exceeded the projected output for four of the past five years and, on average, produced 10% more electricity than projected. Solar production averaged 109,910 kWh versus an average target of 100,096 kWh. (Pages 3 and 1)

Wind power production fell below target mainly due to Turbine #2 at Deer Island being out of service for approximately half of the fiscal year due to a bearing failure. Staff are requiring that the repair be completed by the turbine maintenance contractor at no cost to MWRA, including lost energy production revenue.

Community Support Programs

There has been significant demand for MWRA financial assistance grant and loan programs for community water and sewer projects. Community utilization of both MWRA's Infiltration and Inflow (I/I) Local Financial Assistance and Local Water Pipeline Assistance programs exceeded planned targets during this quarter, and for the fiscal year as a whole. The FY13 target for I/I financial assistance was $8.5 million; MWRA provided a total of $27.5 million. The FY13 target for the Local Water Pipeline Assistance program was $19.5 million; MWRA provided a total of $37.3 million. (Page 33)

CSO Control Program

Two projects met Federal CSO Court Milestones during the 4th Quarter. Brookline completed construction of the Brookline Sewer Separation project on April 26, several months ahead of the July 2013 milestone. Cambridge achieved substantial completion of the CAM004 Stormwater Outfall and Wetland Basin Project on April 25, 2013, meeting the April milestone. (Pages 19 and 20)

MBE/WBE Program

In the 4th Quarter, MWRA achieved all of its MBE/WBE spending targets with the exception of WBE participation in professional services. (Page 45) Total spending with MBEs and WBEs through the 4th Quarter exceeded $11.3 million. Progress was attributed to MBEs and WBEs working on MWRA projects as prime contractors and consultants.

Investment Income

FY13 Investment Income was 6.0% or $871,000 below budget. This budget variance is primarily due to short-term interest rates. During FY13, short-term interest rates actually averaged 0.26% rather than the 0.4% budgeted. This interest rate difference affected the funds that are primarily invested short term due to liquidity requirements. These funds include the Construction, Debt Service, Operating and Revenue Funds.

The long-term portion of the investment portfolio fared much better. Forecasted fund balances tracked very closely to what had been budgeted and long-term interest rates were very close to budget estimates. (Page 48)

MASSACHUSETTS WATER RESOURCES AUTHORITY

Board of Directors Report

on

Key Indicators of MWRA Performance

for

Fourth Quarter FY2013

Q1	Q2	Q3	Q4

Frederick A. Laskey, Executive Director
Michael J. Hornbrook, Chief Operating Officer
September 18, 2013

Board of Directors Report on Key Indicators of MWRA Performance
Fourth Quarter FY2013

Table of Contents

This quarterly report is prepared by MWRA staff to track a variety of MWRA performance measures for routine review by MWRA's board of directors. The content and format of this report is expected to develop as time passes. Information is reported on a preliminary basis as appropriate and available for internal management use and is subject to correction and clarification.

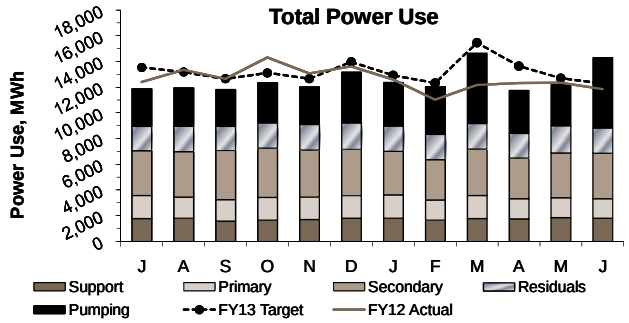
Frederick A. Laskey, Executive Director
Michael J. Hornbrook, Chief Operating Officer

September 18, 2013

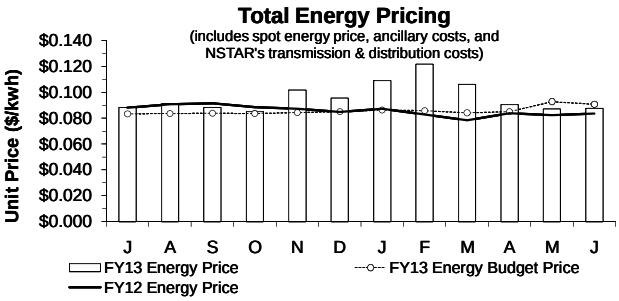
OPERATIONS AND MAINTENANCE

Deer Island Operations

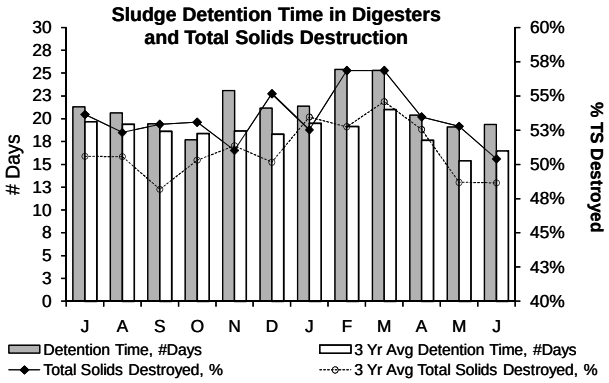
4th Quarter - FY13



Total Power Use in the 4th Quarter was on target with the FY13 projections (-1%). Power use was lower than the target in April and May, due to lower flows, and higher power in June, due to higher flows. Power used for pumping operations was 72% higher-than-expected in June as a result of 64% higher-than-expected plant flows which caused Total Power Use to exceed the budgeted estimate for the first time in 18 months. For FY13, Total Power Use was 5% lower than the target as plant flow was 8.5% lower than the 3 year average plant flow.

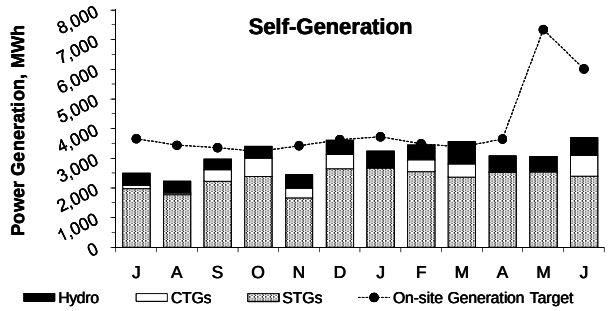


Under the current energy supply contract, a block portion of DI's energy is a fixed rate and the variable load above the block is purchased in real time. The actual total energy unit price in June was 3.5% lower than the FY13 budget value. The total energy unit price includes a fixed block price, spot energy price, transmission & distribution charges, and ancillary charges. Even though fiscal year end purchased power use was on target (within 0.3%), year end costs were $1,164,192 (12%) higher-than-budget due to an average total energy unit price that was 12% higher-than-expected.



Total solids (TS) destruction averaged 52% following anaerobic sludge digestion during the 4th Quarter with an average sludge detention time in the digesters of 19.6 days. Solids destruction was 5% higher than the 3 year average for the quarter as sludge detention time in the digesters was 19% higher than the 3 year average detention time.

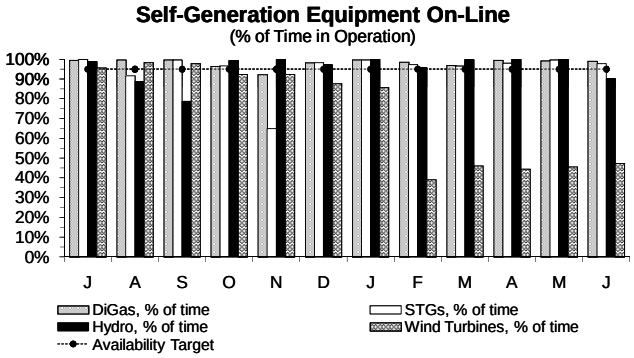
Although it appears that detention time is trending downward, detention time during Q4 is more typical of what is anticipated, while February and March were unusually high during the process of swapping Module #2 digesters off-line and Module #3 digesters on-line. During the transition, an average of 8.9 (February) and 8.3 (March) digesters were on-line as opposed to a normal 8.



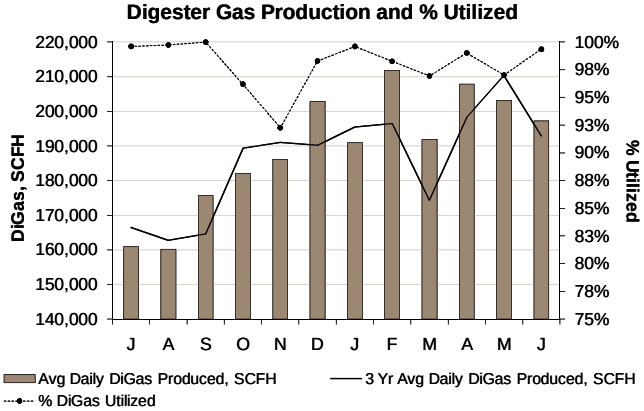
Power generated on-site during the 4th Quarter was 39% lower than target due mainly to 86% less generation by the CTGs than was budgeted as there was much less wet weather operation than was projected in the budget. Generation by the Solar Panels was 15% higher-than-expected this quarter. However, generation by the STGs was 20% lower than target, as the system is not currently optimized to operate efficiently in summer mode, and generation by the Hydro Turbines was within 2% of the target. Generation by the Wind Turbines was 50% lower-than-expected as Turbine #2 has been out of service since January 23 due to bearing issues.

For FY13, Total Power generated on-site was 18.2% lower than the target due mainly to 40% lower-than-expected generation by the CTGs.

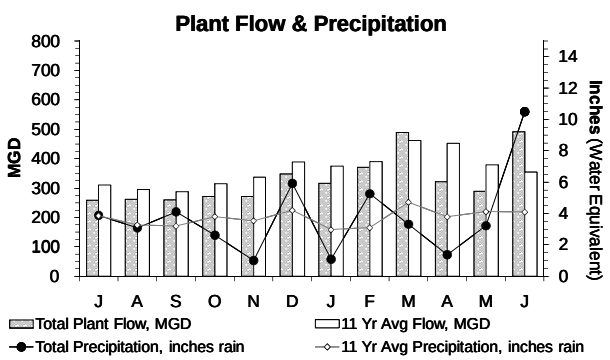
Note: Power generation by the Solar Panels and the Wind Turbines are not included in the graph (as the amounts generated cannot be seen within the current scale of this graph); a total of 312 MWh was generated by the Solar Panels and 234 MWh was generated by the Wind Turbines in the 4th Quarter.



The DiGas, STGs, and Hydro Turbine systems all met their 95% Availability Target for the 4th Quarter and for FY13. The Wind Turbines fell 49% below the 95% target for the 4th Quarter as Wind Turbine #2 has been out of service since January 23 due to a major bearing failure. Wind Turbine #1 was available 92% of the time in the quarter. Overall Wind Turbine availibility for FY13 was 72%.

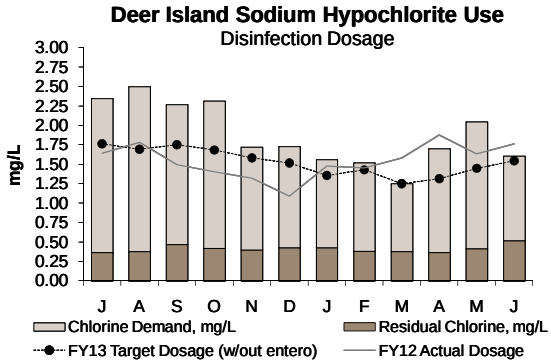


The Avg Daily DiGas Production was 1% higher in the 4th Quarter than the 3 Year Avg Daily DiGas Production and 2% higher overall for FY13. 98% of all the DiGas produced in the 4th Quarter and in FY13 was utilized at the Thermal Power Plant.



The Total Plant Flow for the 4th Quarter was 7% lower than target (367.6 MGD actual vs. 394.7 MGD expected) even though precipitation was 26% higher-than-expected for the quarter (15.09 inches actual vs.12.01 inches expected) due mainly to the 10.5 inches of rainfall in June alone. Both plant flow and rainfall were much lower-than-expected in April and May.

For FY13, Total Plant Flow was 9% lower than target even though precipitation was on target (+1%). The precipitation pattern in FY13 was erratic with a few months seeing much higher-than-expected precipitation but was more commonly marked by months having much lower-than-expected precipitation which caused plant flows to remain lower-than-expected for the majority of the time.



The disinfection dosing rate in the 4th Quarter was 24% higher than the target. Dosing was higher-than-expected due to a higher chlorine demand as a result of stronger wastewater caused by the lengthy period of much lower-than-normal plant flows in April and May and by higher solids and bacteria levels due to numerous storm events in June. DITP maintained an average disinfection chlorine residual of 0.43 mg/L this quarter with an average dosing rate of 1.78 mg/L (as chlorine demand was 1.35 mg/L). Overall in FY13, the average disinfection chlorine residual was 0.41 mg/L with an average dosing rate of 1.88 mg/L (as chlorine demand was 1.47mg/L).

The overall disinfection dosing rate (target and actual) is dependent on plant flow, target effluent total chlorine residual levels, effluent quality and NPDES permit levels for fecal coliform.

Secondary Blending Events

Month	Count of Blending Events	Count of Blending Events Due to Rain	Count of Blending Events Due to Non-Rain-Related Events	Secondary, as a Percent of Total Plant Flow	Total Hours Blended During Month
J	2	2	0	99.7%	5.78
A	1	1	0	99.9%	2.04
S	2	2	0	99.8%	4.35
O	3	3	0	99.6%	6.92
N	0	0	0	100.0%	0.00
D	4	4	0	98.3%	22.41
J	0	0	0	100.0%	0.00
F	1	1	0	97.0%	41.01
M	3	3	0	99.8%	10.92
A	0	0	0	100.0%	0.00
M	2	2	0	100.0%	1.64
J	10	10	0	95.1%	93.83
Total	28	28	0	98.9%	188.91

There were a total of 12 separate secondary blending events during the 4th Quarter of FY13; all were due to high plant flows resulting from heavy rain. There were no secondary blending events in April, two (2) short duration events in May, and 10 separate blending events in June.

All 12 blending events combined produced a total of 95.47 hours of blending and 720.24 Mgal of flow blended with secondary effluent.

Secondary permit limits were met at all times during the 4th Quarter and during the entire FY13.

Deer Island Operations & Maintenance Report

Environmental/Pumping:
The 15.09 inches of rainfall in the 4th Quarter was 26% higher than the 11 year average of 12.01 inches. The total plant flow for the Quarter was 7% lower than the target (367.6 actual vs. 394.7 MGD target). The majority of the rainfall for the quarter fell in June (10.5 inches) .

The plant achieved a maximum average hourly flow rate of 1,216.0 MGD in the 4th Quarter during the overnight hours of June 7 into June 8 as a result of the remnants of Tropical Storm Andrea which dropped a total of 3.63 inches of rain in the Boston area from June 6 through June 8. Pumping and treatment operations at DITP continued without incident through this storm, as well as throughout the entire quarter.

Deer Island Operations & Maintenance Report (continued)

Odor Control Treatment:
The internal surface of Carbon Adsorber (CAD) units #7 in the East Odor Control (EOC), #5 in the West Odor Control (WOC), and #1 in the Residuals Odor Control (ROC) Facilities were recoated this quarter, as a preventative maintenance measure to ensure the integrity of the underlying internal structure of the adsorber by preventing corrosion and wear as the existing coating has aged over time.

The process airflows in the North Pumping Odor Control (NPOC), Secondary Odor Control (SOC), and in a portion of both the West Odor Control (WOC) and the East Odor Control (EOC) Facilities were offline on June 26 from 33 minutes up to 3 hours and 35 minutes due to a brief unanticipated partial power loss on DITP resulting from NSTAR maintenance activities. No stack emission exceedances occurred since the odor control facility fans were not in operation and no odor complaints were received associated with this incident.

Residuals Treatment:
One of the digested sludge holding tanks, Dystor #2, was taken out of service in mid-April for valve replacement work. Preparing the tank for the contractor required the sludge contents to be drained to a point whereby the contractor would be able to enter for final cleanout. This involved diluting then draining the remaining contents in the tank four (4) times, taking nine (9) days to achieve with a 3.5 million gallon tank, in addition to a complicated gas purging procedure to safely remove the residual digester gas in the tank.

Energy and Thermal Power Plant:
Overall, total power generated on-site accounted for 27.1% of Deer Island's total electrical power use for the 4th Quarter and 26.2% of Deer Island's total electrical power use for FY13. Renewable power generated on-site (by Solar, Wind, STGs, and Hydro Turbines) accounted for 25.2% of Deer Island's total electrical power use for the quarter and 23.9% of the total electrical power use for FY13.

April marked the second year anniversary of the startup of both the solar installations on the roof of the Grit Facility and on the ground of the South Parking Lot. May marked the five-year anniversary of the startup of the solar installation on the roof of the Residuals Odor Control Facility. This solar installation exceeded the projected output for four of the past five years and, on average, produced 10% more electricity than projected.

Annual overhaul maintenance on CTG-1A took place during the first two (2) weeks of June and required the generator to be locked out from Monday to Friday (but available for operation if needed and within two hours during the off shifts).
Deer Island experienced a partial loss of power at 8:42 AM on June 26 due to NSTAR maintenance activities on equipment owned and operated by NSTAR at NSTAR's Deer Island station. This loss of power was temporary and did not affect all systems at Deer Island. Some of the systems on DITP that were impacted by this partial power loss include portions of the odor control treatment system, some pumps in the North Main Pump Station (for Boston Main Drain) and South System Pump Station, the STGs, the Hydro Turbines, as well as, several other systems. All critical operating systems were restored to operation immediately following the power loss and there were no impacts to the NPDES permitted parameters as a result of this event.

Regulatory:
Deer Island officially received NACWA's (National Association of Clean Water Agencies) Platinum Award for Peak Performance for the 2012 operation year which recognizes outstanding compliance with our National Pollutant Discharge Elimination System (NPDES) permit limits. The Platinum award is given in recognition of 100% compliance with NPDES permits over a consecutive five year period. This is Deer Island's second consecutive Platinum Award for having operated with no permit violations from 2007 through 2012.

Representatives from EPA and DEP were onsite on April 30 for a Spill Prevention Control and Countermeasure (SPCC) and Facility Response Plan (FRP) inspection. The inspection has two purposes: to ensure facilities are in compliance, and to give EPA the opportunity to educate operators about the regulations and methods for ensuring compliance. The inspection began in the morning with a review of the Integrated Contingency Plan (ICP) and a facility records review, and was followed by a facility-wide walkthrough inspection. The inspectors were generally satisfied, although they did find several minor items on their extensive and detailed check sheet that will require some remedial action, primarily minor textual and referential adjustments within the written plan. They indicated that they were impressed by the clean and orderly appearance of the facility.

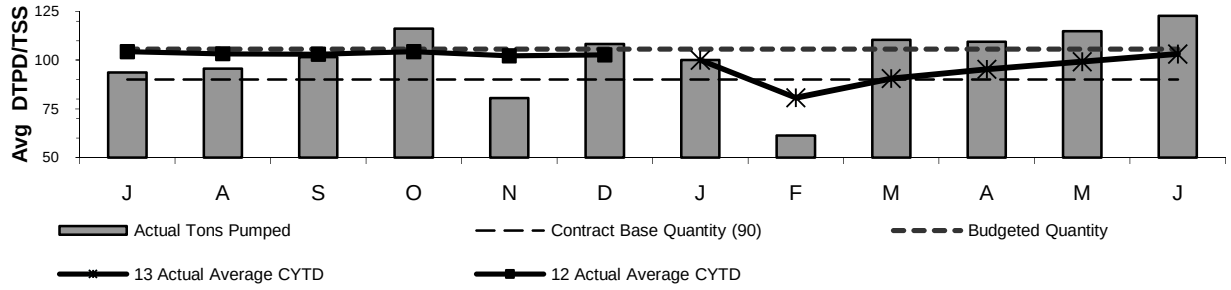
Clinton AWWTP:
The $177,000 NGRID rebate for the fine bubble diffused air system has been received in full. In addition, we have been able to secure a rebate for the pump VFD's in the amount of $21,000. The plant continues to meet its running average flow limit. June is the eighth month in the previous twelve the running average has been met.

Deer Island Residuals

4 th Quarter - FY13

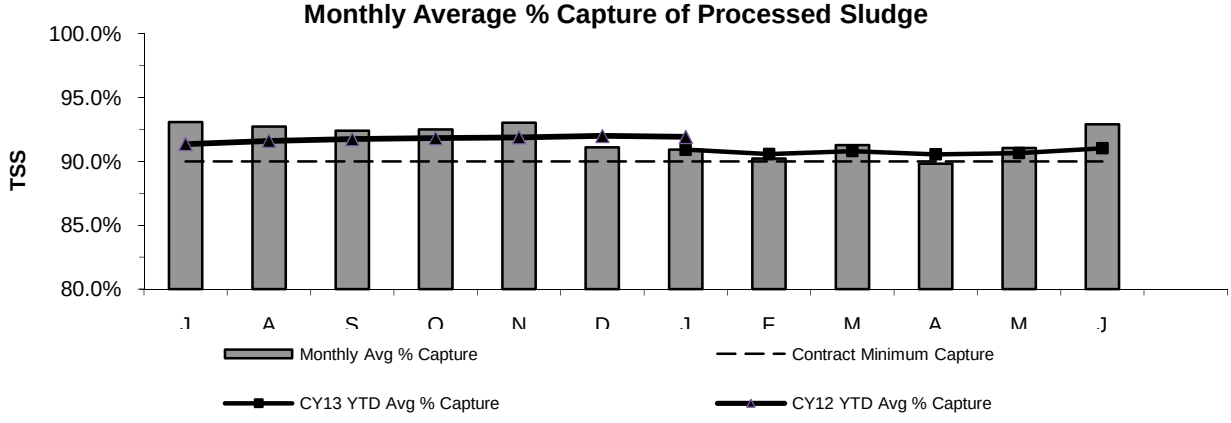
MWRA pays a fixed monthly amount for the calendar year to process up to 90 DTPD/TSS as an annual average. The monthly invoice is based on 90 DTPD/TSS (Dry Tons Per Day/Total Suspended Solids) times 365 days divided by 12 months. At the end of the year, the actual totals are calculated and additional payments are made on any quantity above the base amount. The base quantity of 90 DTPD/TSS was set for the 15-year term of the contract, even though, on average, MWRA processes more than 90 DTPD/TSS each year (FY13's budget is 105.7 DTPD/TSS).

Sludge Pumped From Deer Island



The average total quantity of sludge pumped in the 4th Quarter was 115.7 DTPD - higher than FY13's budget of 105.7 DTPD. The higher amount is due to high flows in June that scour the sewerage system, resulting in more sludge going to the digesters. The FY13 average quantity was 101.2 -- well below the budget number. The biggest reason for the lower sludge quantities to FRSA is higher detention times; this means more digas production and less sludge to pelletizing.

Monthly Average % Capture of Processed Sludge



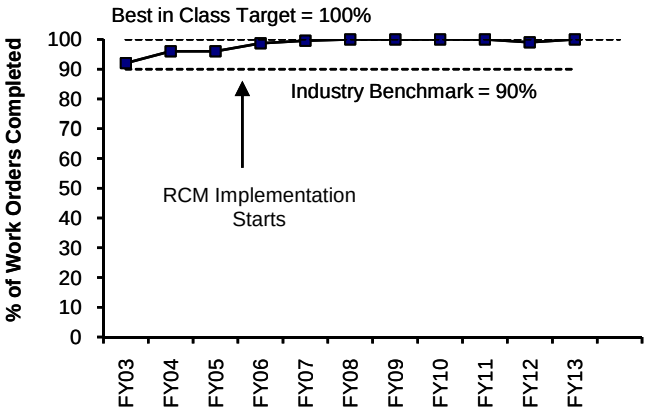
The contract requires NEFCo to capture at least 90% of the solids delivered to the Biosolids Processing Facility in Quincy; the solids capture rate for the 4th Quarter was 91.26%. The FY13 average capture was 91.75%

Deer Island Yearly Maintenance Metrics

4th Quarter - FY13

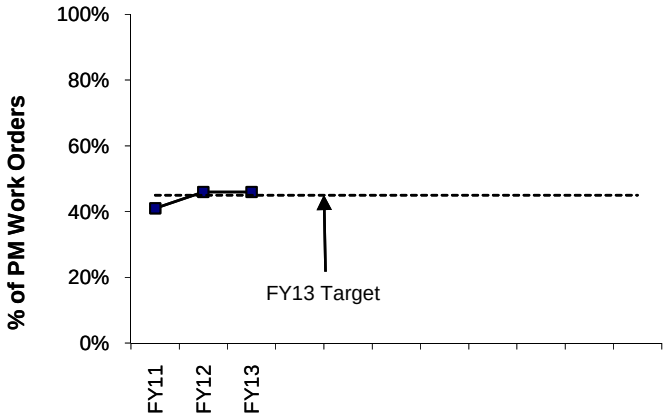
Proactive and Productivity Measures

Preventive Maintenance



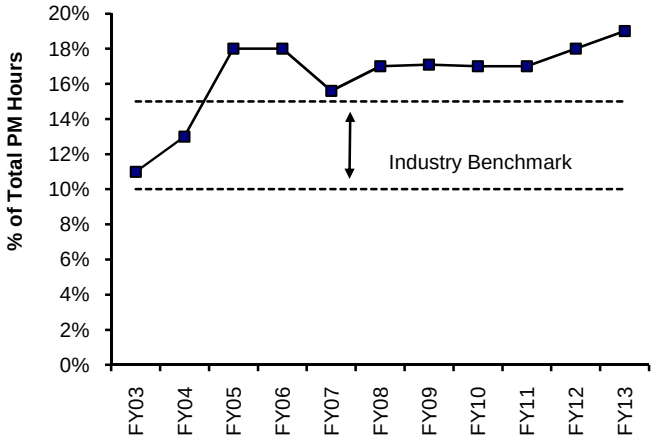
The industry benchmark is 90% for Preventive Maintenance (PM) completion. Upon reaching the 90% goal in FY03, the target goal was increased to the "best in class" standard of 100% PM completion. Since then, the percentage of PM work order completion has been at 99% or higher. Reliability-Centered Maintenance (RCM) and PM optimization efforts have continued in FY13. PM completion rate was 99.75% in FY13.

Preventive Maintenance Kitting



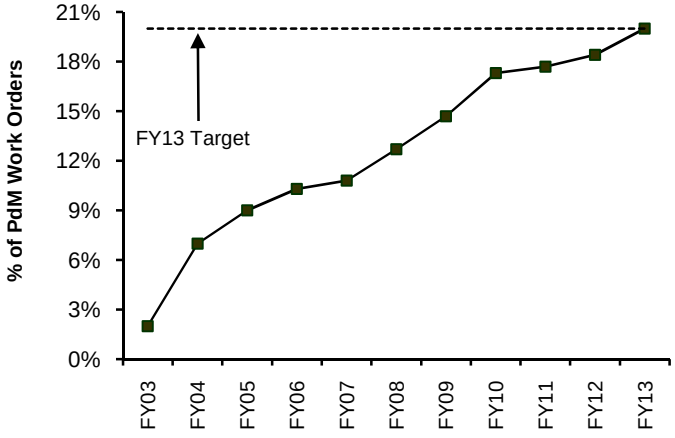
PM inventory items were loaded into Maximo so that parts for equipment could be assigned to PM work orders on a monthly basis. DITP reached the PM kitting goal in FY10. A new graph above was developed in FY11 to track kitting of all maintenance work orders. In an effort to increase wrench time, staff have been fine -tuning a process to "kit" all maintenance work orders. Kitting is considered a best practice by maintenance and reliability professionals and entails staging parts necessary to complete maintenance work. Kitting allows maintenance staff to spend more time "turning the wrench" and less time waiting for parts at the stockroom window.

Operations Light Maintenance PMs



The percentage of preventive maintenance work order hours completed by Operations staff (not maintenance staff) has increased from less than 1% in January 2002 to the current level of 19%. DI reached the industry benchmark range of 10-15% in April 2003 and has exceeded the goal through FY13. Operations completes approximately 600 PM work orders per month.

Predictive Maintenance

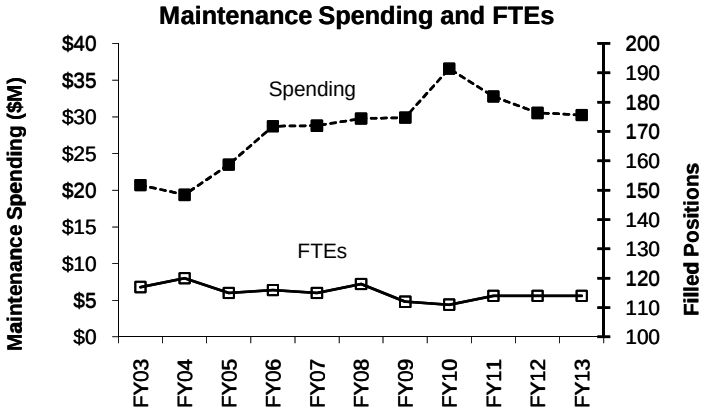


Predictive maintenance has steadily increased from 0% in FY02 to 20% in FY13. The increase in predictive maintenance was achieved through the expanded use of lubrication, vibration, thermography, and acoustic ultrasonic testing techniques. The Condition Monitoring Group continually reviews and investigates new opportunities and initiatives to expand condition monitoring testing and analysis. Every month, a "action" list is generated from the condition monitoring for testing and analysis.

Deer Island Yearly Maintenance Metrics

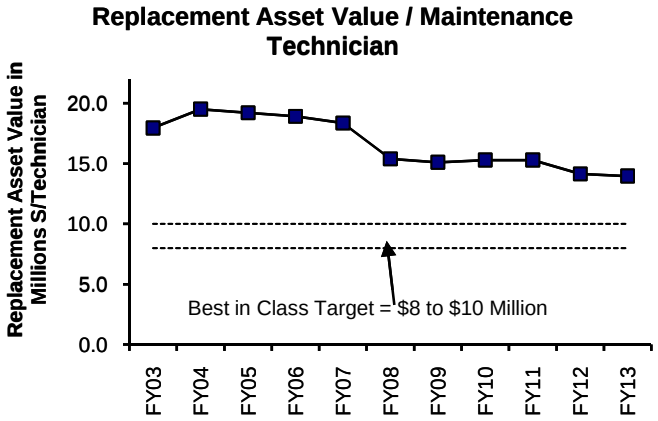
4th quarter - FY13

Overall Maintenance Program Measures

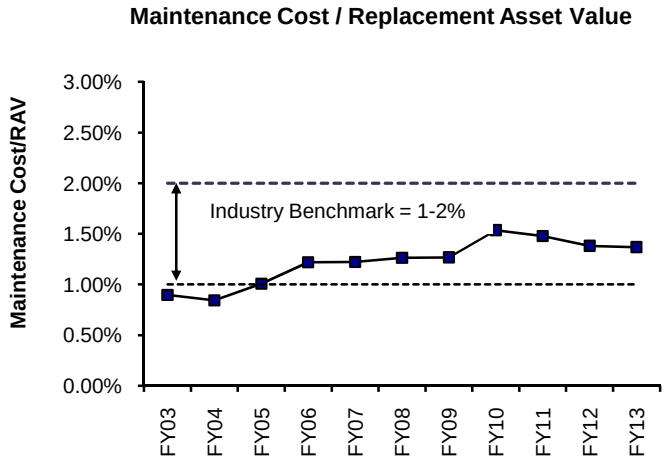


Maintenance staff is currently at 114 FTE's. Maintenance has been successful in meeting its goals through implementation of numerous maintenance efficiencies including Operations staff performing light maintenance, cross-functional training and flexibility, and Reliability Centered Maintenance.

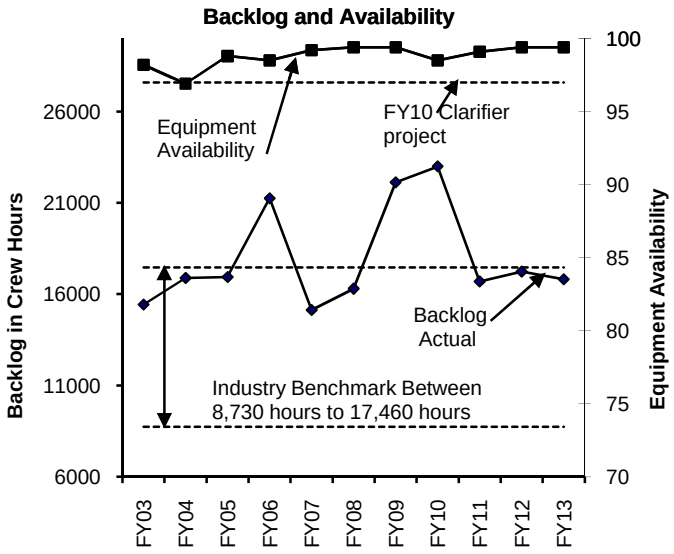
The maintenance spending graph shows actual annual maintenance spending and large asset replacements (equipment costs only). Maintenance budgeting will continue to evaluate proper preventive maintenance of plant assets and requirements for replacement of obsolete equipment to insure plant operates at maximum efficiency. In FY13, overall spending remained at the same level as FY12. CIP projects during FY13 included the Digester valve replacement, Expansion joint repairs, and W3H flushing system. The large spike in FY10 and FY11 was attributed to the Clarifier rehabilitation project ($58M) which was on-going during that period.



DITP has adopted a "best in class" target of $8-$10 Million/Technician for its maintenance staffing. DITP exceeds the target at this time although the trend continues downward. As the plant ages and additional projects and replacements are required, additional staffing needs will be assessed.



The industry benchmark for annual maintenance spending is between 1% to 2% of replacement asset value. The plant's replacement asset value was calculated to be approximately $2.3 billion dollars. DITP's current maintenance spending is within the target range. Additional spending is expected to be required as the plant ages and additional equipment replacements are required. The maintenance spending includes $12.5 million in CEB together with CIP spending which included projects such as Digester valve replacement, Expansion joint repairs, and W3H (high pressure plant water) flushing system.



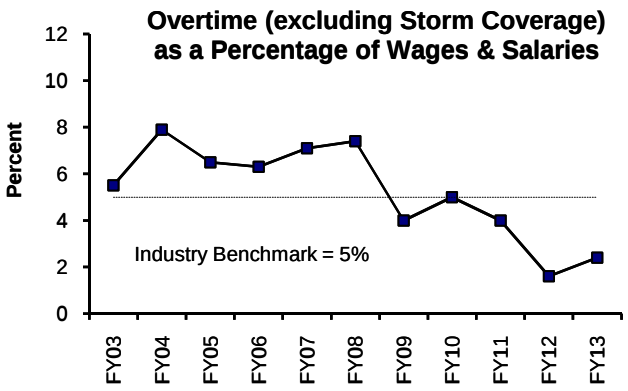
The industry benchmarks for equipment availability is 97% and the maintenance backlog based on current staffing levels is between 8,730 to 17,460 hours, respectively. The equipment availability exceeded the goal for the last nine years and was 99.4% for FY13.

The total average backlog for FY13 was 16, 812 hours and is within the industry benchmark. The slight decrease in backlog is attributed to less maintenance work on clarifiers after completing of the clarifier rehabilitation project and the return of some staff from IA, absences, and filling critical trade vacancies. management continues to prioritize work and closely monitor our backlog.

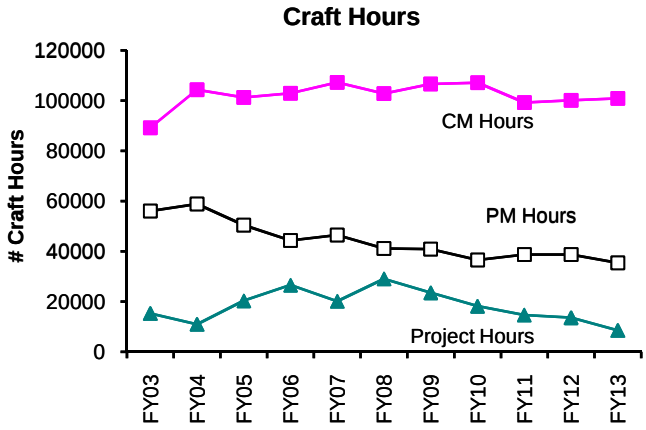
Deer Island Yearly Maintenance Metrics

4th Quarter- FY13

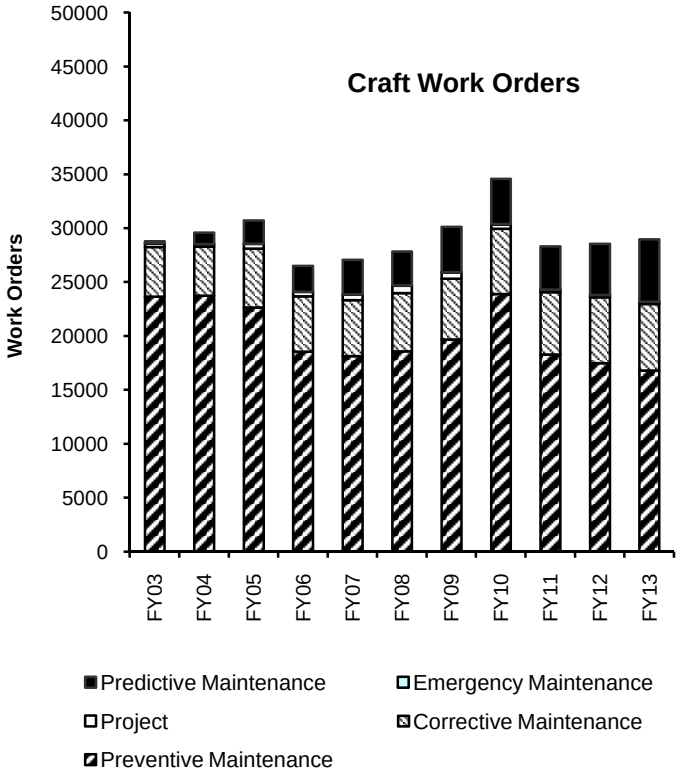
Overall Maintenance Program Measures



Management continues its effort to keep overtime within the industry benchmark. DITP maintenance overtime was 2.4% for FY13. Management has taken steps to reduce overtime spending by limiting overtime to repair critical equipment and systems only. DITP has been on or under budget from FY09 through FY13.



Optimization of the PM program through the transfer of some light maintenance tasks to Operations staff (19% of PM hours at the end of FY13), elimination of duplicate work orders, decreasing PM frequency due to equipment history and performance, completion of a PM Optimization efforts, and RCM recommendations has resulted in a significant decrease of 20,638 hours in maintenance staff PM craft hours from FY03 to FY13. Corrective Maintenance (CM) hours have remained the same from last year. Project Maintenance hours continues to show a decline as an increasingly amount of project work is being handled through the CIP asset protection program.

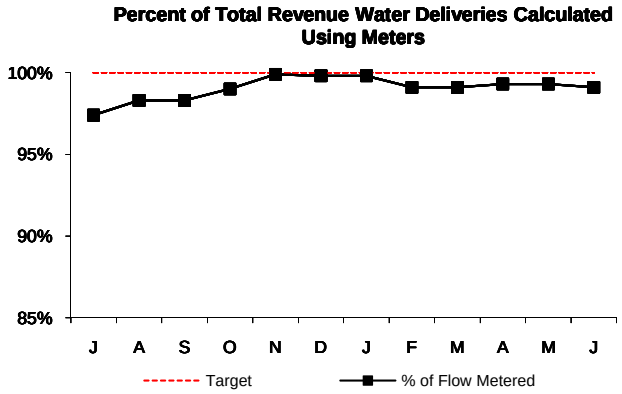


During FY13, the number of work orders increased by 444 from the previous year as a result of adding condition monitoring tasks. These techniques allow maintenance to monitor and test equipment using technology that takes less time and is less intrusive.

Operations Division Metering

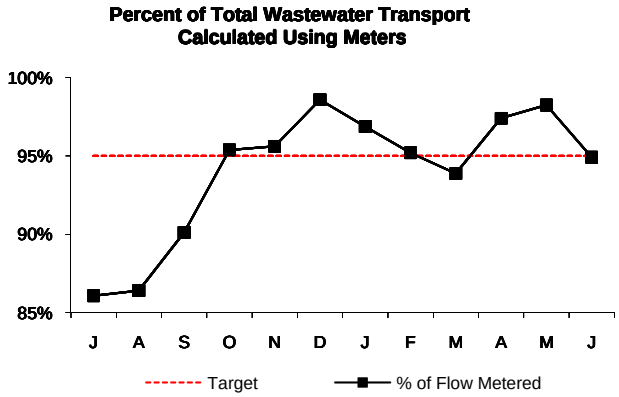
4th Quarter - FY13

WATER METERS



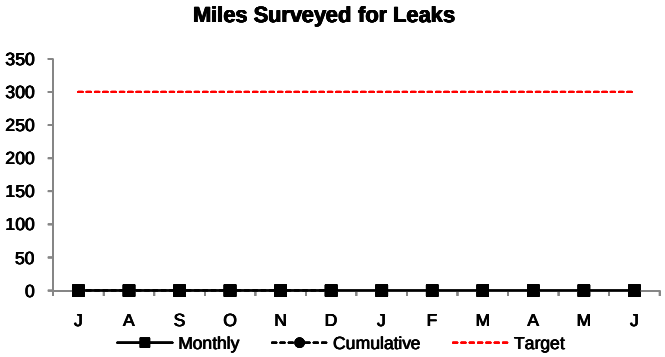
The target for revenue water deliveries calculated using meters is 100%. Estimates are generated for meters that are out of service due to instrumentation problems or in-house and capital construction projects. During the 4th Quarter of FY13, meter actuals accounted for 99.23% of flow; only 0.76% of total revenue water deliveries were estimated. The following is the breakdown of estimations:
In-house and Capital Construction Projects - 0.03%
Instrumentation Failure - 0.73%

WASTEWATER METERS



The target for revenue wastewater transport calculated using meters is 95%. Estimates are generated for meters missing data due to instrument failure and/or erratic meter behavior. Estimates are produced using data from previous time periods under similar flow conditions. During the 4th Quarter of FY13, meter actuals accounted for 96.9% of flow; 3.1% of wastewater transport was estimated.

WATER DISTRIBUTION SYSTEM PIPELINES



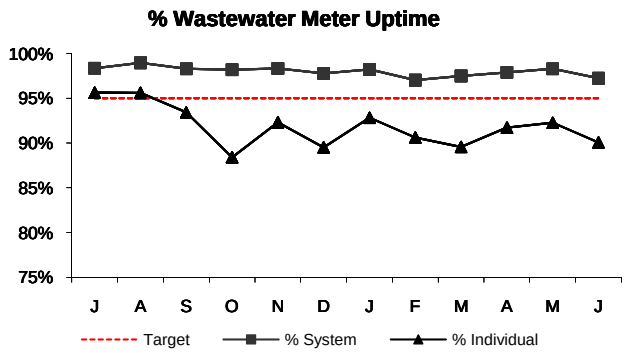
Two new leak detection staff are being hired: one started in June, and the second is expected to begin in August. After familiarization with the system, leak detection activities resumed in July.

Water Distribution System

Month	J	A	S	O	N	D	J	F	M	A	M	J
Leaks Detected	2	2	1	0	0	1	3	2	0	0	2	0
Leaks Repaired	2	1	2	0	0	1	3	2	0	0	0	2
Backlog	0	1	0	0	0	0	0	0	0	0	2	0
Avg. Lag Time	1.0	2.3	3.0	3.0	3.0	4.5	4.4	4.1	4.1	4.1	3.8	5.0

During the 4th Quarter of FY13, only two leaks were detected and both occurred during the month of May. The first leak was located at Alewife in Somerville and the second at the Deer Island Scum Building. Repairs were completed on June 5th and June 13th respectively. For FY13 all leaks have been repaired and the average lag time was 5 days.

While there are no outstanding leaks in the Metropolitan distribution system, staff can have to work towards repairing a leak on the Chicopee Valley Aqueduct. Improvements to an MWRA/Springfield interconnection and bypass piping will be required.



During the 4th Quarter of FY13, out of a possible 1,581,216 data points, only 34,597 points were missed resulting in a system-wide up time of 97.8%. Of the 181 revenue meters installed, on average 15.7 meters/mth. experienced down time greater than the 5% target resulting in a 91.4% individual meter uptime. For the 4th Quarter of FY13, down time for an individual meter is defined by any individual meter having on average less than 2766 data points out of a potential 2,912 data points.

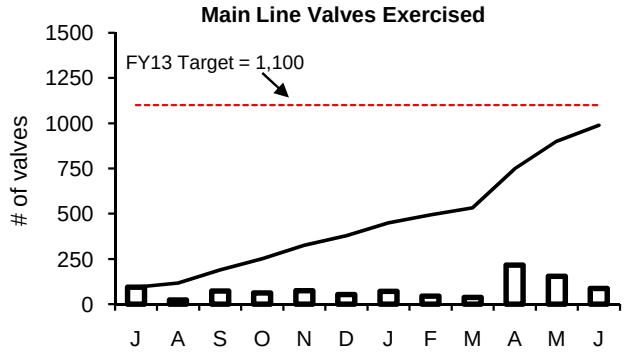
Water Distribution System Valves

4th Quarter - FY 13

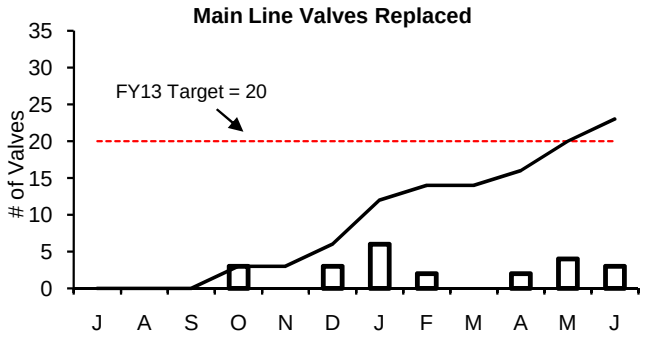
Background

Valves are exercised, rehabilitated, or replaced in order to improve their operating condition. This work occurs year round. Valve replacements occur in roadway locations during the normal construction season, and in off-road locations during the winter season. Valve exercising can occur year round but is often displaced during the construction season. This is due to the fact that a large number of construction contracts involving rehabilitation, replacement, or new installation of water lines, requires valve staff to operate valves and assist with disinfection, dechlorination, pressure-testing, and final acceptance. Valve exercising can also be impacted due to limited redundancy in the water system; valve exercising cannot be performed in areas where there is only one source of water to the community meters or flow disruptions will occur.

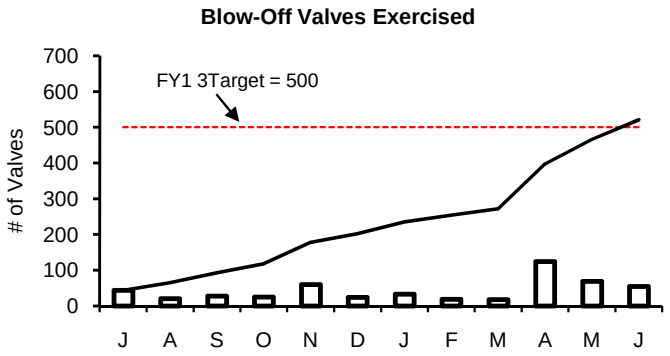
Type of Valve	Inventory #	Operable Percentage	
		FY13 to Date	FY13 Targets
Main Line Valves	2,092	97.5%	92%
Blow-Off Valves	1,206	95.0%	94%
Air Release Valves	1,335	93.4%	92%
Control Valves	48	100.0%	95%



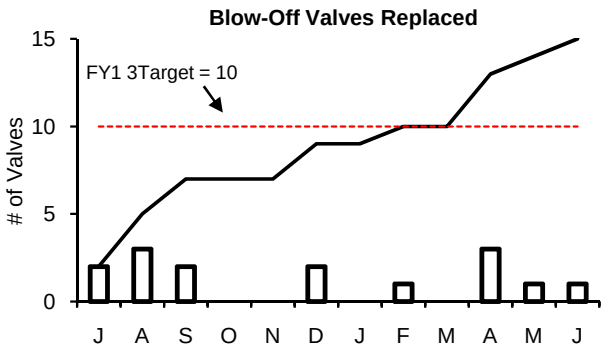
During Q4 of FY13, staff exercised 456 main line valves The total exercised for the fiscal year is 988. YTD main line valves exercised is approximately 10% below target . During the first three Quarters of FY13 our results were lower than average. This deviation was due in large part to water quality issues, valve crews support of contractor's construction contracts, inability to access valves during weather related incidents and one foreman out on I/A.



During Q4 of FY13, nine main line valves were replaced. The total replaced for the fiscal year to date is 23.



During Q4 of FY13, staff exercised 249 blow-off valves. The total exercised for the fiscal year is 521.



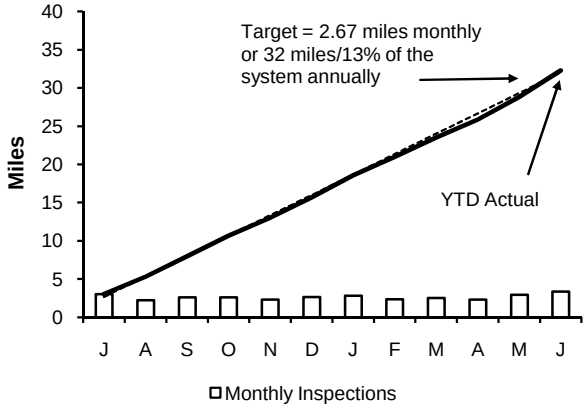
During Q4 of FY13, staff replaced five blow off valves. The total replaced for the fiscal year is fifteen.

Wastewater Pipeline and Structure Inspections and Maintenance

4th Quarter - FY 13

Inspections

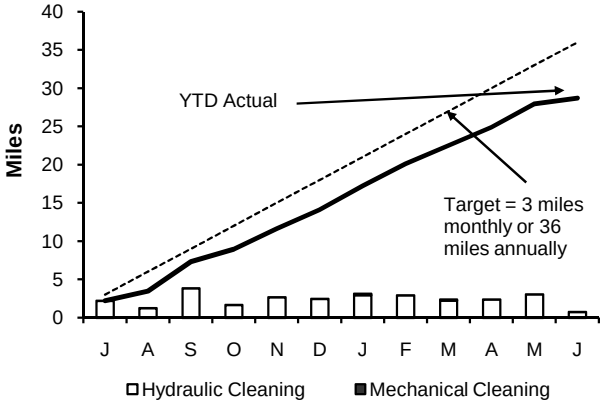
Pipeline Inspections



Staff internally inspected 8.74 miles of MWRA sewer pipeline during the 4th quarter. The year to date total is 32.25 miles. No Community Assistance was provided this quarter.

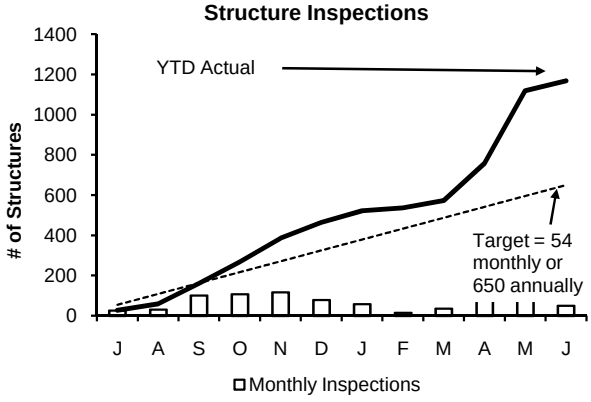
Maintenance

Pipeline Cleaning



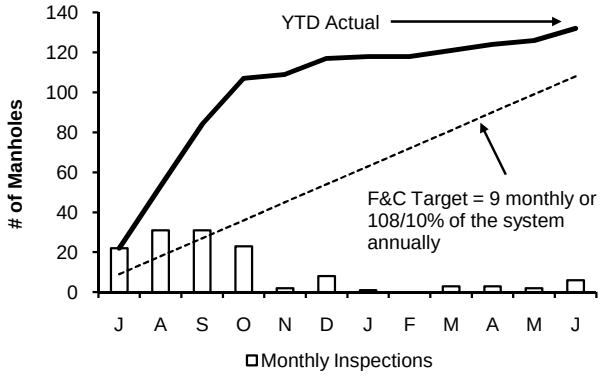
Staff cleaned 6.17 miles of MWRA's sewer system and removed 33 yards of grit and debris during the 4th quarter. The year to date total is 28.69 miles. No Community Assistance was provided this quarter.

Structure Inspections



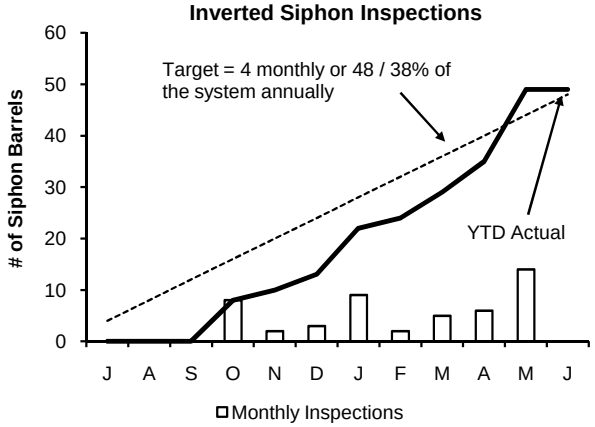
Staff inspected the 36 CSO structures and performed 575 additional manhole/structure inspections during the 4th quarter. The year to date total is 1168 inspections.

Manhole Rehabilitation



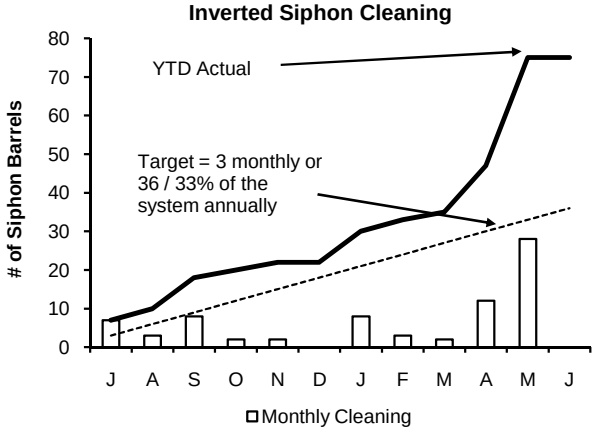
Staff replaced 11 frames & covers during the 4th quarter. The year to date total is 132.

Inverted Siphon Inspections



Staff inspected 20 siphon barrels during the 4th quarter.Year to date total is 49 inspections.

Inverted Siphon Cleaning

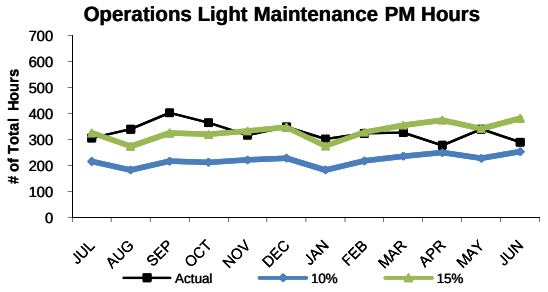


Staff cleaned 40 siphon barrels during the 4th quarter.The year to date total remains at 75 barrels.

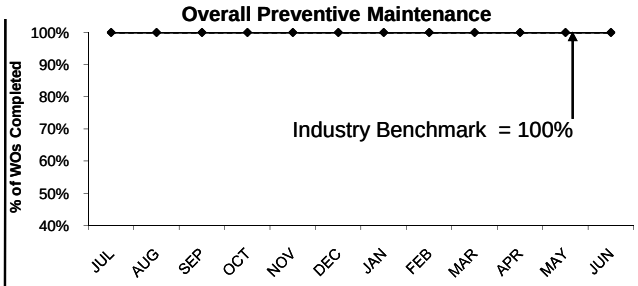
Field Operations' Metropolitan Equipment & Facility Maintenance

4th Quarter, FY13

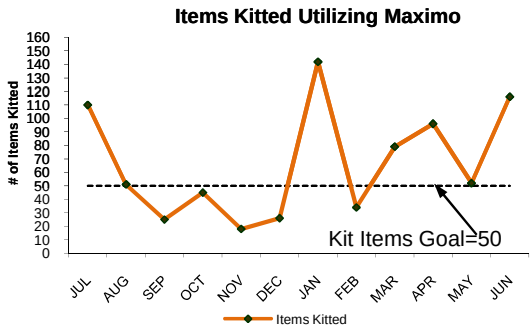
Several maintenance and productivity initiatives are in progress. The goal for the Overall PM completion and the Operator PM completion was raised to 100% for Fiscal Year 2010. The Operator PM and kitting initiatives frees up maintenance staff to perform corrective maintenance and project work, thus reducing maintenance spending. Backlog and overtime metrics monitor the success of these maintenance initiatives.



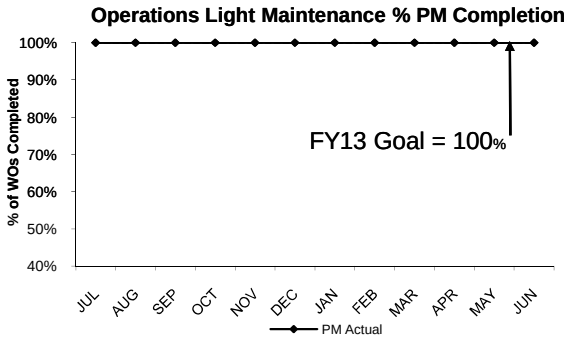
Operations staff averaged 328 hours of preventive maintenance during FY13 an average of 16% of the total PM *hours* for FY13, which is above the industry benchmark of 10% to 15%.



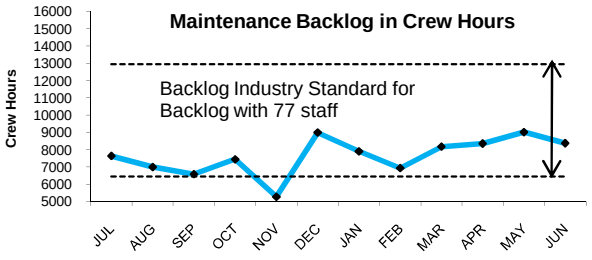
The Field Operations Department (FOD) preventive maintenance goal for FY13 is 100% of all PM work orders. Staff completed an average of 100% of all PM work orders during FY13.



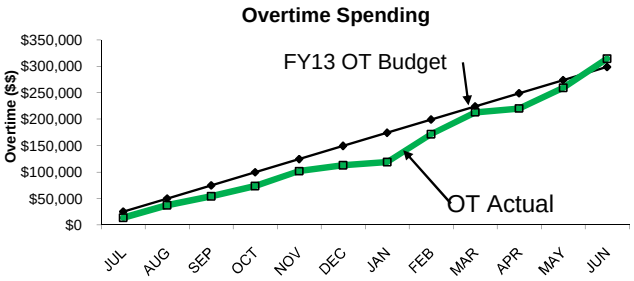
In an effort to more efficiently complete work, maintenance staff and work coordination staff have utilized the Lawson/Maximo interface to better kit stock and non stock material. The goal for FY13 is to "kit" 50 stock and non stock items total per month. An average of 66 items were kitted during FY13.



Wastewater Operators complete light maintenance PM's which frees up maintenance staff to perform corrective maintenance. Operations' FY13 PM goal is completion of 100% of all PM work orders assigned. Operations completed an average of 100% of PM work orders in FY13.



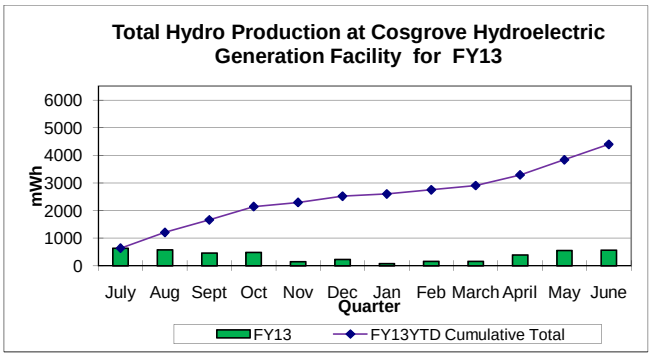
The FY13 backlog average is 7645 hours. Management's goal is to continue to control overtime and still stay within the industry benchmark of 6450 to 12,940 hours.

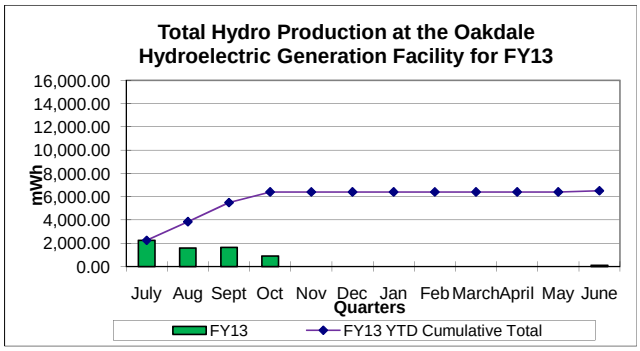


Maintenance overtime was $31k over budget for FY13. Overtime was used for emergency repairs and wet weather coverage.

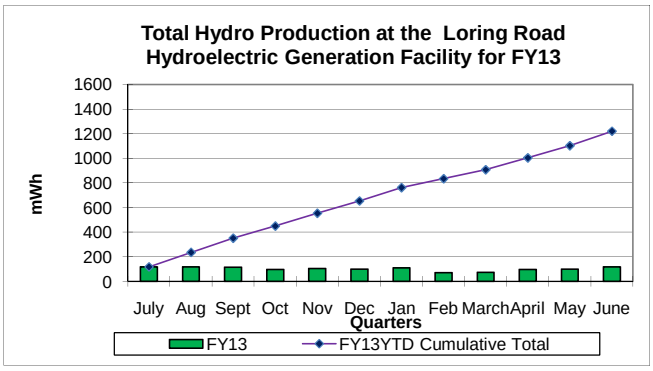
Field Operations Hydroelectric Generation Quarterly Report

4th Quarter - FY13





In the 4th Quarter, the **Cosgrove Hydroelectric Station** generated a net of 1493 MWh; approximately 3% more power than was generated during the same quarter in FY12. The revenue generated at Cosgrove in the fourth quarter was $61,647 exclusive of Renewable Energy Certificates.



In the 4th Quarter, the **Oakdale Hydroelectric Station** generated a net of 105 MWh; significantly less power than was generated during the same quarter in FY12, however, the station was shut down November through May due to planned electrical upgrades and only began energy production late in June. The net revenue generated in the fourth quarter was $11,855. (Power is generated when water is transferred from Quabbin to Wachusett.)

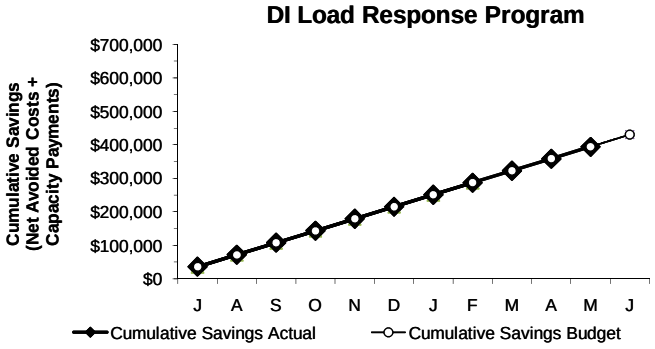
In the 4th Quarter, the **Loring Road** hydroelectric 200 kW station generated 313 MWh; approximately 3% more power than was generated during the same quarter in FY12. The net revenue generated in the April and May was $4,566 (June's invoice hasn't been received yet). Power is generated as water conveyed from Norumbega to the Loring Road storage tanks is reduced in pressure and the energy available in this pressure reduction is captured by the new turbine. The facility operates continuously. Some power is consumed on site, with the bulk exported to the grid.

Energy Audits and Implementation of Audit Recommendations at FOD Facilities: Audits of 24 facilities were performed in two phases from FY10 through the first quarter of FY12. The focus of these energy audits were lighting, HVAC, pumps, and motors. Implementation of the audit recommendations began at the end of the 1st Quarter of FY11 and are on-going. Audits of an additional 6 facilities began in the second quarter of FY12 and were 90% completed in the fourth quarter of FY13.

- Installation of energy efficient interior lighting at Columbus Park, expected to save approximately 69,784 kWh and $10,500 annually, was completed during the fourth quarter of FY13.

-Evaluation of feasibility of converting specific facilities from oil to natural gas for heating. Currently three facilities have been identified for evaluation, Chelsea Creek, Brattle Court, and the IPS.

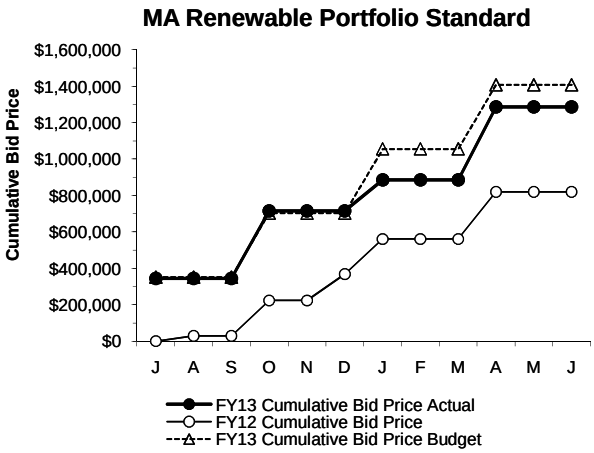
Demand Response Payments: The John Carroll Water Treatment Plant, Loring Road Hydro, and Chelsea Creek, Columbus Park, and Ward Street Headworks are all enrolled in the ISO's Demand Response Program. The total net capacity payments for all four quarters of FY13 was $50,647.



Deer Island participates in the ISO-New England Load Response Programs. By agreeing to have its Combustion Turbine Generators available to run and thus relieve the New England energy grid of Deer Island's load during times of high energy demand, MWRA receives monthly Capacity Payments from ISO-NE. "Net Avoided Cost" is the avoided NSTAR payments offset by the cost of running the CTGs. Cumulative savings are the sum of Net Avoided Costs and monthly Capacity Payments - totaling $430,2 through May.

DITP participated in one (1) demand response audit event on June 11.

Note: Only the actual payments received are now being reported. The capacity payment for June is not reported here as the payment has not been received.

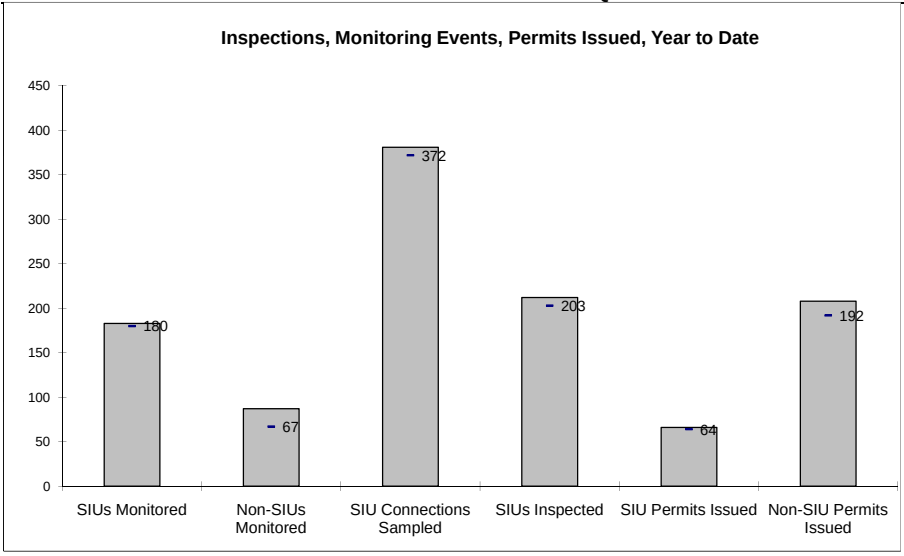


There were no Renewable Energy Certificate (REC) bids in June. The next auction is scheduled for July.

REC prices reflect the bid prices on the date that bids are accepted. Cumulative bid price reflects the total value of bids received to date. The FY13 budgeted cumulative bid estimate is $1,407,055 while the actual bid total is $1,286,106.

Toxic Reduction and Control

4th Quarter - FY 2013



EPA Required SIU Monitoring Events
for FY13: 180
YTD : **183**

Required Non-SIU Monitoring Events
for FY13: 67
YTD : **87**

SIU Connections to be Sampled
For FY13: 372
YTD: **381**

EPA Required SIU Inspections
for FY13: 203
YTD: **212**

SIU Permits due to Expire
In FY13: 64
YTD: **66**

Non-SIU Permits due to Expire
for FY13: 192
YTD: **208**

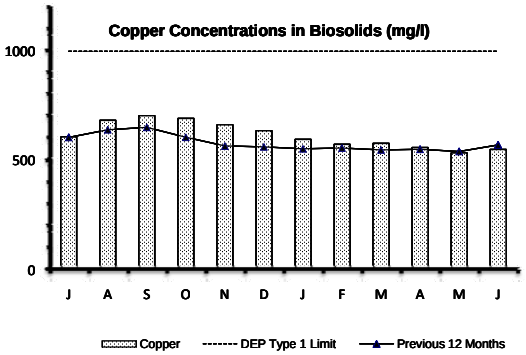
Significant Industrial Users (SIUs) are MWRA's highest priority industries due to their flow, type of industry, and/or their potential to violate limits. SIUs are defined by EPA and require a greater amount of oversight. EPA requires that all SIUs *with flow* be monitored at least once during the fiscal year. The "SIU Monitored" data above reflects the number of industries monitored in the month. However, many of these industries have more than one sampling point and the "SIU Connections Sampled" data reflect samples taken from multiple sampling locations at these industries.

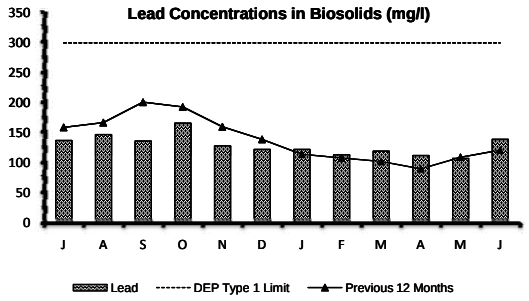
TRAC's annual monitoring and inspection goals are set at the beginning of each fiscal year but they can fluctuate due to the actual number of SIUs at any given time. During the course of the year, some SIUs do not discharge and cannot be monitored TRAC also monitors one-third of the non-SIUs each year. TRAC met its EPA required inspection and monitoring goals for FY13.

SIU and Non-SIU permits are issued with durations of two to five years, depending on the category of industry, varying the number of permits that expire in a given year.

Number of Days to Issue a Permit								
	0 to 120		121 to 180		181 or more		Total Permits Issued	
	SIU	Non-SIU	SIU	Non-SIU	SIU	Non-SIU	SIU	Non-SIU
Jul	2	8	0	0	0	0	2	8
Aug*	1	9	1	0	0	0	2	9
Sep	1	8	0	1	0	1	1	10
Oct	4	25	0	2	0	1	4	28
Nov	6	13	0	1	0	1	6	15
Dec	4	9	1	0	0	2	5	11
Jan	7	44	0	1	0	1	7	46
Feb	9	13	0	2	1	1	10	16
Mar	5	9	0	0	0	0	5	9
Apr	9	24	0	0	0	0	9	24
May	5	16	0	2	1	0	6	18
Jun	9	13	0	0	0	1	9	14
% YTD	94%	92%	3%	4%	3%	4%	66	208

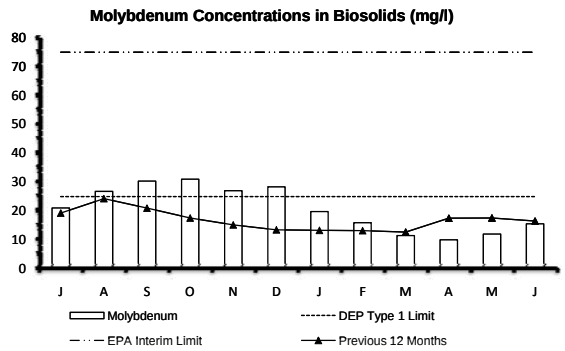
EPA requires MWRA to issue or renew 90% of SIU permits within 120 days of receipt of the application or the permit expiration date - whichever is later. As indicated above, TRAC exceeded this requirement, during the fiscal year, issuing 94% of SIU permit within 120 days. EPA also requires the remaining 10% of SIU permits to be issued within 180 days. During the fiscal year, three percent of the remaining 6% were issued in 180 days, and three percent (2 permits) took longer than 180 days while difficult permitting issues were resolved. In Q4 of FY13, twenty-three SIU and fifty-three non-SIU permits were issued within 120 days after receipt of their applications. One SIU and three non-SIU permits were issued after 121 days.





Copper, lead, and molybdenum are metals of concern for MWRA as their concentrations in its biosolids have, at times, exceeded regulatory standards for unrestricted use as fertilizer. Cooling tower usage typically causes a seasonal spike in molybdenum concentrations due to the blowdown on large AC systems that use corrosion inhibitors containing molybdenum. Levels drop again following the end of the cooling season, although this is delayed due to biosolids processing time. The hotter the season, the higher the spike. TRAC has an ongoing program to persuade cooling tower operators to switch to phosphate-based corrosion inhibitors.

In Q4 of FY!3, levels of molybdenum stayed below the DEP type 1 Limit. MWRA and its contractor (NEFCO) do not distribute product in Massachusetts between July and January under its approval of suitability.



Field Operations Highlights – Orange Notebook Bullets

4th Quarter – FY13

Western Water Operations and Maintenance

- Cosgrove Intake and Power Station: Staff supported the Hydro Turbine Governor Controls Contractor while conducting index testing on both hydro turbines. The data is used to update the operating characteristic curves to ensure that the hydro turbines are operated in the most efficient manner for their current condition. Staff also conducted a turbine trip test to determine the hydraulic impact a trip with both turbines running would have on the Carroll Water Treatment Plant. The plant rode through the event successfully.

- CWTP: Staff provided emergency power connections for the back up Operations Control Center for Metro Water and Metro Wastewater Operations to be located at CWTP. Staff also supported the UV contractor during the filling of the UV reactors and their associated piping prior to disinfection and hydraulic testing that will take place next quarter.

- Hultman Aqueduct: Staff supported the contractor while replacing the 16-inch gate valve off the Hultman Aqueduct that feeds the Marlborough Pump Station. Staff supported the contractor while disinfecting and flushing the Upper Hultman. Staff tested new and upgraded valve actuators along the aqueduct to ensure they were working properly in remote SCADA operation. Staff also started fabrication and installation of new stainless steel, hamper-proof hasps for the valve vault access hatches.

- Ware Disinfection Facility: Staff, in support of the UV construction project, tested the Chicopee Valley Aqueduct isolation valves that will be required to tie in the new UV piping

Metro Water Operations & Maintenance

- Incidents: A contractor working for the town of Belmont mistakenly hit one of the town's mains in the early morning hours of June 3. MWRA Staff mobilized at the request of the town to potentially open an emergency connection from our system if needed. By mid morning, the contractor was able to expose the damaged pipe and stop the leaking water. The emergency connection did not need to be opened, as the town was able to maintain normal service.

- Water Pipeline Program: Site work began in April at Section 89 in Woburn on the south side of the Washington Street Bridge for the planned replacement of the existing 24" globe valve and 36" butterfly valve. On May 1, staff replaced the existing 24" globe valve and 36" butterfly valve with a 36" globe valve and 36" gate valve. The installation of these valves are the final pieces of the overall head loss reduction program on Section 89. Section 89 was isolated during the overnight hours for the valve work to be done. No service impacts occurred. On May 21, another isolation occurred to install and set the control piping on the new 36" globe valve. This work was completed within a day time isolation of Section 89. During the May 21 isolation, the blow-off valve on the north side of the bridge was retrofitted. The blow-off valve on Section 89 on the south side of the bridge was retrofitted during an overnight isolation of the pipeline on June 18. The work was successfully completed, with no service impacts. This was the last scheduled isolation of Section 89 for the immediate future. Staff installed several hundred feet of 16" high density polyethylene (HDPE) pipe at the Braintree-Weymouth Pump Station in Quincy. The pipe will avoid the need to deploy temporary piping if portable pumps are required to be used at the pump station during extreme wet weather events.

- Valve Program: Valve Staff worked with the Quincy and Saugus Water departments to isolate several meters to the city and the town. Quincy continued their ongoing water main installation that required isolation and activation of Meter 334 to the city. Saugus had experienced a water main break downstream of Meter 134. The valve work performed by MWRA Staff allowed the town to install a new valve within their system for improved hydraulic control. Valve Staff flushed the emergency connection between Stoneham and Reading in the event that it was needed during the Section 89 work noted above. Staff deployed the portable water fountain at a variety of functions during the month.

- CIP and 8M Permit Support: Section 10 was isolated on April 29 to allow the Mass DOT Contractor working on the Larz Anderson Bridge Reconstruction to install a new valve (A future isolation will be required once the new piping across the bridge has been installed.). Staff refilled Section 10 on May 6 after the completion of the installation of a new valve. There was an issue with the pipe restraints that had been used and the line was re-isolated that day. The restraint system was redesigned and the pipeline was refilled on May 28. Flushing of the line occurred over several weeks, with water quality samples being taken late in the month. Reactivation is to occur in early July.

- Dig Safe Pilot Program: The Dig Safe Pilot Program continues to function successfully. Brookline, Chelsea and Saugus are included in the program that is related to MWRA water pipelines. During the fourth quarter, MWRA received 892 notices, of which 103 were of an emergency nature. Twenty-three (23) emergency mark outs and 103 regular mark outs were required from the 892 total notices.

Wastewater Operations & Maintenance

- April 15, 2013-Marathon Bombing-Security Action: Staff maintained normal operations and were advised of communication impacts to the cellular network during this emergency situation. Staff roved facilities to ensure facility security and were kept advised of the ongoing police actions throughout this event. EOC was staffed by MWRA Security and Emergency Planning Staff.

Wastewater Operations & Maintenance (cont.)

- Department of Public Health Meeting: Members of the both the MWRA Senior Staff and Operations Staff met with representatives from the Massachusetts Department of Public Health to discuss the issue of PCBs found in paint at several MWRA facilities.

- Braintree/Weymouth Relief Pump Station: Staff monitored and operated the new manual bar screens at the Braintree/Weymouth Relief Pump Station. The screens are intended to keep rags and other debris from clogging the two grinders at the facility. An SOP was developed on cleaning the screens and staff was trained. Staff provided support while testing the newly installed bypass pumping piping. The system was successful handling the flows during the testing and will be utilized as required in the future

- Cottage Farm Fuel Oil System Upgrade: This project to install new fuel oil day tanks for the diesel engines, generator and main facility boilers, fuel transfer pumps, an overflow tank, chemical building fuel storage tanks and underground storage tank selector valves to meet current code requirements and improve fuel handling and monitoring capabilities within the facility was completed on June 2013.

- Nut Island Power Switching Modifications: The project was designed through a Task Order to purchase and install lightning arrestors, transient surge suppression, and a metering system within the existing switchgear, and rewire electrical feeds to various equipment to ensure backup power. The NTP in was issued in December 2012, and as of the end of June, the contractor has successfully completed the installation and testing of all equipment.

TRAC

- Enforcement: Penalty Assessment Notices: TRAC issued a Penalty Assessment Notice (PAN) to Aero Brazing Corporation in Woburn, MA for operating without a licensed pretreatment operator, falsifying information on its permit application and failing to submit a pretreatment report as required by its permit. The amount of the penalty is $62,500.00. TRAC issued a PAN to Northeastern University. for discharge of wastewater containing excessive levels of mercury to the sanitary sewer, after the issuance of a Notice of Noncompliance and Order. The amount of the penalty is $25, 500.00. TRAC issued twenty-four Penalty Assessment Notices (PANs) totaling $8**,**775.00 to companies that failed to submit the annual Compliance Report as required by the Group Permit for Food Processing Operations (G2 Group Permit). The due date for filing the Compliance Report was July 2, 2012. The penalties ranged from $175.00 to $1,000.00**.**
- Annual Meetings for Significant Industrial Users (SIUs): On May 28, 29 and 30, TRAC held its annual meetings for Significant Industrial Users (SIUs) at the Deer Island Treatment Plant. 79 representatives from more than 40 facilities attended the single-day meetings and enjoyed tours of the plant as well as presentations about pretreatment issues.

- Quincy Salinity Project: MWRA and the City of Quincy commenced investigations for sources of sea water inflow and infiltration during astronomically high tides and low flow to the MWRA/Quincy sewer systems. On May 29, 2013, samples were collected at a total of 10 locations, segregating out lines going to Squantum Pump Station, Houghs Neck Pump Station and Quincy Pump Station.

Metro Equipment and Facility Maintenance

- Chelsea Facility Guard Shack and Parking Lot Lights: MWRA Electrical Staff ran conduit and wiring to provide to the emergency generator electrical panel. Both the guard shack and parking lot lighting will now be powered by the emergency generator during a power outage.

- Prison Point Wet Weather Screens: The screening rakes on Screens 2 and 4 were inspected during routine preventive maintenance. Eight rakes on each screen were determined to be worn and in need of replacement, and were replaced in kind.

- Lexington Pump Station: The surge valve for Pump #3 was replaced with a newer more reliable valve by MWRA staff.

- All Headworks: MWRA conducted ultra sonic thickness testing for the grit pipe at Chelsea, Columbus Park and Ward Street Headworks. Results were documented and any pipe out of tolerance will be replaced.

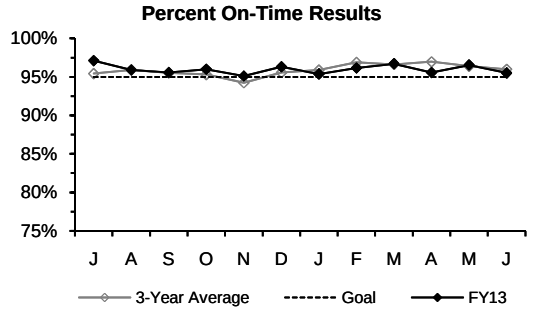
Operations Support

- Development of ERP Training Programs: Staff continued implementation of the Community Emergency Response Training Program as required by DEP. This training is being provided by MWRA expert staff and is being delivered to local community and MWRA staff. Through the end of June, the two-day 10-hour modular course has been repeated four times and is scheduled to be repeated again at least once more in September 2013 to accommodate the expected community participation.

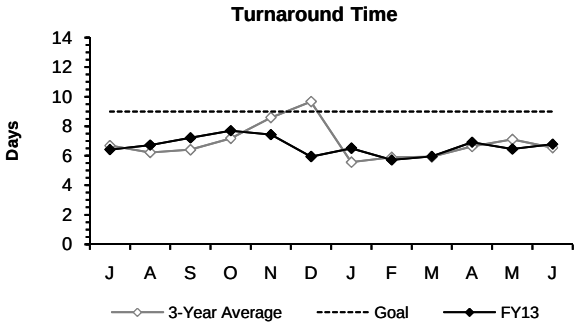
- Chicopee Valley Aqueduct Leak: Staff has been investigating a leak near the Swift River crossing of the CVA. In April, an unsuccessful attempt was made to do a repair by internal entry and further contingency plans were developed in the event of the leak worsening. In May, staff worked with Springfield Water &Sewer Commission to assess the feasibility of a backup supply and began procuring parts for an emergency pumping connection. Design of a long-term repair is underway.

Laboratory Services

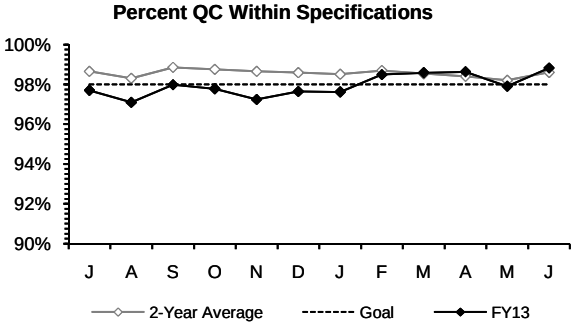
4th Quarter - FY13



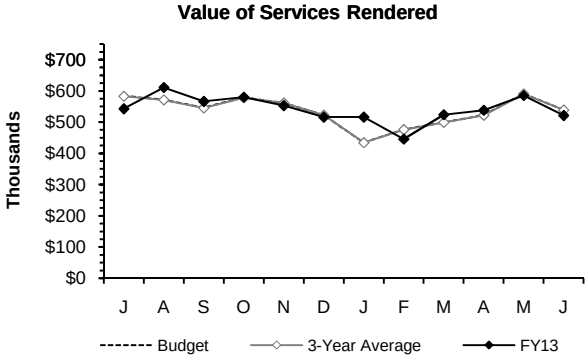
The Percent On-Time measurement exceeded the 95% goal.



Turnaround Time was faster than the 9-day goal.



Percent of QC tests meeting specifications was above the 98% in-house goal at 98.8%



Value of Services Rendered was slightly below the seasonally adjusted budget projection, but above the fiscal year to date projection.

Highlights:

Quality Assurance: Passed 98.8% of the annual Proficiency Test (PT) parameters on the first try. That's 416 out of 421 right answers for chemistry and microbiology parameters. Annual PT tests are required for DEP certification and also for NPDES permits (DMR-QA). Any results that are not acceptable need to be successfully repeated by the end of the calendar year.

Compliance Audit: The in-house quarterly compliance audit was on sample custody. Documenting proper custody on samples is important for establishing sample integrity and the validity of lab and field results. External and internal custody documentation at all five lab locations was found to be compliant with established procedures.

DITP: Due to our consistent testing procedures, our results were used to help DITP resolve two plumbing issues in the digesters. Collected QC samples during Thermal Power Plan fuel oil deliveries.

ENQUAD: DCR Boston Harbor beach testing began. EPA removed the requirement to test fat particles from net tows at the outfall area based on two years of results.

TRAC: Worked with TRAC to identify a suitable field preservation procedure for cyanide samples from a difficult industry type. A cyanide field spike quality control sample demonstrated when sample preservation was sufficient to obtain suitable results.

Water Quality Assurance: Tested rush Quabbin Reservoir samples in response to a security incident. Participated in developing and presenting the biennial drinking water sampler training program.

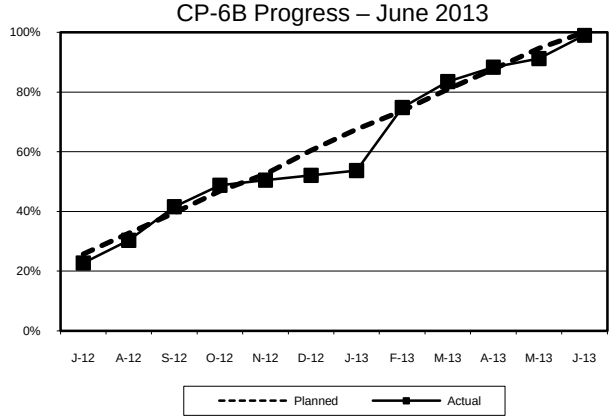
CONSTRUCTION PROGRAMS

Projects In Construction

4th Quarter, FY13

(Progress Percentages based on Construction Expenditures)

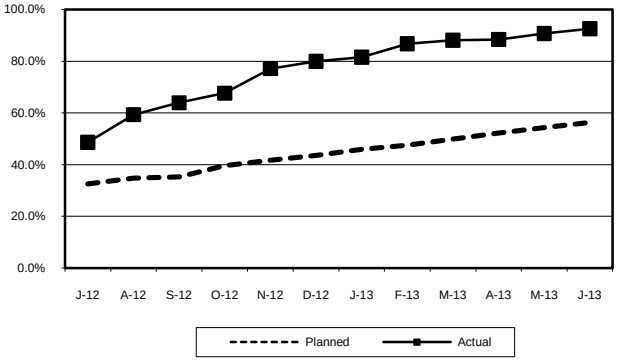
Hultman Aqueduct Interconnection
CP-6B Progress – June 2013



Project Summary: This project includes the replacement and rehabilitation of valves and piping in the Shaft 4 Headhouse, adjoining aqueduct chamber and the sections of the Hultman Aqueduct located in Marlborough and Southborough.

Status and Issues: As of June, the Contractor completed the start-up and testing of the vertical turbine wet well sump pump; installed grating on mid-level inside Shaft 4 and reinstalled the precast concrete roof planks over the Weston Aqueduct Transfer Chamber. This contract has been declared substantially complete.

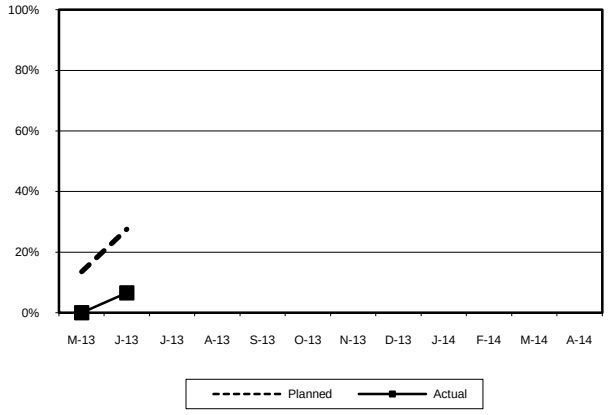
UV Disinfection Facilities CWTP
Progress – June 2013



Project Summary: In accordance with the EPA's requirement to have two primary methods of disinfection, the Authority will add an Ultraviolet (UV) light disinfection process at the Carroll Water Treatment Plant, which will render Cryptosporidium inactive.

Status and Issues: As of June, the Contractor completed all work related to the demolition and modification of the 120" stainless steel pipe with concrete transition piece connection to the influent flange at the A&B sides. A hydrostatic pressure test was completed on the A side, 120"x48" line. The A side has been chlorinated, disinfected and samples were sent for laboratory analysis.

Watertown Section Rehabilitation
Progress - June 2013



Project Summary: Watertown Section Rehabilitation involves the sliplining of a 5,300 foot-long 30-inch steel pipe with 24-inch High Density Polyethylene (HDPE) pipe and the installation of 400 feet of 24-inch and 30-inch diameter HDPE pipe by open cut.

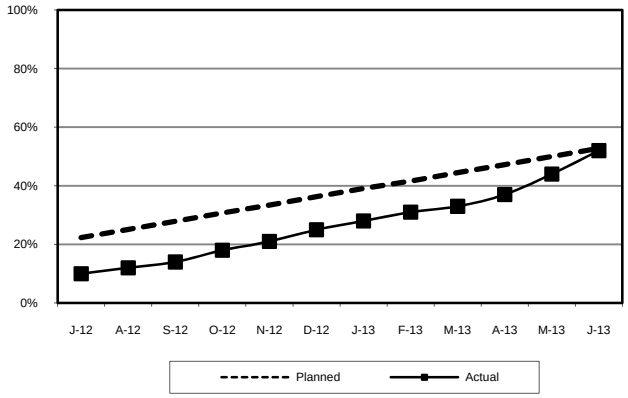
Status and Issues: As of June, the Contractor completed 10 access pits, cleaned and video taped the 30" steel main from Sta. 1+46 to 21+25. In addition, approximately 1,800 LF of 24" HDPE has been fused together in various lengths in the Church Lot staging area.

Projects In Construction

4th Quarter, FY13

(Progress Percentages based on Construction Expenditures)

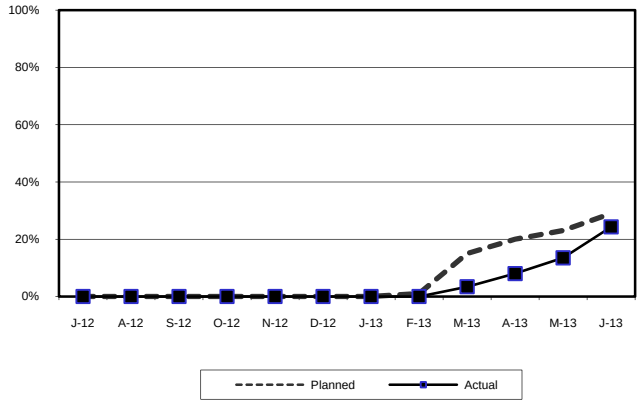
Spot Pond Water Storage Facility
Progress – June 2013



Project Summary: This is a design/build project for the construction of two, 10 million-gallon covered concrete storage tanks and a buried pump station, which will provide back-up redundancy for the Northern High and Northern Intermediate High distribution service areas.

Status and Issues: Through June, the Contractor continued with the placement of the concrete base slab, wall sections and roof decks in Tank #2. They began placing concrete base slab cells and wall sections in Tank #1. In addition, they continued with the installation of ductile iron pipe for concrete encasement below tank #2 and the pump station.

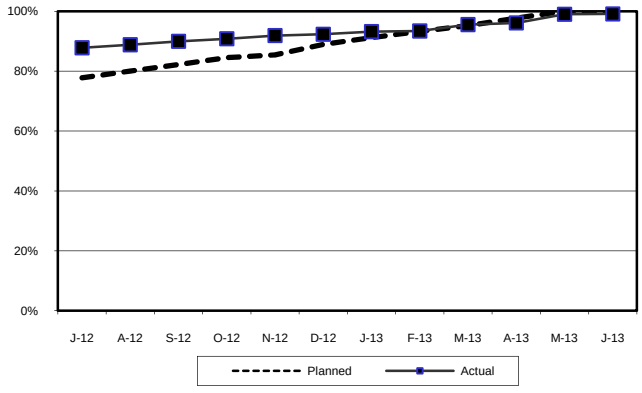
Quabbin UV Disinfection
Progress – June 2013



Project Summary: This project will improve the quality of the drinking water delivered to the CVA communities serviced by the MWRA. It involves the addition of UV disinfection at the Quabbin Disinfection Facility to meet the EPA's regulation for a second means of disinfection for unfiltered water systems.

Status and Issues: Through June, the Contractor formed, poured and then removed the forms from the Vault 1B roof slab. They formed and placed concrete for the knock out panel and installed a 48" flanged pipe in the UV building basement. In addition, they installed the raw water pipe line from the UV building to Vault 1B.

Hultman Aqueduct Interconnections Project
Progress - June 2013



Project Summary: This project includes rehabilitation construction to the Hultman Aqueduct to provide redundancy to the MetroWest Tunnel from Southborough to Weston by adding five new MetroWest/Hultman interconnections, two surge relief structures, 13.5 miles of internal rehabilitation and 15 miles of external access work.

Status and Issues: As of June, the Contractor reached substantial completion. They are continuing work on punch list items, erosion controls, pavement removal and restoration of the old staging area. In addition, they loamed and seeded areas at Loring Road and River Road.

CSO CONTROL PROGRAM

4th Quarter - FY13

In April 2013, the Town of Brookline completed the Brookline Sewer Separation project and the City of Cambridge completed the CAM004 Stormwater Outfall and Wetland Basin project, bringing the total number of completed projects to 31 of the 35 projects in MWRA's Long-Term CSO Control Plan. Two CSO projects are in construction: Reserved Channel Sewer Separation by BWSC and CAM004 Sewer Separation by the City of Cambridge. The remaining two projects, both related to Alewife Brook, are in design by MWRA. The FY14 CIP budget for the CSO Program of $888,112,279 is $25,971,804 (3%) more than the FY13 CIP budget of $862,140,475, primarily due to increased cost for the CAM004 Sewer Separation project.

Project	Court Milestones in Schedule Seven (Shaded milestones are complete.)			Status as of June 30, 2013
	Commence Design	Commence Construction	Complete Construction	
Brookline Sewer Separation	Nov 06	Nov 08	Jul 13	The Brookline Sewer separation project comprises two Brookline construction contracts and one MWRA construction contract, at a total cost of $26.0 million. The Town of Brookline completed construction of the Brookline Sewer Separation project on April 26, 2013, ahead of the July 2013 milestone in Schedule Seven. All CSO related elements of the project are functioning as intended for full environmental benefit. Brookline has removed large volumes of stormwater from its and the Authority's sewer systems, and the separated stormwater now drains to the Charles River Basin through MWRA's CSO Outfall MWR010. The achieved separation removes the burden of the stormwater flows on the sewage transport systems, reduces flows to MWRA's Ward Street Headworks, and is predicted to lower CSO discharges to the Charles River at Outfall MWR010, at the Cottage Farm CSO Facility, and potentially at other Charles River CSO outfalls. MWRA prepared Outfall MWR010 for handling the separate stormwater flows by completing the $1.1 million outfall cleaning contract in August 2012.
Reserved Channel Sewer Separation	Jul 06	May 09	Dec 15	BWSC continues to make progress with the nine planned contracts for the $64.8 million Reserved Channel Sewer Separation project. Contract 1 — CSO outfall rehab — $ 4.2 M — Complete Contract 2 — Sewer separation — $ 5.9 M — Complete Contract 3A — Sewer separation — $10.2 M — Complete Contract 3B — Sewer separation — $ 9.6 M — 60% complete Contract 4 — Sewer separation — $ 7.4 M — 40% complete Contract 7 — Pavement restoration — $ 1.1 M — Complete Contract 8 — Pavement restoration — $ 5.4 M — Ongoing BWSC expects to award Contract 5 (existing sewer cleaning and lining – not MWRA-eligible) and Contract 6 (downspout disconnections) this year, and complete all work for the Reserved Channel sewer separation project by December 2015, in compliance with Schedule Seven.

South Dorchester Bay Sewer Separation Post-Construction Inflow Removal , Status as of June 30, 2013

BWSC continues to investigate alternatives for removing additional stormwater inflow from its Dorchester Interceptor or otherwise relieving hydraulic conditions in the interceptor during extreme storms following the closing of its CSO regulators with completion of the South Dorchester Bay sewer separation project in 2007. BWSC recently issued the notice to proceed for a construction contract to remove some of the remaining inflow sources from its sewer system. The contract amount is $562,261, of which $204,000 is eligible for MWRA funding under the BWSC CSO MOU and FAA. MWRA's FY14 CIP includes a total of $5.4 million for the inflow removal effort, of which approximately $2.7 million is allocated to awarded design and construction contracts.

Project		Court Milestones in Schedule Seven (Shaded milestones are complete.)			Status as of June 30, 2013
		Commence Design	Commence Construction	Complete Construction	
Cambridge/ Alewife Brook Sewer Separation	CAM004 Outfall and Wetland Basin		Apr 11	Apr 13	The City of Cambridge attained substantial completion of the CAM004 Stormwater Outfall and Wetland Basin project, including the 4-foot by 8-foot box culvert storm drain and all functional components of the wetland basin, on April 25, 2013, in compliance with Schedule Seven. MWRA provided $13.9 million to Cambridge for planning, design and construction, including MWRA's $6.2 million share of the construction cost. Cambridge's share of the construction cost was $12.5 million, including the costs of the on-site amenities required by the Department of Conservation and Recreation (DCR) that will support recreational and educational opportunities in the Alewife Brook Reservation. The storm drain conduit will convey the stormwater now being separated from the Cambridge sewer system to the wetland basin, which in turn will attenuate the peak stormwater flows to avoid increasing flood elevations in the Little River and Alewife Brook. The wetland basin will also provide a level of stormwater treatment. Work related to the recreational and educational amenities required by the DCR construction permit (not eligible for MWRA funding) will continue through September 2013.
	CAM004 Sewer Separation	Jan 97	Jul 98 Sep 12	Dec 15	Cambridge completed four initial construction contracts for this project more than a decade ago and has planned three additional contracts (contracts 8A, 8B and 9) to complete the project. Contract 8A — Huron Ave. corridor, west — 30% Complete Contract 8B — Huron Ave. corridor, east — NTP Aug 13 Contract 9 — Concord Ave. corridor — 60% Design In June, Cambridge informed MWRA that its Engineer's Estimate and the low bid for Contract 8B exceeded the award amount in the MOU and Financial Assistance Agreement (FAA) due to additional quantities and higher costs of certain materials and work, which would also affect the cost of Contract 9. MWRA's Board approved a $2.1 million increase to the MOU/FAA award amount in July to cover the higher cost of Contract 8B. Staff plan to seek Board approval to add the construction related costs for Contract 9 to the MOU/FAA later this year, once Cambridge provides the 100% design submission and associated cost estimate. This future amendment is expected to increase the award amount by up to $13 million, bringing the total MWRA cost share for this and all other Cambridge implemented CSO projects to approximately $92 million.
	MWR003 Gate and Rindge Ave. Siphon	Apr 12	Aug 14	Oct 15	MWRA advertised construction contract 6953 for the improvements at Outfall SOM01A in July and expects to award the contract and issue the notice to proceed in August, ahead of the September 2013 milestone in Schedule Seven. The Engineer's Estimate for Contract 6953 is $283,000. MWRA received the 50% design submission for the improvements at Outfall MWR003 and Rindge Ave. Siphon in July and expects to award the contract and issue the notice to proceed with construction by August 2014, in compliance with Schedule Seven.
	SOM01A Relief and Floatables Control		Sep 13	Jun 14	

CIP Expenditures
4th Quarter, FY13

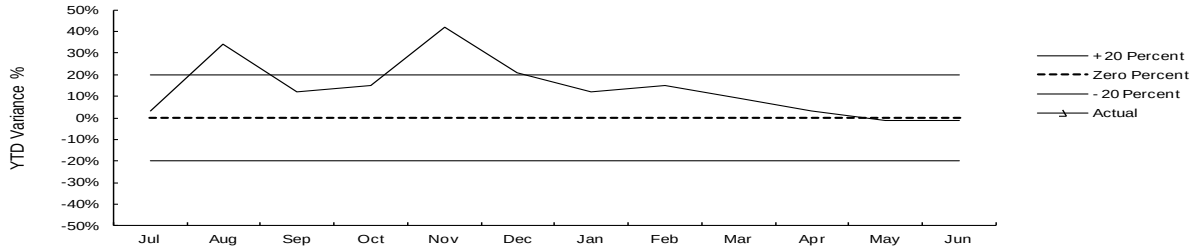
The Year-To-Date variances are highlighted below:

FY13 Capital Improvement Program Expenditure Variances through June by Program ($000)				
Program	FY13 Budget Through June	FY13 Actual Through June	Variance Amount	Variance Percent
Wastewater	71,354	74,205	2,851	4%
Waterworks	73,489	75,110	1,621	2%
Business and Operations Support	11,094	5,208	(5,887)	-53%
Total	$155,937	$154,522	($1,415)	-1%

Overspending within Wastewater is primarily due to greater than anticipated requests for community grants and loans for the I/I program, greater than anticipated progress for the Reserved Channel Sewer Separation, and award greater than anticipated and progress for the Cambridge Sewer Separation project. This was partially offset by delays of the Electrical Upgrade Construction 4, Scum Skimmer Replacements, Miscellaneous Variable Frequency Drive Replacements, Power System Improvements, Prison Point Pump & Gearbox Rebuilds, HVAC Equipment Replacement Design, Thermal Power Plant Boiler Control Replacement, Fire Alarm Replacement Design, Sodium Hypochlorite Pipe Replacement Design, Expansion Joint Repairs Construction 2, and lower than anticipated easement settlement for the Upper Neponset Valley Relief Sewer. Overspending in Waterworks is due to greater than anticipated community requests for loans and repayments for Local Water Pipeline Assistance Program, greater than anticipated contractor progress for the Upper Hultman Rehabilitation (CP-6B), Carroll Plant Ultraviolet Disinfection Construction, and Oakdale Phase 1A Electrical contracts. This was partially offset by project delays for the Spot Pond Storage Facility Design/Build contract, delay in Gillis Pump Station Improvements, Carroll Water Treatment Plant Existing Facility Modifications CP-7, lower award and delay for the Sudbury Aqueduct Massachusetts Environmental Policy Act Review, timing of Watershed Land Purchases, and delay in award of the Weston Aqueduct Supply Mains 3 Design/Construction Administration/Resident Inspection contract.

CIP Expenditure Variance

Total FY13 CIP Budget of $164,912,000.



Construction Fund Management

All payments to support the capital program are made from the Construction Fund. Sources of fund in-flows include bond proceeds, commercial paper, SRF reimbursements, loan repayments by municipalities, and current revenue. Accurate estimates of cash withdrawals and grant payments (both of which are derived from CIP spending projections) facilitate planning for future borrowings and maintaining an appropriate construction fund balance.

Cash Balance 07/01/2013	$130 million
Unused capacity under the debt cap:	$602 million
Estimated date for exhausting construction fund without new borrowing:	May-14
Estimated date for debt cap increase to support new borrowing:	Not anticipated at this time
Commercial paper outstanding:	$144 million
Commercial paper capacity:	$350 million
Budgeted FY13 capital spending*:	$135 million

* Cash based spending is discounted for construction retainage.

DRINKING WATER QUALITY AND SUPPLY

Source Water – Microbial Results and UV Absorbance

4th Quarter – FY13

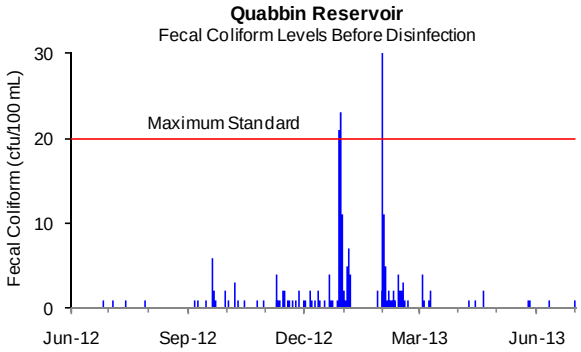
Source Water – Microbial Results

Total coliform bacteria are monitored in both source and treated water to provide an indication of overall bacteriological activity. Most coliforms are harmless. However, fecal coliform, a subclass of the coliform group, are identified by their growth at temperatures comparable to those in the intestinal tract of mammals. They act as indicators of possible fecal contamination. The Surface Water Treatment Rule for unfiltered water supplies allows for no more than 10% of source water samples prior to disinfection over any six-month period to have more than 20 fecal coliforms per 100mL.

Sample Site: Quabbin Reservoir

Quabbin Reservoir water is sampled at the Ware Disinfection Facility (WDF) raw water tap before being treated and entering the CVA system.

All samples collected during the 4th Quarter were below 20 cfu/100ml. **For the current six-month period, 0.6% of the samples have exceeded a count of 20 cfu/100mL.**

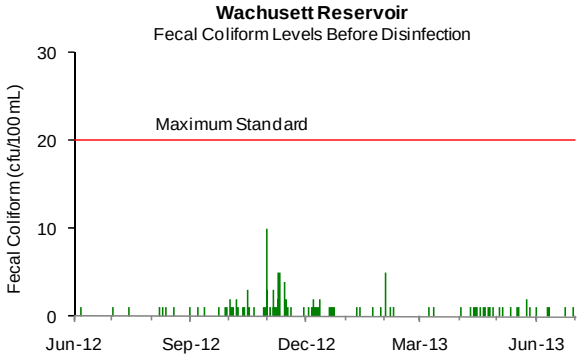


Sample Site: Wachusett Reservoir

Wachusett Reservoir water is sampled at the CWTP raw water tap in Marlborough before being treated and entering the MetroWest/Metropolitan Boston systems.

Fecal coliform levels tend to increase during the winter because, when water bodies near Wachusett ice over, waterfowl seek open water. Many roost at Wachusett, which tends to freeze later in the year than smaller ponds nearby. DCR has an active bird harassment program to move the birds away from the intake area.

All samples collected during the 4th Quarter were below 20 cfu/100mL. **For the current six-month period, 0% of the samples exceeded a count of 20 cfu/100mL.**

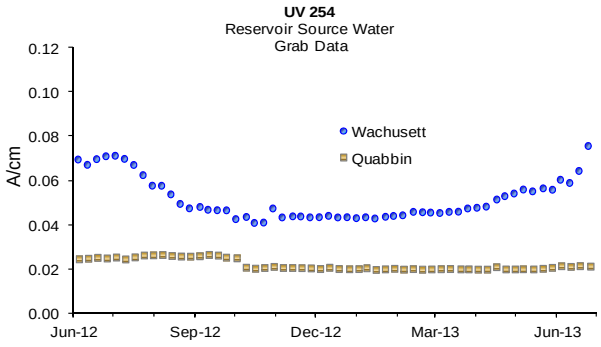


Source Water – UV Absorbance

UV Absorbance at 254nm wavelength (UV-254), is a measure of the amount and reactivity of natural organic material in source water. Higher UV-254 levels cause increased ozone and chlorine demand resulting in the need for higher ozone and chlorine doses, and can increase the level of disinfection by-products. UV-254 is impacted by tributary flows, water age, sunlight and other factors. Hurricanes can have a significant and long lasting impact.

Quabbin Reservoir UV-254 levels are currently around 0.02 A/cm.

Wachusett Reservoir UV-254 levels are currently around 0.08 A/cm.



Source Water – Turbidity

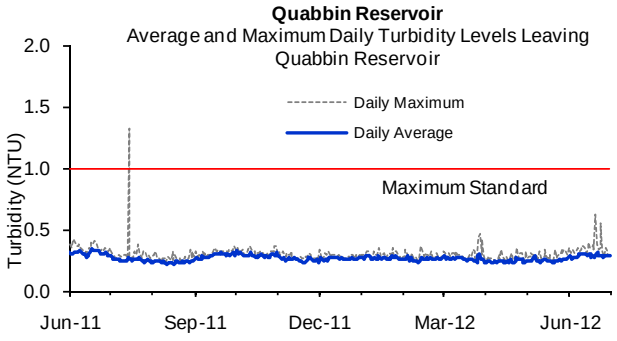
4th Quarter – FY12

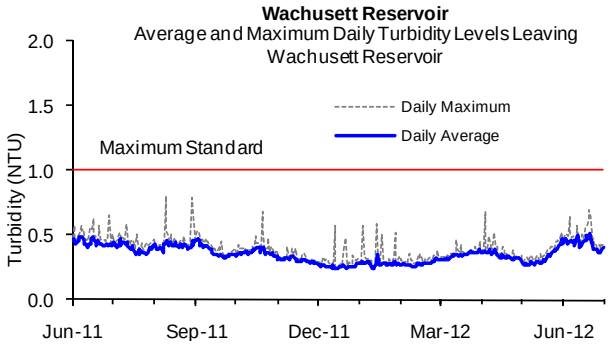
Background

Turbidity is a measure of suspended and colloidal particles including clay, silt, organic and inorganic matter, algae and microorganisms. The effects of turbidity depend on the nature of the matter that causes the turbidity. High levels of particulate matter may have a higher chlorine demand or may protect bacteria from the disinfectant effects of chlorine, thereby, interfering with the disinfectant residual throughout the distribution system.

There are two standards for turbidity: all water must be below 5 NTU (Nephelometric Turbidity Units), and water only can be above 1 NTU if it does not interfere with effective disinfection.

Turbidity of Quabbin Reservoir water is monitored continuously at the Ware Disinfection Facility (WDF) before chlorination. Turbidity of Wachusett Reservoir is monitored continuously at the Carroll Water Treatment Plant before ozonation. Maximum turbidity results at Quabbin and Wachusett were within DEP standards for the quarter.



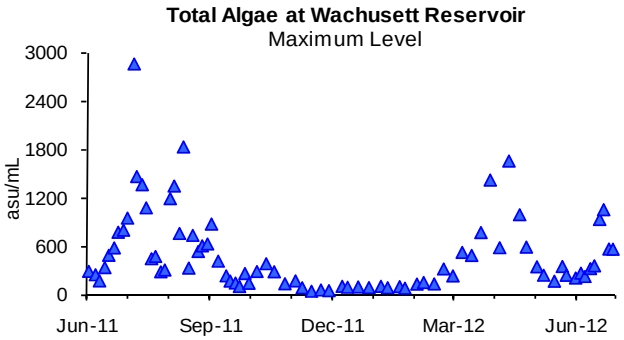


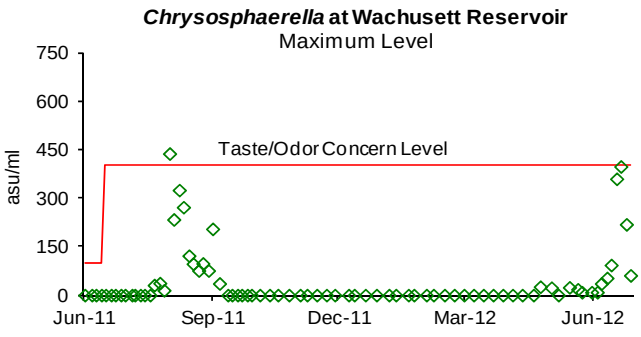
Source Water – Algae

Algae levels in Wachusett Reservoir are monitored by DCR and MWRA. These results, along with taste and odor complaints, are used to make decisions on source water treatment for algae control.

Taste and odor complaints at the tap may be due to algae, which originate in source reservoirs, typically in trace amounts. Occasionally, a particular species grows rapidly, increasing its concentration in water. When *Synura*, *Anabaena*, or other nuisance algae bloom, MWRA may treat the reservoir with copper sulfate, an algaecide. During the winter and spring, diatom numbers may increase. While not a taste and odor concern, consumers that use filters may notice a more frequent need to change their filters.

In the 4th Quarter, there were no complaints related to algae reported from local water departments. Wachusett Reservoir was treated with copper sulfate on June 19 to control the growth of *Chrysosphaerella*, a taste and odor causing algae species.





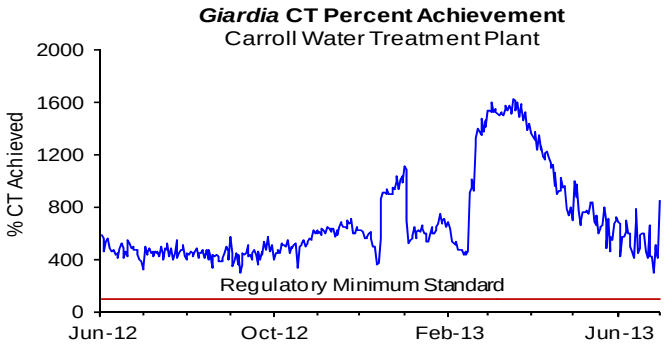
Treated Water – Disinfection Effectiveness

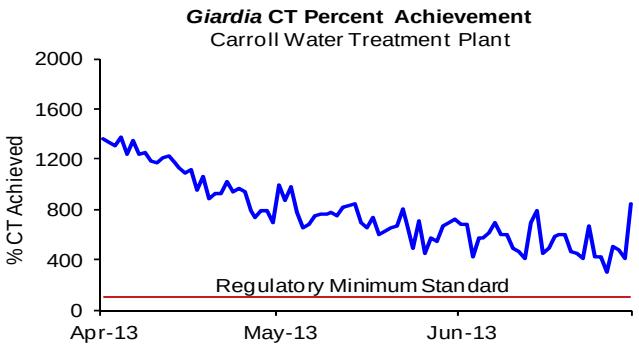
4th Quarter – FY13

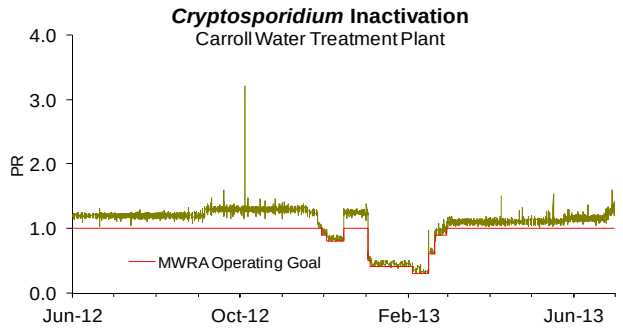
At the Carroll Water Treatment Plant (CWTP), MWRA reports on both regulatory required 99.9% inactivation for *Giardia* (reported as "CT"), and its voluntary operating goal of 99% inactivation for *Cryptosporidium*. MWRA calculates hourly CT inactivation rates and reports daily CT inactivation rates at maximum flow, as specified by EPA regulations. The concentration (C) of the disinfectant over time (T) yields a measure of the effectiveness of disinfection. CT achievement for *Giardia* assures CT achievement for viruses, which have a lower CT requirement. The required CT for ozonated water varies with water temperature. Compliance with the *Giardia* standard is expressed as percent of required CT achieved; 100% is the minimum allowed. To avoid confusion with regulatory requirements, inactivation of *Cryptosporidium* is reported as Performance Ratio (PR); a PR of 1 demonstrates inactivation of 99% of *Cryptosporidium* based on site-specific data.

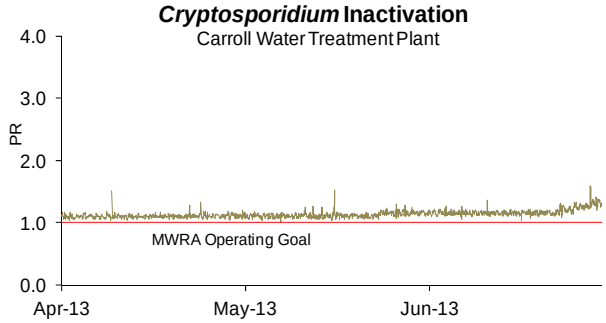
Wachusett Reservoir – MetroWest/Metro Boston Supply:

- CT was maintained above 100% at all times the plant was providing water into the distribution system this quarter, as well as every day for the last fiscal year.
- MWRA's operating goal to meet a *Cryptosporidium* PR of 1 was met at all times the plant was providing water into the distribution system for the quarter.
- Ozone dose at the CWTP varied between 2.1 to 3.1 mg/L for the quarter.



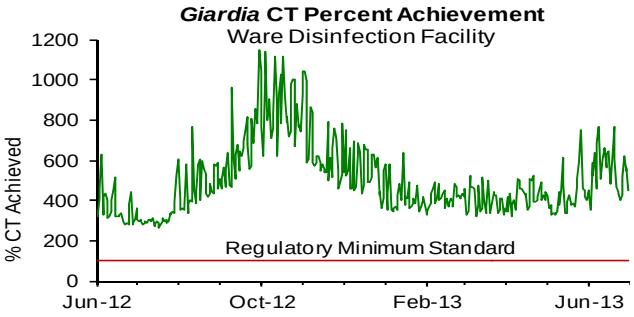


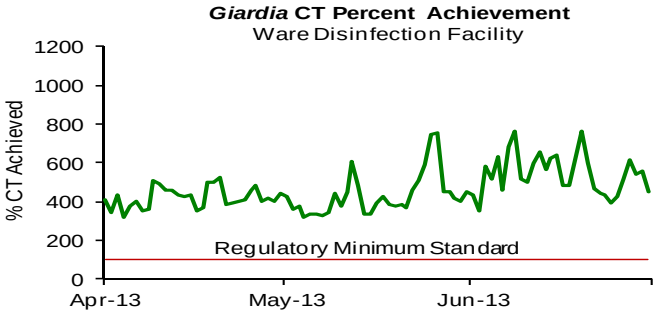




Quabbin Reservoir at Ware Disinfection Facility (CVA Supply):

CT was maintained above 100% at all times the plant was providing water into the distribution system for the quarter, as well as every day for the last fiscal year. The chlorine dose at Ware Disinfection Facility (WDF) is adjusted in order to achieve MWRA's seasonal target of ≥0.75 mg/L (November 01 – May 31) and ≥1.0 mg/L (June 1– October 31) at Ludlow Monitoring Station. The chlorine dose at WDF varied between 1.4 to 1.7 mg/L for the quarter.





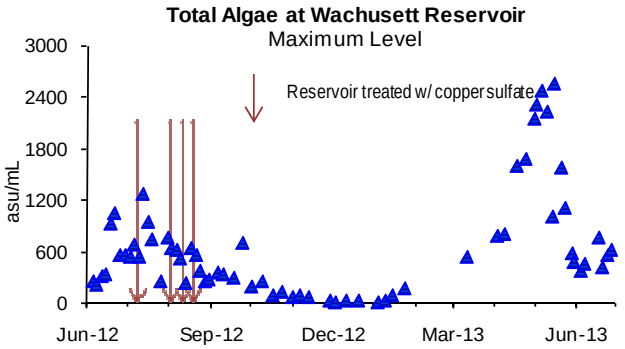
Algae in the Source Water

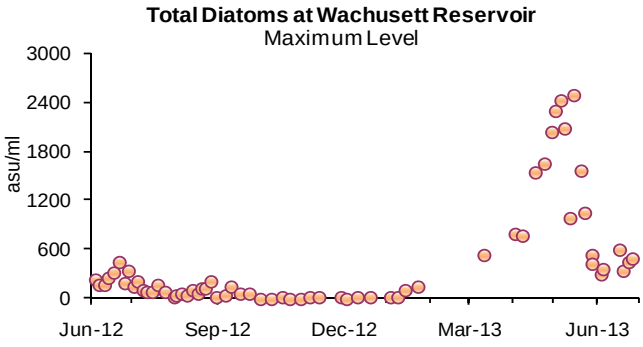
4th Quarter – FY13

Algae levels in Wachusett Reservoir are monitored by DCR and MWRA. These results, along with taste and odor complaints, are used to make decisions on source water treatment for algae control.

Taste and odor complaints at the tap may be due to algae, which originate in source reservoirs, typically in trace amounts. Occasionally, a particular species grows rapidly, increasing its concentration in water. When *Synura*, *Anabaena*, or other nuisance algae bloom, MWRA may treat the reservoir with copper sulfate, an algaecide. During the winter and spring, diatom numbers may increase. While not a taste and odor concern, consumers that use filters may notice a more frequent need to change their filters.

In the 4th Quarter, there were three clogged filter complaints which may be related to algae reported from local water departments.



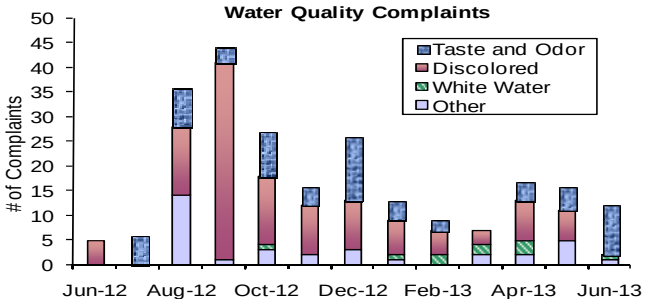


Drinking Water Quality Customer Complaints: Taste, Odor, or Appearance

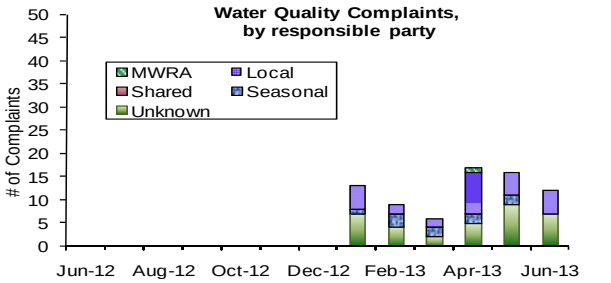
MWRA collects information on water quality complaints that typically fall into four categories: 1.) discoloration due to MWRA or local pipeline work; 2.) taste and odor due to algae blooms in reservoirs or chlorine in the water; 3.) white water caused by changes in pressure or temperature that traps air bubbles in the water; or 4.) "other" complaints including no water, clogged filters or other issues.

MWRA routinely contacts communities to classify and tabulate water complaints from customers. This count, reflecting only telephone calls to towns, probably captures only a fraction of the total number of customer complaints. Field Operations staff have improved data collection and reporting by keeping track of more kinds of complaints, tracking complaints to street addresses and circulating results internally on a daily basis.

Communities reported 45 complaints during the quarter. A comparison cannot be made to the 4th Quarter of FY12 due an interruption in data collection. Of these complaints, 14 were for "discolored water", 19 were for "taste and odor", 4 were for "white water", and 8 were for "other". Of these complaints, 19 were local community issues, 1 was an MWRA issue, 4 were seasonal in nature, and 21 were unknown.



* Outgoing calls to communities were interrupted during a portion of FY12 and resumed during Q1 FY13, thus, some results are not directly comparable with historical data.



* *Reporting by Responsible Party trending initiated January 2013.

Bacteria & Chlorine Residual Results for Communities in MWRA Testing Program

4th Quarter – FY13

While all communities collect bacteria samples for the Total Coliform Rule (TCR), 42 systems (including Deer Island and Westborough State Hospital) use MWRA's Laboratory for TCR compliance testing. These systems collect samples for bacteriological analysis and measure water temperature and chlorine residual at the time of collection.

There are 139 sampling locations for which MWRA is required to report TCR results. These locations include a subset of the community TCR locations, as well as sites along MWRA's transmission system, water storage tanks, and pumping stations.

The TCR requires that no more than 5% of all samples may be total coliform positive in a month (or that no more than one sample be positive when less than 40 samples are collected each month). Public notification is required if this standard is exceeded.

Escherichia coli (*E.coli*) is a specific coliform species that is almost always present in fecal material and whose presence indicates potential contamination of fecal origin. If *E.coli* are detected in a drinking water sample, this is considered evidence of a critical public health concern. Public notification is required if follow-up tests confirm the presence of *E.coli* or total coliform. A disinfectant residual is intended to maintain the sanitary integrity of the water; MWRA considers a residual of 0.2 mg/L a minimum target level at all points in the distribution system.

Highlights

In the 4th Quarter, two of the 5,785 community samples (0.03% system-wide) submitted to MWRA labs for analysis tested positive for coliform (Boston, Chelsea – in June). Of the 1,935 MWRA samples taken, two tested positive (0.10%) for total coliform. No sample tested positive for *E.coli*. Only 2.5% of samples had any chlorine residuals lower than 0.2 mg/L for the quarter.

		# Coliform Samples (a)	Total Coliform # (%) Positive	E.coli # Positive	Public Notification Required?	Minimum Chlorine Residual (mg/L)	Average Chlorine Residual (mg/L)
	MWRA Sampling Locations (d)	1935	2 (0.10%)	0	No	0.02	1.87
Fully Served	ARLINGTON	170	0 (0%)	0		0.01	1.41
	BELMONT	104	0 (0%)	0		0.74	1.89
	BOSTON	767	1 (0.13%)	0	No	0.57	1.95
	BROOKLINE	221	0 (0%)	0		0.06	1.95
	CHELSEA	172	1 (0.58%)	0	No	1.20	1.85
	DEER ISLAND	52	0 (0%)	0		1.60	1.94
	EVERETT	142	0 (0%)	0		0.01	1.05
	FRAMINGHAM	216	0 (0%)	0		0.26	1.98
	LEXINGTON	111	0 (0%)	0		1.56	2.02
	LYNNFIELD	18	0 (0%)	0		0.60	1.27
	MALDEN	234	0 (0%)	0		1.42	1.55
	MARBLEHEAD	72	0 (0%)	0		0.14	1.79
	MEDFORD	204	0 (0%)	0		1.16	1.82
	MELROSE	117	0 (0%)	0		0.02	1.09
	MILTON	96	0 (0%)	0		1.20	1.76
	NAHANT	30	0 (0%)	0		0.01	1.38
	NEWTON	276	0 (0%)	0		0.60	1.89
	NORWOOD	101	0 (0%)	0		0.02	1.51
	QUINCY	299	0 (0%)	0		0.13	1.68
	READING	130	0 (0%)	0		0.40	1.65
	REVERE	195	0 (0%)	0		1.02	1.81
	SAUGUS	104	0 (0%)	0		1.24	1.78
	SOMERVILLE	273	0 (0%)	0		1.06	1.83
	SOUTHBOROUGH	30	0 (0%)	0		0.33	1.98
	STONEHAM	91	0 (0%)	0		1.12	1.93
	SWAMPSCOTT	53	0 (0%)	0		0.75	1.75
	WALTHAM	216	0 (0%)	0		1.01	1.87
	WATERTOWN	130	0 (0%)	0		1.13	1.97
	WESTBORO HOSPITAL	15	0 (0%)	0		0.01	0.14
	WESTON	48	0 (0%)	0		1.09	2.01
	WINTHROP	72	0 (0%)	0		0.05	1.30
	Total: Fully Served	*4759*	*2 (0.04%)*				
CVA & Partially Served (b)	BEDFORD	56	0 (0%)	0		0.08	1.03
	HANSCOM AFB	27	0 (0%)	0		0.08	1.41
	MARLBORO	126	0 (0%)	0		1.48	2.05
	NEEDHAM	123	0 (0%)	0		0.08	0.75
	NORTHBORO	48	0 (0%)	0		0.65	1.81
	WAKEFIELD	143	0 (0%)	0		0.33	1.33
	WELLESLEY	108	0 (0%)	0		0.04	0.78
	WILMINGTON	87	0 (0%)	0		0.18	1.82
	WINCHESTER	65	0 (0%)	0		0.20	1.22
	WOBURN	195	0 (0%)	0		0.02	0.87
	SOUTH HADLEY FD1 (c)	48	0 (0%)	0		0.15	0.58
	Total: CVA & Partially Served	*1026*	*0 (0%)*				
	Total: Community Samples	*5785*	*2 (0.03%)*				

(a) The number of samples collected depends on the population served and the number of repeat samples required.

(b) These communities are partially supplied, and may mix their chlorinated supply with MWRA chloraminated supply.

(c) Part of the Chicopee Valley Aqueduct System. Free chlorine system.

(d) MWRA total coliform and chlorine residual results include data from 125 community pipe locations as described above. In most cases these community results are accurately indicative of MWRA water as it enters the community system; however, some are clearly strongly influenced by local pipe conditions. Residuals in the MWRA system are typically between 1.0 and 2.8 mg/L.

Treated Water Quality: Disinfection By-Product (DBP) Levels in Communities

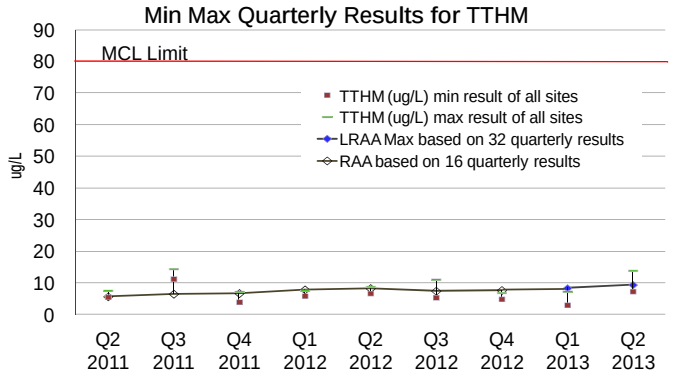
4th Quarter – FY13

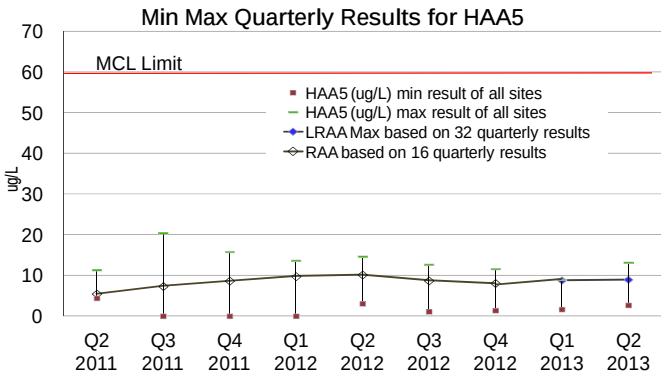
Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5s) are by-products of disinfection treatment with chlorine. TTHMs and HAA5s are of concern due to their potential adverse health effects at high levels. EPA's running annual average (RAA) standard is 80 µg/L for TTHMs and 60 µg/L for HAA5s. For the MetroBoston system, effective Q2 2013, under the Stage 2 DBP Rule, compliance is based on a locational running annual average (LRAA). Sampling locations have increased from 16 to 32 each quarter. Data prior to May 2013 reports the running annual average, and after May 2013, the maximum LRAA is reported (in addition to min and max values). Partially served communities are responsible for their own compliance monitoring and reporting, and must be contacted directly for their results. For the CVA communities, Stage 2 DBP reporting for the CVA system begins in October 2013.

Bromate is tested monthly per DEP requirements for water systems that treat with ozone. Bromide in the raw water may be converted into bromate following ozonation. EPA's RAA MCL standard for bromate is 10 ug/L.

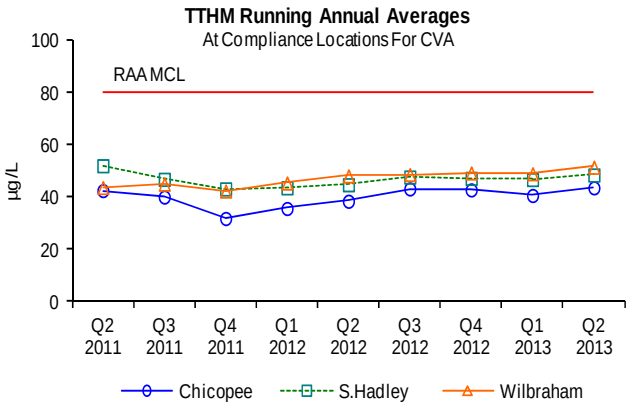
The RAA for TTHMs and HAA5s for MWRA's Compliance Program (represented as the line in the top two graphs below) remain below current standards. The LRAA for TTHMs = 9.4 ug/L; HAA5s = 8.9 ug/L. The current RAA for Bromate = 0.0 ug/L. CVA's DBP levels continue to be below current standards.

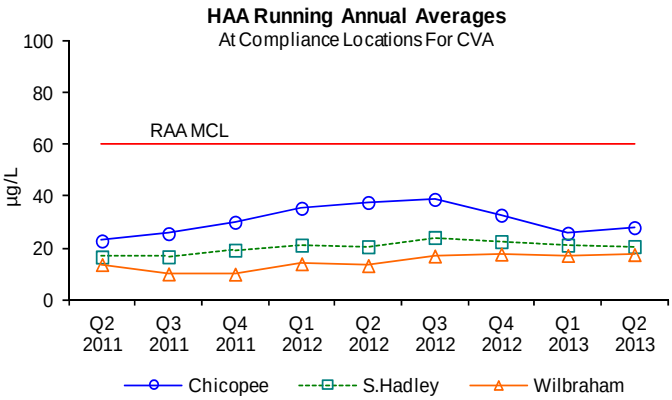
MetroBoston Disinfection By-Products





CVA Disinfection By-Products





Water Supply and Source Water Management

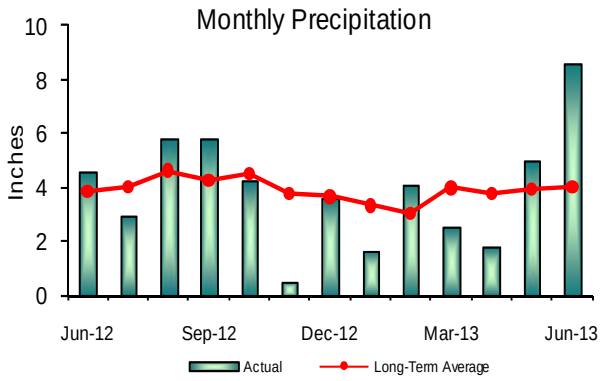
4th Quarter – FY13

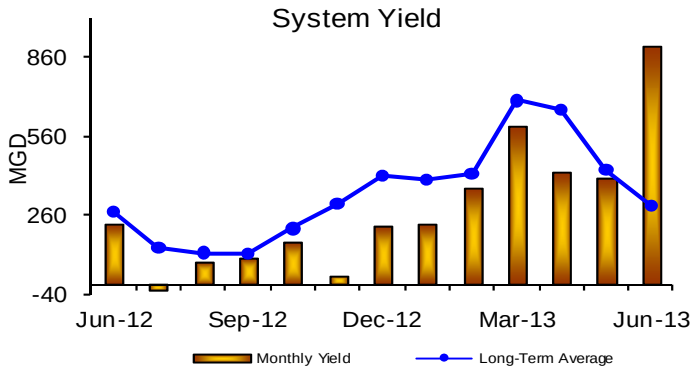
Background

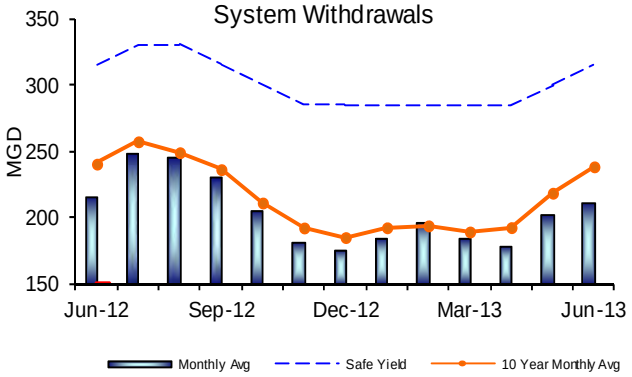
A reliable supply of water in MWRA's reservoirs depends on adequate precipitation during the year and seasonal hydrologic inputs from watersheds that surround the reservoirs. Demand for water typically increases with higher summer temperatures and then decreases as temperatures decline. Quabbin Reservoir was designed to effectively supply water to the service areas under a range of climatic conditions and has the ability to endure a range of fluctuations. Wachusett Reservoir serves as a terminal reservoir to meet the daily demands of the Greater Boston area. A key component to this reservoir's operation is the seasonal transfer of Quabbin Reservoir water to enhance water quality during high demand periods. On an annual basis, Quabbin Reservoir accounts for nearly 50% of the water supplied to Greater Boston. The water quality of both reservoirs (as well as the Ware River, which is also part of the System Safe Yield) depend upon implementation of DCR's DEP-approved Watershed Protection Plans. System Yield is defined as the water produced by its sources, and is reported as the net change in water available for water supply and operating requirements.

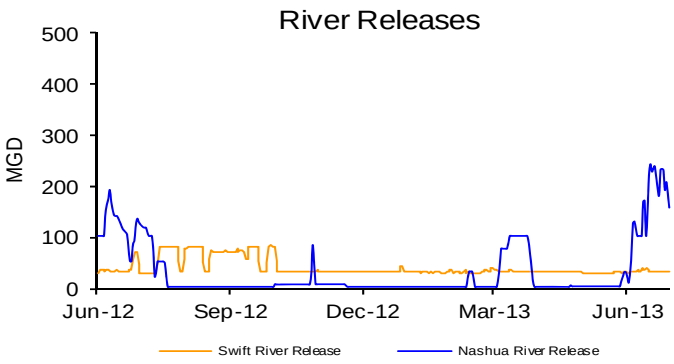
Outcome

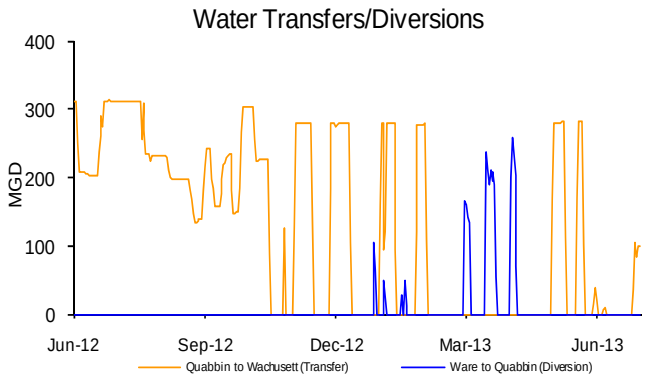
Quabbin Reservoir level remains above the normal operating range for this period of the year. The reservoir was at 96.1% of capacity as of June 30, 2013; a 5.8% increase for the quarter, which represents an increase of 24.0 billion gallons of storage. Yield and precipitation for the quarter were above their respective long term quarterly averages. Monthly withdrawals continue to be below its long-term average.

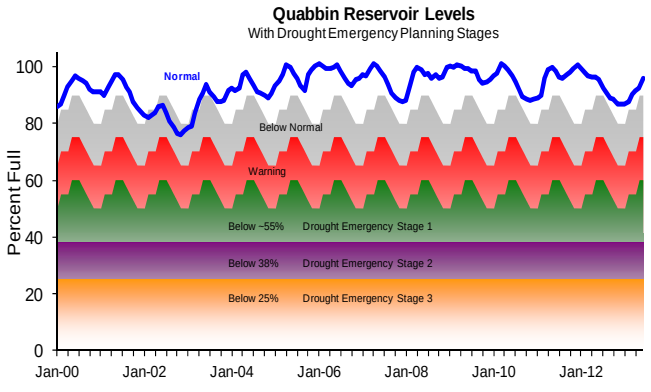












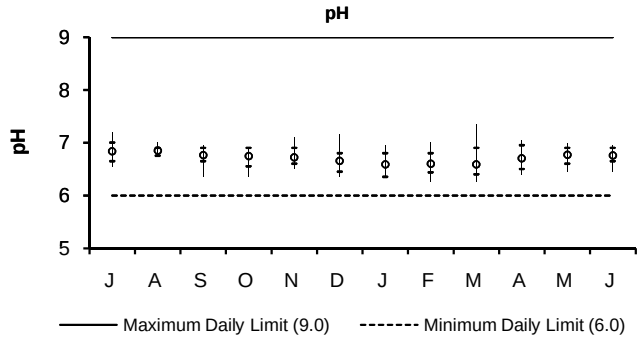
WASTEWATER QUALITY

NPDES Permit Compliance: Deer Island Treatment Plant

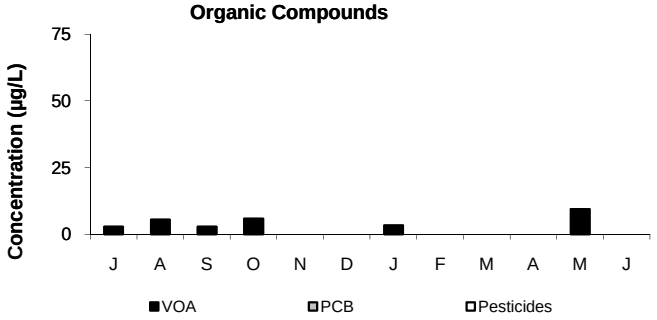
4th Quarter - FY13

NPDES Permit Limits

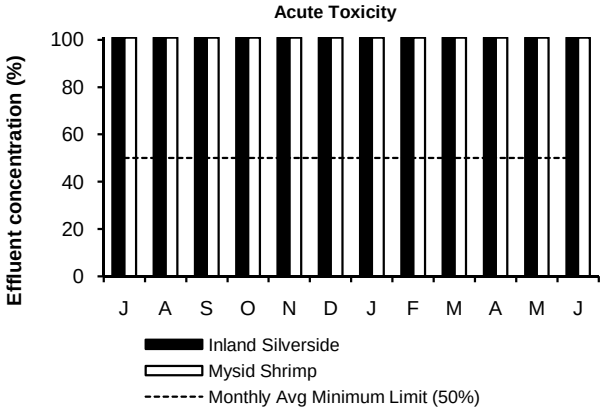
Effluent Characteristics		*Units*	*Limits*	*April*	*May*	*June*	*4th Quarter Violations*	*FY13 YTD Violations*
Dry Day Flow:		mgd	436	270.5	272.5	271.7	0	0
cBOD:	Monthly Average	mg/L	25	8.4	6.9	5.5	0	0
	Weekly Average	mg/L	40	9.9	8.6	7.1	0	0
TSS:	Monthly Average	mg/L	30	12.1	7.7	9.7	0	0
	Weekly Average	mg/L	45	15.1	9.8	13.3	0	0
TCR:	Monthly Average	ug/L	456	<40	<40	<40	0	0
	Daily Maximum	ug/L	631	<40	<40	<40	0	0
Fecal Coliform:	Daily Geometric Mean	col/100mL	14000	88	13	45	0	0
	Weekly Geometric Mean	col/100mL	14000	40	7	16	0	0
	% of Samples >14000	%	10	0	0	0	0	0
	Consecutive Samples >14000	#	3	0	0	0	0	0
pH:		SU	6.0-9.0	6.4-7.1	6.5-7.0	6.5-7.0	0	0
PCB, Aroclors:	Monthly Average	ug/L	0.000045	UNDETECTED			0	0
Acute Toxicity:	Mysid Shrimp	%	≥50	>100	>100	>100	0	0
	Inland Silverside	%	≥50	>100	>100	>100	0	0
Chronic Toxicity:	Sea Urchin	%	≥1.5	100	100	100	0	0
	Inland Silverside	%	≥1.5	50	50	100	0	0



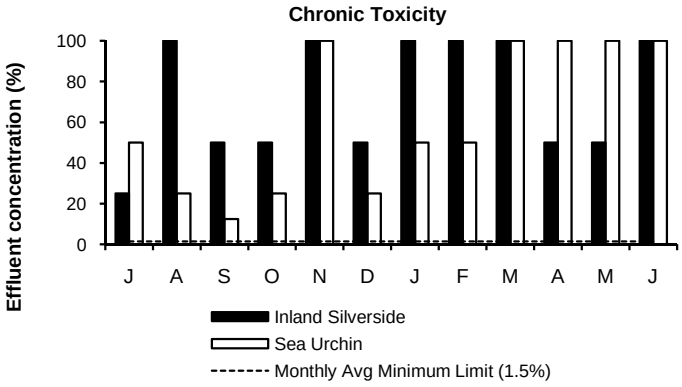
pH is a measure of the alkalinity or acidity of the effluent. Fluctuations in pH do not have an adverse effect on marine environments. Because of the pure oxygen used in the activated sludge reactor, the effluent pH tends to be at the lower pH range. pH measurements for the 4th Quarter were within the daily permit limits.



An important wastewater component to be monitored in the effluent is organic compounds, including volatile organic acids, pesticides, and polychlorinated biphenyls. The secondary treatment process has significantly reduced organic compounds in the effluent stream.



The acute toxicity test simulates the short-term toxic effects of chemicals in wastewater effluent on marine animals. The test measures the concentration (percent) of effluent that kills half the test organisms within four days. The higher the concentration of effluent required, the less toxic the effluent. For permit compliance, the effluent concentration that causes mortality to mysid shrimp and inland silverside must be at least 50%. Acute toxicity permit limits were met for the 4th Quarter for both the inland silverside and mysid shrimp.



Typically, effects of chronic exposures differ from those of acute exposures. Because of this, chronic toxicity responses are not necessarily related to acute toxicity. The chronic toxicity test simulates the long-term toxic effects of chemicals in wastewater effluent on marine animals. To meet permit limits, a solution of 1.5% effluent and 98.5% dillution water must show no observed effect on the growth and reproduction of the test species. Chronic toxicity permit limits were met for the 4th Quarter for both the inland silverside and sea urchin.

NPDES Permit Compliance: Clinton Wastewater Treatment Plant

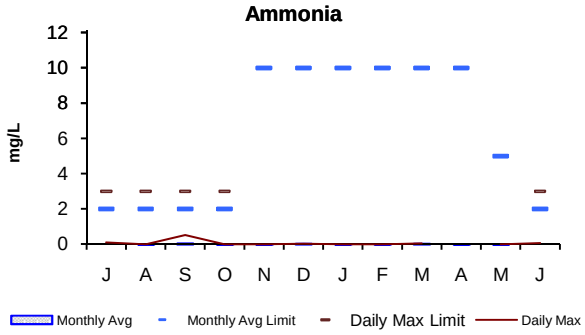
4th Quarter - FY13

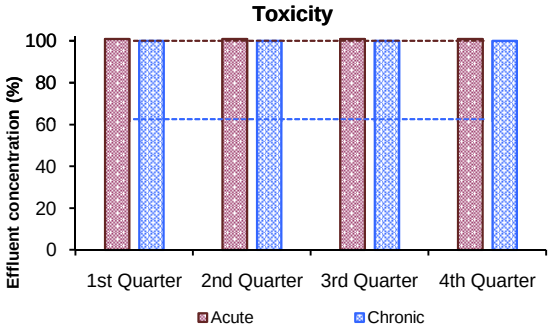
NPDES Permit Limits

Effluent Characteristics		*Units*	*Limits*	*April*	*May*	*June*	*4th Quarter Violations*	*FY13 YTD Violations*
Flow:		mgd	3.01	2.39	2.32	2.42	0	2
BOD:	Monthly Average:	mg/L	20	3.6	3.6	2.6	0	0
	Weekly Average:	mg/L	20	3.9	3.8	3.8	0	0
TSS:	Monthly Average:	mg/L	20	4.2	4.1	3.5	0	0
	Weekly Average:	mg/L	20	5.4	4.5	4.2	0	0
pH:		SU	6.5-8.3	7.2-7.6	7.3-7.7	7.2-7.5	0	0
Dissolved Oxygen:	Daily Minimum:	mg/L	6	8.6	7.1	7.2	0	0
Fecal Coliform:	Daily Geometric Mean:	col/100mL	400	5	5	4	0	0
	Monthly Geometric Mean:	col/100mL	200	3	3	3	0	0
TCR:	Monthly Average:	ug/L	50	0	0.8	0.2	0	0
	Daily Maximum:	ug/L	50	0	18.0	6.7	0	0
Total Ammonia Nitrogen:	May 1 - May 31							
	Monthly Average:	mg/L	10.0	0.00	0.00	0.01	0	0
	Daily Maximum:	mg/L	35.2	0.00	0.00	0.07	0	0
Copper:	Monthly Average:	ug/L	20	7.2	6.4	3.7	0	0
Phosphorus:	May 1 - Oct 31							
	Monthly Average:	mg/L	1.0	--	0.53	0.45	0	0
Acute Toxicity:	Daily Minimum:	%	≥100	*N/A	*N/A	> 100	0	0
Chronic Toxicity:	Daily Minimum:	%	≥62.5	*N/A	*N/A	100	0	0

There have been two permit violations in FY13 at the Clinton Treatment Plant.
1st Quarter: There were two permit violations in the 1st Quarter of FY13. In July and August 2012 the running average flow was 3.22 and 3.16 MGD respectively, above the permit limit of 3.01 MGD. The actual measured plant flow for July and August was 2.13 and 1.82 MGD.
2nd Quarter: There were no permit violations in the 2nd Quarter of FY13.
3rd Quarter: There were no permit violations in the 3rd Quarter of FY13.
4th Quarter: There were no permit violations in the 4th Quarter of FY13.

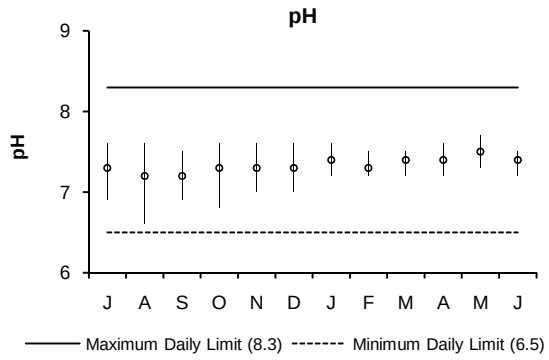
*Toxicity testing at the Clinton Treatment Plant is conducted on a quarterly basis.

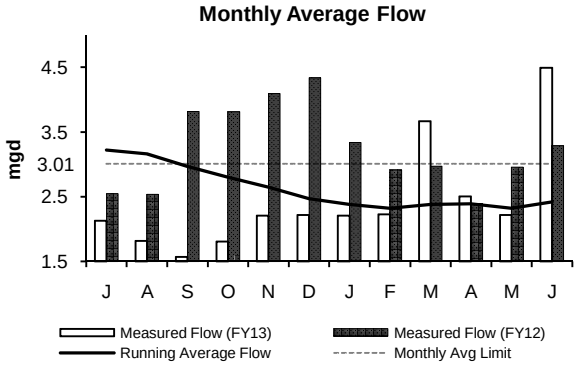




The 3rd Quarter's monthly average and daily maximum concentrations were below the permit limits. The monthly average and daily maximum limits for the 4th Quarter are variable, getting more stringent towards June . The permit limits are most stringent from June to October when warm weather conditions are most conducive to potential eutrophication.

Acute and chronic toxicity testing simulates the short- and long-term toxic effects of chemicals in wastewater effluent on aquatic animals. For permit compliance, the effluent concentration that causes mortality to the daphnid in acute and chronic testing must be at least >100% and 62.5%, respectively. Toxicity limits were met during the 4th Quarter.





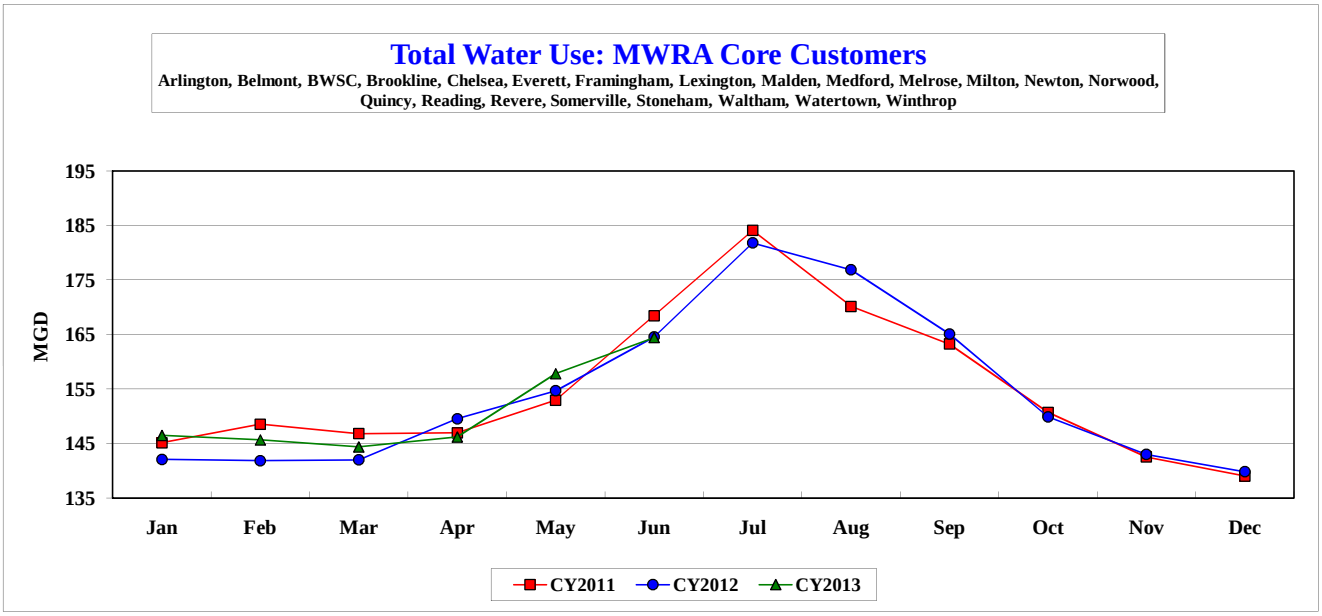
COMMUNITY FLOWS AND PROGRAMS

Total Water Use: MWRA Core Customers
4th Quarter- FY13

Massachusetts Water Resources Authority
Water Supplied: MWRA Core Communities

MGD	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
CY2011	145.115	148.527	146.797	146.931	152.931	168.416	184.085	170.122	163.231	150.683	142.515	139.004	154.911
CY2012	142.065	141.834	141.967	149.527	154.647	164.532	181.801	176.862	165.092	149.865	142.968	139.811	154.302
CY2013	146.467	145.657	144.348	146.182	157.797	164.412	0.000	0.000	0.000	0.000	0.000	0.000	150.846

MG	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
CY2011	4,498.571	4,158.744	4,550.712	4,407.920	4,740.857	5,052.494	5,706.639	5,273.797	4,896.915	4,671.177	4,275.458	4,309.129	56,542.412
CY2012	4,404.020	4,113.193	4,400.982	4,485.812	4,794.071	4,935.954	5,635.832	5,482.733	4,952.773	4,645.824	4,289.046	4,334.134	56,474.376
CY2013	4,540.462	4,078.391	4,474.786	4,385.460	4,891.703	4,932.360	0.000	0.000	0.000	0.000	0.000	0.000	27,303.163



Attached for your information is the June 2013 Community Water Use Report recently distributed to communities served by the MWRA waterworks systems. Each community's annual water use relative to the system as a whole is the primary factor in allocating the annual water rate revenue requirement to MWRA water communities. Calendar year 2013 water use will be used to allocate the FY15 water utility rate revenue requirement.

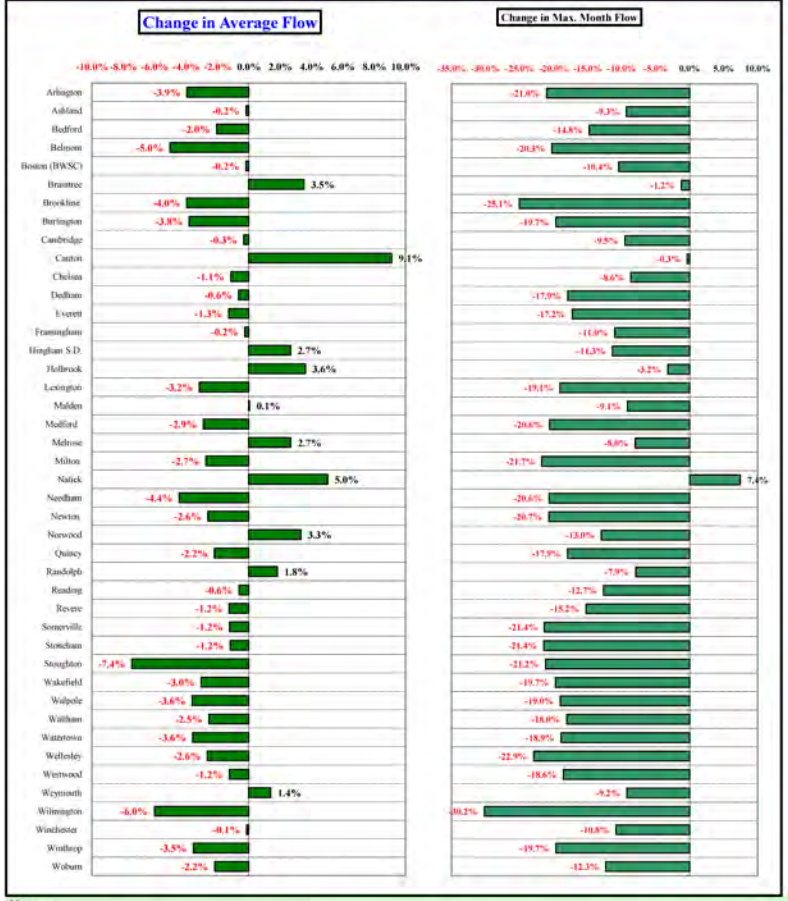
June 2013 water supplied of 204.8 mgd (for revenue generating users) is down 3.3 mgd or 1.6% compared to June 2012. Annual system-wide water consumption for CY13 remains slightly higher than CY12 with 181.6 mgd being supplied to MWRA customers **through June**. This is 1.6 mgd higher than CY12, and is an increase of 0.9%.

Community Wastewzater Flows

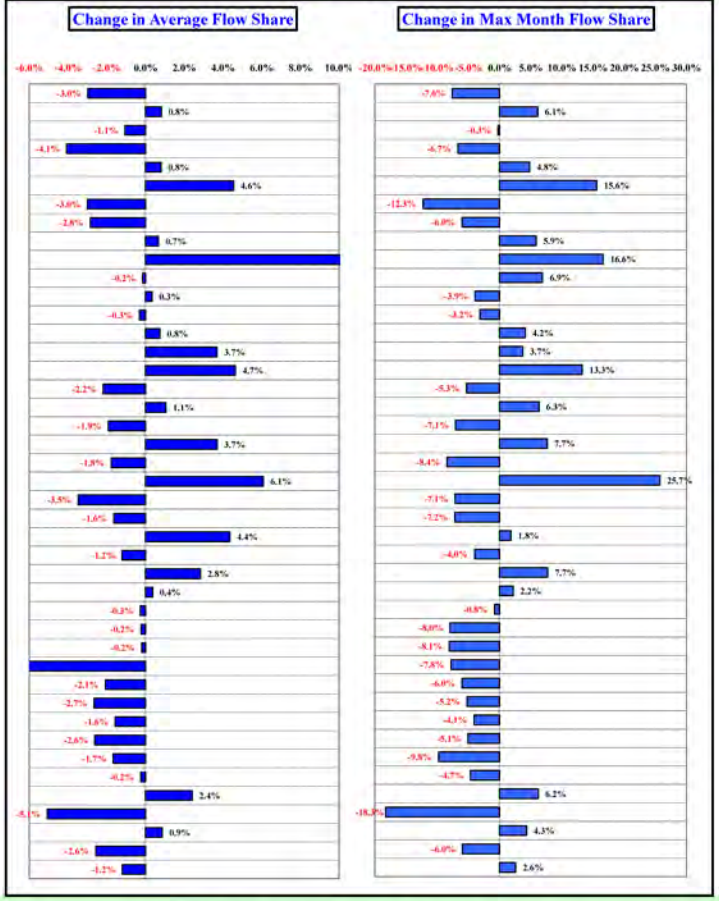
4th Quarter - FY13

How Projected CY2013 Community Wastewater Flows Could Effect FY2015 Sewer Assessments [1,2,3]

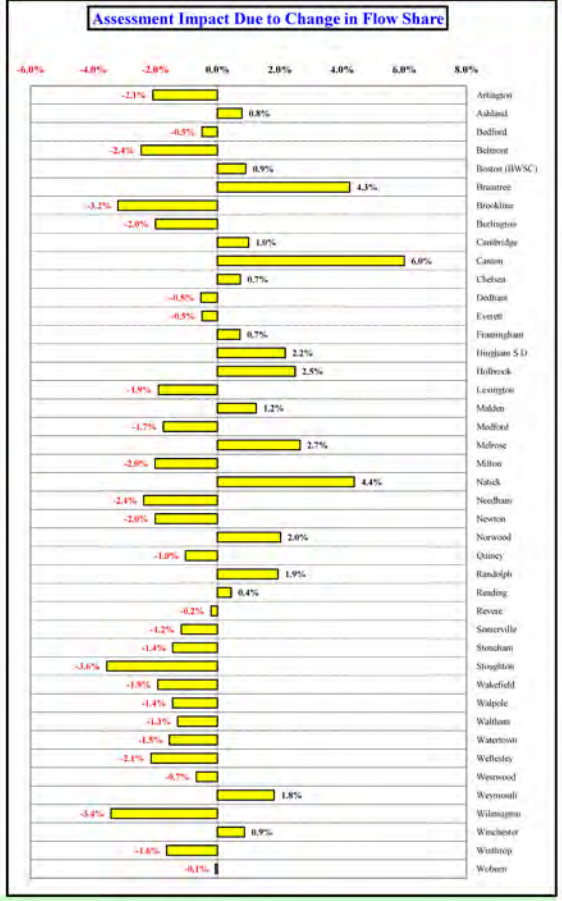
The flow components of FY2015 sewer assessments will be calculated using a 3-year average of CY2011 to CY2013 wastewater flows compared to FY2014 assessments that used a 3-year average of CY2010 to CY2012 wastewater flows.



But as MWRA's sewer assessments are a ZERO-SUM calculation, a community's assessment is strongly influenced by the RELATIVE change in CY2011 to CY2013 flow share compared to CY2010 to CY2012 flow share, compared to all other communities in the system.



The chart below illustrates the change in the TOTAL BASE assessment due to FLOW SHARE CHANGES. [4]



Notes:

[1] MWRA uses a 3-year flow average to calculate sewer assessments. Three-year averaging smoothes the impact of year-to-year changes in community flow share, but does not eliminate the long-term impact of changes in each community's relative contribution to the total flow.

[2] Based on CY2010 to CY2013 average wastewater flows as of 09/05/13. Flow data is preliminary and subject to change pending additional MWRA and community review.

[3] CY2010 to CY2012 wastewater flows based on actual meter data. CY2013 flows based on actual meter data for January to June and projected flows for July to December.

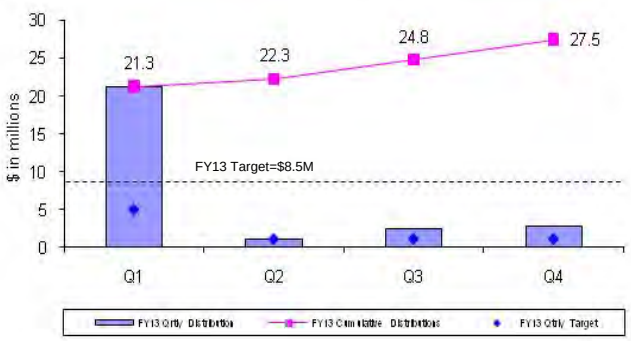
[4] Represents ONLY the impact on the total BASE assessment resulting from the changes in average and maximum wastewater FLOW SHARES.

Community Support Programs
4th Quarter – FY13

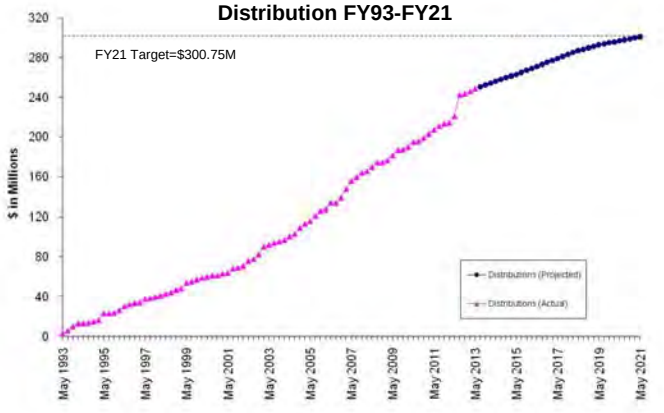
Infiltration/Inflow Local Financial Assistance Program

MWRA's Infiltration/Inflow (I/I) Local Financial Assistance Program provides $300.75 million in grants and interest-free loans (average of about $10 million per year from FY93 through FY21) to member sewer communities to perform I/I reduction and sewer system rehabilitation projects within their locally-owned collection systems. Eligible project costs include: sewer rehabilitation construction, pipeline replacement, removal of public and private inflow sources, I/I reduction planning, engineering design, engineering services during construction, etc. I/I Local Financial Assistance Program funds are allocated to member sewer communities based on their percent share of MWRA's wholesale sewer charge. Interest-free loans are repaid to MWRA over a five-year period beginning one year after distribution of the funds.

FY13 Quarterly Distributions of Sewer Grant/Loans



I/I Local Financial Assistance Program
Distribution FY93-FY21

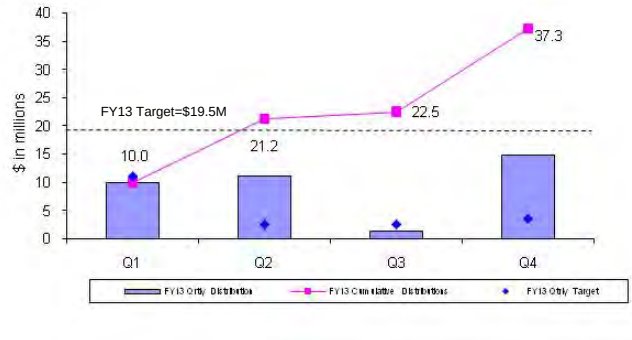


During the 4th Quarter of FY13, $2.7 million in financial assistance (45% grants and 55% interest-free loans) was distributed to fund local sewer rehabilitation projects in Braintree, Brookline, Dedham, Norwood and Woburn. Total grant/loan distribution for FY13 is $27.5 million. From FY93 through the 4th Quarter of FY13, all 43 member sewer communities have participated in the program and more than $248 million has been distributed to fund 444 local I/I reduction and sewer system rehabilitation projects. Distribution of the remaining funds has been approved through FY21 and community loan repayments will be made through FY26. All scheduled community loan repayments have been made.

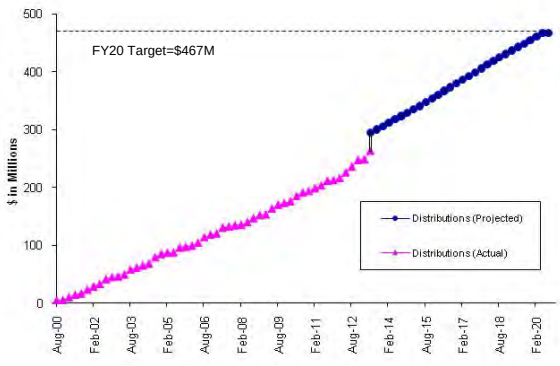
Water Local Pipeline and Water System Assistance Programs

MWRA's Local Pipeline and Water System Assistance Programs (LPAP and LWSAP) provide $467 million in interest-free loans (an average of about $23 million per year from FY01 through FY20) to member water communities to perform water main rehabilitation projects within their locally-owned water distribution systems. Eligible project costs include: water main cleaning/lining, replacement of unlined water mains, lead service replacements, valve, hydrant, water meter, tank work, engineering design, engineering services during construction, etc. MWRA partially-supplied communities receive pro-rated funding allocations based on their percentage use of MWRA water. Interest-free loans are repaid to MWRA over a ten-year period beginning one year after distribution of the funds.

FY13 Quarterly Distributions of Water Loans



Local Pipeline and Water System Assistance Programs
Distribution FY01-FY20



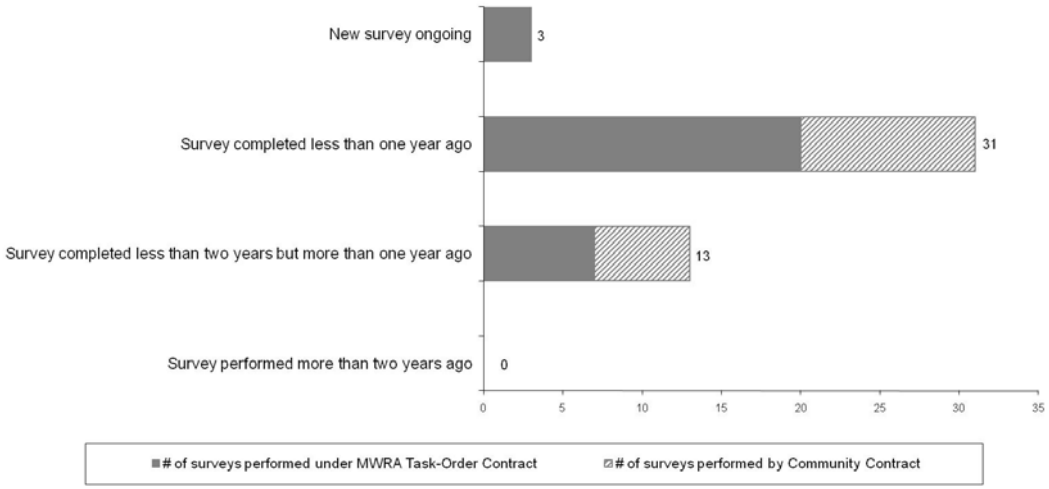
During the 4th Quarter of FY13, $14.8 million in interest-free loans was distributed to fund local water projects in Everett, Marlborough, Medford, Milton, Nahant, Revere, Somerville, Stoneham, Waltham and Watertown. Total loan distribution for FY13 is $37.4 million. From FY01 through the 4th Quarter of FY13, more than $263 million has been distributed to fund 300 local water system rehabilitation projects in 38 MWRA member water communities. Distribution of the remaining funds has been approved through FY20 and community loan repayments will be made through FY30. All scheduled community loan repayments have been made. FY13 is the last year of community loans under the Phase 1 Local Pipeline Assistance Program.

Community Support Programs

4th Quarter – FY13

Community Water System Leak Detection

To ensure member water communities identify and repair leaks in locally-owned distribution systems, MWRA developed leak detection regulations that went into effect in July 1991. Communities purchasing water from MWRA are required to complete a leak detection survey of their entire distribution system at least once every two years. Communities can accomplish the survey using their own contractors or municipal crews; or alternatively, using MWRA's task order leak detection contract. MWRA's task order contract provides leak detection services at a reasonable cost that has been competitively procured (3-year, low-bid contract) taking advantage of the large volume of work anticipated throughout the regional system. Leak detection services performed under the task order contract are paid for by MWRA and the costs are billed to the community the following year. During the 4th Quarter of FY13, all member water communities were in compliance with MWRA's Leak Detection Regulation.



Community Water Conservation Outreach

MWRA's Community Water Conservation Program helps to maintain average water demand below the regional water system's safe yield of 300 mgd. Current 5-year average water demand is less than 210 mgd. The local Water Conservation Program includes distribution of water conservation education brochures (indoor and outdoor bill-stuffers) and low-flow water fixtures and related materials (shower heads, faucet aerators, toilet leak detection dye tabs, and instructions), all at no cost to member communities or individual customers. The Program's annual budget is $25,000 for printing and purchase of materials. Annual distribution targets and totals are provided in the table below. Distributions of water conservation materials are made based on requests from member communities and individual customers.

During FY12, requests for educational brochures (indoor and outdoor bill stuffers) were lower than in prior years. For FY13, the target for educational brochure distribution has been lowered from 150,000 to 100,000.

FY13 DISTRIBUTION	Annual Target	Q1	Q2	Q3	Q4	Annual Total
Educational Brochures	100,000	45,178	16,370	15,646	41,370	118,564
Low-Flow Fixtures (showerheads and faucet aerators)	10,000	1,566	3,178	4,222	2,735	11,701
Toilet Leak Detection Dye Tablets	------	1,196	3,477	6,855	967	12,495

BUSINESS SERVICES

Procurement: Purchasing and Contracts

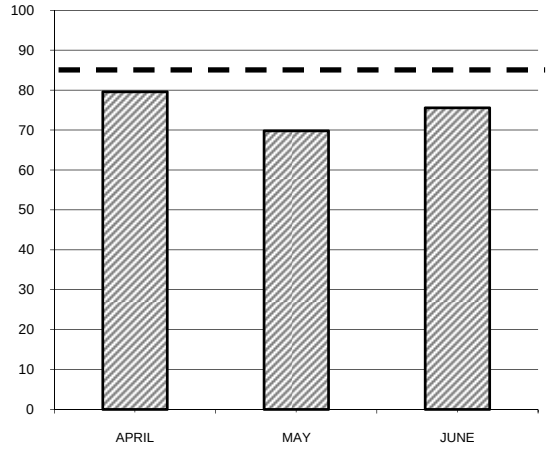
Fourth Quarter FY13

Background: Goal is to process 85% of Purchase Orders and 80% of Contracts within Target timeframes.

Outcome: Processed 75% of purchase orders within target; Avg. Processing Time was 12.63 days vs. 6.73 days in Qtr 4 of FY12. Processed 86% (12 of 14) contracts within target timeframes; Avg. Processing Time was 78 days vs. 117 days in Qtr 4 of FY12.

Purchasing

Purchase Orders - Percent in Target



	NO.	TARGET	PERCENT IN TARGET
$0 - $500	1157	4 DAYS	75.4%
$500 - $2K	935	7 DAYS	81.2%
$2K - $5K	223	10 DAYS	51.6%
$5K - $10K	94	25 DAYS	60.6%
$10K - $25K	88	30 DAYS	63.6%
$25K - $50K	28	60 DAYS	78.6%
OVER $50K	27	80 DAYS	74.1%

- Purchasing Unit processed 2552 purchase orders, 112 fewer than the 2664 processed in Qtr 4 of FY12, for a total value of $11,313,866 vs. a dollar value of $12,126,509 in Qtr 4 of FY12.

- The target was not achieved for the $0 – $500 and the $2k - $5k categories due to vendor sourcing and end user confirmation, the $5k - $10k category because of vendor sourcing , the. $10k - $25k category because of specification development ,the $25k - $50k category because of vendor sourcing and end user confirmation and the over $50k category due to extended bid review

Contracts, Change Orders and Amendments

- Two contracts were not processed within target timeframes. One was processed within two weeks of target; and the other was extended in order to review the qualifications of the low bidder.

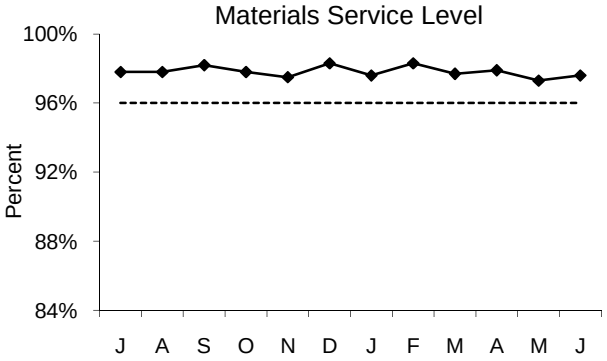
- Procurement processed fourteen contracts with a value of $16,046,318 and ten amendments with a value of $17,545,111.

- Twenty-three change orders were executed during the period, but some were credit change orders and are recorded as negative numbers. The dollar value of all non-credit change orders during the 4th quarter FY13 was $2,173,223 and the value of credit change orders was ($12,740).

- In addition, staff reviewed 48 proposed change orders and 28 draft change orders.

Materials Management

4th Quarter, FY13



The service level is the percentage of stock requests filled. The goal is to maintain a service level of 96%. Staff issued 9,116 (97.6%) of the 9,339 items requested in Q4 from the inventory locations for a total dollar value of $869,012.

Inventory Value - All Sites

Inventory goals focus on:

- Maintaining optimum levels of consumables and spare parts inventory
- Adding new items to inventory to meet changing business needs
- Reviewing consumables and spare parts for obsolescence
- Managing and controlling valuable equipment and tools via the Property Pass Program

The FY13 goal is to reduce consumable inventory from the July '12 base level ($7.7 million) by 4.0% (approximately $310,231), to $7.4 million by June 30, 2013 (see chart below) has been met.

Items added to inventory this quarter include:

- Deer Island – wrench lamp, connectors, belt drives, spill kits, actuators, power supply, cables and motor for Core; reducing bushings, sampling oil, proximity switch cable for Liquid Train.
- Chelsea –CV shaft, clamps, fuel filters, brake drums, ABS sensor, air bag sensor and plate frame for VMM; bearings, adapters, back pressure valve, pin clamps, solenoid valve, rotork actuator and square D breaker for Work Order Coordination Group.
- Southboro – filter mats, oil separator cartridges and ozone sensors for Carroll Water Treatment Plant; sunscreen for Maintenance.

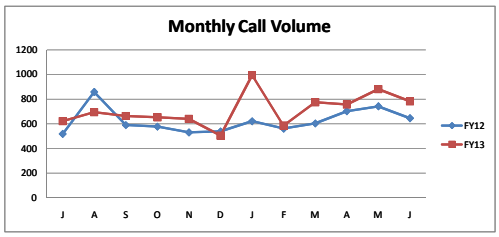
Property Pass Program:

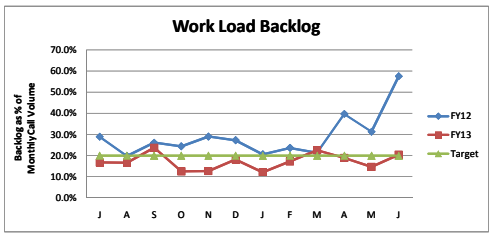
- Audits were conducted at Chelsea Carpenters, Chelsea Technical Inspection Unit, Chelsea Sewer Pipe Maintenance during Q4.
- Numerous obsolete computers, monitors, printers, keyboards, scanners, tape drives, mice, docking stations, laptops, typewriters and cameras have been received into property pass as surplus. Disposition is being handled as part of our ongoing recycling efforts.
- Scrap revenue received to date for the quarter amounted to $13,792.
- Revenue received from online vehicle auction held during Q4 amounted to $69,522. Year to date revenue received amounts to $249,627.

Items	Base Value July-12	Current Value w/o Cumulative New Adds	Reduction / Increase To Base
Consumable Inventory Value	7,755,777	6,831,564	-924,213
Spare Parts Inventory Value	7,368,162	7,174,389	-193,773
Total Inventory Value	15,123,939	14,005,953	-1,117,986

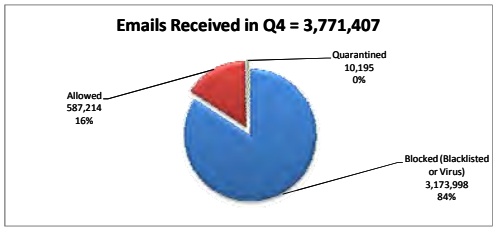
Note: New adds are items added at an inventory location for the first time for the purpose of servicing a group/department to meet their business needs/objectives.

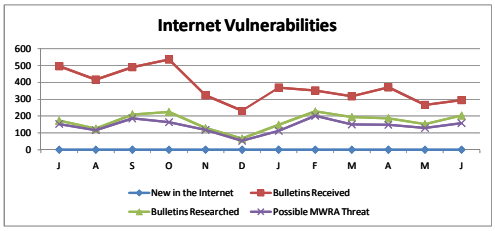
MIS Program
4th Quarter FY13





Performance:
Call Volume: Peaked in May and increased by 1.6% from Q4 last year. Call Backlog: Peaked in June and is 0.5% above the targeted benchmark of 20%.





Information Security:

During Q3, staff pushed security fixes and updates to desktops and servers throughout the quarter in order to protect against 68 vulnerabilities.

LANDesk Antivirus quarantined 41 distinct viruses from 48 MWRA computers. MWRA's systems are current with anti-virus providers' signatures for all known malware.

Infrastructure:

Exchange 2010: The new email environment for Exchange 2010 upgrade has been built and virtualized on the existing blade chassis reducing the number of physical servers by three and resulting in reduction of power consumption and carbon footprint. Another benefit is the ability to allocate additional space for all user email boxes without compromising the integrity of the system. Migration of pilot users to the new environment was successfully completed and the nightly backup of the new environment has been set up. Exchange 2010 is scheduled to be in full production by early Q1 FY14.

Interactive SmartBoards: SmartBoards are installed in the Chelsea EOC, and Muster Room, Deer Island EOC, the JJCWTP EOC, and Southboro conference area. This technology enables staff to collaborate on projects limiting the need for travel, additionally it enables coordination with all EOC's during weather events and emergency situations.

Applications/Training/Records Center:

Strategic Sourcing and Contract Management: Electronic bidding went live in April. A presentation of the application was given at the April Board of Directors meeting. Purchasing Events ($25,000 or greater) were posted on the Supplier Portal during the first week of April and by week's end there were 332 registered suppliers on the Strategic Sourcing Portal. Shortly after, Purchasing Events less than $25,000 were posted. Supporting documents were written or updated. Programming staff matched Suppliers with AP Vendors and updated the supplier table in the Sourcing module with the Vendor numbers. System administration and application support staff worked with Lawson Software support to upgrade the Landmark Grid Environment (10.0.1 to 10.0.3) and Procurement module (9.1.0.3 to 9.1.0.9) on the development system. Construction Contracts configuration and implementation on the vendor portal is being designed in conjunction with new Contract Management system. Deployed screen changes to the production server that included field reorganization and the display of instructions for supplier password creation.

Contracts Management: Met with Contract Management staff to refine user requirements for contract management, determine whether requirement(s) can be achieved with "out of box" functionality, clearly define the implication if a requirement cannot be achieved with "out of box" functionality, and, determine a viable workaround when needed. Members of A&F and Procurement Department worked with a Lawson Contract Management application consultant, on-site, for four days focusing on system configuration, gap analysis resolution, and data conversion.

Rain Gauge Portal: Operations staff identified five WeatherBug stations to add to the Rain Gauge application. A new map that included all the rain data collection sites was generated for the user interface and the application was revised to address the new sites, tested for functionality and ADA compliance, and deployed. In addition, error trapping notification code was added that will email developers if error conditions occur.

TISCOR Products: In Q3, MIS received a request from Operations to help support their TISCOR facility inspection software and to evaluate the InspectNTrack product, a web based application with a SQL back-end, which could be used to consolidate multiple standalone departmental TISCOR databases. In Q4, staff worked with the vendor on data mapping and migration of the existing four standalone databases into a new centralized database. Standardized facility names exported from Maximo are being used and new or revised inspection routes were established. The applications were installed on a development server and data scrubbing is nearly complete. Production server installation and vendor training for users is scheduled for July.

Lawson/Infor Fiscal Year End Support: Staff supported HR and Payroll with upcoming fiscal year-end closing tasks that included loading longevity payments, final testing of the LP module (personal time allotment for all employees, Unit 2 annual vacation allotments, etc.), loading new clothing/uniform allowance file into system for HR, reformatting and loading holiday to vacation transfer of hours for employees who banked the Patriots Day holiday in April and still have not used it, processing longevity checks and vacation milestone adjustments for Units 2, 3 and 9.

LIMS: The first LIMS amendment was signed by the Executive Office and sent to LabWare for signatures. The amendment included licensing for their Electronic Laboratory Notebook (ELN), professional services for enhancements, additional core LIMS licenses and, version 6 upgrade assistance. Version 6 upgrade development environment was successfully validated on Oracle 11g. Backups in the form of database exports are being done nightly.

Harbor Outfall Monitoring Loading (HOML): The HOML application was reconfigured to work with the Oracle 11i database upgrade.

Library & Records Center: The Library completed 65 research requests (223 YTD), added 54 books (282 YTD), distributed 15 periodicals and 1,954 electronically (7,698 YTD) linked articles to staff. The Records Center added 431 boxes (656 YTD), conducted 6 training sessions for 13 staff, and attended 3 Record Conservation Board Meetings. Disposed of 1,755 boxes.

IT Training: For the quarter, 122 staff attended 14 classes and 2 workshops. 19% of the workforce has attended at least one class year-to-date. New job aids for Smart Boards were developed to assist user access and MWRA file system navigation. Nearly 50 remote staff were trained for electronic Time Sheet submissions.

Legal Matters
4th Quarter FY 2013

PROJECT ASSISTANCE

COURT AND ADMINISTRATIVE ORDER

- **Boston Harbor Litigation and CSO:** Reviewed amendment 9 to memorandum and financial assistance agreement between MWRA and Cambridge for implementation of CSO projects. Reviewed quarterly compliance and progress report and prepared filing for federal court.

- **NPDES:** Reviewed MWRA's requests for three year extensions to Alewife Brook and Upper Mystic River Basin CSO variance and for extension to Lower Charles River/Charles Basin CSO variance. Reviewed MA DEP's proposed revisions to its sewer regulations. Reviewed MWRA's draft fact sheets for three year extensions to Alewife Brook and Upper Mystic River Basin CSO variance and for extension to Lower Charles River/Charles Basin CSO variance. Prepared comments related to co-permittee issue for anticipated draft NPDES permit for Clinton Wastewater Treatment Plant. Reviewed DEP's tentative determinations to extend variances for CSO discharges to the Alewife Brook/Upper Mystic River Basin and the Lower Charles River Basin.

- **Administrative Order (Clinton Wastewater Treatment Plant):** Reviewed annual copper optimization report No. 11 and drafted cover letter.

- **Administrative Consent Order (DITP power outages):** Reviewed and submitted updated semi-annual *Consultant's Deer Island Energy Recommendations Tracking Sheet* to DEP and EPA.

REAL ESTATE, CONTRACT AND OTHER SUPPORT

- **FRRC:** Reviewed and submitted approval not required (ANR) plan related to land transaction in Fore River between MWRA and March Fourth, LLC. Drafted license agreement by and between MWRA, FRRC, and RailPod for access to rail tracks for testing; drafted legislation for the easement "swap" with March Fourth LLC; drafted seventh supplemental indenture of lease related to land transaction in Fore River between MWRA and March Fourth, LLC.

- **CNY:** Executed the Third Amendment to Sublease for the headquarters at CNY.

- **Wireless Carrier Permits:** Reviewed AT&T and Cingular wireless agreement related MWRA's water tank located at Turkey Hill in Arlington.

- **Section 36/New 11B Interconnection/Watertown Section/Waltham Connection:** Received and recorded six (6) voluntary Grants of Temporary Easements to support the first contract of the Project.

- **Wetlands Protection Land Acquisition:** Reviewed and provided comments as to acceptability for the following parcels: W-1068 (WPR) and W-1069/1070 in Wendell/New Salem from the Estate of Overing, W-1050 for parcel of land in West Bolyston owned by Chapman, watershed acquisitions W-0213 and W-0214 for land owned by McKay/Stuart in Princeton/Wachusett; Parcel W-1048 for land owned by Pine Forest Realty Trust in New Salem; and parcel W-1095 for property in Rutland/Ware owned by Capa Corporation.

- **Public Access:** Drafted and issued 8(m) permits for public access trail on: Wachusett Aqueduct in Northborough, Framingham and Southborough that cover the Bay Circuit Trail (BCT) connection, and the Wachusett Aqueduct in Northborough; a permit for a community picnic on the Sudbury Aqueduct at Hemlock Reservation in Newton.

- **Weston Water Main:** Met with representatives of the Defendant Victaulic to provide a rebuttal of Victaulic's prior technical and legal presentation for the purpose of continuing mediation and possible settlement.

- **Miscellaneous:** Reviewed and provided comments on there (3) agreements for MIS and one (1) for Procurement; reviewed and approved thirty-nine (39) Section 8(m) Permits and one (1) direct connect permit.

ENVIRONMENTAL

- **Co-Digestion:** Reviewed and commented on the re-drafted notification letter to DEP, informing the agency of MWRA's proposed pilot project for co-digestion in DITP anaerobic digesters.

- **Regulations:** Reviewed MWRA's draft comments to proposed amendments to the wetlands, waterways, water quality and waste site cleanup regulations.

LABOR, EMPLOYMENT AND ADMINISTRATIVE

New Matters Five demands for arbitration were filed.

Matters Concluded

Received an arbitrator's decision in favor of MWRA finding that the MWRA did not violate Article 15 or 16 of a collective bargaining agreement in the assignment of duties to the grievant.

SUMMARY OF PENDING LITIGATION MATTERS

TYPE OF CASE/MATTER	As of June 2013	As of Mar 2013	As of Dec 2012
Construction/Contract/Bid Protest (other than BHP)	6	7	**3**
Tort/Labor/Employment	6	4	**6**
Environmental/Regulatory/Other	1	1	**1**
Eminent Domain/Real Estate	0	0	**0**
total – all defensive cases	**13**	**12**	10
Affirmative Cases: MWRA v. J. F. Shea Co., Inc., et al.	1	1	**1**
Other Litigation matters (restraining orders, etc.) MWRA v. Thomas Mercer	1	1	**0**
total – all pending lawsuits	**15**	**14**	11
Significant claims not in suit: Oscar Malera personal injury claim	1	2	**3**
Bankruptcy	0	1	**2**
Wage Garnishment	14	14	**14**
TRAC/Adjudicatory Appeals	15	2	**0**
Subpoenas	3	3	**6**
TOTAL – ALL LITIGATION MATTERS	48	36	**36**

LITIGATION/TRAC

New Matters During the Fourth Quarter of FY 2013 two new lawsuits were received.

Steven V. Walker v. Department of Conservation and Recreation, Massachusetts Water Resources Authority and P. Gioioso & Sons, Inc.: State Trooper Walker alleges that on May 24, 2010, he sustained injuries as a result of the negligence of the defendants in connection with the North Dorchester Bay Combined Sewer Overflow Project. Plaintiff alleges that the contractor Gioioso was negligent when it failed to notify Dig Safe and struck a power line, and that MWRA and DCR were negligent in their oversight of the project. Plaintiff alleges that he was "electrocuted." Plaintiff's claimed money damages to date total $267,500, including damages for medical expenses, lost wages and pain and suffering. MWRA previously tendered defense of this claim to P. Gioiso & Sons, Inc. and its insurer Liberty Mutual Insurance. On May 24, 2012, Liberty Mutual agreed to defend and indemnify MWRA up to policy limits of $1,000,000, without any reservation of rights.

(Current Employee) v. Massachusetts Water Resources Authority: This is a proceeding for declaratory relief and for damages pursuant to M.G.L. c. 151B with respect to allegations of discriminatory practices, policies and customs.

Significant Developments MWRA staff made a presentation to the principals and legal counsel for Victaulic Company seeking to prompt Victaulic to increase its settlement offer in the Shaft 5A litigation.

LITIGATION/TRAC (cont.)

Matters Concluded

MWRA v. Federal Metal Finishing, Inc.: MWRA brought this suit to obtain payment of an unpaid TRAC permit fee. Federal Metal Finishing did not pay its permit fee of $11,610 for FY 2012, on which $181.89 in interest had accrued when MWRA filed suit. The company ceased discharging at the end of December, 2011, and filed corporate dissolution papers, which became effective at the end of January, 2012. MWRA agreed to settle this case for a payment of $5,000, which was received from the owners of Federal Metal Finishing on April 4, 2013.

West Boylston Municipal Lighting Plant v. MWRA: This dispute concerned the appropriate rate to be charged by MWRA to West Boylston for electricity generated from MWRA's Oakdale hydro facility and was pending both in an arbitration and in the Worcester Superior Court. West Boylston claimed that it made overpayments of $250,000 to MWRA. The Board has authorized staff's recommended settlement of the dispute in which all parties have waived all claims that either may ever have had against one another under a Power Purchase Agreement (PPA) which has now been terminated for all purposes. MWRA made no payment to West Boylston and the PPA was terminated as of March 31, 2013, ahead of its June 2014 expiration. Both the litigation and the arbitration have been dismissed and all interested parties have signed settlement agreements which include the exchange of mutual releases. MWRA has since entered into an agreement to sell electricity to NGRID, a process under which West Boylston's cooperation was required and was provided.

Subpoenas

During the Fourth Quarter of FY 2013, two new subpoenas were received, and three subpoenas were pending at the end of the Fourth Quarter FY 2013.

Public Records

During the Fourth Quarter of FY 2013 nine new public records requests were received and seven remained pending at the end of the Fourth Quarter FY 2013.

TRAC/MISC.

New Appeals

Fourteen new appeals were received in the 4th Quarter FY 2013.

1) F.B. Packing; MWRA Docket No. 13-03
2) Adams-Chapman Co.; MWRA Docket No. 13-04
3) Campco; MWRA Docket No. 13-05
4) Pier 7, Inc.; MWRA Docket No. 13-06
5) Samuel Holmes; MWRA Docket No. 13-07
6) Frank Bertolino Beef; MWRA Docket No. 13-08
7) Rago Veal; MWRA Docket No. 13-09
8) Metropolitan Meat Company; MWRA Docket No. 13-10
9) Aquanor Marketing, Inc.; MWRA Docket No. 13-11
10) Great Eastern Seafood; MWRA Docket No. 13-12
11) Channel Fish Processing Company; MWRA Docket No. 13-13
12) True World Foods; MWRA Docket No. 13-14
13) Atlantic Seacove, Inc.; MWRA Docket No. 13-15
14) Aero Brazing Corporation; MWRA Docket No. 13-16

Settlement by Agreement of Parties

One case was settled by Agreement of Parties in the 4th Quarter FY 2013.

Lucky Star Transportation Corp.; MWRA Docket No. 13-02

Stipulation of Dismissal

No cases were dismissed by Stipulation of Dismissal.

Notice of Dismissal Fine paid in full

No cases were dismissed by Joint Stipulation of Dismissal with Prejudice, fine paid in full.

Tentative Decisions

No Tentative Decisions were issued in the 4th Quarter FY 2013.

Final Decisions

No Final Decisions were issued during the 4th Quarter FY 2013.

INTERNAL & CONTRACT AUDIT PROGRAM
4th Quarter FY13

Highlights

MIS Equipment Management
MIS is responsible for the requisition, receipt, issuance, and disposition of computer equipment, cell phones, pagers, digital cameras, and audio/visual equipment. The estimated value of deployed equipment is $3 million. The audit found that many equipment management activities need improvement. A total of 36 recommendations were made focusing on proper documentation, consolidating inventory databases, maintaining the currency of inventory records, improving the management of equipment, and ensuring a separation of duties. Management completed action on 17 of the recommendations while audit fieldwork was still in process.

Status of Open Audit Recommendations (17 recommendations closed in the 4th quarter)

The Internal Audit Department follows up on open recommendations on a continuous basis. All pending recommendations have target implementation dates. When a recommendation has not been acted on in 48 months the appropriateness of the recommendation is re-evaluated during a subsequent audit. On closed assignments 98% of recommendations have been implemented.

Report Title (date)	Recommendations Pending Implementation	Closed Recommendations
Warehouse Practices (9/30/10)	2	8
Facility Card Access Controls (2/22/11)	3	17
DITP Data Center Access Controls (10/14/11)	4	18
Chelsea Facility Physical Security (12/31/12)	9	22
Hardware Equipment Management (5/22/13)	19	17
Review of Purchase Card Activity (6/28/13)	3	0
Total Recommendations	**40**	**82**

Audit Savings

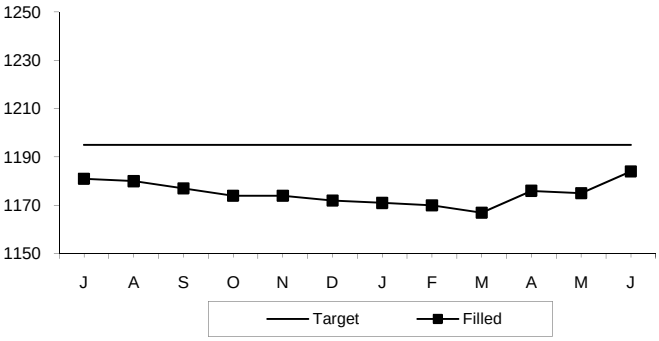
The Internal Audit Department's target is to achieve at least $1 million in cost savings each year. Cost savings vary each year based upon many factors. In some cases, cost savings for one year may be the result of work in prior years.

Savings	FY09	FY10	FY11	FY12	FY13	TOTAL
Consultants	$316,633	$194,238	$520,176	$259,245	$587,314	$1,522,547
Contractors & Vendors	$1,262,088	$599,835	$3,129,538	$435,760	$2,153,688	$5,819,165
Internal Audits	$438,027	$206,282	$152,478	$407,350	$391,083	$1,382,910
Total	**$2,016,748**	**$1,000,355**	**$3,802,192**	**$1,102,355**	**$3,132,085**	**$8,724,622**

OTHER MANAGEMENT

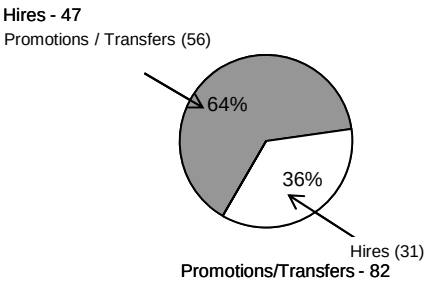
Workforce Management
4th Quarter FY13

Filled Position Tracking



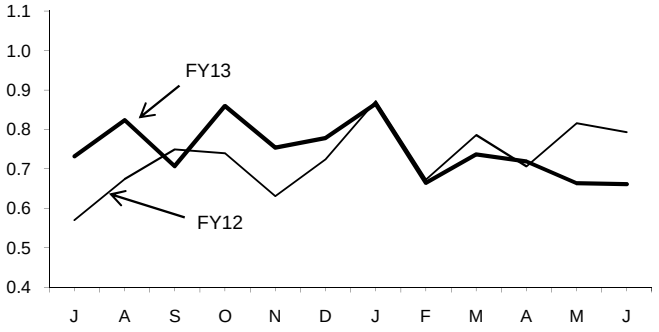
FY13 Target for Filled Positions = 1195
Filled Positions as of June 2013 = 1174

Positions Filled by Hires/Promotions FY13 (YTD)



	Pr/Trfrs	Hires	Total
FY11	48 (62%)	30 (38%)	78
FY12	42 (61%)	27 (39%)	69
FY13	82 (64%)	47 (36%)	129

Average Monthly Sick Leave Usage
Per Employee



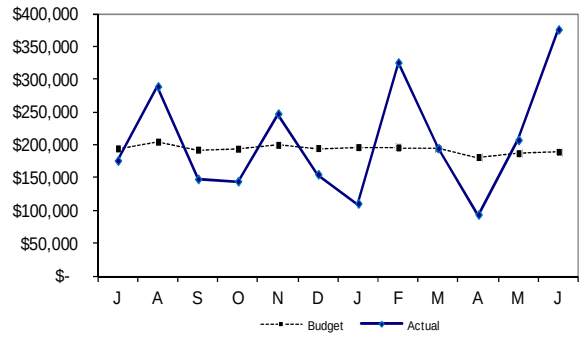
Average monthly sick leave dropped in the 4th Quarter compared to the first 3 quarters of FY13 (from 9.23 days to 8.95 days). FY13 sick leave was slightly higher than FY12.

In FY13, the average quarterly sick leave usage has increased 7.8% from the same time last year.

	Number of Employees	YTD	Annualized Total	Annual FMLA %	FY12
A&F	182	8.48	8.48	24.5%	8.18
Aff. Action	7	12.25	12.25	47.2%	13.14
Executive	5	3.08	3.08	0.0%	6.53
Int. Audit	8	7.36	7.36	19.7%	5.94
Law	16	11.80	11.80	36.5%	11.25
OEP	5	5.89	5.89	0.0%	5.21
Operations	948	9.02	9.02	24.0%	8.81
Pub. Affs.	13	9.08	9.08	4.4%	7.81
MWRA Avg	**1184**	**8.95**	**8.95**	**24.1%**	**8.69**

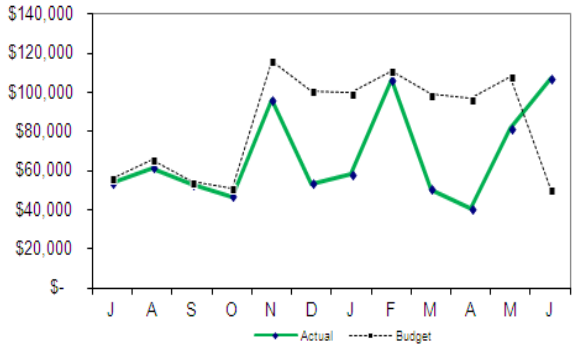
Percent of sick leave usage attributable to Family and Medical Leave Act (FMLA) leave is 24.1% ending June 30,2013

Field Operations
Current Month Overtime $



Total Overtime for Field Operations in the 4th quarter of FY13 $675k which is $119k or 21% over budget. Emergency overtime was $424k, which was $143k over budget. The majority of this spending was for emergency operations of which $307k was for wet weather response.

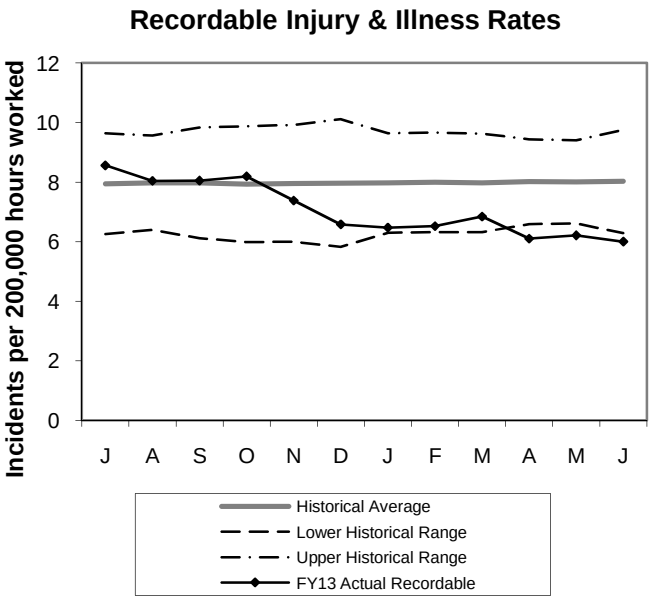
Deer Island Treatment Plant
Current Month Overtime $

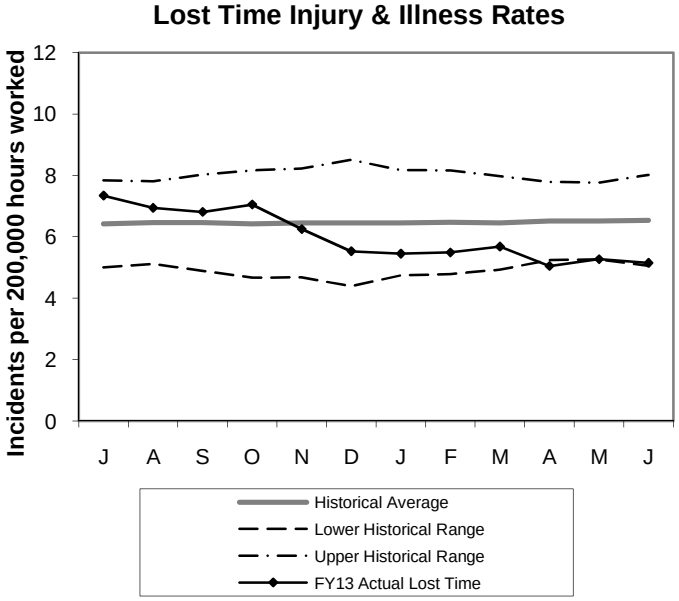


Deer Island's total overtime expenditure for the 4th quarter of FY13 was $230K, which was ($26K) or (10.2%) under budget. The variance is primarily attributable to lower than anticipated storm coverage requirements, ($26K) or (647 hours). In addition, Management's continued efforts to control overtime spending by allowing overtime for maintenance or repair of critical equipment,($36K) or (859 hours). These savings are partially offset by higher than anticipated shift coverage requirements,$36K.

Workplace Safety

4th Quarter, FY 13





1 “Recordable" incidents are all work-related injuries and illnesses which result in death, loss of consciousness, restriction of work or motion, transfer to another job, or require medical treatment beyond first aid.

2 "Lost-time" incidents, a subset of the recordable incidents, are only those incidents resulting in any days away from work, days of restricted work activity or both - beyond the first day of injury or onset of illness.

3 The “Historical Average” is computed using the actual MWRA monthly incident rates for FY99 through FY12. The “Upper” and “Lower Historical Ranges” are computed using these same data – adding and subtracting two standard deviations respectively. FY13 actual incident rates can be expected to fall within this historical range.

Workers Compensation Claims Highlights - Fourth Quarter FY13

	New	Closed	Open Claims
Lost Time	11	10	69
Medical Only	43	61	19
	New		**YTD Light Duty Returns**
Light Duty Returns	2		14

Highlights/Comments:

Light Duty Returns

April 1 employee returned to light duty from IA
2 employees, while on light duty, had several days during the month of IA

May 1 employee returned to light duty from IA
1 employee, while on light duty, had several days during the month of IA

June 1 employee, while on light duty, had several days during the month of IA

Regular Duty Returns

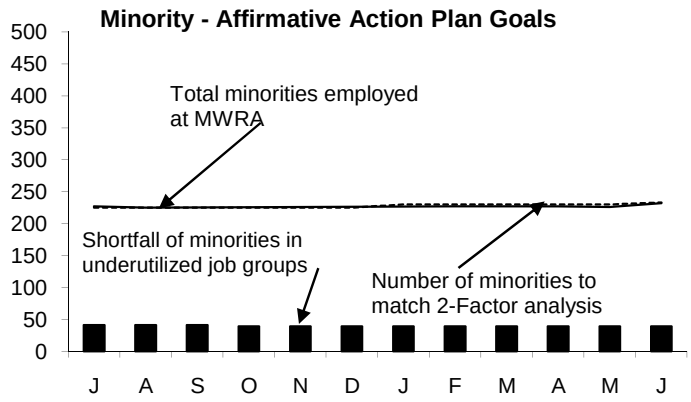
April 1 employee returned to full duty on a part time basis, from IA, then went to full time after two weeks
1 employee returned to work full duty from IA
1 employee returned to work full duty from 2 days IA

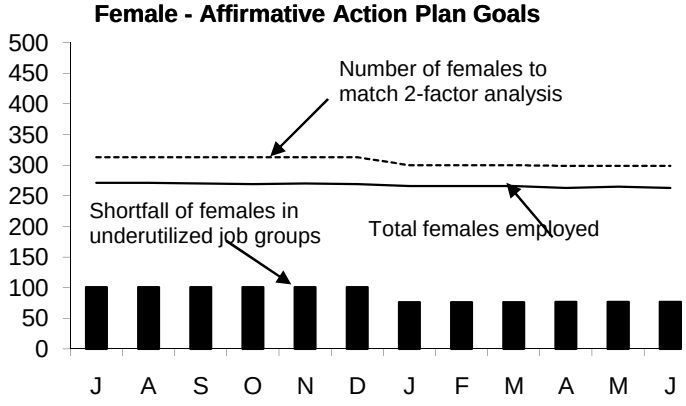
May 3 employees returned to work full duty from IA

June 1 employee returned to work full duty from IA
3 employees returned to work full duty from light duty

MWRA Job Group Representation

4th Quarter, FY13





Highlights:

At the end of Q4 FY13, 10 job groups or a total of 40 positions are underutilized by minorities as compared to 8 job groups or a total of 44 positions at the end of Q4 FY12; for females 14 job groups or a total of 77 positions are underutilized by females as compared to 13 job groups or a total of 101 positions at the end of Q4 FY12. During Q4, 7 minorities and 3 females were hired. During this same period, 2 minorities and 6

Underutilized Job Groups - Workforce Representation

Job Group	Employees as of 6/30/2013	Minorities as of 6/30/2013	Achievemen Level	Minority Over or Under Under utilized	Females As of 6/30/2013	Achievement Level	Female Over or Under Under utilized
Administrator A	18	3	2	1	3	5	-2
Administrator B	20	0	3	-3	4	5	-1
Clerical A	46	19	12	7	40	20	20
Clerical B	32	8	9	-1	14	1	13
Engineer A	82	15	20	-5	11	17	-6
Engineer B	51	14	10	4	6	13	-7
Craft A	117	14	21	-7	0	4	-4
Craft B	149	30	23	7	3	6	-3
Laborer	66	18	10	8	2	4	-2
Management A	107	16	22	-6	33	48	-15
Management B	50	9	12	-3	14	21	-7
Operator A	67	4	7	-3	2	4	-2
Operator B	67	7	14	-7	4	2	2
Para Professional	52	12	11	1	22	32	-10
Professional A	37	3	7	-4	23	17	6
Professional B	162	43	40	3	76	88	-12
Technical A	52	16	8	8	5	8	-3
Technical B	9	1	2	-1	1	4	-3
Total	**1184**	**232**	**233**	**36/-39**	**263**	**299**	**41/-77**

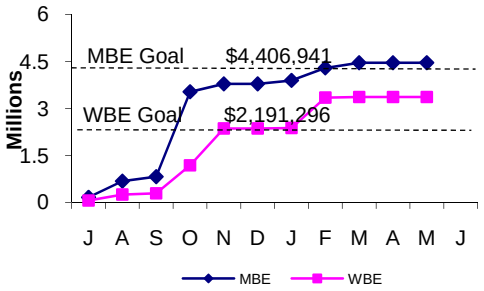
AACU Candidate Referrals for Underutilized Positions

Job Group	Title	# of Vac	Requisition Int. / Ext.	Promotions/ Transfers	AACU Ref. External	Position Status
Craft B	Equipment Repair Specialist	1	Int./Ext.	1	0	Promo/WM
Craft B	Electrician	2	Int./Ext.	1	1	Promo/WM-Hire/BM
Craft B	Instrument Technician	2	Int.	1	0	Promo/WM-Hire/WM
Craft B	Facilities Specialist	2	Ext.	1	0	Promo/BM & N Hire/WM
Craft B	Machinist	2	Ext.		1	Pending
Craft B	Plumber/Pipefitter	2	Ext.		2	Pending
Craft B	Warehouse Materials Handler	3	Int/Ext	2	0	Hire/WM- Promo/WM
Craft A	M&O Specialist	2	Ext.	1	0	Promo/WM - 1 Pending
Craft A	Valve General Foreman	1	Int.	1	0	Promo/WM
Engineer A	Sr. Program Manager, OCC	1	In	1	0	Promo/WM
Laborers	Building and Grounds Worker	3	Int/Ext	0	0	Hires/1-HM & 2-WM
Management A	Senior Program Manager, QA	1	Int	1	0	Promo/WM
Professional B	Chemist	1	Int.	1	0	Promo/WF
Professional B	Biologist	1	Int.	1	0	Promo/WM
Professional B	Industrial Coordinator	2	Int.	1	1	Promo/WM &WF
Professional B	Sampling Associate	2	Ext.	2	2	Pending
Professional B	Senior Lab Technician	1	Int.	1	0	Rehire/AF
ParaProfessional	Planning / Scheduling Coordinator	1	Int	1	0	Promo/WM
Technical B	General Construction Inspector	1	Int/Ext	1	0	Promo/WM

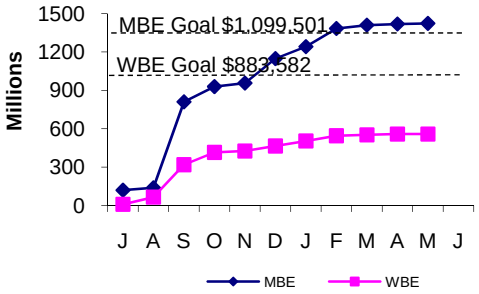
MBE/WBE Expenditures
4th Quarter, FY13

Background: MBE/WBE targets are determined based on annual MWRA expenditure forecasts in the procurement categories noted below. MBE/WBE percentage goals, resulting from a 2002 Availability Analysis, are applied to the MWRA CIP and CEB expenditure forecasts. As a result of the Availability Analysis, the category of Non-Professional Services is included in Goods/Services. Consistent with contractor reporting requirements, MBE/WBE expenditure data is available through May.

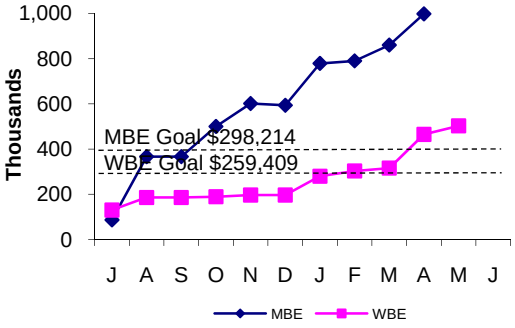
Construction



Professional



Goods/Services



FY13 spending and percentage of goals achieved, as well as FY12 performance are as follows:

	MBE				WBE			
	FY13 Year-to-Date		FY12		FY13 Year-to-Date		FY12	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Construction	4,455,307	101.1%	3,771,155	112.8%	3,362,894	153.5%	6,992,984	305.0%
Professional Svc.	1,422,113	129.3%	1,216,840	97.2%	557,922	63.1%	524,130	52.1%
Goods & Svcs.	1,099,000	368.5%	879,467	303.3%	502,549	193.7%	737,776	292.5%
Total	$6,976,420	120.2%	$5,867,462	120.1%	$4,385,667	131.5%	$8,184,890	232.0%

MWRA FY13 CEB Expenses through 4th Quarter FY13

	June 2013 Year-to-Date ($000)					
	Budget	Actual	Variance	%	FY13 Budet	%
EXPENSES						
WAGES AND SALARIES	$ 94,059	$ 90,659	$ (3,401)	-3.6%	$ 94,059	96.4%
OVERTIME	3,573	3,543	(31)	-0.9%	3,573	99.1%
FRINGE BENEFITS	18,242	17,536	(705)	-3.9%	18,242	96.1%
WORKERS' COMPENSATION	2,100	2,115	15	0.7%	2,100	100.7%
CHEMICALS	9,963	10,139	176	1.8%	9,963	101.8%
ENERGY AND UTILITIES	23,127	23,058	(70)	-0.3%	23,127	99.7%
MAINTENANCE	28,229	26,956	(1,273)	-4.5%	28,229	95.5%
TRAINING AND MEETINGS	386	321	(65)	-16.9%	386	83.1%
PROFESSIONAL SERVICES	5,901	5,003	(898)	-15.2%	5,901	84.8%
OTHER MATERIALS	5,591	6,955	1,364	24.4%	5,591	124.4%
OTHER SERVICES	23,744	22,323	(1,420)	-6.0%	23,744	94.0%
TOTAL DIRECT EXPENSES	**$ 214,916**	**$ 208,607**	**$ (6,308)**	**-2.9%**	**$ 214,916**	**97.1%**
INSURANCE	$ 2,098	$ 2,221	$ 123	5.9%	$ 2,098	105.9%
WATERSHED/PILOT	26,413	26,005	(408)	-1.5%	26,413	98.5%
BECo PAYMENT	3,742	3,492	(250)	-6.7%	3,742	93.3%
MITIGATION	1,567	1,518	(49)	-3.1%	1,567	96.9%
ADDITIONS TO RESERVES	1,398	1,398	-	0.0%	1,398	100.0%
RETIREMENT FUND	10,474	10,490	16	0.2%	10,474	100.2%
TOTAL INDIRECT EXPENSES	**$ 45,693**	**$ 45,124**	**$ (569)**	**-1.2%**	**$ 45,693**	**98.8%**
STATE REVOLVING FUND	$ 73,805	$ 71,491	$ (2,313)	-3.1%	$ 73,805	96.9%
SENIOR DEBT	193,432	209,826	16,394	8.5%	193,432	108.5%
DEBT SERVICE ASSISTANCE	(350)	-	350	-100.0%	(350)	0.0%
CURRENT REVENUE/CAPITAL	8,200	8,200	-	0.0%	8,200	100.0%
SUBORDINATE MWRA DEBT	93,304	100,372	7,068	7.6%	93,304	107.6%
LOCAL WATER PIPELINE CP	3,641	335	(3,305)	-90.8%	3,641	9.2%
CAPITAL LEASE	3,217	3,217	0	0.0%	3,217	100.0%
VARIABLE DEBT	-	(13,197)	(13,197)	---	-	0.0%
DEFEASANCE ACCOUNT	-	-	-	---	-	---
TOTAL DEBT SERVICE	**$ 375,247**	**$ 380,244**	**$ 4,997**	**1.3%**	**$ 375,248**	**101.3%**
TOTAL EXPENSES	**$ 635,856**	**$ 633,976**	**$ (1,881)**	**-0.3%**	**$ 635,857**	**99.7%**
REVENUE & INCOME						
RATE REVENUE	$ 607,512	$ 607,512	$ -	0.0%	$ 607,512	100.0%
OTHER USER CHARGES	7,767	7,707	(60)	-0.8%	7,767	99.2%
OTHER REVENUE	6,117	8,174	2,057	33.6%	6,117	133.6%
INVESTMENT INCOME	14,461	13,590	(871)	-6.0%	14,461	94.0%
TOTAL REVENUE & INCOME	**$ 635,857**	**$ 636,983**	**$ 1,126**	**0.2%**	**$ 635,857**	**100.2%**

As of June 2013, total revenue was $637.0 million, $1.1 million or 0.2% higher than budget and total expenses were $634.0 million, $1.9 million or 0.3% less than budget for a net variance of $3.0 million. It should be noted that $25.4 million was defeased in June from $20.4 million in debt related surplus and $5.0 million from direct and indirect underspending.

Expenses –

- **Direct Expenses** are $208.6 million, $6.3 million or 2.9% less than budget.
- **Wages and Salaries** are underspent by $3.4 million or 3.6% due to lower headcount and mix of salaries.
- **Other Services** are underspent by $1.4 million or 6.0% mostly due to Sludge Pelletization of $759,000 and Other Services of $510,000.
- **Other Materials** are over budget by $1.4 million or 24.4% due to the receipt of the unbudgeted Motorola radios offset by lower Computer Hardware purchases of $136,000.
- **Maintenance** is underspent by $1.3 million or 4.5% year-to-date. Services are lower than budget by $2.7 million while materials are overspent by $1.5 million.
- **Professional Services** are under budget by $898,000 or 15.2% mainly due to lower Other of $333,000, Lab & Testing of $242,000, Security of $128,000, and lower as-needed Engineering of $121,000.
- **Fringe Benefits** are under budget by $705,000 or 3.9% due to lower Health Insurance costs of $551,000 due to lower headcount and higher new employee contributions.
- **Chemicals** are overspent by $176,000 or 1.8% mainly due to higher spending for Ferric Chloride of $149,000 for struvite control and Soda Ash of $120,000 for price increases offset by lower spending for Nitrazyme of $96,000 for corrosion control.
- **Utilities** are under budget by $70,000 or 0.3% due to lower Diesel Fuel of $961,0000 for both lower price and usage offset by higher Electricity of $985,000 due to commodity pricing.
- **Indirect Expenses** are $45.1 million, $569,000 or 1.2% under budget for lower Watershed expenses of $408,000 mainly for a FY12 overaccrual and Harbor Electric Energy Company (HEEC) reimbursements of $250,000 due to lower than projected maintenance projects offset by higher Insurance of $123,000 due to higher claims.
- **Debt Service Expenses** totaled $380.2 million which is higher than budget by $5.0 million or 1.3% after the transfer of $20.4 million of 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.

Revenue and Income –

- **Total Revenue / Income** for June is $637.0 million, $1.1 million or 0.2% higher than budget due to Non-Rate Revenue of $2.0 million offset by lower investment income of $871,000. The higher Non-Rate Revenue is comprised of $724,000 for Profit/Loss on Disposal of Equipment for Chelsea land sale and sale of vehicles, $712,000 for Miscellaneous Revenue for NSTAR and other vendor rebates, $452,000 for Federal Emergency Management Agency (FEMA) reimbursements, and $338,000 in higher net energy-related revenue mostly for Charlestown Wind and Renewable Portfolio Standard (RPS) sales.

Cost of Debt
4th Quarter-FY13

MWRA borrowing costs are a function of the fixed and variable tax exempt interest rate environment, the level of MWRA's variable interest rate exposure and the perceived creditworthiness of MWRA. Each of these factors has contributed to decreased MWRA borrowing costs since 1990.

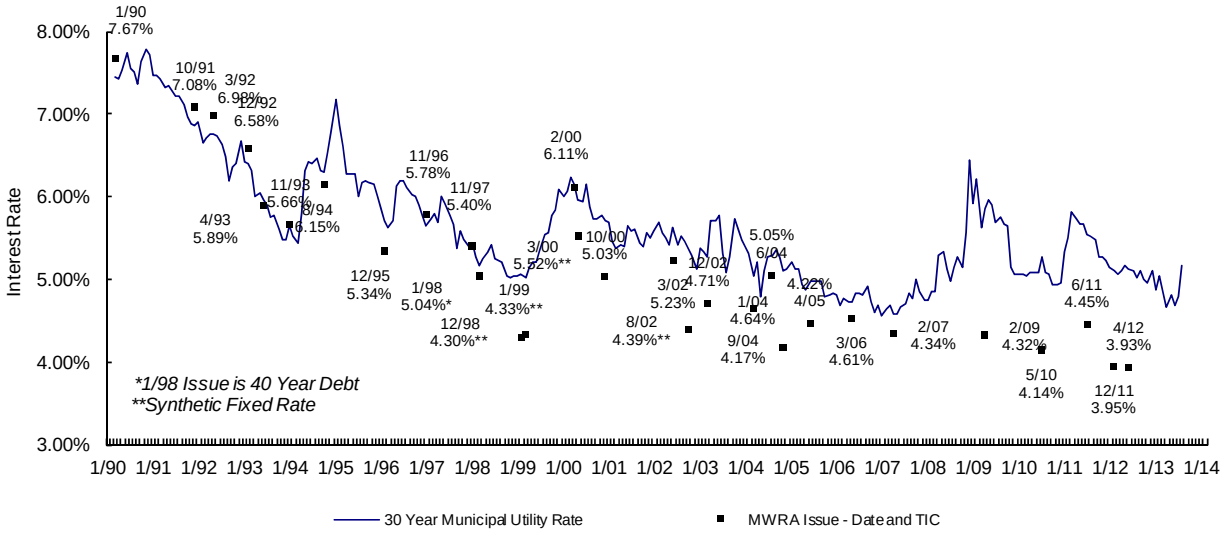
Average Cost of MWRA Debt

Fixed Debt ($4,066)	4.34%
Variable Debt ($484.3)	0.78%
SRF Debt ($1,077)	1.21%
Weighted Average Debt Cost ($5,628)	3.43%

Most Recent Senior Fixed Debt Issue
March 2013

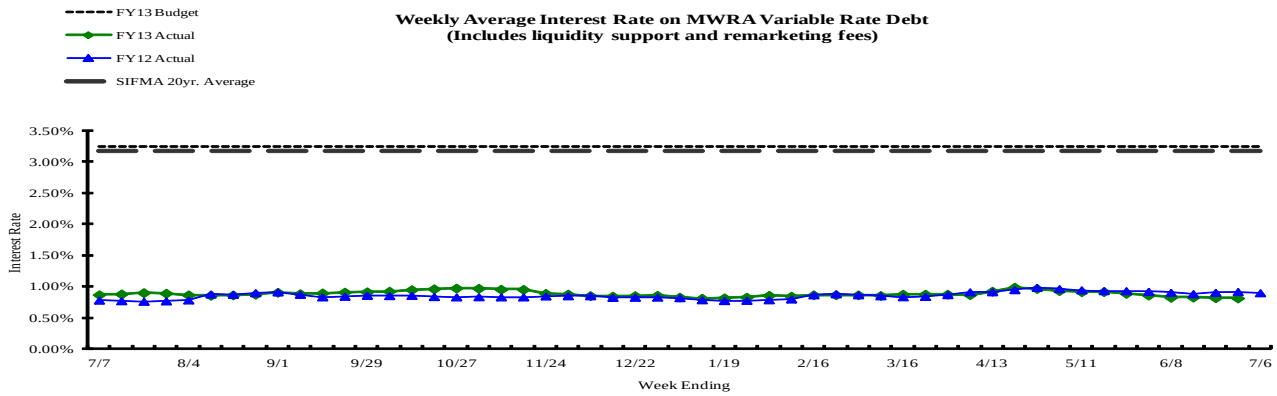
2013 Series A ($170.6)	2.45%

MWRA Fixed Rate Debt vs. 30 Year Municipal Utility Interest Rate



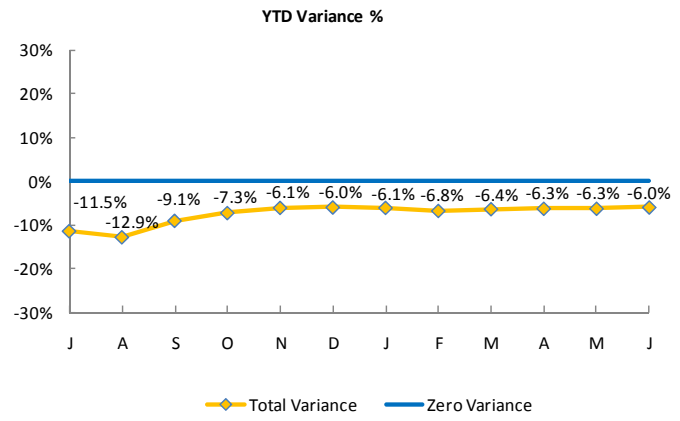
Weekly Average variable Interest Rates vs. Budget

MWRA currently has ten variable rate debt issues with $1.1 billion outstanding, excluding commercial paper. Of the ten outstanding series, five have portions which have been swapped to fixed rate. Variable rate debt has been less expensive than fixed rate debt in recent years as short-term rates have remained lower than long-term rates on MWRA debt issues. In June, SIFMA rates fluctuated with a high of 0.12% and a low of 0.06%. MWRA's issuance of variable rate debt, although consistently less expensive in recent years, results in exposure to additional interest rate risk as compared to fixed rate debt.



Investment Income
4th Quarter FY13

Year To Date

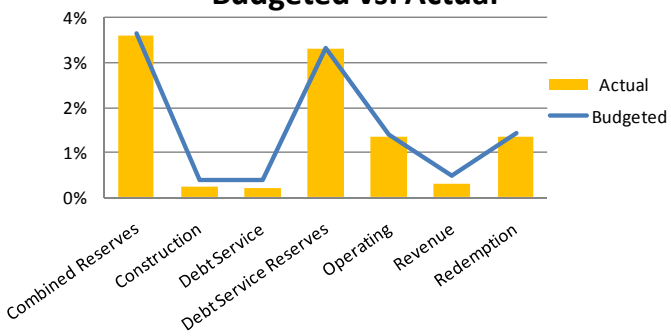


	YTD BUDGET VARIANCE ($000)			
	BALANCES IMPACT	RATES IMPACT	TOTAL	%
Combined Reserves	$58	($67)	(9)	-0.3%
Construction	($69)	($358)	(427)	-53.4%
Debt Service	($16)	($242)	(257)	-48.8%
Debt Service Reserves	$50	$26	76	0.9%
Operating	($25)	($20)	(45)	-5.8%
Revenue	$3	($189)	(186)	-36.8%
Redemption	$0	($22)	(22)	-4.6%
Total Variance	$1	($872)	($871)	-6.0%

➢ **The negative balance is mainly attributed to the lower than budgeted interest rates.**

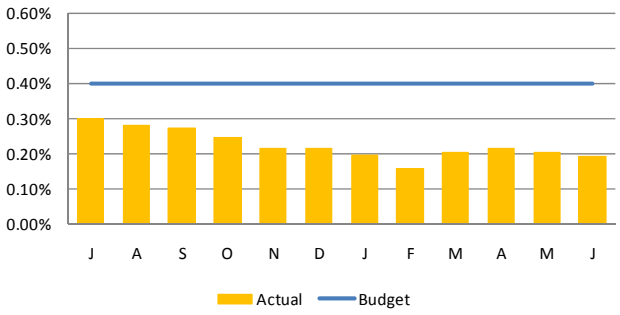
YTD Average Balances Budgeted vs. Actual

YTD Average Interest Rate Budgeted vs. Actual

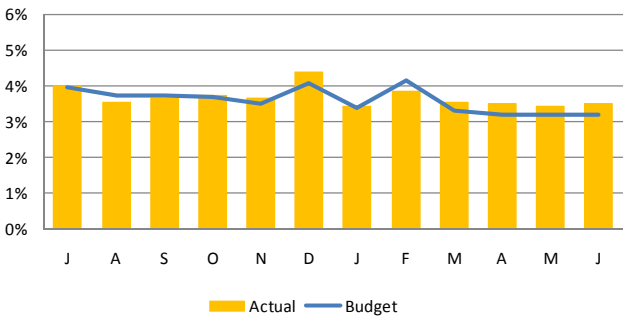


Monthly

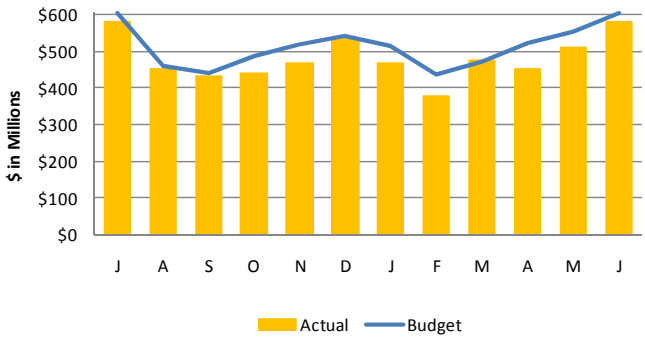
Short -Term Interest Rates



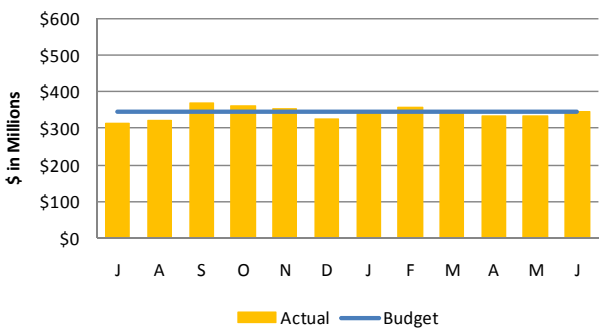
Long -Term Interest Rates



Short-Term Average Balances



Long-Term Average Balances



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: FY13 Year-End Financial Update and Summary

COMMITTEE: Administration, Finance & Audit

X 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 for FY13, based on the final year-end financial close.

DISCUSSION:

Total year-end expenses were lower than budget by $1.9 million or 0.3% and total revenues were greater than budgeted by $1.1 million or 0.2% for a net variance of $3.0 million, after a $25.4 million defeasance executed in June.

The $25.4 million defeasance was funded from $20.4 million surplus of debt service, mostly related to favorable variable rates and $5.0 million from direct and indirect expense underspending and higher non-rate revenues.

The defeasance executed in June 2013 was structured to provide targeted relief in FY15 and FY16, as part of the Authority's multi-year rates strategy.

Staff are recommending that $3.0 million surplus be set aside in the defeasance account for later use in a FY14 defeasance targeting FY17.

Total Expenses were lower than budget by $1.9 million or 0.3%.

	FY13 Budget (June)	FY13 Actual (June)	$ Variance	% Variance
Direct Expenses	$214.9	$208.6	-$6.3	-2.9%
Indirect Expenses	$45.7	$45.1	-$0.6	-1.2%
Debt Service	$375.2	$380.2	$5.0	1.3%
Total	**$635.9**	**$634.0**	**-$1.9**	**-0.3%**

The variances for the year by major categories were:

- Lower Direct Expenses of $6.3 million mostly for wages and salaries, other services, maintenance, professional services, and fringe benefits;

- Lower Indirect Expenses of $0.6 million for lower Watershed Reimbursement of $408,000 mainly for FY12 overaccrual and Deer Island Harbor Cable expense of $250,000 due to delayed maintenance activities offset by higher Insurance expenses of $123,000 due to higher claims;

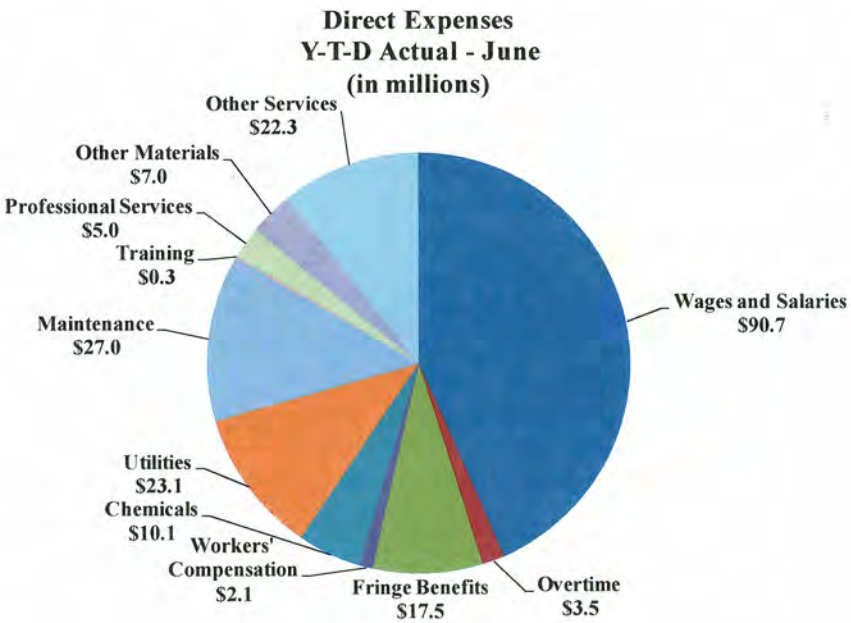
- Higher Debt Service of $5.0 million was the result of debt service related savings of $20.4 million offset by $25.4 million defeasance executed in June. The $20.4 million surplus before the defeasance was due to: lower than budgeted variable rate of $13.2 million; lower Local Water Pipeline Commercial Paper expense of $3.3 million; delayed State Revolving Fund (SRF) borrowing of $2.3 million; $2.0 million for no new money borrowing in FY13; and the loss of $350,000 in Debt Service Assistance; and

- Revenues of $1.1 million were higher than budgeted due to higher Non-Rate Revenue of $2.0 million mainly for higher Profit/Loss on Disposal of Equipment for the Chelsea land sale, Energy Revenue for Charlestown Wind and Renewable Portfolio Standard (RPS) sales, offset by lower Investment Income due to lower rates.

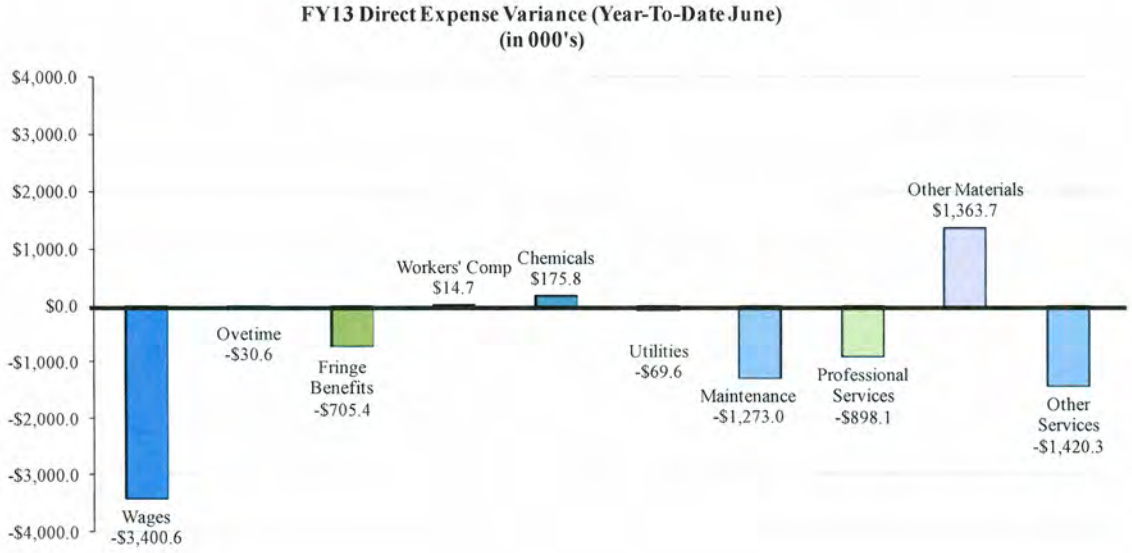
Please refer to Attachment 4 for a more detailed comparison by line item.

Direct Expenses

Direct Expenses totaled $208.6 million, $6.3 million or 2.9% less than budget. The chart below represents the make-up of direct expense spending by category:

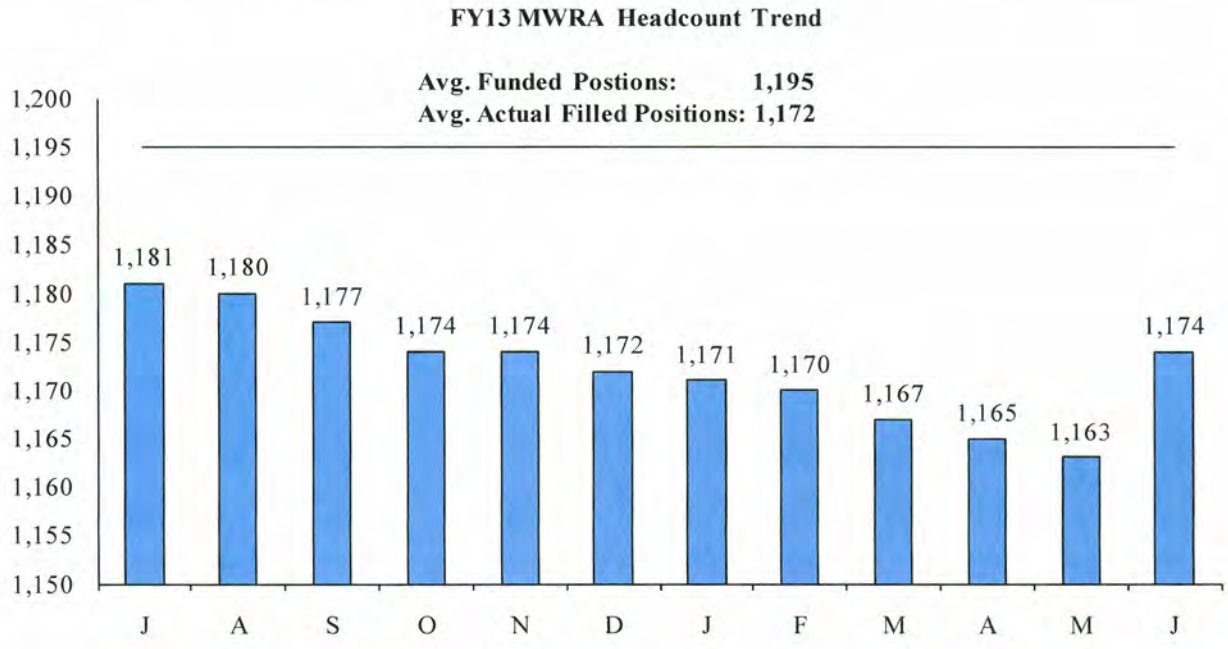


The primary reason for underspending on Direct Expenses was lower spending for: wages and salaries, other services, maintenance, professional services, fringe benefits, utilities, and overtime offset by overspending primarily for other materials and chemicals.



Wages and Salaries

Wages and Salaries were underspent by $3.4 million or 3.6% mainly as a result of lower than budgeted filled positions and the salary mix differential between staff retiring at higher rates and new hires coming on board at lower rates. The average actual filled positions were 1,172 which is 23 positions lower than the 1,195 positions funded. Additionally, MWRA currently has 5 temporary employees.



Other Services

Other Services were lower than budget by $1.4 million or 6.0% mainly due to lower than budgeted sludge quantities. Sludge quantities for the year are approximately 4% lower, 101.2 tons per day versus 105.7 budgeted. The majority of the underspending for sludge is due to maintenance projects and system optimization which has resulted in improved digestion capacity thus lowering sludge quantities. The Other Services category is also underspent due to lower than projected spending for contaminant monitoring and remediation activities.

Maintenance

Maintenance was underspent by $1.3 million or 4.5% for the year. Services are lower than budget by $2.7 million while materials are overspent by $1.4 million. The underspending for services in Field Operations is due to the timing of the Bellevue Water Tank roof replacement project, lower than budgeted spending for paving, fire alarm contract spending, and timing of instrumentation services and 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.

Professional Services

Professional Services were underspent by $898,000 or 15.2% in FY13 mainly due to lower than budgeted report preparation and as-needed services for the Harbor Monitoring program of $215,000, timing of IT Strategic Plan initiatives of $204,000, Security services of $128,000, as-needed engineering services of $121,000, and lower than budgeted need for outside legal services of $63,000.

Fringe Benefits

Fringe Benefits were underspent by $705,000 or 3.9% in FY13 mainly due to lower than budgeted health insurance costs resulting from lower headcount and new employees contributing at a higher percentage (25% versus 20%) than employees hired before July 2003.

Utilities

Utilities were underspent by $70,000 or 0.3% in FY13 mainly for diesel fuel of $961,000 due to lower pricing and usage of fuel at Deer Island and Field Operations and lower natural gas due to pricing offset by higher electricity costs of $985,000 due to higher commodity pricing during the winter months primarily at Deer Island.

Overtime

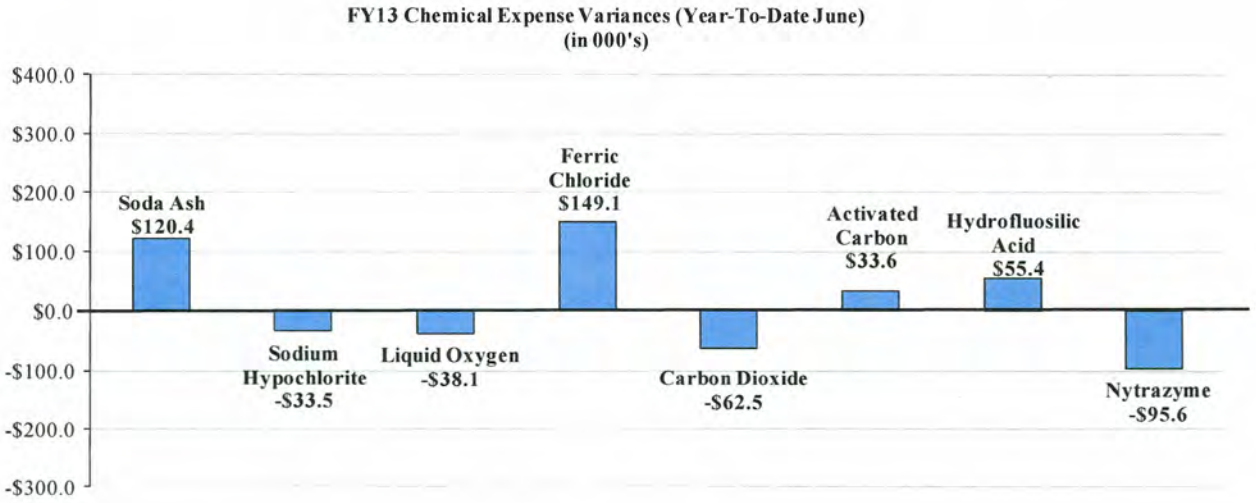
Overtime was underspent by $31,000 or 0.9% in FY13 mainly at Deer Island due to lower than budgeted wet weather response.

Other Materials

Other Materials were higher than budget by $1.4 million or 24.4% in FY13 due to the purchase of the unbudgeted Motorola radios offset by lower than projected need for computer hardware.

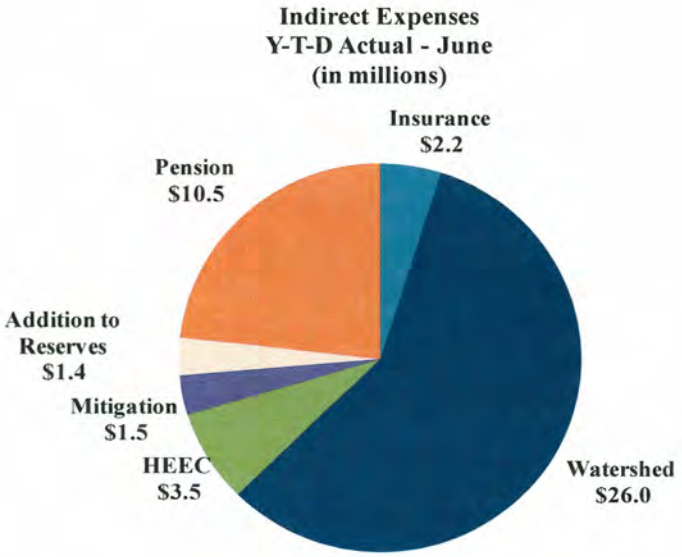
Chemicals

Chemicals were overspent by $176,000 or 1.8% for FY13. The majority of the variance is attributable to higher spending on ferric chloride due to struvite issues at Deer Island and soda ash due to price increases offset by lower than budgeted spending for nitrazyme used for corrosion control.



Indirect Expenses

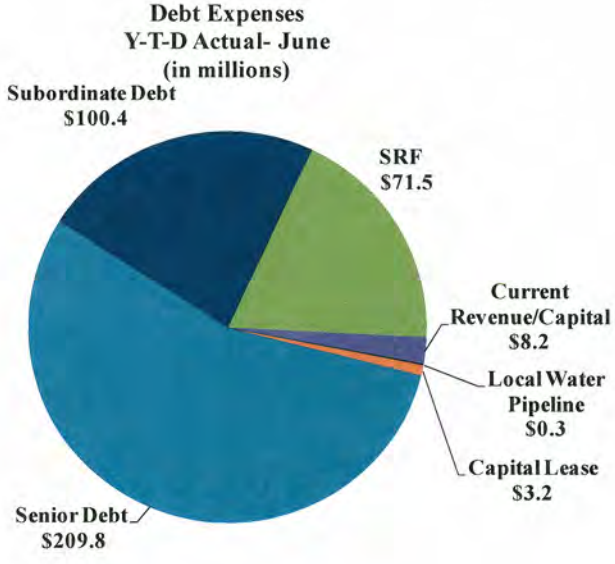
Indirect Expenses for FY13 total $45.1 million, $569,000 or 1.2% less than budget.



The majority of the underspending on Indirect Expenses in FY13 was for lower Watershed expenses of $408,000 due to a FY12 overaccrual and lower FY13 spending and lower Harbor Electric Energy Company (HEEC) expenses of $250,000 due to the timing of maintenance projects offset by higher Insurance expenses of $123,000 due to recognition of higher projected claims.

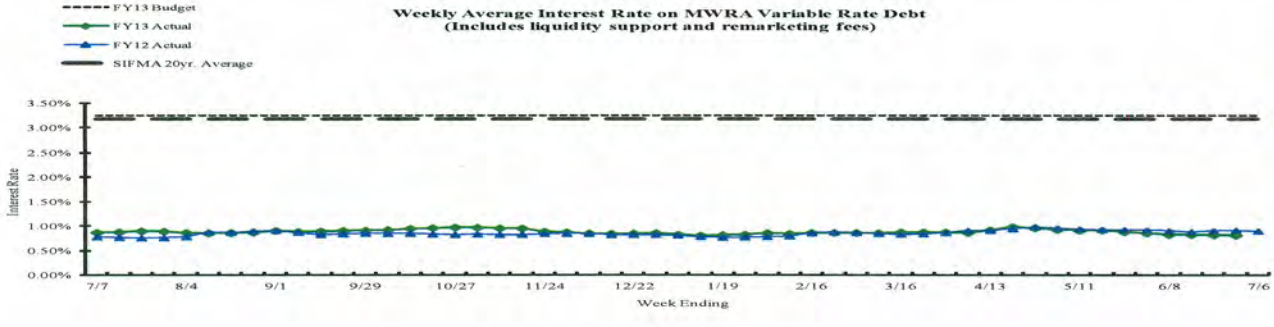
Debt Service Expenses

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 for FY13 totaled $380.2 million which was higher than budget by $5.0 million or 1.3% after a $25.4 million defeasance and the recognition of the loss of Debt Service Assistance (DSA) per the Governor's 9C budget cuts. It should be noted that $25.4 million was defeased in June using $20.4 million in debt-related surplus and $5.0 million from direct and indirect underspending, and higher revenues.

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

FY13 Revenue totals $637.0 million which was $1.1 million or 0.2% higher than budget due to higher non-rate revenue of $2.0 million offset by lower Investment Income of $871,000 due to lower than budgeted short-term rates.

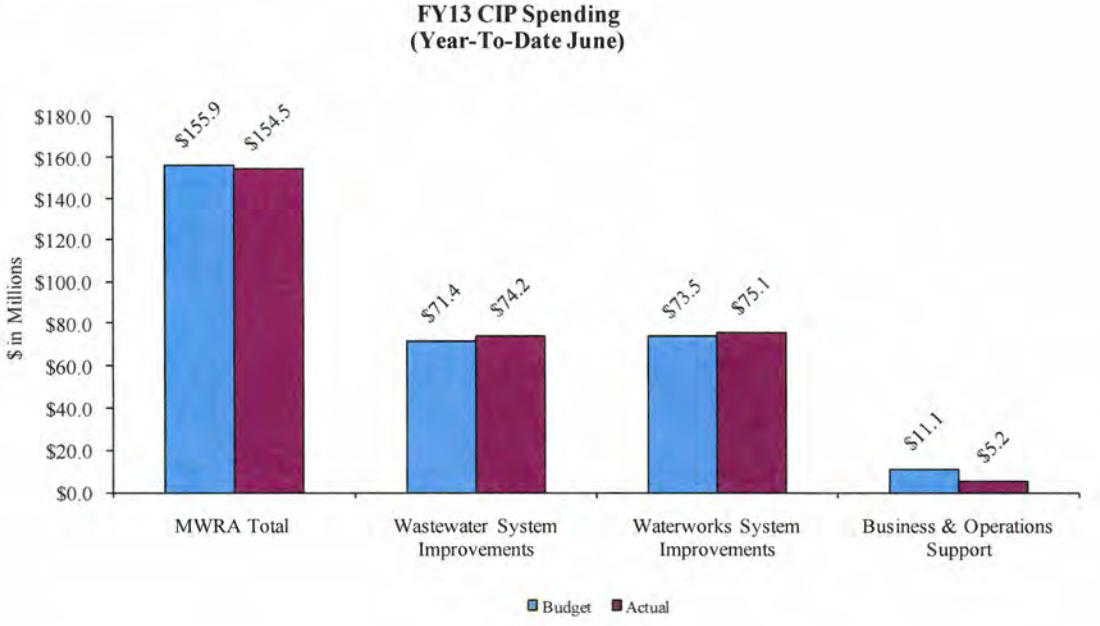
The higher Non-rate Revenue was due to $724,000 for Profit/Loss for Disposal of Equipment/Land for the sale of land in Chelsea and sale of surplus vehicles and equipment, $712,000 for Miscellaneous Revenue (including NSTAR and a variety of other vendor rebates and other smaller items, $433,000 for Federal Emergency Management Agency (FEMA) reimbursements, and $239,000 for higher net energy related revenue mostly for Charlestown Wind and Renewable Portfolio Standard (RPS) sales.

FY13 Capital Improvement Program

Spending in FY13 totaled $154.5 million, $1.4 million or 0.9% 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 $40.0 million or 25.0%. A detailed report on FY13 Capital Spending will be included in October's Board agenda.

Underspending was reported in Business and Operations Support of $5.9 million offset by overspending in the Wastewater program of $2.9 million offset and Waterworks program of $1.6 million.

Spending By Program:



$ in Millions	Budget	Actuals	$ Var.	% Var.
Wastewater System Improvements				
Interception & Pumping	6.4	1.9	-4.5	-70.0%
Treatment	34.4	16.0	-18.4	-53.4%
Residuals	0.6	0.4	-0.2	-36.2%
CSO	28.1	35.4	7.4	26.3%
Other	1.8	20.4	18.6	1008.3%
Total Wastewater System Improvements	**$71.4**	**$74.2**	**$2.9**	**4.0%**
Waterworks System Improvements				
Drinking Water Quality Improvements	46.4	35.5	-11.0	-23.6%
Transmission	17.6	17.2	-0.5	-2.6%
Distribution & Pumping	9.3	4.4	-4.9	-52.5%
Other	0.1	18.0	17.9	16484.7%
Total Waterworks System Improvements	**$73.5**	**$75.1**	**$1.6**	**2.2%**
Business & Operations Support	**$11.1**	**$5.2**	**-$5.9**	**-53.1%**
Total MWRA	**$155.9**	**$154.5**	**-$1.4**	**-0.9%**

The main reasons for FY13 underspending were:

1. **Wastewater Treatment** of $18.4 million – mainly for delays for Electrical Equipment Upgrade Construction of $1.4 million, Scum Skimmer Replacement of $1.3 million, Miscellaneous Variable Frequency Drive (VFD) Replacements of $1.0 million, Power System Improvements of $993,000, Thermal/Power Plant Boiler Control of $833,000, HVAC Equipment Replacement Design of $766,000, Fire Alarm System Replacement Design $750,000, Sodium Hypochlorite Pipe Replacement Design $705,000, Expansion Joint repair – Construction 2 of $699,000, Centrifuge Backdrive Replacement of $626,000, Butterfly Valve Replacement $625,000, North Main Pump Station VFD Replacement Construction $557,000, Clinton Digester Cleaning $570,000, Cryogenics Plant Chiller Replacements $550,000, Fuel Pipe Abandonment $520,000, North Main Pump Station VFD Replacement Resident Inspection $513,000, and net underspending on a variety of other projects totaling approximately $6.0 million.

2. **Drinking Water Quality Improvements** of $11.0 million – mainly for lower than budgeted spending for Spot Pond of $8.2 million due to project delays, Carroll Water Treatment Plant of $1.9 million due to delays in CP7 Existing Facilities, Quabbin Water Treatment Plant of $603,000 due to schedule change and lower award value on Ultraviolet Disinfection Construction, and Blue Hills Covered Storage of $273,000.

3. **Business and Operations Support** of $5.9 million – mainly for lower spending on MIS projects of $2.8 million due to timing of IT Strategic Plan implementation, Alternative Energy of $2.6 million due to delay of Deer Island Phase 2 Wind Construction, lower than projected need for technical assistance, and lower Centralized Equipment Purchase of $443,000 mainly due to timing of larger vehicle purchases.

4. **Water Distribution and Pumping** of $4.9 million – mainly for lower spending on Northern Intermediate High of $3.1 million primarily due to delay in award of Gillis Pump Station Improvements, Southern Spine Distribution Mains of $622,000 due to less than anticipated Section 21, 43, & 22 Design, Construction Administration, and Resident Inspection work, Weston Aqueduct Supply Mains of $613,000 due to schedule change for WASM3 Design/Construction Administration/Resident Inspection, Valve Replacement of $431,000 due to less than anticipated change orders, and net underspending on a variety of other projects totaling approximately $100,000.

5. **Wastewater Interception & Pumping** of $4.5 million – mainly for Facility Asset Management Plan (FAMP) of $1.7 million due to Prison Point CSO facility pump and gearboxes rebuilt project of $873,000 for schedule changes, Melrose Sewer repayment of $654,000 for past work budgeted in FY12 and received in FY13, Rehabilitation of Sections 186 and 4 of $250,000 and DeLauri Pump Station Upgrades of $245,000; Braintree-Weymouth Relief Facilities of $1.1 million mainly due to delay in Wetlands Replication; Upper Neponset Valley Sewer System of $840,000 due to easement settlement being less than anticipated, and net underspending on other projects of approximately $1.0 million.

The underspending was offset by overspending for:

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 $17.9 million – primarily due to community requests for Local Water Pipeline Improvement Loans being greater than budgeted.

3. **Combined Sewer Overflow (CSOs)** of $7.4 million – primarily for Reserved Channel Sewer Separation of $6.5 million due to contractors progress and Cambridge Sewer Separation of $2.8 million for greater than anticipated award and progress offset by North Dorchester Bay of $1.1 million due to schedule shift and lower than projected need and additional nominal underspending on other projects for a cumulative effect of $900,000.

Construction Fund Balance

The construction fund balance was at $130 million as of June 2013. Commercial Paper availability was at $206 million to fund construction projects.

Attachment 1 – Variance Summary June 2013
Attachment 2 – Current Expense Variance Explanations
Attachment 3 – Capital Improvement Program Variance Explanations
Attachment 4 – FY13 Final versus FY13 Year-End Projection
Attachment 5 – FY13 Actual versus FY12 Actual

ATTACHMENT 1

	June 2013 Year-to-Date					
	Period 12 YTD Budget	Period 12 YTD Actual	Period 12 YTD Variance	%	FY13 Approved	% Expended
EXPENSES						
WAGES AND SALARIES	$ 94,059,400	$ 90,658,806	$ (3,400,594)	-3.6%	$ 94,059,400	96.4%
OVERTIME	3,573,495	3,542,871	(30,624)	-0.9%	3,573,495	99.1%
FRINGE BENEFITS	18,241,926	17,536,480	(705,446)	-3.9%	18,241,926	96.1%
WORKERS' COMPENSATION	2,100,000	2,114,701	14,701	0.7%	2,100,000	100.7%
CHEMICALS	9,963,496	10,139,257	175,761	1.8%	9,963,496	101.8%
ENERGY AND UTILITIES	23,127,198	23,057,581	(69,617)	-0.3%	23,127,198	99.7%
MAINTENANCE	28,229,070	26,956,073	(1,272,997)	-4.5%	28,229,070	95.5%
TRAINING AND MEETINGS	385,617	320,596	(65,021)	-16.9%	385,617	83.1%
PROFESSIONAL SERVICES	5,900,785	5,002,664	(898,121)	-15.2%	5,900,785	84.8%
OTHER MATERIALS	5,591,291	6,955,029	1,363,738	24.4%	5,591,291	124.4%
OTHER SERVICES	23,743,608	22,323,327	(1,420,281)	-6.0%	23,743,608	94.0%
TOTAL DIRECT EXPENSES	**$ 214,915,886**	**$ 208,607,385**	**$ (6,308,499)**	**-2.9%**	**$ 214,915,886**	**97.1%**
INSURANCE	$ 2,097,875	$ 2,220,704	$ 122,829	5.9%	$ 2,097,875	105.9%
WATERSHED/PILOT	26,413,175	26,004,694	(408,481)	-1.5%	26,413,175	98.5%
BECo PAYMENT	3,741,915	3,492,064	(249,851)	-6.7%	3,741,915	93.3%
MITIGATION	1,566,923	1,517,791	(49,132)	-3.1%	1,566,923	96.9%
ADDITIONS TO RESERVES	1,398,329	1,398,329	-	0.0%	1,398,329	100.0%
RETIREMENT FUND	10,474,376	10,490,247	15,871	0.2%	10,474,376	100.2%
TOTAL INDIRECT EXPENSES	**$ 45,692,593**	**$ 45,123,829**	**$ (568,764)**	**-1.2%**	**$ 45,692,593**	**98.8%**
STATE REVOLVING FUND	$ 73,804,552	$ 71,491,292	$ (2,313,260)	-3.1%	$ 73,804,552	96.9%
SENIOR DEBT	193,432,134	209,826,104	16,393,970	8.5%	193,432,134	108.5%
DEBT SERVICE ASSISTANCE	(350,000)	-	350,000	-100.0%	(350,000)	0.0%
CURRENT REVENUE/CAPITAL	8,200,000	8,200,000	-	0.0%	8,200,000	100.0%
SUBORDINATE MWRA DEBT	93,303,807	100,371,993	7,068,186	7.6%	93,303,807	107.6%
LOCAL WATER PIPELINE CP	3,640,517	335,271	(3,305,246)	-90.8%	3,640,517	9.2%
CAPITAL LEASE	3,217,061	3,217,061	-	0.0%	3,217,060	100.0%
VARIABLE DEBT	-	(13,197,283)	(13,197,283)	---	-	0.0%
DEFEASANCE ACCOUNT	-	-	-	---	-	---
TOTAL DEBT SERVICE	**$ 375,248,071**	**$ 380,244,437**	**$ 4,996,366**	**1.3%**	**$ 375,248,070**	**101.3%**
TOTAL EXPENSES	**$ 635,856,549**	**$ 633,975,651**	**$ (1,880,896)**	**-0.3%**	**$ 635,856,549**	**99.7%**
REVENUE & INCOME						
RATE REVENUE	$ 607,512,000	$ 607,512,000	$ -	0.0%	$ 607,512,000	100.0%
OTHER USER CHARGES	7,766,692	7,707,031	(59,661)	-0.8%	7,766,692	99.2%
OTHER REVENUE	6,116,845	8,173,785	2,056,940	33.6%	6,116,845	133.6%
INVESTMENT INCOME	14,461,012	13,590,492	(870,520)	-6.0%	14,461,012	94.0%
TOTAL REVENUE & INCOME	**$ 635,856,549**	**$ 636,983,308**	**$ 1,126,759**	**0.2%**	**$ 635,856,549**	**100.2%**

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY13 Budget YTD June	FY13 Actuals YTD June	FY13 YTD Actual vs. FY13 Budget		Explanations
			$	%	
Direct Expenses					
Wages & Salaries	94,059,400	90,658,806	(3,400,594)	-3.6%	Underspending is due to lower headcount, employees on unpaid leave status, and the salary mix differential between retirees and new hires. At the end of June, there were 1,174 positions filled. The average filled positions for the year was 1,172 which was 23 positions less than the 1,195 funded positions.
Overtime	3,573,495	3,542,871	(30,624)	-0.9%	Underspending mainly at Deer Island due to lower than budgeted wet weather response.
Fringe Benefits	18,241,926	17,536,480	(705,446)	-3.9%	Underspending for Health Insurance of $551k, Medicare of $75k, and Dental Insurance of $30k mainly due to lower headcount and because new employees contribute at a higher percentage (25% versus 20%) than employees hired before July 2003.
Worker's Compensation	2,100,000	2,114,701	14,701	0.7%	Higher spending for compensation and medical payments of $56k offset by lower spending for reserve requirements of $41k.
Chemicals	9,963,496	10,139,257	175,761	1.8%	Overspending mainly for Ferric Chloride of $149k due to struvite control and Soda Ash of $120k due to pricing offset by lower spending for Nitrazyme of $96k for corrosion control.
Utilities	23,127,198	23,057,581	(69,617)	-0.3%	Underspending for Diesel Fuel of $961k for lower pricing and usage at Deer Island and in Field Operations and lower Natural Gas of $64k due to pricing offset by higher electricity costs of $985k due to higher commodity pricing during the winter months primarily at Deer Island.

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY13 Budget YTD June	FY13 Actuals YTD June	FY13 YTD Actual vs. FY13 Budget		Explanations
			$	%	
Maintenance	28,229,070	26,956,073	(1,272,997)	-4.5%	Maintenance Services are lower than budget by $2.7 million while materials are overspent by $1.4 million. Underspending for services in Field Operations is due to timing of the Bellevue roofing replacement, lower spending for paving, fire alarm contracts, and timing of instrumentation services. At Deer Island, lower spending for janitorial costs, painting and coating services due to delay in contract start, and lower need for medium/low voltage services.
Training & Meetings	385,617	320,596	(65,021)	-16.9%	Underspending in most divisions due to timing.
Professional Services	5,900,785	5,002,664	(898,121)	-15.2%	Underspending due to lower than budgeted report preparation and as-needed services for the Harbor Monitoring program of $215k, timing of IT Strategic Plan initiatives of $204k, Security of $128k, as-needed Engineering of $121k, and lower need for outside legal services of $63k.
Other Materials	5,591,291	6,955,029	1,363,738	24.4%	Overspending for Equipment/Furniture of $1.6 million due the purchase of the unbudgeted Motorola radios of $1.7 million offset by $136k in lower Computer Hardware purchases.
Other Services	23,743,608	22,323,327	(1,420,281)	-6.0%	Underspending for Sludge Pelletization of $759k due to lower quantities and $510k mainly due to lower spending for contaminant monitoring and remediation activities.
Total Direct Expenses	**214,915,886**	**208,607,385**	**(6,308,501)**	**-2.9%**	
Indirect Expenses					
Insurance	2,097,875	2,220,704	122,829	5.9%	Overspending due to higher payments for claims of $120k.
Watershed/PILOT	26,413,175	26,004,694	(408,481)	-1.5%	Underspending for lower Watershed Reimbursement mainly due to a FY12 overaccrual and lower FY13 spending.

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY13 Budget YTD June	FY13 Actuals YTD June	FY13 YTD Actual vs. FY13 Budget		Explanations
			$	%	
HEEC Payment	3,741,915	3,492,064	(249,851)	-6.7%	Lower reimbursements of $250k mainly due to the timing of maintenance projects.
Mitigation	1,566,923	1,517,791	(49,132)	-3.1%	Underspending due to lower mitigation charges.
Addition to Reserves	1,398,329	1,398,329	-	0.0%	
Pension Expense	10,474,376	10,490,247	15,871	0.2%	Difference represents payments for staff on military leave.
Post Employee Benefits	-	-	-		
Total Indirect Expenses	**45,692,593**	**45,123,829**	**(568,764)**	**-1.2%**	
Debt Service					
Debt Service	375,598,070	380,244,437	4,646,367	1.2%	The higher debt service variance is the result of debt service related surplus of $20.4 million offset by $25.4 million defeasance executed in June.
Debt Service Assistance	(350,000)	-	350,000	-100.0%	
Total Debt Service Expenses	**375,248,070**	**380,244,437**	**4,996,367**	**1.3%**	
Total Expenses	**635,856,549**	**633,975,651**	**(1,880,898)**	**-0.3%**	

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY13 Budget YTD June	FY13 Actuals YTD June	FY13 YTD Actual vs. FY13 Budget		Explanations
			$	%	
Revenue & Income					
Rate Revenue	607,512,000	607,512,000	-	0.0%	
Other User Charges	7,766,692	7,707,031	(59,661)	-0.8%	
Other Revenue	6,116,845	8,173,785	2,056,940	33.6%	Higher non-rate revenue is due to $724k for Profit/Loss for Disposal of Equipment/Land for the sale of land in Chelsea and sale of surplus vehicles and equipment, $712k for Miscellaneous Revenue (including NSTAR and a variety of other vendor rebates and other smaller items), $433k for Federal Emergency Management Agency (FEMA) reimbursements, and $239k for higher net energy-related revenue mostly for Charlestown Wind and Renewable Portfolio Standard (RPS) sales.
Rate Stabilization	-	-	-		
Investment Income	14,461,012	13,590,492	(870,520)	-6.0%	Lower Investment Income mainly due to lower than budgeted short-term interest rates.
Total Revenue	**635,856,549**	**636,983,308**	**1,126,759**	**0.2%**	
Net Revenue in Excess of Expenses	-	**3,007,657**	**3,007,657**		

ATTACHMENT 3
Capital Improvement Program Variance Explanations

	FY13 Budget YTD June	FY13 Actuals YTD June	YTD Actuals vs. Budget		Explanations
			$	%	
Interception & Pumping (I&P)	$6,435	$1,931	($4,504)	-70.0%	Underspending for Prison Point Pump & Gearbox Rebuilds of $873,000 due to schedule shift, Upper Neponset Valley Sewer System Land Acquisition of $787,000 due to easement settlement being less than anticipated, Braintree-Weymouth Relief Facilities Wetlands Replication of $676,000 due to timing, Melrose Sewer reimbursement of $654,000 for prior year's contractual obligations, Rehab of Sections 186 and 4 - Construction of $250,000 and Wastewater Redundant Communications of $250,000 due to schedule shift, North System Hydraulic Study of $239,000 due to time extension, and other underspending of $1.0M. Offset by higher spending for Chelsea Creek Upgrades - Design/Construction Administration of $274,000.
Treatment	$34,422	$16,027	($18,394)	-53.4%	Underspending due to Electrical Equipment Upgrades - Construction 4 of $1.4M, Scum Skimmer Replacement of $1.3M, Power System Improvements - Construction of $1.0M, Thermal Power Plant Boiler Controls Replacement of $833,000, HVAC Replacement Design of $766,000, Fire Alarm System Replacement - Design of $750,000, Sodium Hypochlorite Pipe Replacement - Design of $705,000, Centrifuge Backdrive Replacement of $626,000 and Clinton Digester Cleaning & Rehab of $570,000 due to schedule shifts; Miscellaneous VFD Replacements of $1.0M due to lower than projected need, Expansion Joint Repair - Construction 2 of $699,000 due to delayed notice-to-proceed; Fuel Pipe Abandonment project of $520,000 due to lower award and schedule shift. Additional net underspending on 32 other projects totaling $8.2M.
Residuals	$595	$380	($216)	-36.2%	

ATTACHMENT 3
Capital Improvement Program Variance Explanations

	FY13 Budget YTD June	FY13 Actuals YTD June	YTD Actuals vs. Budget		Explanations
			$	%	
CSO	$28,058	$35,431	$7,373	26.3%	Overspending on Reserved Channel Sewer Separation of $6.5M due to greater contractor progress and the Cambridge Sewer Separation of $2.8M for award greater than budget and progress. Offset by underspending on North Dorchester Bay of $1.1M primarily due to schedule shift on North Dorchester Outfall - Inspection and less than anticipated Construction Management Services on the Tunnel & Facilities, Morrissey Boulevard Drain of $338,000 for less than anticipated design services, and South Dorchester Bay Sewer Separation (Commercial Point) of $215,000.
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	**$71,354**	**$74,205**	**$2,851**	**4.0%**	
Drinking Water Quality Improvements	$46,429	$35,475	($10,954)	-23.6%	Underspending for Spot Pond Storage Facility of $8.2M primarily due to delayed start of concrete work, Carroll Water Treatment Plant of $1.9M for CP7 Existing Facility Modifications and Fitout Construction due to schedule shifts, and Quabbin Water Treatment Plant of $603,000 mainly for Ultraviolet Disinfection - Design/CA/RI and Construction due to schedule shifts. Offset by overspending for Carroll Water Treatment Plant Ultraviolet Disinfection Construction of $1.8M due to contractor progress.
Transmission	$17,634	$17,170	($464)	-2.6%	Overspending for MetroWest Supply Tunnel of $1.9M mainly due to contractor progress on Upper Hultman and Quabbin Transmission System of $1.2M 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 $1.7M due to lower award and schedule change, Watershed Land of $1.2M due to timing, and Quabbin Aqueduct & Winsor Pump Station Upgrades - Design of $567,000 due to schedule shifts.

ATTACHMENT 3
Capital Improvement Program Variance Explanations

	FY13 Budget YTD June	FY13 Actuals YTD June	YTD Actuals vs. Budget		Explanations
			$	%	
Distribution & Pumping	$9,317	$4,426	($4,891)	-52.5%	Underspending on Northern Intermediate High Redundancy & Storage of $3.1M mainly due to schedule shift on Gillis Pump Station Improvements, Southern Spine Distribution Mains of $622,000 mainly due to less than anticipated resident engineering and inspection services on Sections 21, 43 & 22, Weston Aqueduct Supply Mains of $613,000 due to schedule shift on WASM 3 - MEPA/Design/CA/RI, and Valve Replacement of $431,000 mainly due to expected change orders being less than anticipated on Construction 7.
Other Waterworks	$109	$18,038	$17,929	-	Overspending on Local Water Pipeline Assistance Program due to community requests for loans being greater than budgeted by $17.9M.
Total Waterworks	**$73,489**	**$75,110**	**$1,620**	**2.2%**	
Business & Operations Support	$11,094	$5,208	($5,887)	-53.1%	Underspending due to MIS-related projects of $2.8M due to timing of IT Strategic Plan implementation, Alternative Energy of $2.6M mainly due to delay of Deer Island Phase II Wind Construction and lower than projected as-needed technical assistance, and Centralized Equipment Purchases of $443,000 due to timing of security equipment and vehicle purchases.
Total MWRA	**$155,937**	**$154,522**	**($1,415)**	**-0.9%**	

Attachment 4
FY13 Actual versus FY13 Year-End Projections (May)

TOTAL MWRA	FY13 Projection	FY13 Actual	Change FY13 Actual vs. FY13 Projection	
			$	%
EXPENSES				
WAGES AND SALARIES	$ 90,475,707	$ 90,658,806	$ 183,099	0.2%
OVERTIME	3,419,699	3,542,871	123,172	3.6%
FRINGE BENEFITS	17,544,064	17,536,480	(7,584)	0.0%
WORKERS' COMPENSATION	1,975,000	2,114,701	139,701	7.1%
CHEMICALS	10,091,441	10,139,257	47,816	0.5%
ENERGY AND UTILITIES	22,644,960	23,057,581	412,621	1.8%
MAINTENANCE	26,079,070	26,956,073	877,003	3.4%
TRAINING AND MEETINGS	304,564	320,596	16,032	5.3%
PROFESSIONAL SERVICES	5,176,434	5,002,664	(173,770)	-3.4%
OTHER MATERIALS	7,074,347	6,955,029	(119,318)	-1.7%
OTHER SERVICES	22,342,058	22,323,327	(18,731)	-0.1%
TOTAL DIRECT EXPENSES	**$ 207,127,344**	**$ 208,607,385**	**$ 1,480,041**	**0.7%**
INSURANCE	$ 2,251,725	$ 2,220,704	$ (31,021)	-1.4%
WATERSHED/PILOT	26,309,530	26,004,694	(304,836)	-1.2%
HEEC PAYMENT	3,379,550	3,492,064	112,514	3.3%
MITIGATION	1,546,923	1,517,791	(29,132)	-1.9%
ADDITIONS TO RESERVES	1,398,329	1,398,329	-	0.0%
RETIREMENT FUND	10,490,247	10,490,247	-	0.0%
POSTEMPLOYMENT BENEFITS			-	
TOTAL INDIRECT EXPENSES	**$ 45,376,304**	**$ 45,123,829**	**$ (252,475)**	**-0.6%**
DEBT SERVICE				
State Revolving Funds (SRF)	71,491,293	71,491,293	$ -	0.0%
Senior Debt	191,470,850	191,457,985	(12,865)	0.0%
Subordinate Debt	93,341,994	93,341,994	-	0.0%
Local Water Pipeline CP	341,921	335,271	(6,650)	-1.9%
Capital Lease	3,217,060	3,217,060	-	0.0%
Current Revenue for Capital	8,200,000	8,200,000	-	0.0%
Variable Rate Debt	(13,362,778)	(13,197,283)	165,495	-1.2%
Defeasance Account	-	-	-	
DEBT SERVICE BEFORE OFFSETS	354,700,340	354,846,320	145,980	0.0%
PROJECTED/ACTUAL DEFEASANCE	25,000,000	25,398,119	398,119	1.6%
DEBT SERVICE ASSISTANCE	-	-	-	
TOTAL DEBT SERVICE	**$ 379,700,340**	**$ 380,244,439**	**$ 544,099**	**0.1%**
TOTAL EXPENSES	**$ 632,203,988**	**$ 633,975,653**	**$ 1,771,665**	**0.3%**
REVENUE & INCOME				
RATE REVENUE	$ 607,512,000	$ 607,512,000	$ -	0.0%
OTHER USER CHARGES	7,766,693	7,707,031	(59,662)	-0.8%
OTHER REVENUE	8,216,845	8,173,785	(43,060)	-0.5%
RATE STABILIZATION	-	-	-	
INVESTMENT INCOME	13,461,012	13,590,492	129,480	1.0%
TOTAL REVENUE & INCOME	**$ 636,956,550**	**$ 636,983,308**	**$ 26,758**	**0.0%**
Surplus after Defeasance	$ 4,752,562	$ 3,007,655	$ (1,744,908)	-36.7%

Attachment 5
FY13 Actual versus FY12 Actual

TOTAL MWRA	FY12 Actual	FY13 Actual	Change FY13 Actual vs. FY12 Actual	
			$	%
EXPENSES				
WAGES AND SALARIES	$ 89,887,813	$ 90,658,806	$ 770,993	0.9%
OVERTIME	3,086,174	3,542,871	456,697	14.8%
FRINGE BENEFITS	17,662,543	17,536,480	(126,063)	-0.7%
WORKERS' COMPENSATION	1,600,726	2,114,701	513,975	32.1%
CHEMICALS	9,271,529	10,139,257	867,728	9.4%
ENERGY AND UTILITIES	22,766,837	23,057,581	290,744	1.3%
MAINTENANCE	26,776,012	26,956,073	180,061	0.7%
TRAINING AND MEETINGS	184,228	320,596	136,368	74.0%
PROFESSIONAL SERVICES	5,099,517	5,002,664	(96,853)	-1.9%
OTHER MATERIALS	5,513,699	6,955,029	1,441,330	26.1%
OTHER SERVICES	22,985,815	22,323,327	(662,488)	-2.9%
TOTAL DIRECT EXPENSES	**$ 204,834,893**	**$ 208,607,385**	**$ 3,772,492**	**1.8%**
INSURANCE	$ 2,076,961	$ 2,220,704	$ 143,743	6.9%
WATERSHED/PILOT	25,629,604	26,004,694	375,090	1.5%
HEEC PAYMENT	3,561,130	3,492,064	(69,066)	-1.9%
MITIGATION	1,744,579	1,517,791	(226,788)	-13.0%
ADDITIONS TO RESERVES	195,467	1,398,329	1,202,862	615.4%
RETIREMENT FUND	7,363,170	10,490,247	3,127,077	42.5%
POSTEMPLOYMENT BENEFITS			-	
TOTAL INDIRECT EXPENSES	**$ 40,570,911**	**$ 45,123,829**	**$ 4,552,918**	**11.2%**
DEBT SERVICE				
State Revolving Funds (SRF)	64,696,984	71,491,293	$ 6,794,309	10.5%
Senior Debt	184,605,400	191,457,985	6,852,585	3.7%
Subordinate Debt	95,133,508	93,341,994	(1,791,514)	-1.9%
Local Water Pipeline CP	281,374	335,271	53,897	19.2%
Capital Lease	3,217,060	3,217,060	-	0.0%
Current Revenue for Capital	7,200,000	8,200,000	1,000,000	13.9%
Variable Rate Debt	(14,108,769)	(13,197,283)	911,486	-6.5%
Defeasance Account	-	-	-	
DEBT SERVICE BEFORE OFFSETS	341,025,557	354,846,320	13,820,763	4.1%
ACTUAL DEFEASANCE	24,110,766	25,398,119	1,287,353	5.3%
DEBT SERVICE ASSISTANCE	(384,323)	-	384,323	
TOTAL DEBT SERVICE	**$ 364,752,000**	**$ 380,244,439**	**$ 15,492,439**	**4.2%**
TOTAL EXPENSES	**$ 610,157,804**	**$ 633,975,653**	**$ 23,817,849**	**3.9%**
REVENUE & INCOME				
RATE REVENUE	$ 589,700,000	$ 607,512,000	$ 17,812,000	3.0%
OTHER USER CHARGES	7,264,794	7,707,031	442,237	6.1%
OTHER REVENUE	5,655,583	8,173,785	2,518,202	44.5%
RATE STABILIZATION	1,091,780	-	(1,091,780)	
INVESTMENT INCOME	16,267,463	13,590,492	(2,676,971)	-16.5%
TOTAL REVENUE & INCOME	**$ 619,979,620**	**$ 636,983,308**	**$ 17,003,688**	**2.7%**
Surplus after Defeasance	$ 9,821,816	$ 3,007,655	$ (6,814,162)	-69.4%

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Delegation of Authority to Execute Contracts for the Purchase and Supply of Electric Power for the Deer Island Treatment Plant and MWRA Interval Accounts

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COMMITTEE: Administration, Finance & Audit

____ INFORMATION
_X_ VOTE

Rachel C. Madden, Director
Administration and Finance

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

Michael J. Hornbrook
Chief Operating Officer

MWRA has been competitively procuring electricity since 2001. Based upon MWRA's overall experience, it continues to be economically beneficial for MWRA to buy electricity in the competitive market versus Basic Service from the utilities, saving more than $30 million throughout the past decade, with savings of approximately $2 million annually over the past few years. In the competitive bid process, the challenge is to determine the level of risk/certainty that MWRA is willing to assume, and to estimate the potential budget impact for a variety of options. The current contract for Deer Island expires at the end of October and the contract for the Interval Accounts (larger facilities) electricity expires in November 2013. Staff traditionally take electricity bids in spring and fall because the energy market historically takes a downward trend during these seasons. In a commodity market where prices change within a very short period of time, MWRA must be prepared to award each contract almost immediately after bids are received to lock-in the pricing. The exact bid opening date for the power procurement is not yet established. However, on the day bids are received, staff will evaluate the bids based on market conditions and pricing received, and to ensure that MWRA is prepared to execute replacement power contracts if the pricing received is favorable, staff recommend that the Board authorize the Executive Director to award contracts to the successful bidders. Staff will report to the Board on the bid results and on any new contracts that are executed for electric power supply for these accounts.

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to execute contracts for the supply of electric power to the Deer Island Treatment Plant and the Interval accounts, consisting of the John J. Carroll Water Treatment Plant and larger Field Operations and Facility Management Accounts, with the lowest responsive and responsible bidders, for the period and pricing structure selected, as determined by staff to be in MWRA's best interest, and for a contract term not to exceed 36 months. This delegation of authority is necessary because

MWRA will be required to notify the selected bidders within a few hours of bid submittal to lock-in the bid prices in a constantly changing market.

BACKGROUND:

Based on MWRA account load profiles and working in consultation with energy advisors, MWRA has established three distinct electricity supply contracts. The largest contract is for the Deer Island Treatment Plant (DITP), which represents 68% of MWRA's total purchased electricity (DITP currently self generates approximately 28% of its *total* plant electrical demand.) The next largest contract is for the larger "Interval" Accounts, which include the Carroll Water Treatment Plant, the Nut Island Headworks, and the Clinton Treatment Plant, representing 28% of MWRA's total purchased load. The third contract is for the smaller, non-time-of-use accounts, known as "Profile" Accounts, (e.g., CSOs, pump stations, and the Charlestown Navy Yard), representing the remaining 4% of MWRA's total purchased load[1]. The current contracts for the Deer Island account and the Interval Account expire in October and November 2013, respectively.

The existing supply contract for DITP is for the purchase of a 10MW (peak hours)/5MW (off-peak hours) fixed-price block, with the balance of the load purchased from the variable-rate spot market. This electricity contract provides 72% of Deer Island's total plant demand, because, as mentioned above, Deer Island generates approximately 28% of its total plant demand – utilizing digester gas, wind turbines, solar panels, and hydroelectricity. The current contract structure is 55% fixed and 45% variable. Locking in fixed pricing does carry a premium, but it balances the risk taken when purchasing a commodity from a sometimes volatile market.

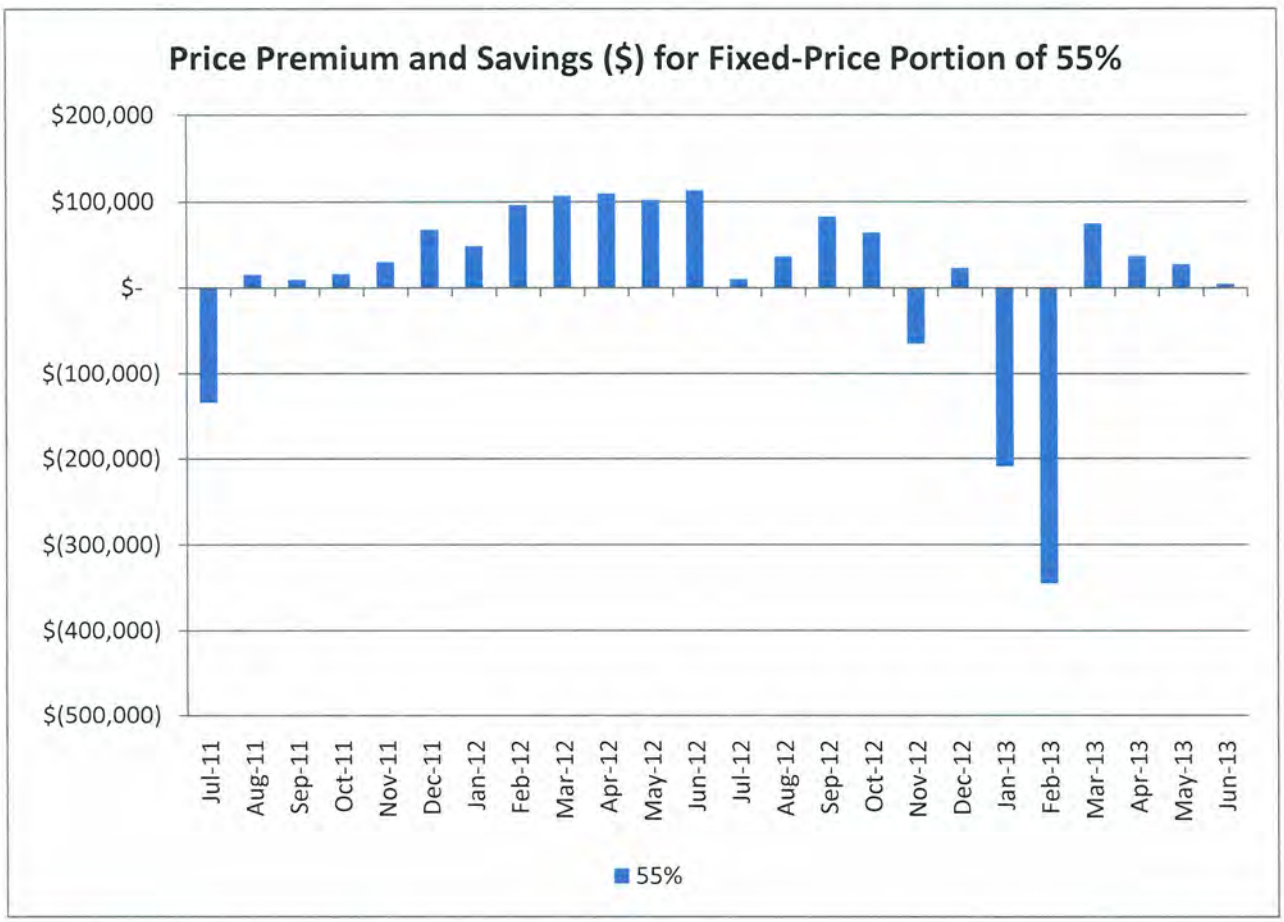
The Interval Accounts contract includes three different fixed price blocks of energy, grouped by ISO-NE zone, with the balance of the load purchased from the variable-rate spot market. The Interval Account contract structure provides a fixed-price portion of approximately 75-80%, with 20-25% in the open position (spot market).

Historically, bids are taken for several different contract structures for the Deer Island and Interval Accounts, including a 100% variable-rate spot market contract, and also a fixed-price block with the balance of the load purchased from the variable-rate spot market, typically at some variation of intervals of 12 months, 24 months, and 36 months. In preparation for the receipt of bids, staff review market conditions and electricity price forecasts with MWRA's energy consultant, to get a sense of what premium may be included in the fixed energy bid prices or potential anticipated volatility (up or down) in the market. This helps staff quantify price impacts of the various contract structures, important for determining the ideal structure to execute at that time.

Although MWRA has an estimate on what premiums may be expected during the contract duration, the market is unpredictable and there can be price swings in either direction. When bids were taken in June 2010 (Interval Accounts) and May 2011 (Deer Island), it was estimated that the fixed-price block may include a premium of approximately 3-5% as compared to projected spot market pricing. An analysis of historical data was performed to compare the Deer Island contract prices to actual real-time spot market prices, and the analysis showed that during the

[1] The Profile Accounts are under a contract that will expire in March 2015.

past two years of the current contract, MWRA paid an annual premium of approximately 2.6% or $162,000 for the Deer Island contract as compared to having a completely open position in the market. Although the fixed prices were higher-cost a few years ago, they have been reasonably close to market prices in the past year, and have provided budget stability and helped MWRA avoid the most recent market price spike during the 2012/2013 winter. The graph below demonstrate the premiums and savings associated with the historical fixed-price blocks of approximately 55% over the past two years at the current contract structure.



It is important to note that this assessment is based on historical price comparisons between contract prices and spot market prices, which may not be good indicators of future relationships between these two data sets.

DISCUSSION:

Staff recommend that MWRA continue to procure electric power supply for the Deer Island Account separate from the Interval Accounts. There are no apparent economies of scale savings on the base block if the loads are combined, and there may be a price increase to the adder (administrative fee to purchase the variable load electricity) due to the additional administrative responsibilities with the multiple accounts. In addition, the two separate contracts can be structured to have laddered end dates to minimize the risk of having 96% of MWRA's load bid at the same time during potential future high-price market conditions. The electricity supply

contract for MWRA's smaller Profile Accounts are also procured separately because these accounts are based on an "all-in" pricing structure and typically have higher administrative contract management costs, which make them less attractive to prospective bidders.

As mentioned earlier, the current Deer Island and Interval Accounts contracts expire in October and November 2013, respectively, and staff traditionally take electricity bids in spring and fall because the energy market historically takes a downward trend during these seasons, severe weather and geopolitical issues notwithstanding, as compared to the more volatile summer and winter months, which typically have higher energy demand.

Bids for the Deer Island Account will be sought to supply a base block of power at a fixed-price per kWh, a 10MW block during peak periods and a 3MW block during off-peak periods, plus a fixed-fee adder to purchase and supply a variable amount of electricity above the base block that will be purchased on the open market at market clearing prices. All ancillary charges and any congestion charges would be passed through to MWRA at cost. The lower off-peak block size (3MW versus the current contract's 5MW) allows MWRA to potentially realize more savings in the off-peak hours when spot prices are typically lower and less volatile, and also accounts for the overall reduced plant demand, due to a number of energy efficiency and renewable energy efforts. The fixed fraction for the Deer Island Account will remain with approximately 55% of the load at a fixed-price block of power on average. The market has been relatively flat over the past year and there are not any market indicators that would project a drastic change in the near future. Keeping a balance with a fixed-price block will also protect MWRA from another potential winter price spike, similar to this year, due to competing interests for natural gas and associated regional pipeline constraints, which are expected to persist for the next couple of years. Bids will also be sought for an all-in, firm fixed price, with pricing to include all services and products necessary to provide firm delivery of energy to the Deer Island Account.

The contract start date will be the November 1, 2013 meter read date and bids will be sought for various durations, not to exceed 36 months. In the event that it is not in the best interest of MWRA to enter into a fixed-price contract, bids will also be sought to purchase DITP's entire load at variable-rate market clearing prices. This 100% variable-rate supply contract would be awarded to the responsive supplier with the lowest transaction cost adder for purchasing the facility's entire load in the variable-rate market for a term of up to 12 months, and would provide for early termination at MWRA's discretion.

Bids for the Interval Accounts contract will be sought to supply a base block of power at a fixed-price per kWh, for one block at each of the three separate load zones (NEMA, WCMA, SEMA), for a total of up to 4MW, plus a fixed-fee adder to purchase and supply a variable amount of electricity above the base block that will be purchased on the open market at market clearing prices. All ancillary charges and any congestion charges would be passed through to MWRA at cost. The size of the base blocks of power will be similar to the existing contract structure, with a fixed fraction of 75-80%. Although there may be a moderate premium for the fixed blocks of power, this fixed strategy provides budget certainty with minimal risk, but still some opportunity to see potential real-time spot market price savings. Bids will also be sought for an all-in, firm fixed price, with pricing to include all services and products necessary to provide firm delivery of energy to the Interval Accounts. The contract start date will be the first meter read date available for enrollment for each account in November 2013. Bids will be sought for various durations, not to exceed 36 months.

To ensure that MWRA is prepared to execute replacement power contracts if the bid pricing received is favorable, staff recommend that the Board authorize the Executive Director to award contracts to the successful bidders.

BUDGET/FISCAL IMPACT:

MWRA's total electricity budget for FY14 is $16.3 million. This amount includes approximately $9.8 million for electricity supply and $6.5 million for the transmission and distribution costs charged by the local distribution companies. The authorization staff are seeking today for purchasing the electricity supply, will cover approximately 96% of MWRA's demand, comprised of the Deer Island and Interval Accounts, for approximately $9.6 million. As bids will be taken, staff will assess the impact in comparison with the budgeted amounts and update the Board accordingly.

MBE/WBE PARTICIPATION:

There will be no MBE or WBE participation requirements established for this procurement due to the lack of subcontracting opportunities.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Dental Insurance

COMMITTEE: Administration, Finance & Audit

__ INFORMATION
X VOTE

On November 14, 2012, the Board approved a contract for dental insurance coverage for eligible MWRA employees to Blue Cross and Blue Shield of Massachusetts, Inc. At that meeting, there was a discussion about whether or not MWRA should increase the maximum benefit limit from $1,000, as it has been since 1985, to $1,250, which is the current maximum for the Commonwealth's managers. Board Members indicated they would consider approval of an increase in the annual maximum benefit from $1,000 to $1,250 to mirror the benefit offered by the Commonwealth. As such, staff are requesting approval to seek pricing for a new dental insurance contract with a $1,250 annual maximum benefit.

RECOMMENDATION:

To authorize the Executive Director to seek prices for a contract for dental insurance for eligible employees with an annual maximum benefit of $1,250 to mirror the benefit offered by the Commonwealth.

DISCUSSION:

MWRA has been providing dental insurance to all non-union employees since July 1, 1985. This benefit covers Non-Union and Unit 6 employees and employees accreted into Units 1 and 9. Other MWRA union employees receive coverage through the Health and Welfare funds of their respective unions. This contract would maintain the level of coverage currently offered to eligible employees in the areas of diagnostic, preventive, basic and major restorative services with an increased annual maximum of $1,250 as well as limited orthodontic coverage. The increased benefit level will match the maximum the Commonwealth offers to its managers.

Staff will be returning to the Board at the November meeting for approval of the contract.

BUDGET/FISCAL IMPACT:

The FY14 budget includes funding for this contract.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Pretreatment Information Management System
Inflection Point Solutions, LLC
Contract 6177D, Amendment 3

COMMITTEE: Administration, Finance, & Audit

INFORMATION
X VOTE

Rachel C. Madden, Director
Administration and Finance

Carolyn M. Fiore, Director, TRAC
Russell J. Murray Jr., Director, MIS
Richard P. Trubiano, Deputy Chief Operating Officer
Preparer/Title

Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the award of Amendment 3 to Contract 6177D, Pretreatment Information Management System, with Inflection Point Solutions, LLC, increasing the contract amount by $200,000, from $1,305,496 to a new total Not to Exceed $1,505,496, and extending the contract term for two additional years, from October 20, 2013 to October 19, 2015 for provision of two additional years of Maintenance Services.

DISCUSSION:

MWRA's Toxic Reduction and Control Unit (TRAC) operates an EPA-approved pretreatment program pursuant to MWRA's National Pollutant Discharge Elimination System (NPDES) permit and EPA regulations. Under this program, TRAC regulates approximately 200 Significant Industrial Users, more than 1,200 permitted users, and approximately 3,500 gas and oil separator facilities (as well as permitting of MWRA's 45 wastewater service area communities and their 11 septage receiving sites).

TRAC staff require a pretreatment information management system (PIMS) to keep track of current and historical permitting, sampling, inspection, and enforcement information. PIMS allows TRAC staff needed access to carry out their pretreatment program responsibilities on a daily basis. The system automatically sends notifications to staff of violations, various due dates, and other significant activities. PIMS is also equipped with scheduling tools that managers can use to more efficiently schedule and oversee field activities.

On September 13, 2006, the Board approved the award of Contract 6177D to Inflection Point Solutions, LLC, in the amount of $1,079,996 for a term of five years, to provide an industrial pretreatment program software program, license, installation, and maintenance services; and authorized a Notice to Proceed for the first two years and the expenditure of an amount not to exceed $1,048,471 to complete the Implementation Phase; and further authorized the Executive Director to approve three years of subsequent Maintenance Phase services, expending the balance of $31,525.

To date, there have been two amendments to this contract. Amendment 1, approved by the Executive Director under delegated authority in July 2009, increased the contract amount by $225,500 to address unanticipated scope changes related to increased EPA electronic reporting requirements, EPA-requested program enhancements, and needed additional technical support programming.

Amendment 2, approved by the Board on April 14, 2010, extended the contract term by almost two years, from December 21, 2011 to October 20, 2013, at no additional cost, because the Implementation Phase took substantially longer than was originally anticipated to provide additional time for completion of the three years of Maintenance Phase Services.

This Amendment

Staff recommend that Amendment 3 be approved, in the amount of $200,000, for the time and cost associated with two additional years of continued software maintenance service and support. Although the original contract only included software maintenance for three years, MWRA's RFQ/P requested pricing for five years, and Consultant's original proposal identified a price of $200,000 for Maintenance Years 4 ($85,000) and 5 ($115,000) subject to authorization.

These Maintenance services include:

- **Upgrades** - Provide licensed copies of software revisions and upgrade releases to the standard package that take into account new features available to all clients and new releases of installed operation system, Oracle, MS-Office, screen development and reporting tools;
- **Transfer Rights** - Provide the right to transfer the software to other servers and to operate in at least one production and unlimited test/training environment;
- **Staffed Help-line** - Provide telephone help-line support to customer staff to respond to questions and problems. The help-line shall be staffed for a minimum of 8 continuous hours, Monday through Friday 9:00 am through 5:00 pm Eastern Time, with 24-hour emergency contact;
- **Custom Product Warranty** - Warrant that all modifications made to the Vendor's package will be supported under the future releases/revisions of the software and ensure that the modifications do not void the Vendor's warranty for the software; and
- **Ongoing Issue Resolution** - Correct any software defect found in the standard package of the current production version which has been or is discovered as part of the ongoing use of the software package.

This PIMS system has provided a marked improvement over previous databases in terms of updated technology and user access. However, the system has a number of deficiencies involving its older and complex system architecture and proprietary code (which requires that issues and bugs be resolved by the Vendor rather than in-house MIS staff supporting the project). It should be noted also that the system is nearing the end of the typical life cycle of this type of software system, and since there are a limited number of Inflection Point Solution's PIMS clients, the Vendor has been reluctant to invest resources in major product improvements.

Amendment 3 will provide MIS and Operations staff the time needed to make an informed determination on how to proceed with its current PIMS application. Long-term options for system replacement include: continued use of the Inflection Point Solution's PIMS system (assuming a more rigorous commitment from the Vendor to support/update the program); a rebid and replacement with a different commercial-off-the-shelf system (preliminarily estimated at $1.7 million and a 2.5-year project duration); or replacement with a new custom build (estimated at $3 to $5 million and a 3-year project duration). The Vendor's current PIMS clients are discussing the option of forming a consortium of customers to discuss cost-effective means for rebuilding the application.

CONTRACT SUMMARY:

	Amount	**Time**	**Dated**
Original Contract:	$1,079,996	5 Years	12/21/2006
Amendment 1*	$225,500	No Time	7/08/2009
Amendment 2	$0.00	2 Years	4/10/2010
Proposed Amendment 3	$200,000	2 Years	Pending
Adjusted Contract	$1,505,496	9 Years	

*Approved under delegated authority

Staff will present an update on TRAC's Pretreatment Program, including PIMS long-term planning, at a Board meeting later this year.

Other Contract Issues

As noted above, Amendment 1 added funding to address EPA electronic reporting requirements ("CROMERR" – Cross-Media Electronic Reporting Rule) known at that time related to transmittal of industry data to MWRA. There is still an allowance of approximately $150,000 remaining in the contract for CROMERR development/compliance. It is uncertain at this time whether staff will task Inflection Point Solutions to perform the CROMERR work (given the consideration of other long-term PIMS program options). Also, EPA has promulgated new rules related to long-term electronic reporting requirements and has recently informed MWRA staff regarding its new plans to provide state and local governments with shared services for CROMERR compliance. Once additional information is received from EPA and from the consortium of Inflection Point Solution's PIMS users, staff will determine how existing CROMERR-related contract funds will be used. If the recommendation is to not utilize Inflection Point Solutions to implement CROMERR, then the total contract amount will be revised accordingly.

BUDGET/FISCAL IMPACT:

The FY14 Current Expense Budget contains sufficient funds for Year 4 of the Maintenance and Support agreement. Year 5 Maintenance and any subsequent requests will be included in future CEB requests.

MBE/WBE PARTICIPATION:

No MBE or WBE participation requirements were established for this project due to the limited opportunities for subcontracting.

MASSACHUSETTS WATER RESOURCES AUTHORITY

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

Frederick A. Laskey
Executive Director

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WASTEWATER POLICY & OVERSIGHT COMMITTEE MEETING

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

to be held on

Wednesday, September 18, 2013

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

Time: Immediately following AF&A Comm.

AGENDA

A. Information

1. 2013 Harbor Beaches Summary
2. Food Waste Disposal Guidance
3. Update on Clinton Treatment Plant NPDES Permit

B. Contract Awards

1. Replacement of Scum Skimmers – Deer Island Treatment Plant: Walsh Construction Company, Contract 7396
2. Pump, Gearbox and Diesel Engine Upgrade – Prison Point and Cottage Farm CSO Facilities: IPC Lydon, LLC, Contract 7452
3. Agency-Wide Technical Assistance Consulting Services: Dewberry Engineers Inc., Contract 7436; Fay, Spofford & Thorndike, LLC, Contract 7437; Hazen and Sawyer, P.C., Contract 7456

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: 2013 Boston Harbor Beach Water Quality

COMMITTEE: Wastewater Policy & Oversight

X INFORMATION
____ VOTE

Betsy Reilley, Director, Environmental Quality
Kelly Coughlin, Biologist, Environmental Quality
Preparers

Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

For information only. Overall, water quality at harbor beaches was very good during this past swimming season. Since May 2011, there have been no CSO discharges to any harbor beaches (CSO flows either eliminated or stored with treatment at Deer Island). Any beach postings, in either dry or wet weather, were the result of stormwater, dogs, birds, other non-CSO sources, or due to precautionary measures following rain events.

DISCUSSION:

MWRA has provided technical and laboratory assistance to the Massachusetts Department of Conservation and Recreation (DCR) for its water quality monitoring program at beaches in Boston Harbor since 1996. Daily sampling at these beaches has allowed a better understanding of the influence of CSOs and other sources, like urban run-off and wildlife, on water quality and the posting of swimming advisories. Beach postings are not limited to wet-weather events, but can also occur during dry weather, indicating that a variety of sources, such as wildlife, dogs, or even swimmers themselves can cause higher bacteria counts and trigger beach postings.

During the swimming season, from late May to Labor Day each year, DCR performs routine water quality sampling at its urban coastal beaches in the metropolitan Boston area including Quincy, Dorchester, South Boston, East Boston, Winthrop, and Revere. Bacteria samples are collected daily or weekly depending on the beach. An exceedance of the bacteria standard (an *Enterococcus* bacteria count of 104 cfu/100 mL) triggers a beach posting that remains in place until subsequent samples meet bacterial limits. Beach postings are indicated by red flags that are flown off the back of lifeguard chairs at each beach. Beach postings can also be precautionary in nature and are issued following moderate to large rain events. In 2013, precautionary postings were issued following large rainstorms at Tenean Beach in Dorchester and Wollaston Beach in Quincy.

South Boston beaches (Carson, M Street, City Point, and Pleasure Bay) have now completed the third swimming season since the $270 million MWRA CSO Storage Tunnel opened in May 2011. The storage tunnel and related facilities have prevented hundreds of millions of gallons of

CSO and separate stormwater from discharging to Dorchester Bay. Since the tunnel has been on-line, MWRA has prevented all discharge of CSO to South Boston beaches, and no stormwater has been discharged to the beaches during any swimming season with the exception of a stormwater discharge during Hurricane Irene in August 2011. Since May 1, 2013, the tunnel captured 74 million gallons of CSO and stormwater in 19 separate rainfall events. Water quality test results continue to show excellent water quality conditions at these beaches. At Carson Beach, the fraction of daily sample results showing a violation of the standard dropped from more than 14% to about 1% after the tunnel opened. Figure 1 below shows the impact of the tunnel at all four South Boston beaches.

Table 1 and Table 2 on the following pages summarize this year's beach water quality in Boston Harbor and surrounding areas. Overall, water quality at most beaches is quite good with a few exceptions. The significant rainfall in mid- to late-June, including Tropical Storm Andrea, did affect most beaches, particularly Tenean Beach and Wollaston Beach. Beaches that were sampled weekly instead of daily have fewer samples collected overall, so the percentages of samples meeting standards decline more dramatically if there are one or two additional high bacteria counts.

Staff will present a PowerPoint presentation that will provide harbor beach water quality information in more detail.

Figure 1. South Boston Beaches 2009 – 2013.

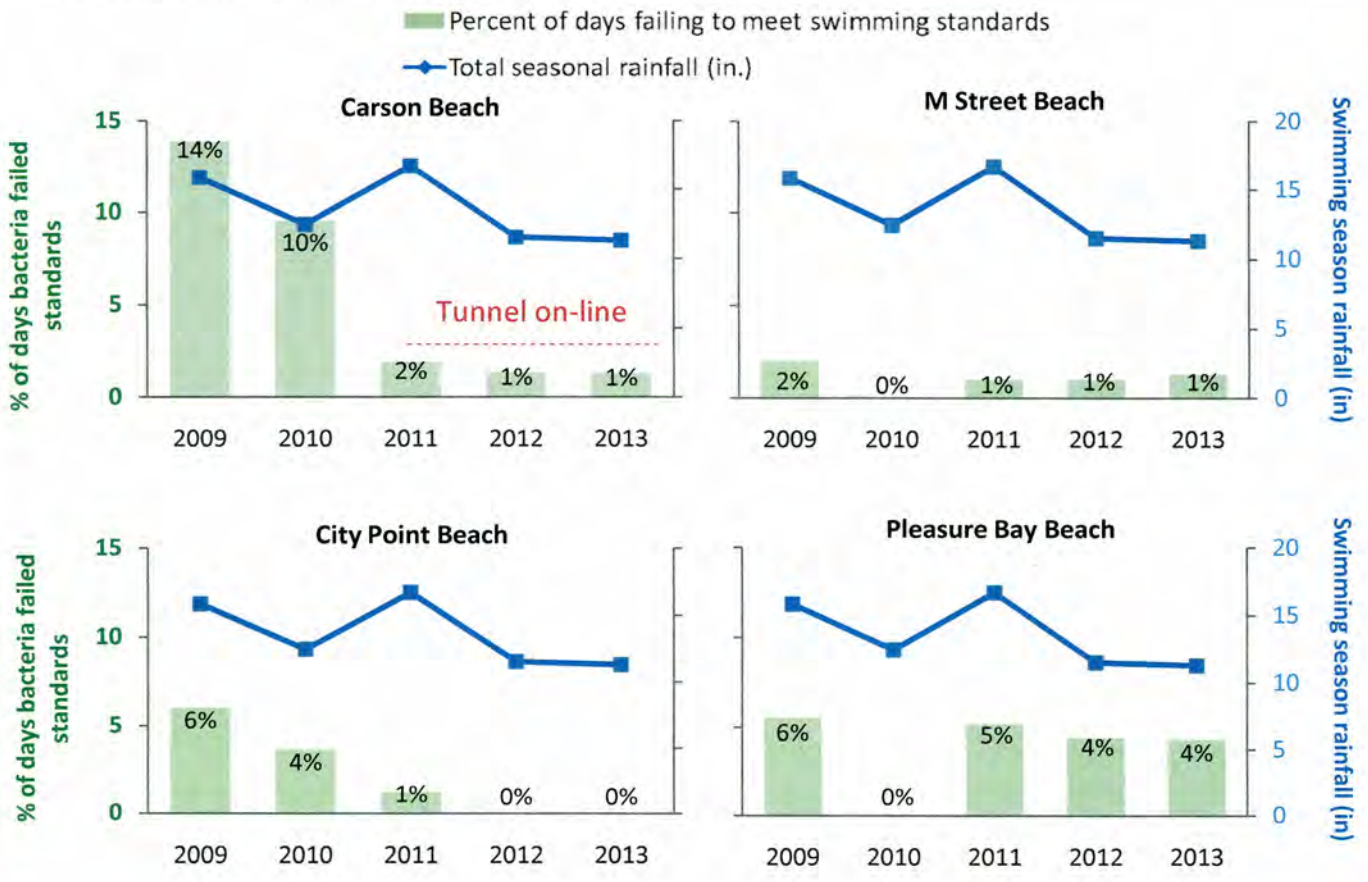
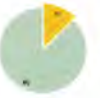


Table 1. Boston Harbor Beaches: Compliance with Bacterial Limits, 2013.

Beach	Percent of all samples meeting swimming standards (5-year average in gray)	Daily posting total* (due to high bacteria)
South Boston Beaches		
Carson Beach (2 sampling sites)	99% (92%)	 1 day
M Street Beach (1 sampling site)	99% (97%)	 1 day
City Point Beach (1 sampling site)	100% (98%)	 0 days
Pleasure Bay Beach (3 sampling sites)	96% (96%)	 0 days
Tenean Beach, Dorchester (1 sampling site)	79% (84%)	 16 days
Wollaston Beach, Quincy (4 sampling sites)	88% (86%)	 12 days
Constitution Beach, E. Boston (3 sampling sites)	97% (92%)	 1 day
Winthrop Beach, Winthrop (1 sampling site)	94% (97%)	 1 day
Short Beach, Winthrop (1 sampling site)	94% (96%)	 1 day
Revere Beach, Revere (4 sampling sites)	92% (96%)	 1 day
King's Beach, Lynn (4 sampling sites)	75% (61%)	 17 days

*At beaches with multiple sampling sites, the majority of sites must have high bacteria to trigger a daily posting. There are approximately 75 days in the swimming season.

Table 2. Boston Harbor Beaches: Days with Elevated Bacteria, 2013.

Beach	Dates with high bacteria*	
	Dry weather (2-day rainfall < 0.05 in.)	**Any rain** (2-day rainfall > 0.05 in.)
South Boston Beaches		
Carson Beach	--	June 27, 29
M Street Beach	--	July 17
City Point Beach	--	--
Pleasure Bay Beach	June 22 July 20, August 12, 19, 20	June 26, 28 July 9, 27 August 9
Tenean Beach, Dorchester	June 4, 19, 22 August 14, 19, 20	June 8, 13, 14, 15, 27, 28 July 9, 25, 26
Wollaston Beach, Quincy	June 8, 26, 27, 28 July 9, 12, 25, 26 August 8	May 23 June 14, 19, 25 July 14, 15, 17, 28, 29 August 12, 21, 26, 29
Constitution Beach, E. Boston	--	June 14, 28, 29 July 26
Winthrop Beach, Winthrop	--	June 27
Short Beach, Winthrop	--	June 27
Revere Beach, Revere	August 29	June 27 July 11, 25
King's Beach, Lynn	July 7, 28 August 12, 13, 14, 19, 20	June 8, 14, 15, 25, 27, 28, 29 July 23, 25, 27, 26 August 2, 10

*At least one *Enterococcus* bacteria sample exceeds 104 counts/100 mL. High bacteria does not necessarily mean the beach was posted; see Table 1 for summary of postings due to high bacteria counts.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Food Waste Disposal Guidance

COMMITTEE: Wastewater Policy & Oversight

X INFORMATION
___ VOTE

Carolyn Fiore, Director, TRAC
Joshua Das, Project Manager, Public Health
Stephen Estes-Smargiassi, Director, Planning
Preparer/Title

Michael J. Hornbrook
Chief Operating Officer

MWRA receives customer inquiries in regard to the disposal of food waste, and in particular, questions about whether garbage disposals are recommended. In 2014, new DEP regulations will go into effect banning the disposal of organic waste from large commercial food establishments to landfills. Staff have drafted a Food Waste Disposal Guidance, which is intended for MWRA's website, to address these issues related to the use of household and commercial "garbage disposal" units.

RECOMMENDATION:

For information only.

DISCUSSION:

With renewable energy produced from household waste gaining more attention, MWRA receives customer questions on what is the best way to deal with household food waste. MWRA Sewer Use Regulations (360 CMR 10.000) allow for garbage disposals and currently, MWRA has no formal recommendations for household users. However, staff have developed draft guidance for households; a copy, including a checklist for what should and should not be placed in the disposal, is attached. There is emphasis within the guidance that fats, oils, and greases should not be put into the disposal or the sewer, due to the concern of clogs in either household or local pipes.

The guidance recommends garbage disposals for household use, as there is no trucking of waste, and through the treatment process, renewable energy is produced. Some wastewater system operators believe that encouraging disposals can confuse consumers, who may place all materials, including fats, oils, and greases, into their garbage disposal. The guidance will provide an opportunity for additional education to consumers on the correct disposal methods for fats, oil, and greases. Other methods of household waste disposal are not discussed, but there are links to further information on all methods of disposal, including a MA DEP link on composting.

Starting in 2014, DEP regulations will require commercial food establishments (e.g., large restaurants, supermarkets, and university kitchens) that produce more than one ton of organic waste per week to either ship their organic waste to a waste-to-energy center or to a composting/animal feed center; they will not be allowed to transport their organic waste to Massachusetts landfills. MWRA has been working on a co-digestion pilot program in which pre-processed commercial organic waste sources will be fed directly into the Deer Island sludge digesters for methane production. A separate presentation on this program will be made at this Board meeting and staff expect to recommend a proposed firm/team to perform the pilot co-digestion program at the October meeting. The proposed garbage disposal guidance includes links to the new DEP regulations for large commercial food establishments.

Certain aspects of MWRA's policy and guidance for commercial establishments are still emerging. One concern is that some large commercial establishments may choose to grind their waste and send it to the sewer, which may cause local pipe blockages. The current TRAC regulations do not directly deal with this issue, and supermarkets and restaurants do not require permits from TRAC, though local Boards of Health do regulate grease traps for these facilities. For this reason, the proposed guidance currently recommends that large commercial users not use disposals or grinders. In the future, MWRA may need to consider pre-treatment regulations for these potential discharges.

Staff will present the draft guidance to MWRA's Advisory Board to obtain feedback from MWRA's member communities and will provide an update to the Board at an upcoming meeting.

BUDGET/FISCAL IMPACT:

No substantial financial impacts from the recommended use of household garbage disposals is anticipated.

ATTACHMENT:

Copy of Draft "Food Waste Disposal Guidance – Garbage Disposal Use"

Food Waste Disposal Guidance – Garbage Disposal Use

Residential Use

If your home is located in the MWRA sewer service area, in which wastewater is treated at the Deer Island Treatment Plant, using a disposal can be environmentally beneficial. MWRA Sewer Use Regulations allow for the use of garbage disposal or in sink-aerators in residential units. A benefit of sending food waste to Deer Island is that through the treatment process, the breakdown of food waste produces methane gas which is used immediately as a renewable energy in the Treatment Plant. Treatment facilities like Deer Island often produce fertilizer with high nutrient levels and soil conditioner products. Deer Island produces Bay State Fertilizer, which is used in parks and agriculture purposes across the US. A further benefit of using garbage disposals is the reduction in costs and emissions that typically would occur transporting household waste to landfills.

One major concern with the use of garbage disposals is ensuring that fats, oils, and grease do not go down the disposal. Oils, fats, and greases can cause clogs in both household plumbing and municipal pipes. Used fats, oils and greases should be scraped or wiped from kitchen utensils and disposed of with other household trash or garbage per your community's guidelines. Used oil should never be poured down the drain. **Please see checklist for using a disposal.**

Additional Resources:
DEP Link to Composting: www.mass.gov/eea/agencies/massdep/recycle/reduce/composting-and-organics.html
www.mwra.com/03sewer/html/sewditp.htm
www.mwra.com/03sewer/html/renewableenergydi.htm
www.mwra.com/03sewer/html/baystate.htm

Commercial Use

Commercial food establishments (for example, large restaurants, supermarkets, college and university kitchens, catering kitchens, food processors) should not dispose of food waste to the sanitary sewer through large disposals or garbage grinders, due to the potential for causing or contributing to pipe blockages. Commercial haulers are available to pick up segregated food wastes for a variety of beneficial uses. Starting in 2014, commercial food establishments that produce over 1 ton of organic waste per week will be required by the state to ship the waste to a waste to energy center or to a composting/animal feed center; they will not be allowed to use Massachusetts landfills.

In 2014, MWRA is beginning a pilot program of mixing separated organic food waste from commercial/industrial users into the secondary treatment plant digesters, located on Deer Island. The separated organic food waste will be used, together with Deer Island's secondary treatment sludge, to increase the volume of methane gas produced on Deer Island thereby reducing the amount of purchased electricity necessary to operate the wastewater treatment plant. This co-digestion of organic food waste will be beneficially used as an alternative renewable energy

source while reducing the amount of material sent to landfills. Based upon the results of the Pilot Program, the amount of separated food organics utilized on Deer Island may be increased in the future.

Additional resources:
www.mass.gov/eea/agencies/massdep/recycle/reduce/trimming-the-fat-cutting-costs-by-reducing-food-waste.html
www.mass.gov/eea/agencies/massdep/recycle/reduce/

Conclusions

In general, if you live in the MWRA sewage service area, sending food waste down the disposal is a good solution, as it helps to produce renewable energy, reducing MWRA's need to purchase electricity, produces useful fertilizer and also reduces the amount of materials being sent to landfills.

Starting in 2014, MWRA will begin a Pilot Program of adding organic food products from industrial/commercial sources directly into the secondary treatment digesters at the Deer Island Treatment Plant. Co-digestion of commercial/industrial organic food wastes will provide an additional renewable alternative energy source (methane gas), reducing the electrical purchasing need at Deer Island for treating wastewater and reduce the amount of material being sent to landfills.

Additional resources:
www.epa.gov/waste/conserve/foodwaste/
www.slate.com/id/2201176/
www.epa.gov/region9/organics/ad/Why-Anaerobic-Digestion.pdf

Disposal Use Checklist

Keep Fats, Grease and Other Items Out of Your Drains

The invention of the garbage disposal has made life more convenient, but this appliance can also cause problems if used improperly. Fats, oils and grease, poured down the drain are the leading cause of sewer blockages and overflows. Over time, the grease sticks to sewer pipes and when it builds up, blocks the entire pipe, resulting in costly repairs and cleanups.

To prevent problems, here are some tips for getting rid of left over cooking grease, and more tips on what not to put into a garbage disposal:

- Follow the garbage disposal manufacturer's instructions on the use of the disposal and the appropriate material to insert into the disposal;
- Place left over grease into containers with lids, such as jars, and place them into a trash receptacle for pick-up on trash day;

- Mix oils with absorbent materials, such as coffee grounds, put in a lidded container and dispose with the trash;

- If cleaning a greasy pan, pour grease into a container and wipe excess grease from the pan with paper towels; place the towels into the trash;

- If using a deep fat fryer, mix oils with absorbent material, such as cat litter, or soak up excess oil with newspaper and put into the trash; and

- Do not put any animal bones, skin or fat down the disposal.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Clinton Wastewater Treatment Plant Re-Notice of National Pollutant Discharge Elimination Permit (NPDES)

COMMITTEE: Wastewater Policy & Oversight

X INFORMATION
____ VOTE

Grace Bigornia Vitale, Sr. Program Mgr, NPDES
Betsy Reilley, Director, Environmental Quality
Preparer/Title

Michael J. Hornbrook
Chief Operating Officer

The Clinton Wastewater Treatment Plant requires a National Pollutant Discharge Elimination System (NPDES) permit to discharge into the South Branch of the Nashua River. The plant's current NPDES permit was issued in September 2000, expired in September 2005, and has been administratively continued since that time. In September 2010, EPA issued a new draft permit. Staff presented an informational update to the Board on October 13, 2010 and submitted comments on the draft to EPA on October 27, 2010. On September 11, 2013, EPA provided MWRA with an advance copy of the second draft permit for review (of factual content only). EPA intends to formally "re-notice" certain parts of the updated draft permit for public comment from September 18 to October 17, 2013. Staff will request an extended comment period (which is normally a 30-day extension) to allow for MWRA review of the significant EPA changes, and to allow sufficient time to report back to the Board. This staff summary provides the Board with an update of the major items in the re-noticed draft permit.

RECOMMENDATION:

For information only. The major provisions of the Clinton NPDES permit are highly likely to also be included in the next Deer Island/CSO NPDES permit, including new requirements for locally-owned "satellite" collection systems.

DISCUSSION:

The EPA-provided advance copy of a second Clinton Plant draft NPDES permit contains updated information developed by EPA since 2010 on several major permit conditions including the following:

- Co-permittees (MWRA, Clinton, and Lancaster);
- Operation and Maintenance of the Sewer System;
- Compliance Schedule for Total Phosphorus;
- Total Recoverable Aluminum; and
- Whole Effluent Toxicity Testing

Reissuance of a draft permit allows MWRA and others to comment on the "substantial new questions" related to the issues above. The previous and current draft permit status for each of these items is summarized below.

Co-Permittee Language

The draft permit designates the Town of Clinton and the Lancaster Sewer District as co-permittees for permit sections related to:

- Reporting requirements for unauthorized discharges (which includes Sanitary Sewer Overflows); and
- Operation and maintenance requirements for their respective collection systems, including provisions for infiltration/inflow reduction programs.

MWRA previously objected to the inclusion of the Town of Clinton and the Lancaster Sewer District as co-permittees in the 2010 draft Clinton Plant NPDES permit.

EPA has now included a new, detailed legal rationale for the inclusion of municipal satellite sewer collection systems (Clinton and Lancaster) as co-permittees, which was not provided with the 2010 draft permit. Even though EPA has developed its legal rationale for the inclusion of municipal satellite sewer collection systems as co-permittees, staff still believe that EPA is not authorized under the Clean Water Act, 33 U.S.C. § 1251 *et. seq.* and the Code of Federal Regulations governing EPA's NPDES program to include the Town of Clinton and the Lancaster Sewer District as co-permittees. MWRA staff plan to file additional comments on the revised draft permit on the inclusion of co-permittees in the permit.

Also in this 2013 draft, the operation and maintenance requirements, which the co-permittees will be subject to, are much more extensive than those included in the 2010 draft (see below).

MWRA will need to comment on all sections within the draft permit where it references "permitee" in order to clarify that MWRA requirements only apply to the treatment works/collection systems that MWRA owns and operates and that it is not responsible for the parts of the collection system owned and operated by the Town of Clinton and the Lancaster Sewer District (in the event that the co-permittee requirement does become part of the final permit).

Operation and Maintenance of the Sewer System

This section of the 2010 draft permit included standard requirements for operation and maintenance staffing, infiltration/inflow reduction, preventive maintenance, and alternative power sources. The updated draft permit is much more detailed, with compliance submittal deadlines, and directs each permittee (MWRA, Town of Clinton, Lancaster Sewer District) to develop a collection system Operation and Maintenance (O&M) Plan, which shall be submitted to EPA and DEP for approval, to implement the O&M Plan, to map its sanitary sewer system that it owns, and report activities related to the implementation of the O&M Plan annually.

Implementation schedule language for each permittee includes:

- Six months to submit to EPA and DEP a description of the collection system, its management goals, and a schedule for the development and implementation of the O&M Plan;
- 24 months to implement the O&M Plan; and
- 30 months to complete system mapping (from the effective date of permit).

Note that the 24 month implementation period must include the ongoing conduct of a program to identify and remove sources of I/I (similar to requirements in recently developed draft DEP regulation changes).

Compliance Schedule for Total Phosphorus

The 2010 draft permit included a 48-month compliance schedule for MWRA to install upgrades necessary to meet total phosphorus limits. Both the 2010 and 2013 draft permits contain much more stringent limits on total phosphorus. The phosphorus limits are the same in each draft. These more stringent limits require MWRA to plan, design, and construct new phosphorus treatment facilities at Clinton at an estimated cost of about $5.8 million. The first draft contained a four-year compliance schedule for all phases of the completion of the new phosphorus treatment facility. The second draft updates the schedule based on MWRA's recent completion of a conceptual design. The new schedule requires completion of design within 12 months of the effective date of the permit, commencement of construction within 24 months, and permit compliance within 48 months. Staff believe the 48-month completion date is feasible but may request revisions to, and/or the need for design completion milestones. Staff continue to review all aspects of the feasibility of this compliance schedule.

WET Testing Requirements (EPA Method Changes)

EPA Region I has changed its policy regarding Whole Effluent Toxicity (WET) testing. WET tests measure wastewater's effects on specific test organisms' ability to survive, grow, and reproduce. WET test methods consist of exposing living aquatic organisms to various concentrations of effluent stream. The 2010 draft allowed the use of a modified chronic test that allowed an acute end-point to be determined from the chronic end-point. The 2013 draft permit requires separate chronic and acute test end-points for compliance monitoring. This is now standard EPA protocol in all permits and staff will not comment.

Total Recoverable Aluminum

The 2010 draft permit included a "monitor and report only" requirement for aluminum. The original fact sheet released for public comment found that aluminum in the effluent had reasonable potential to exceed water quality standards. MWRA discharged aluminum because it used aluminum sulfate (alum) as a coagulant in the phosphorus removal process. In May 2011, the Clinton Plant switched from alum to ferric chloride and the aluminum effluent concentration has gone down. EPA reviewed the most current effluent concentration of aluminum and determined that there was no potential to exceed water quality standards. MWRA staff agree and will not comment on this revision.

Review of Previous MWRA Comments

There were a number of items that MWRA commented on in October 2010, which EPA did not change in the current draft. These include:

- Co-permittees – As indicated above, the co-permittee requirements were not deleted, in fact, are much more extensive;
- Flow limits and calculations – MWRA requested a higher dilution factor and flow limit;
- Copper limit – MWRA requested that the daily and monthly limit be the same;
- Routine sample program – MWRA requested that the sampling schedule language be changed to allow more flexibility;
- Process and screening results – MWRA requested clarification on how to report the results of screening levels and process control samples in the required monthly Discharge Monitoring Reports. EPA did not provide clarification as requested; and
- Industrial Pretreatment Program – MWRA requested that the issuance/renewal of permits be extended to 120 days (from 90).

While MWRA cannot comment on unchanged issues from the 2010 draft permit, staff will attach its October 27, 2010 comments to the re-noticed draft response.

EPA did address MWRA's comments on the following items:

- Changed fecal coliform to *E. coli;* and
- Changed local limits report from 120 to 180 days to submit.

Next Steps

As indicated above, staff will be requesting a 30-day extension for submittal of comments. Staff will provide an update to the Board in October on MWRA's position and response on each of the major renoticed draft permit items.

BUDGET/FISCAL IMPACT:

Construction of new treatment facilities to meet the new permit limitation for Total Phosphorus is estimated to cost approximately $5.8 million. Additional MWRA O&M costs are estimated at $130,000 annually. The increase from the change in toxicity testing is approximately $2,000 per year.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Replacement of Scum Skimmers – Deer Island Treatment Plant
Walsh Construction Company
Contract 7396

COMMITTEE: Wastewater Policy & Oversight

____ INFORMATION
_X_ VOTE

Rachel C. Madden, Director
Administration and Finance

Daniel K. O'Brien, P.E., Director, Deer Island WWTP
Richard J. Adams, Manager, Engineering Services
Preparer/Title

Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the award of Contract 7396, Replacement of Scum Skimmers – Deer Island Treatment Plant, to the lowest responsible and eligible bidder, Walsh Construction Company, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of $20,163,462, for a contract term of 1,095 calendar days from the Notice to Proceed.

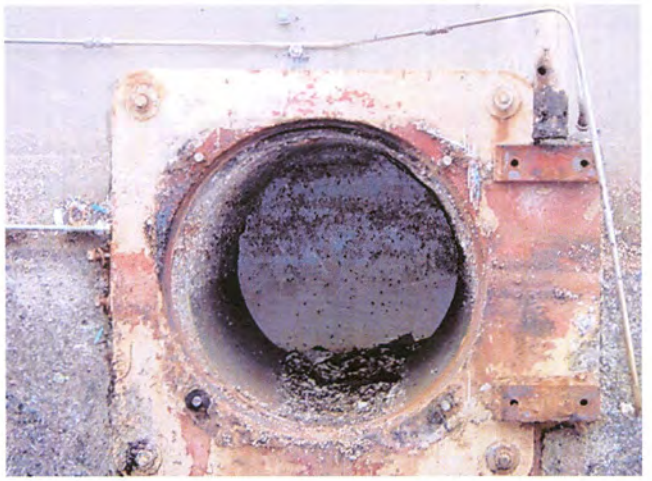
BACKGROUND:

Wastewater flows from the north portion of MWRA's wastewater service arrive on Deer Island through the North Main Pump Station and the Winthrop Terminal Headworks Facility, and are conveyed to the North System Headworks where additional grit is removed (flow is pre-treated for grit removal at it passes through the Ward Street, Columbus Park and Chelsea Creek Headworks). Grit is collected and disposed of in an off-island landfill. Flows from the south are pre-treated for grit and screenings at the Nut Island Headworks before crossing the harbor in the Inter-Island Tunnel and arriving at Deer Island through the South System Pump Station. Flows merge for further treatment in 48 Primary treatment clarifiers, where sludge and "scum" are removed. Scum is the lightweight material, such as plastics, rubber products, fats, oils and greases. The sludge sinks to the bottom and the scum ends up floating on the surface.

Within the clarifiers, there are devices referred to as "scum skimmers" that collect the scum (as shown at right). They are also sometimes referred to as "tip tubes." They operate by tipping into the wastewater surface on a timed cycle and skimming the surface to remove this floating material. The skimmed product is then sent to the scum screens where the inorganic fraction is screened out and the organic fraction is thickened and then directed to the digester complex.

The scum skimmers operate in a harsh and corrosive environment. They were installed as part of the Boston Harbor Project (BHP) and have been in service for 17 years in the Primary Clarifiers; 15 years for Secondary. All of the units in the Primary Clarifiers were made of carbon steel, as were two-thirds of the units in Secondary. (After experiencing corrosion with some of the early units, the specifications were changed to stainless steel in the final BHP contract that included skimmers.) Many of the existing units are now inoperable due to rust and corrosion. Without the ability to consistently remove the scum, it builds up and can degrade the effluent water quality. Plant staff have had to resort to vacuuming the scum off the clarifiers either with MWRA's own vactor jet equipment, or, in extreme cases, utilizing contractor assistance.

The original design of the skimmers were not only made of carbon steel, but they also have worm-gear drives, which become misaligned after repetitive use, and skimmer bearing components, which are imbedded into the concrete wall (see arrow in picture to the right), making removal very complicated, and they require a great deal of maintenance. The picture on the following page shows a closer view of where the end plate of an inoperable scum skimmer was mounted into the concrete. Replacement of a gear drive and skimmer into such a corroded and compromised area is difficult.



MWRA staff have been developing various improved designs for the scum skimmers, that includes stainless steel material and the use of a chain and sprocket drives with flanged connections (see photos below) that makes removal, if necessary, much easier. Field trials utilizing prototypes fabricated by MWRA staff have been completed and the most recent prototype has proven to be very successful. Based on this success, staff recommend that all of the remaining scum skimmers in Primary and Secondary be similarly replaced.

DISCUSSION:

Contract 7396 includes the installation of new scum skimmers and new drive mechanisms in 88 Primary Clarifiers – eight units were already replaced as part of the in-house field trials. It also includes removal and replacement of 72 scum skimmers and drives in Secondary Clarifier Batteries A and B. In Secondary Clarifier Battery C, which already includes stainless steel scum skimmers, the work will be limited to removal and modification of the 36 existing units and replacement of the existing worm drives with new gear drives.

Because of the potential impact to plant operations when clarifiers are taken out of service, the work is weather dependent and the Contractor's access will be limited to only a few clarifiers at any one time.

Procurement Process

Contract 7396 was advertised and bid in accordance with Chapter 149 of Massachusetts General Laws. Three bids were received and opened on August 8, 2013 with the following results:

Contractors	**Bid Price**
Walsh Construction Co.	$20,163,462
R. Zoppo Corp.	$21,820,444
Engineer's Estimate	***$24,501,400***
O'Connor Constructors Inc.	$24,988,000

MWRA staff and MWRA's Design Consultant, Fay, Spofford & Thorndike (FS&T), reviewed Walsh Construction Co.'s bid, which was approximately 17.3% lower than the Engineer's Estimate. The two low bidders were only 7.6% apart. During subsequent discussions with Walsh Construction Co., MWRA staff learned that the causes for the variance from the Engineer's Estimate were primarily due to the Contractor's lower cost for the scum skimmer material, the Contractor's familiarity with the site, and the current competitive bidding climate. Staff and FS&T have determined that Walsh Construction Co.'s bid meets all requirements of the specifications. Based on discussions with the Contractor, MWRA staff and FS&T 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. Walsh Construction Co. will soon successfully complete a three-year, $7 million capital project in the Deer Island digester complex and also is currently working on Spot Pond Water Storage Facility Design/Build Project, Contract 6457. Walsh Construction Co. also has successfully completed several other large construction projects for MWRA, including North Dorchester Bay CSO Pumping Station and Sewers, Contract 6245, and Disinfection Facility – Hydro Plant, Contract 5544, among others. In all instances, MWRA staff have been satisfied with the Contractor's performance.

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

BUDGET/FISCAL IMPACT:

The FY14 CIP contains $20.0 million for Contract 7396. The award amount is $20,163,462 or $163,462 over budget. This amount will be covered within the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract were established at 7.4% and 3.60%, respectively. MWRA's Affirmative Action and Compliance Unit has determined that Walsh Construction Co.'s bid is compliant with these requirements.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Pump, Gear Box and Diesel Engine Upgrade
Prison Point and Cottage Farm CSO Facilities
Contract 7452
IPC Lydon, LLC

COMMITTEE: Wastewater Policy & Oversight

INFORMATION
X VOTE

Rachel C. Madden, Director
Administration and Finance

Jae R. Kim P.E., Chief Engineer
John W. Edgar, Senior Program Manager
Preparer/Title

Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the award of Contract 7452, Pump, Gear Box and Diesel Engine Upgrade, Prison Point and Cottage Farm CSO Facilities to the lowest responsible and eligible bidder, IPC Lydon, LLC, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of $6,126,126, for a contract term of 650 calendar days from the Notice to Proceed.

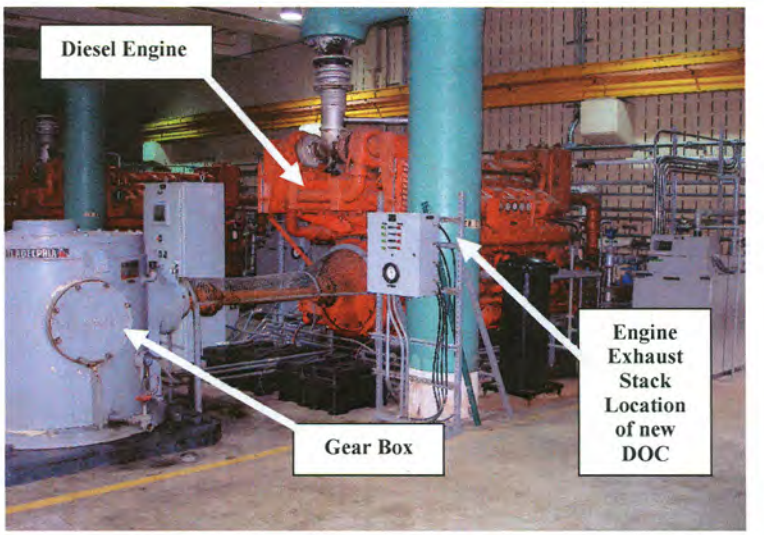
DISCUSSION:

The Prison Point CSO facility was constructed in 1978 to receive combined sewer flow during large wet-weather events from the Boston Marginal Conduit, Cambridge Marginal Conduit and Miller's River Overflow Interceptor. It has a maximum capacity of 323 million gallons per day. Prior to discharge into the upper harbor, flows are screened, disinfected, and dechlorinated. The facility also includes 1.8 million gallons of storage capacity and activates approximately 17 times in a typical year. Although the facility has been upgraded several times since it was brought on line, the large pumps and gear boxes are original equipment.

The Cottage Farm CSO facility was constructed in 1971 to receive combined sewer flows during large wet-weather events from the North and South Charles River Relief Sewers and discharges screened, disinfected, and dechlorinated flow into the Charles River. It has a maximum capacity of 210 million gallons per day and the facility also includes 1.3 million gallons of storage capacity. In a typical year, the facility activates two times. Similar to Prison Point, Cottage Farm's pumping equipment is original.

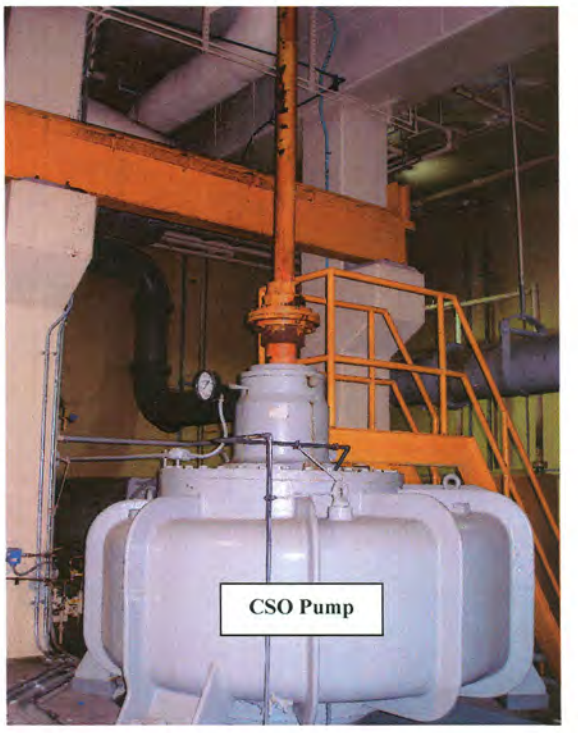
The pumping systems at the Prison Point and Cottage Farm CSO Facilities consist of diesel engines and right-angle gear boxes that drive the facilities' large pumps. Because of the age and condition of this equipment, significant work must be performed to ensure that each of these facilities continues to operate reliably.

Contract 7452 has multiple components. At Prison Point, three large pumps (115 mgd each), one smaller pump (58 mgd), and three right angle drive gear boxes will be rehabilitated due to age of the equipment and recommendations made in extensive technical inspection reports. A fourth gearbox will be replaced and the original gearbox will be rehabilitated for spare parts. Additionally, four exhaust silencers on the diesel engines also will be replaced due to age. Further, to comply with EPA regulations that will require a 70% reduction in carbon monoxide emissions from non-emergency engines by the compliance date of May 3, 2014, the contract will include the installation of diesel oxidation catalysts (DOCs) and monitoring equipment on all four engine exhausts at Prison Point.



The work at Cottage Farm will consist of installing DOCs on the facility's three diesel engines. In addition, these engines will be rebuilt with all new cylinder sleeves, and main and connecting rod bearings being installed.

One of the diesel engines and right angle gear boxes in the Engine Room at Prison Point is shown in the upper picture to the right. The bottom picture shows a pump and connecting drive shaft in the Pump Room, located one floor directly underneath the gear box.



Procurement Process

Contract 7452, designed by Fay, Spofford, and Thorndike, LLC (FS&T), was advertised and bid in accordance with Massachusetts General Laws, Chapter 149. Nineteen potential bidders picked up contract documents; fifteen contractors attended pre-bid site visits at the facilities. Bids were received and opened on September 5, 2013 from two contractors; the results are presented on the following page.

Bidders	Bid Amount
*Engineer's Estimate**	$5,725,900
IPC Lydon, LLC	**$6,126,126**
O'Conner Corporation	$6,421,444

*The original Engineer's Estimate was revised to reflect the numerous addenda that were issued during the bidding phase of the contract.

The two bids are within 4.6% of each other, an indication of the reasonableness of the low bid, which is 7% higher than the Engineer's Estimate. After reviewing the bid, and after subsequent discussions with IPC Lydon, MWRA staff and FS&T are of the opinion that Contractor understands the full scope of work under this contract and its bid price is reasonable, complete and includes the payment of prevailing wages, as required.

References were checked and found to be favorable. IPC Lydon is the current Contractor for MWRA's Gravity Thickener Replacement Project on Deer Island. Staff report that IPC Lydon's performance has been very good to date. In the past, IPC Lydon also successfully completed five other projects for MWRA. Staff report that the Contractor's performance on all of those projects was very good and the work was completed on schedule. Five external references were checked; all reported that IPC Lydon, LLC has been producing quality work on time and within budget for many years.

MWRA staff and FS&T have concluded that IPC Lydon, LLC possesses the skill, ability, and integrity necessary to perform the work under this contract and can complete the work for the bid price. Therefore, staff recommend that Contract 7452 be awarded to IPC Lydon, LLC as the lowest responsible and eligible bidder.

BUDGET/FISCAL IMPACT:

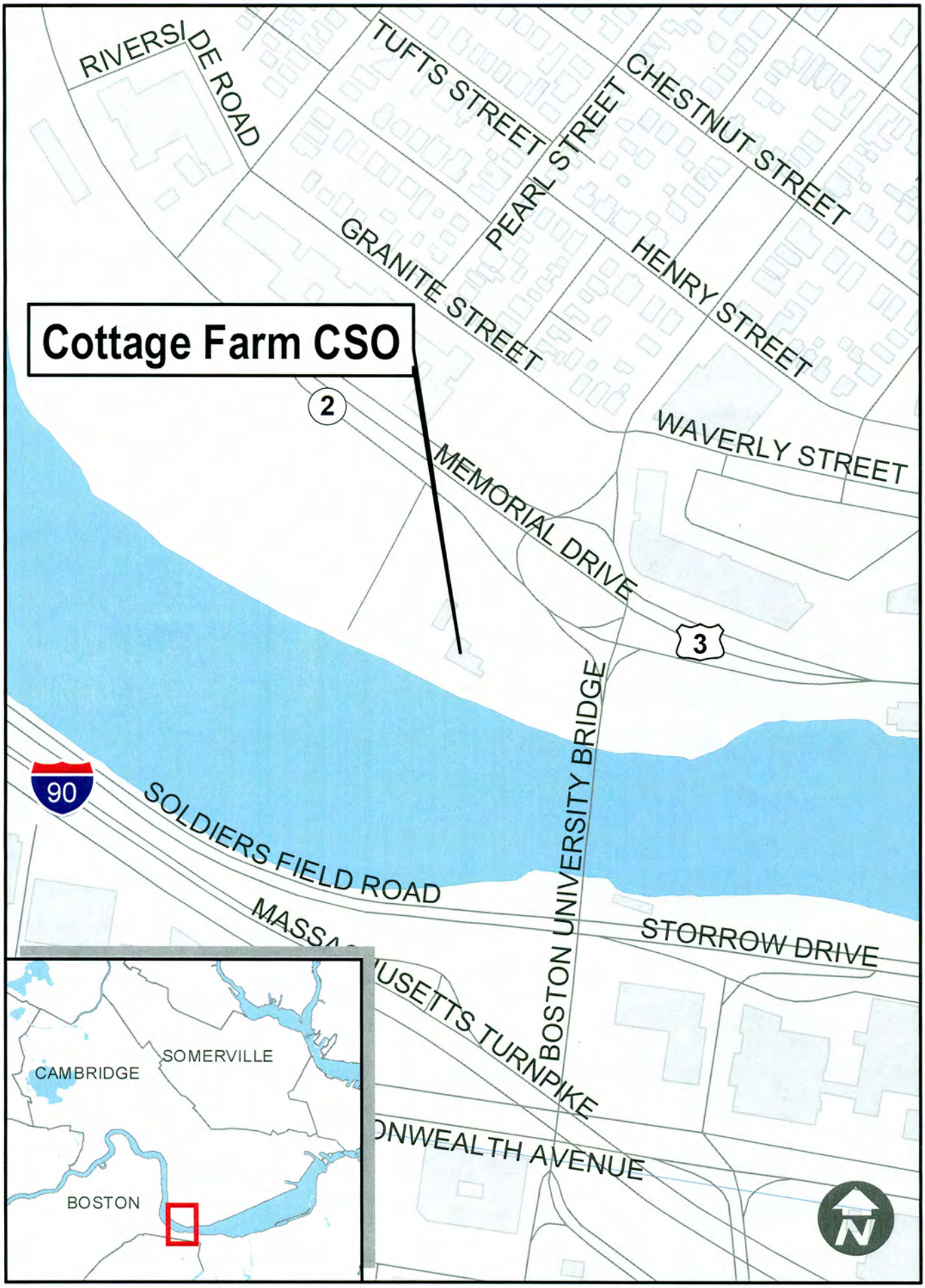
The FY14 CIP includes a budget of $5,099,100 for the Pump, Gear Box and Diesel Engine Upgrade, which was based on a 60% design completion cost estimate. The award amount is $6,126,126 or $1,027,026 over the budgeted amount for Contract 7452. This amount will be covered with the five-year spending cap.

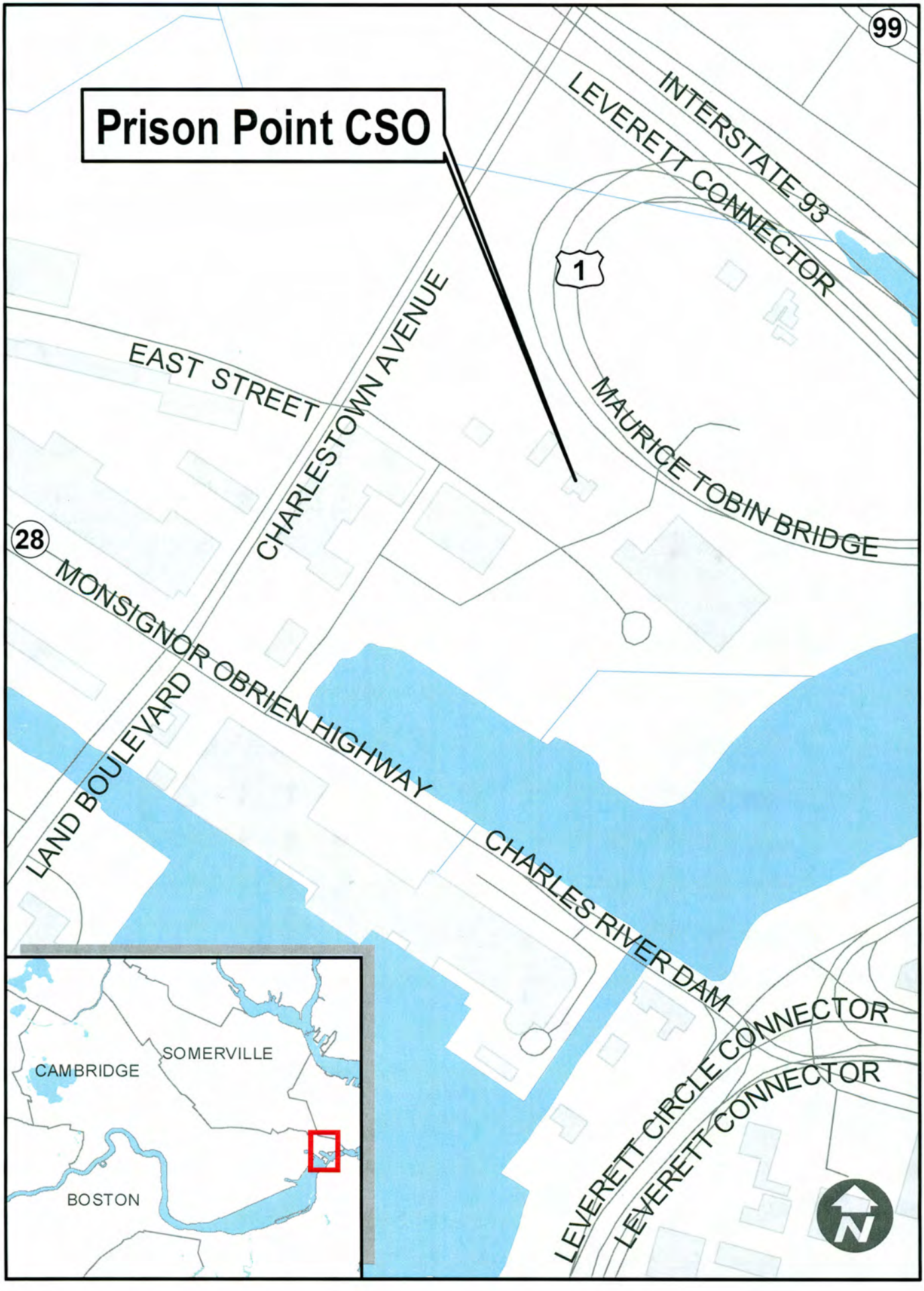
MBE/WBE PARTICIPATION:

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

ATTACHMENTS:

Locus Map of Cottage Farm CSO Facility
Locus Map of Prison Point CSO Facility


RIVERSIDE ROAD
TUFTS STREET
PEARL STREET
CHESTNUT STREET
GRANITE STREET
HENRY STREET
Cottage Farm CSO
2
WAVERLY STREET
MEMORIAL DRIVE
3
BOSTON UNIVERSITY BRIDGE
90
SOLDIERS FIELD ROAD
STORROW DRIVE
USETTS TURNPIKE
ONWEALTH AVENUE
CAMBRIDGE
SOMERVILLE
BOSTON
N


Prison Point CSO
99
INTERSTATE 93
LEVERETT CONNECTOR
1
EAST STREET
CHARLESTOWN AVENUE
MAURICE TOBIN BRIDGE
28
MONSIGNOR OBRIEN HIGHWAY
LAND BOULEVARD
CHARLES RIVER DAM
LEVERETT CIRCLE CONNECTOR
LEVERETT CONNECTOR
CAMBRIDGE
SOMERVILLE
BOSTON
N

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Agency-Wide Technical Assistance Consulting Services
Dewberry Engineers Inc., Contract 7436
Fay, Spofford & Thorndike, LLC, Contract 7437
Hazen and Sawyer, P.C., Contract 7456

COMMITTEE: Wastewater Policy & Oversight

____ INFORMATION
_X_ VOTE

Rachel C. Madden, Director
Administration and Finance

Meredith Norton, Program Manager
Jae R. Kim, P.E., Chief Engineer
Preparer/Title

Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the recommendation of the Consultant Selection Committee to award three separate contracts to provide agency-wide technical consulting services to Dewberry Engineers Inc., Fay, Spofford & Thorndike, LLC, and Hazen and Sawyer, P.C., and to authorize the Executive Director, on behalf of the Authority, to execute Contract 7436 with Dewberry Engineers Inc., Contract 7437 with Fay, Spofford & Thorndike, LLC, and Contract 7456 with Hazen and Sawyer, P.C., each in an amount not to exceed $1,600,000 and for a contract term of three years from the Notice to Proceed.

DISCUSSION:

MWRA has been utilizing technical assistance contracts for many years to make available, on a continuing, as-needed basis, the services of qualified, professional engineering firms to assist MWRA staff on engineering and/or design initiatives. The contracts involve the engineering disciplines of electrical, civil, structural, geotechnical, surveying, environmental and sanitary, mechanical and process, fire protection, control systems, chemical, corrosion and odor control, architecture, permitting, and security. To ensure adequate resources and responsiveness, MWRA awards similar technical assistance contracts for the Deer Island Treatment Plant and the Carroll Water Treatment Plant. Technical assistance contracts supplement in-house staff on high priority or unanticipated projects, and provide expertise on short-term assignments requiring specialized disciplines that are not cost effective for MWRA to maintain on an in-house basis.

Over the last several years, MWRA has awarded two technical assistance contracts to address the needs of MWRA water and wastewater facilities other than Deer Island and the Carroll Water Treatment Plant. However, staff recommend that three concurrent contracts be awarded, which will ensure that MWRA staff have access to a broader, more diverse range of resources, ensuring even more timely availability and responsiveness, particularly when emergency or unanticipated situations arise. Awarding three contracts also will provide staff with an opportunity to seek comparative costs on task orders from more than one consultant, if circumstances allow.

Procurement Process

Staff utilized a one-step/two-envelope Request for Qualifications/Proposals, seeking three consultants who would be selected on an all-qualified, low-bid basis, with price envelopes submitted separately from the technical proposal. Technical proposals would be reviewed first to determine the list of all those firms qualified to provide the services based on specified criteria. Thereafter, the envelopes containing a sample costing exercise from those qualified firms would be opened, and the qualified proposers submitting the lowest three cost exercise proposals would be recommended for award.

MWRA received seven proposals. The Selection Committee evaluated and compared each firm's technical proposal to determine whether it met minimum threshold and qualification requirements based on the following criteria: (1) Past Performance on Authority Projects, Similar Experience/Past Performance on Similar Non-Authority Projects; (2) Capacity/Qualifications/Key Personnel; and (3) Technical Approach/Organization and Management Approach.

The Selection Committee determined that five of the seven firms met the minimum threshold qualifications requirements in their technical proposals and were "Qualified." ARCADIS U.S., Inc., a respected national firm, was found not qualified because its proposal did not meet the minimum requirements in the RFQ/P; its proposed Project Manager and two Senior Engineers did not meet the minimum required number of years experience, and one of its proposed Senior Engineers did not have a required Massachusetts Professional Engineering License. CDR Maguire Inc., also was found not qualified because its proposal did not provide information, which demonstrated that the firm had the required water pumping, distribution, CSO, headworks, and wastewater treatment facility design experience, and one proposed Senior Engineer and Project Engineer did not meet the minimum Key Personnel qualifications.

This procurement followed the method currently used for pricing all technical assistance contracts, in which staff developed a sample cost exercise designed to compare proposers' costs. Proposers were required to complete and submit a Cost Data Exercise using a level of effort pre-determined by MWRA. The total level of effort was based on the average annual distribution of hours from prior technical assistance contracts over several years. The number of total hours listed on the Cost Data Exercise approximates the estimated value of three years of technical assistance services totaling $1,600,000. Proposers were required to provide labor rates and the firms' multipliers, incorporating indirect costs and profit for qualified staff in various relevant engineering disciplines.

On August 14, 2013, the five qualified proposers' Cost envelopes were opened. The total dollar amounts proposed by the five qualified firms in the Cost Data Exercise and the associated ranking based upon those costs are presented below.

Firm	Cost Exercise Amount	Rank
Dewberry Engineers Inc.	$1,302,846.79	1
Fay, Spofford & Thorndike, LLC	$1,538,392.39	2
Hazen and Sawyer, P.C.	$1,549,875.60	3
CDM Smith, Inc.	$1,566,390.00	4
Brown and Caldwell	$1,566,451.00	5

The three firms submitting the lowest prices based upon the Cost Data Exercise are Dewberry Engineers Inc., Fay, Spofford & Thorndike, LLC and Hazen and Sawyer, P.C. The Selection Committee was in agreement that all three firms submitted qualification statements that demonstrated a clear understanding of the contract needs and proposed project teams consisting of well-qualified and experienced key personnel.

Based on the proposals submitted, the Selection Committee recommends that the Board approve the award of three separate contracts to the three lowest proposers: Contract 7436 to Dewberry Engineers Inc.; Contract 7437 to Fay, Spofford & Thorndike, LLC; and Contract 7456 to Hazen and Sawyer, P.C., each in an amount not to exceed $1,600,000 and for a term of three years from the Notice to Proceed.

BUDGET/FISCAL IMPACT:

The FY14 Capital Improvement Program (CIP) budget includes $1,600,000 for each contract for a total of $4,800,000.

MBE/WBE PARTICIPATION:

Due to the specialized and uncertain nature of this work, no minimum MBE or WBE participation requirements were established for these contracts.

MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard
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Boston, MA 02129

Frederick A. Laskey
Executive Director

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Fax: (617) 788-4899
TTY: (617) 788-4971

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, September 18, 2013

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

Time: Immediately following Wastewater Comm.

AGENDA

A. Contract Awards

1. Section 4, Webster Avenue Water Main, Somerville - Final Design/CA/RI: Dewberry Engineers, Inc., Contract 7334

2. Water Quality Reporting System: McInnis Consulting Services, Inc., Bid WRA-3685Q

B. Contract Amendments/Change Orders

1. Three-Year Contract to Provide Water Chestnut Control at the Sudbury Reservoir: Lycott Environmental, Inc., Bid WRA-3435, Amendment 1

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Section 4, Webster Avenue Water Main, Final Design/CA/RI
Dewberry Engineers Inc.
Contract 7334

COMMITTEE: Water Policy & Oversight

___ INFORMATION
_X_ VOTE

Rachel C. Madden, Director
Administration and Finance

Jae R. Kim, P.E. Chief Engineer
Michael G. Rivard, P.E., Program Manager
Preparer/Title

Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the recommendation of the Selection Committee to select Dewberry Engineers Inc. to provide design, construction administration and resident inspection services for Contract 7334, Section 4, Webster Avenue Water Main Project, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the amount of $612,517, for a contract term of 37 months from the Notice to Proceed.

DISCUSSION:

MWRA's Section 4 water main is a 48-inch-diameter, cast-iron pipe constructed in 1911 that supplies low-service water through the communities of Cambridge and Somerville. It is part of the East Spot Pond Supply Main and provides redundancy to the Northern Low Service Area.

Approximately 120 feet of Section 4 is supported on a steel truss bridge over commuter rail tracks and adjacent to the MassDOT Webster Avenue vehicle bridge in Somerville (see Figure 1 and photo on the following page, and the attached locus map). Section 4 was taken out of service in 2009 due to a joint leak. In addition to the joint leak, there are misaligned joints along the length of the bridge crossing, and broken and corroded tie rod brackets along the pipe and bends. Field investigations on the buried bends on either side of the bridge were completed in April 2010 and subsequent evaluations determined that it was not feasible to repair the existing piping in place.

In 2012, Dewberry Engineers Inc. prepared a Preliminary Design Report, which evaluated alternative repair and replacement methods and recommended replacing approximately 400 feet

of the existing 48-inch water main with new ductile-iron pipe. The limits of pipe replacement extend along the bridge and into the roadway on each side of the bridge to ensure adequate length of pipe for thrust restraint. The report also recommended repairs to the existing utility bridge and adjacent concrete abutment. A City of Somerville 20-inch water line is also on the bridge truss and will need to be protected or replaced during MWRA's work. MWRA staff have had preliminary discussions with the City of Somerville regarding the relocation of Somerville's water line and the City's assuming those associated costs. This project will provide final design services and engineering services during construction of the replacement pipe and utility bridge repairs.

Figure 1 Webster Avenue Water Main, Somerville

Procurement Process

A one-step Request for Qualifications and Proposals (RFQ/P) procurement process was utilized for this contract. The RFQ/P was issued on June 19, 2013 and included the following selection criteria: Cost (50 points), Qualifications and Key Personnel (17 points), Technical Approach, Capacity /Organization and Management Approach (10 points), Past Performance on Authority

Projects (12 points), Experience/Past Performance on Similar Non-Authority Projects (8 points), and MBE/WBE Participation (3 points) for a total maximum score of 100 points.

On July 12, 2013, two proposals were received. The following is a summary of the costs and level of effort for each consultant firm:

Proposer	Proposed Cost	Level of Effort	Avg. Cost per Hour
Dewberry Engineers Inc.	$612,517	4,994 Hours	$122.65
Green International Affiliates	$640,119	5,357 Hours	$119.49

On August 7, 2013, the Selection Committee met to discuss and rank the Proposals; the results are presented on the following page.

Proposer	Final Total Score	Order of Preference* Points	Ranking
Dewberry Engineers Inc. (Dewberry)	434	5	1
Green International Affiliates (GIA)	420	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," and the firm receiving the next highest number of points is assigned a "2," and so on.

Dewberry Engineers Inc. received the highest score and was the first-ranked firm by all five Selection Committee members.

For this project, Dewberry Engineers Inc. proposed a well-qualified project team with relevant experience with bridge truss design and coordination with the MBTA. Dewberry prepared a very detailed technical approach highlighting key areas for coordination and control of the project. Although Dewberry's proposed level of effort was approximately 6.8% less than the second-ranked firm, Dewberry's proposed cost was 4.3% lower. Selection Committee members were in agreement that the level of effort proposed by Dewberry was appropriate because of the firm's distribution of hours and its identification of potential time savings for design due to project team members' concurrent involvement in MBTA projects in the vicinity of MWRA's project, as well as the firm's involvement in the preparation of the Preliminary Design Report for this project.

Dewberry has provided consulting services on a number of MWRA projects, including the University Avenue Water Main in Norwood, the Northern Intermediate High Short-Term Improvements, and the Hultman Aqueduct Rehabilitation. Dewberry's proposed structural engineer also has experience with evaluation and design of steel truss bridges and has been involved in previous MBTA work.

The Selection Committee members felt that Dewberry's level of detail in its technical approach and the specific experience of Dewberry's proposed project team were the main reasons for the final score and ranking of the two firms.

Based on the ranking of the Selection Committee, staff recommend the award of this contract to Dewberry Engineers Inc. for the proposed amount of $612,517.

BUDGET/FISCAL IMPACT:

The FY14 CIP includes a budget of $500,000 for Contract 7334; the recommended contract amount is $612,517 or $112,517 over budget. This amount will be covered within the five-year CIP spending cap.

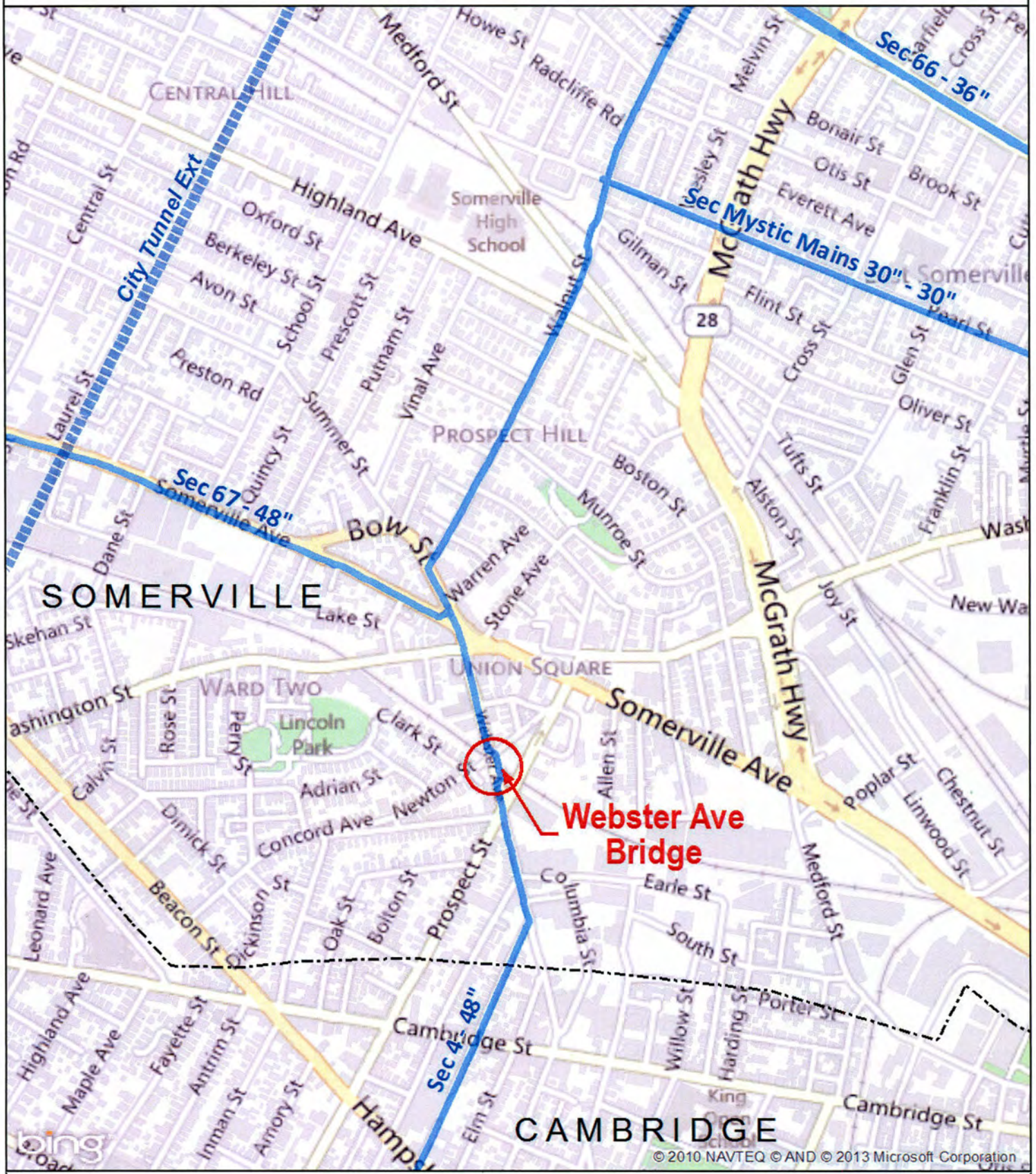
MBE/WBE PARTICIPATION:

Although no MBE and WBE participation requirements were established for this contract due to its size and limited scope, Dewberry proposed 3.7% MBE participation and 3.0% WBE participation.

ATTACHMENT:

Locus Map of Section 4, Webster Avenue Water Main

Locus Map of Section 4, Webster Avenue Water Main



MWRA Distribution Pipes (Low Service)

MWRA Water Transmission

0 400 800 1,600 Feet

N

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Water Quality Reporting System
McInnis Consulting Services, Inc.
State Blanket Contract ITS53 Cat2b
Bid WRA-3685Q

COMMITTEE: Administration, Finance & Audit

____ INFORMATION
__X__ VOTE

Rachel C. Madden, Director
Administration & Finance

Russell J. Murray Jr., Director, MIS
Betsy Reilley/Director Environmental Quality
Richard P. Trubiano, Deputy Chief Operating Officer
Preparer/Title

Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the award of a purchase order contract for technical consulting services to implement a water quality reporting system to McInnis Consulting Services, Inc. and to authorize the Executive Director to execute said purchase order contract in an amount not to exceed $350,000 under State Blanket Contract ITS53 Cat2b.

BACKGROUND:

MWRA is currently constructing ultraviolet (UV) disinfection facilities at the Carroll Water Treatment Plant and the Quabbin Disinfection Facility in order to meet new Safe Drinking Water Act regulations. This new treatment process has also created a need for a comprehensive reporting system in order to comply with the EPA and DEP regulations.

MWRA currently utilizes ozone as the primary disinfectant, and adds chloramines to protect the water while it flows through local pipelines. Each disinfectant has different requirements in terms of calculations and reportable data. Each also has specific DEP-required report forms that must be completed and submitted monthly. Furthermore, various checks of data quality and audit trails for adjusted data are required to ensure the quality and integrity of the reported results.

The basic concept behind Disinfection Effectiveness reporting is to calculate the time a disinfectant is in contact with the water. This must take into account various complexities within the treatment plants. The calculated value is compared to the required value from EPA tables

(considering certain water quality variables). The value achieved in treatment must be equal to or greater than the value required by EPA to be in compliance with the regulation. Variability in treatment, data scrubbing, and other considerations must be tracked and reported to EPA and DEP. All information must be stored in a database. Currently, MWRA uses a dated, in-house Excel/Oracle application to prepare the required reports.

In an effort to streamline the water quality reporting process, staff recommend that MWRA migrate its existing reports and develop new UV reports into a new, comprehensive water quality reporting system.

DISCUSSION:

MWRA recently acquired a software package (Aquarius by Aquatic Informatics) and plans to utilize this application to query, store, and scrub data, as well as perform all calculations and reporting using the functions available within the product. The selected consultant under this procurement will be responsible for designing a reporting system based around the Aquarius product and utilizing the existing MWRA MIS infrastructure, applications and tools, where needed.

MWRA must provide the Massachusetts DEP and the EPA with a total of 22 monthly reports from this system in order to meet regulatory reporting requirements for the John J. Carroll Water Treatment Plant and the Quabbin Disinfection Facility.

The scope of work for this contract includes all planning, development, execution, implementation, and training for a new reporting system capable of adhering to DEP and EPA regulations.

Each stage of the project will require approval from MWRA management before moving on to the next stage. The selected vendor must ensure it has adequate resources for designing, building, testing, and implementing the reporting system and is adequately staffed to provide training for MWRA personnel as well.

The following table provides a summary of the reports that will be required, along with the required completion dates for five phases of this project.

Project Phase	Disinfectant/Facility	Completion Date	# of Reports
1	Chlorine Contact Time for Quabbin Disinfection Facility	Nov-13	4
2	Intensity Time (UV/IT) for Carroll Water Treatment Plant	Feb-14	5
3	Intensity Time (UV/IT) for Quabbin Disinfection Facility	Apr-14	5
4	Ozone Contact Time for Carroll Water Treatment Plant	Jun-14	4
5	Chlorine Contact Time for Carroll Water Treatment Plant	Aug-14	4

While the order of the five phases of this project is important, it must be emphasized that Phase 2 has the highest priority and it is critical that it be complete no later than the indicated date. Phase

1 is listed as the first project to address current issues with the Contact Time (CT) calculator and to provide a "training ground" to familiarize the selected consultant with the processes involved. The contract term for the Water Quality Reporting System Project is one year, beginning on October 1, 2013 through September 30, 2014. All work must be scheduled to be completed within this timeframe.

Procurement Process

In order to procure these services, staff accessed the State Blanket Contract ITS53 Cat2b. Under this contract, three prequalified vendors were directly solicited under WRA-3685Q. The bid response for consulting services reflected the assigned staff and hourly rates. One sealed bid was received, one vendor declined, and one vendor did not respond. The bid was publicly opened on September 9, 2013 with the following results.

Vendor Name	Amount
McInnis Consulting Services, Inc.	$350,000

MWRA had originally reached out to the current software provider, Aquatics Informatics (AI), to inquire if they could provide these services, but they responded that they did not have the necessary resources available at this time. They also indicated that there was a very limited pool of potential third party vendors who could provide these services and that those vendors could be solicited through state contract. Therefore, the most expeditious approach to find a firm was through the State Blanket Contract ITS53 Cat2b. While staff solicited three bids from qualified vendors, only one vendor could provide these services. Staff have reviewed the bid and confirmed that McInnis Consulting Services, Inc. has the necessary resources and experience to provide this service within the required timeframes. As such, staff recommend that this contract be awarded to McInnis Consulting Services, Inc. as the responsive bidder.

BUDGET/FISCAL IMPACT:

Sufficient funds for this procurement are included in the FY14 Capital Improvement Program.

MBE/WBE PARTICIPATION:

McInnis Consulting Services, Inc. is not a certified Minority- or Women-owned business.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Three-Year Contract to Provide Water Chestnut Control at the Sudbury Reservoir
Lycott Environmental, Inc.
Purchase Order Contract WRA-3435, Amendment 1

COMMITTEE: Water Policy & Oversight

____ INFORMATION
__X__ VOTE

David Coppes, Director, Western Operations
John Gregoire, Program Manager, Reservoir Operations
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-3435, a three-year contract to provide control of invasive water chestnut plants in the Sudbury Reservoir, with Lycott Environmental, Inc., for an amount not to exceed $10,000, increasing the contract amount from $28,650 to $38,650, with no increase in contract term.

DISCUSSION:

On April 18, 2012, the Executive Director, under delegated authority, approved award of a three-year purchase order contract to Lycott Environmental, Inc., the lowest responsive bidder under Bid WRA-3435, to control highly invasive water chestnut plants in the Sudbury Reservoir. The contract is currently in its second year.

Sudbury Reservoir is an emergency reservoir in the water supply system. In September 2006, the highly invasive water chestnut (*trapa natans*) was discovered in the northern section of the reservoir. Each year since that time, MWRA has worked to control its spread in this northern area by hand harvesting and deployment of an aquatic mechanical harvester. Harvesting begins each year in late June/July before nut maturation later in the summer. At the conclusion of each seasonal effort, the Contractor provides a detailed report on the harvesting activities and findings of the post-season inspection of the work area for re-growth. These efforts have been successful in reducing water chestnuts in the Sudbury Reservoir as shown on Attachment 1, which contrasts the conditions found two years ago compared to those found (pre-harvest) in July 2013.

Under a separate plant survey contract, all MWRA/DCR water supply reservoirs are being surveyed in 2013 starting from Quabbin in the west and moving east toward the metro Boston

distribution reservoirs. These comprehensive surveys assess changes (if any) in aquatic plant populations, and also identify the presence of any new invasives since the last comprehensive survey in 2010. While performing a comprehensive survey at Sudbury Reservoir in mid-August 2013, the consultant found a new infestation of water chestnut, approximately 500 square feet in

Figure 1

area, in the western section of the reservoir and quite distant from the annual control zones under the invasives removal contract with Lycott (see Figure 1 below).

Additionally, small areas of a new invasive plant, "brittle naiad" (*najas mino)*, shown in the photo on the right, were also found in the Sudbury Reservoir at the locations identified in Figure 2 on the following page. Brittle naiad also was recently found in an open portion of the Blue Hills Reservoir and mitigation measures are under way at that location.

This Amendment

Because both of these recently discovered plants are highly invasive, staff have directed the Contractor to immediately commence control measures to prevent their spread. For the water chestnut, Lycott deployed an aquatic plant harvester to remove the large patch and prevent it from dropping nuts and having future plants take root in the area. For the brittle naiad, staff recommended a seasonal harvest of the plants by a diver. These services extend beyond the scope of work included in the original contract and require an amendment to the contract. The cost for this additional work under Amendment 1 will not exceed $10,000.

BUDGET/FISCAL IMPACT:

The amount of Amendment 1 exceeds the delegated authority limit, which is 25% of the original contract award. Field Operations' FY14 Current Expense Budget includes sufficient funding for this amendment.

MBE/WBE PARTICIPATION:

Lycott Environmental, Inc. is not a certified Minority- or Women-owned business.

ATTACHMENT: Comparison Photo of 2011 and 2013 Conditions in Sudbury Reservoir


July 1, 2013 Sudbury Reservoir Pre-Harvest Survey of Water Chestnut Compared to July 2011 Pre-Harvest Survey in Same Location (Inset)
July 2011

MASSACHUSETTS WATER RESOURCES AUTHORITY

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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, September 18, 2013

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

Time: Immediately following Water Comm.

A. Approvals

1. Appointment of Senior Shift Manager, Operations, Deer Island Treatment Plant
2. Appointment of Work Coordination Center Manager, Operations
3. FY2014 Non-Union Compensation (materials to follow)
4. PCR Amendments – September 2013

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Appointment of Senior Shift Manager, Operations, Deer Island Treatment Plant

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COMMITTEE: Personnel & Compensation

___ INFORMATION
_X_ VOTE

John P. Vetere, Deputy Chief Operating Officer
Daniel K. O'Brien, P.E., Director, Deer Island Treatment Plant
Robert G. Donnelly, Director, Human Resources
Preparer/Title

Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of Michael C. Hughes to the position of Senior Shift Manager, Operations, Deer Island Treatment Plant (Unit 6, Grade 13) at the recommended salary of $117,763.96, to be effective September 21, 2013.

DISCUSSION:

The position of Senior Shift Manager, Operations, became vacant upon the recent retirement of the long-time incumbent, William Waitt, who held the position since plant start-up. This position is responsible for managing all of the day-to-day operational activities related to the treatment plant and is a key component of the plant's staffing plan, which is submitted to DEP as part of MWRA's NPDES permit.

The Senior Shift Manager position requires oversight of 45 staff, who work on rotating schedules to cover the 24/7 nature of the operation of a major wastewater treatment facility. The Senior Shift Manager is also the primary 24/7 on-call contact for any plant operational emergencies. Duties include: day-to-day operation of the plant to ensure performance that is consistent and in compliance with the NPDES permit; responsibility for the development, control and expenditure of the Operations' Current Expense Budget; and direction of Shift Managers and other subordinate staff as necessary to operate systems and equipment, and to make process control changes.

Organizationally, the Senior Shift Manager reports to the Director of the treatment plant (see the attached Organization Chart).

Selection Process

This position was posted internally and two applications were received. The Deer Island Director and managers from Process Control and the Affirmative Action and Compliance Unit interviewed both candidates and determined that Michael Hughes possesses the required knowledge, skills, and experience, and was the best candidate for this position.

Mr. Hughes has 19 years of experience at MWRA working in the Operations Department at Deer Island in a variety of progressively responsible positions. He began his MWRA career in 1994 as an Operator and was promoted to the position of Area Supervisor in 1997. In 2000, he again was promoted to the position of Shift Manager. Mr. Hughes also was assigned the responsibility of Acting Senior Shift Manager for a period of nine months in 2008-2009 during the previous incumbent's extended medical leave.

Through his experience, Mr. Hughes has gained a thorough knowledge of the Deer Island Treatment Plant, and all of the related wastewater facilities, such as the headworks and the Pelletizing Plant. During various events at the plant, he has demonstrated that he is a skilled and capable manager who can work calmly under pressure. His knowledge of the facility and his rise "through the ranks" gives him an excellent foundation for mentoring junior staff and a thorough understanding of the role of subordinate staff. He possesses excellent communication and troubleshooting skills, as well as a strong work ethic. Mr. Hughes also has experience as a manager in all of the necessary ancillary areas, such as labor relations, discipline, and design/ construction reviews. He has earned the respect of supervisors and peers.

Mr. Hughes holds a Grade 7 Wastewater Treatment Plant Operator license and a Grade 4 Wastewater Collections System Operator License. He earned a certificate of Wastewater Treatment Technology from UMass-Lowell. He also has earned certificates from the MA Operators Wastewater Management Program and MWRA's Supervisory Development Program. He is currently pursuing a Bachelor of Science degree in Civil Engineering Technology at UMass-Lowell.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the Operations Division's FY14 Current Expense Budget to fund this position. The recommended salary is in accordance with guidelines established in Unit 6's current collective bargaining agreement.

ATTACHMENTS:

Resume of Michael Hughes
Position Description
Organization Chart

Michael C. Hughes

Objective:

To progress my management career in the wastewater treatment field.

Experience:

1994-Present
Massachusetts Water Resources Authority
Winthrop, MA
Acting Senior Shift Manager 2013-present
Operations Shift Manager 2000-present
Acting Senior Shift Manager 2008-2009
Operations Area Supervisor 1997-2000
Wastewater Operator 1994-1997
Supervisor: Dan O'Brien
Telephone: (617) 660-7680

- Manage the Deer Island Treatment Complex to ensure permit compliances.
- Coordinating operations of all areas of the plant and including remote headworks.
- Operating the PICS and OMS systems of the treatment plant.
- Responsible for Quality Assurance/Quality Control on all data gathered and entered during the shift assigned.
- Responsible for up to 25 subordinates in Plant Operations for the Deer Island complex.
- Coordinating with other departments such as maintenance, engineering, process control, vendors and contractors to ensure smooth operations of the facility
- Provides coverage for Senior Shift Manager in his absence.
- Responsible for the process control of the secondary treatment system such as solid management, wasting rates and biological activity.
- Participated as management representative in disciplinary hearings related to employee performance issues.
- Participated in labor relations activities.
- On-call Shift Manager for 6+ years including acting as primary on-call manager for 2+ years.
- Demonstrated ability to solve plant operational upsets.

1993-1994
Water Chemicals
Chelsea, MA
Water Service Representative
Supervisor: Alan Graff
Telephone: (617) 884-4086

- Operate and maintain chemical feed equipment, pumps and programmable logic units.
- Sample and analyze water for proper chemical dosage and pH levels.
- Prepare chemical solutions.
- Program controllers and maintain proper levels of treatment for pH adjustment wastewater tanks at Children's Hospital.
- Perform chlorinating techniques to kill bacteria in water systems.

Education:

2006 to Present
University of Massachusetts Lowell
Lowell, MA
B.S. Civil Engineering
3.65 GPA

Education: (continued)

2011
Massachusetts DEP Wastewater Certificate Program completed

1993 to 1994
University of Massachusetts Lowell
Lowell, MA
Wastewater Treatment Certificate completed 1994
3.53 GPA

2002
MWRA Supervisory Development Program
Certificate completed 2002

1987 to 1991
Everett High School
Everett, MA
High School Diploma

Professional Certifications:

Grade VII Massachusetts Wastewater Treatment Plant Operator License

Grade IV Massachusetts Wastewater Collection Systems Operator License

MWRA
POSITION DESCRIPTION

POSITION: Senior Shift Manager

PCR#: **2937503**

DIVISION: Operations

DEPARTMENT: Wastewater Treatment/Deer Island

BASIC PURPOSE:

Manages the complete operation of the Deer Island Wastewater Treatment Plant. (DIWWTP) Determines direction of the Shift Operations Manager's to ensure efficient operation of all process areas to meet performance and permit requirements.

SUPERVISION RECEIVED:

Works under the general supervision of the Director DIWWTP

SUPERVISION EXERCISED:

Exercises the supervision of the Shift Managers and as-needed the Area Supervisors.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages the overall day-by-day operation of the process systems to ensure performance and compliance of permit regulations.
- Responsible for the development, control and expenditure of four (4) cost centers within the operational budget.
- Directs the Shift Managers as needed for process control modifications or treatment flow configuration to maintain efficient operation.
- Provides operational conditions to the Director DIWWTP, reporting any process system failures or major Plant issues.
- Communicates with the maintenance department on operational priorities for mechanical equipment repairs to ensure process systems performance.

- Manages the ordering, usage and control of all process chemicals used in wastewater treatment.

- Responsible for the development, compliance and required training of all affected personnel of Plant standard operating procedures (SOPs). Responsible for the odor control program at the facility.

- Provides the leadership and direction for the Shift Managers and Area Supervisors to enhance safety throughout the Plant to maintain a safe working environment.

- Provides input to process control engineers to enhance chemical and electrical savings working toward a more efficient operation.

- Reviews assigned employee performance evaluations according to MWRA procedures.

- Reviews the PICs monitoring software, logs and report to make plant evaluations and process changes as required.

- Available on call as requested by a Shift Manager or as a process system failure may dictate.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

(A) B.S. in Mechanical, Chemical or Civil Engineering or a related technical discipline; a College Certificate in Wastewater Treatment preferred; and

(B) Eight (8) to ten (10) years of related experience in the operations of a large wastewater treatment facility of which at least five (5) years must be in a management capacity; or,

(C) Any equivalent combination of education and/or experience

Necessary Knowledge, Skills and Abilities:

(A) High degree of technical expertise in biological secondary wastewater treatment and cryogenics plant operation. Ability to communicate procedures to place process system

on line as well as taking process system safety out of service. Ability to direct the process flow through modified operational conditions at the facility. Residuals, digester and centrifuge operation required. Knowledge of safety in the wastewater field.

(B) Process operational decision making is essential after situations are assessed due to process system failures. Management and communication is key for an effective and efficient 24-hour professional operation. Planning and effective meeting practices, coaching and teaching to enhance operational staff. Knowledge of computers and software applications.

(C) Manage a large work force in a union environment. Promote teamwork and encourage feedback from operational/maintenance personnel. Communicate with regulatory agencies, coordinate with laboratory for priority of process control sample analysis. Develop and implement standard operating procedures for process operations. Ability to meet the operations permit parameters.

SPECIAL REQUIREMENTS:

A valid Massachusetts Wastewater Treatment Plant Operator Grade 7 certification (or eligibility through reciprocity)

A valid Massachusetts Class D Motor Vehicle Operator's License

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

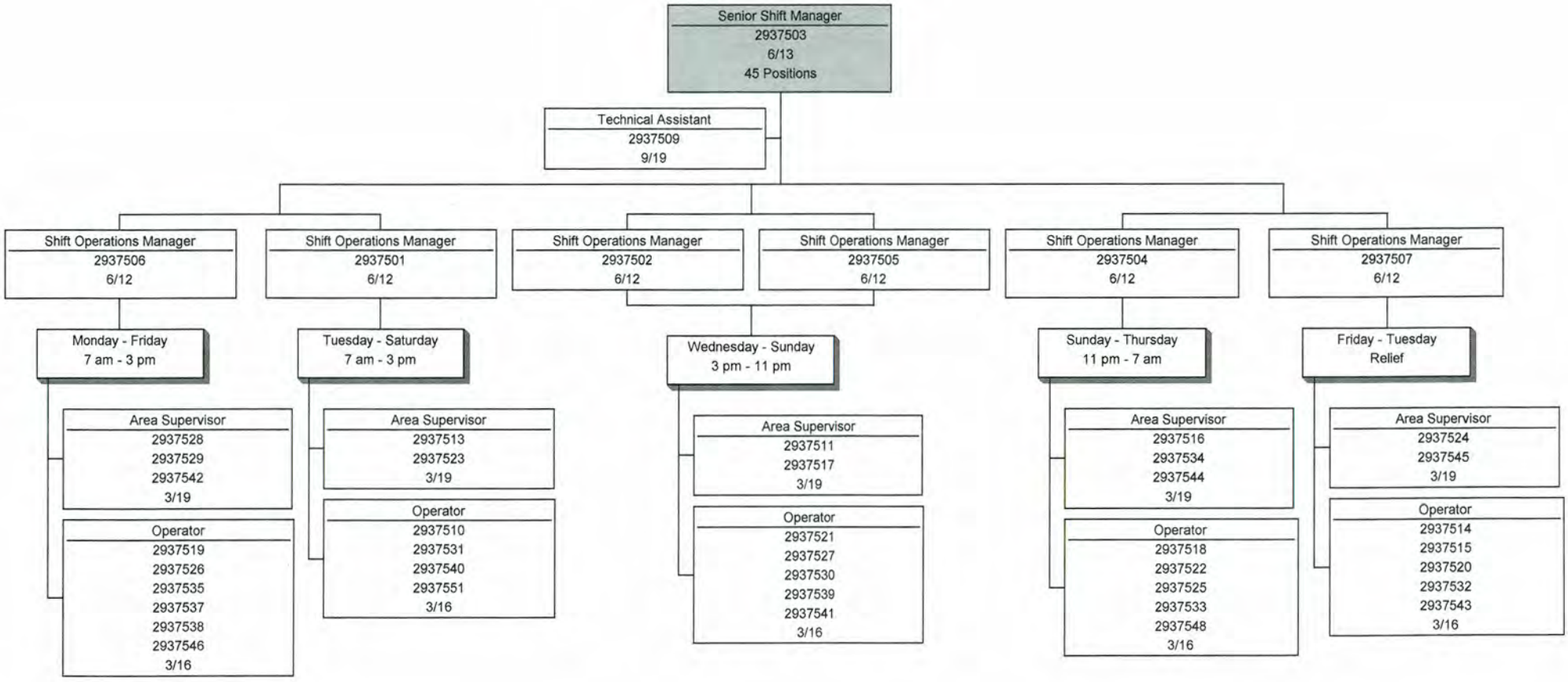
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

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

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

July 2013

Operations-Wastewater Treatment
Deer Island - Operations
September 2013



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: Appointment of Work Coordination Center Manager, Operations

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COMMITTEE: Personnel & Compensation

___ INFORMATION
X VOTE

Robert G. Donnelly, Director, Human Resources
John P. Vetere, Deputy Chief Operating Officer
Preparer/Title

Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of George C. Norregaard to the position of Work Coordination Center Manager, Operations (Unit 6, Grade 12), at the recommended salary of $103,148.49, to be effective September 21, 2013.

DISCUSSION:

The Work Coordination Center Manager position became vacant upon the promotion of the previous incumbent. Organizationally, this position reports to the Manager, Maintenance and supervises 11 staff.

The Work Coordination Center Manager is responsible for planning and scheduling all preventive, predictive, and corrective maintenance work for the water and wastewater facilities and pipelines in metropolitan Boston and Western Operations, including the John J. Carroll Water Treatment Plant, water and wastewater pumping stations, wastewater headworks, CSO facilities, water valves, and other miscellaneous structures. (Due to its size and complexity, there is also a dedicated Work Coordination Center Manager for Deer Island.)

The Work Coordination Center Manager supervises 10 Planning/Scheduling Coordinators and a Work Order Coordinator to ensure consistent and efficient use of MWRA's computerized maintenance management software, MAXIMO. In addition to generating maintenance work orders, MAXIMO is used to document all parts and labor for all work completed so that an asset maintenance cost can be determined and tracked. This information is collected and analyzed to guide asset replacement planning, and is also reported in management tools, such as the Orange Notebook.

This key position ensures that field, trade, and facility staff work (for more than 250 staff) is planned, scheduled, and completed efficiently by making sure that all parts, tools, and equipment are available prior to the start of work.

Selection Process

The position of Work Coordination Center Manager was posted internally; five internal candidates were determined to have met the minimum qualifications and all five were interviewed by a committee comprised of the Director, Wastewater Operations and Maintenance, the Director of Human Resources, and the Manager of Maintenance. Upon completion of the interview process, George C. Norregaard was selected as the most qualified candidate for the position based upon his education, knowledge, and experience.

Mr. Norregaard has been employed at MWRA since 1991. His demonstrated knowledge of planning and scheduling principles, practical experience with the MAXIMO system, knowledge of plant and facility processes, experience with managing contracts, and his organization skills, set him apart from the other candidates.

Since he began his employment at MWRA, Mr. Norregaard has held several positions of increasing responsibility. While a Planning and Scheduling Coordinator, from 1999 to 2004, he was instrumental in the implementation of MAXIMO at the Carroll Water Treatment Plant and was actively involved in the development and implementation of the plant's preventive maintenance program. From 2004 to present, Mr. Norregaard has been a Project Manager responsible for the oversight of construction projects and several maintenance contracts for the Carroll Water Treatment Plant. He has also supervised subordinate engineering staff on water-related projects and expanding the use of MAXIMO in Western Operations.

He has also demonstrated a proven ability to effectively interact and communicate with staff at all levels of the agency and has earned the respect of managers and peers.

Mr. Norregaard's qualifications include a Bachelor of Science Degree in Civil Engineering Technology from the University of Massachusetts and he also holds a Grade 2D Water Distribution License.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the Operations Division FY14 CEB to fund this position. The recommended salary is in accordance with the current Unit 6 collective bargaining agreement.

ATTACHMENTS:

Resume for George C. Norregaard
Position Description
Operations-Wastewater O&M Work Coordination Center Organizational Chart

GEORGE C. NORREGAARD II

OBJECTIVE

To obtain a position that will use my organizational skills and my engineering degree, leading to a management position in the utilities field.

EDUCATION

UNIVERSITY OF MASSACHUSETTS AT LOWELL
Bachelors of Science in Engineering Technology, February 2002
Majored in Civil Engineering, member of National Honor Society.

FRANKLIN INSTITUTE OF BOSTON
Associate Degree - Civil Engineering Technology, September 1989 - May 1991
Received the Louis J. Dunham, Jr. Award for leadership, scholarship and unselfish dedication. Dean's List - 5 semesters. Served on Student Council and member of Tau Alpha Pi National Honor Society.

EXPERIENCE

MASSACHUSETTS WATER RESOURCE AUTHORITY, CHELSEA, MA
Project Manager – Field Operations, September 2012 to Present
Responsible for reviewing contract documents that will be used in the construction or modification of Authority property. Provide oversight of construction projects to ensure the requirements of the Metropolitan and Western Operations Section are met. Develop contract documents for paving and tank cleaning, managing contracts through completion. Participate in the management of the overall waterworks system hydraulics. Staff the OCC during MWRA emergency operations. Act as the responsible person during in-house and construction operations. Supervise subordinate engineering staff. Provide support for the Valve Maintenance Program as well as the Pipeline Maintenance Program. Act as a liaison with Authority supplied communities to make certain each affected community is notified and comfortable with Authority programs.

MASSACHUSETTS WATER RESOURCE AUTHORITY, SOUTHBOROUGH, MA
Project Manager Mechanical – Field Operations, March 2004 to September 2012
Responsible for managing maintenance contracts for equipment at the John J. Carroll Water Treatment Plant and various other facilities. Responsibilities included overseeing the preventive maintenance programs as well as corrective repairs on equipment covered by the contracts. Ensured that all contract requirements were completed from submittals to financial record keeping. Assisted managers with resolving problems with mechanical equipment. Involved with expanding the functional uses of Maximo.

Planning and Scheduling Coordinator- Field Operations, December 1999 to May 2002 & March 2003 to March 2004
Responsible for work order management, Yellow Notebook data. Worked closely with the Program Manager and Project Manager to coordinate workload for the maintenance group. Assisted in the development of the preventive maintenance program for various facilities. Reviewed plans for acceptability for the Waterworks Division. Worked closely with the Program Manager of Operations providing data acquisition support. Served on the Maximo Steering Committee and chaired the Equipment Sub-committee.

Project Manager (Acting) – Field Operations, May 2002 to March 2003
Responsible for managing the 8m Permit program which involved review of all proposed construction effecting the Authority's Waterworks easements and coordinating engineering design review for all new Waterworks Projects.

Junior Civil Engineer- Distribution Section, October 1991 to December 1999
Responsible for maintaining and updating all detail records. Prepared plot drawings from survey notes. Developed design drawings for the Valve Replacement Program. Acted as responsible person for pipeline operations. Reviewed plans for construction projects to be performed by Distribution Section. Reviewed plans for acceptability for Waterworks Division. Assisted Program Manager as needed.

CITY OF WALTHAM, WALTHAM, MA
Water Meter Inspector, November 1986 to August 1989
Responsible for reading all meters and remotes in the city and reporting discrepancies. Duties also included following through on all customer's complaints and concerns, and obtaining final readings.

Pumping Station Attendant, November 1984 to November 1986
Responsible for six sewage stations and the main water pumping station. Duties included daily inspection of pumps, and repairs of valves and pumps. Supervised seasonal help and coordinated weekly work schedules.

UNITED AUTOMOTIVE, COMPANY, ALLSTON, MA
Supervisor of Power Brake Department, June 1976 to November 1984
Responsible for the entire power brake department. Duties included supervising staff in stripping, cleaning and building power brakes. Other responsibilities included ordering parts, taking inventory and implementing a fair work schedule.

MWRA
POSITION DESCRIPTION

POSITION: Work Coordination Center Manager

PCR#: **5440013**

DIVISION: Operations

DEPARTMENT: Field Operations

BASIC PURPOSE:

Manages the Work Coordination group and oversees the various activities including planning, scheduling materials acquisition and dispatch for the maintenance programs within the Field Operations Department. Coordinates with other managers to ensure effective and economical use of materials and staff. Oversees all aspects of data quality of the Field Operation Department's maintenance database.

SUPERVISION RECEIVED:

Works under the general supervision of the Manager, Metropolitan Maintenance.

SUPERVISION EXERCISED:

Direct supervision of data quality, materials acquisition and dispatch personnel. Matrix supervision of Planning/Scheduling Coordinators.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages staff involved in the planning, scheduling, inspection and work order system for all preventive, corrective, contract and emergency maintenance work.
- Oversees the development and distribution of maintenance management reports.
- Manages the receipt and analysis of all work request and work orders. Coordinates with other Field Operations Department managers to establish work order priorities.
- Collects, analyzes and reports on all benchmarking data related to the wastewater and water-maintenance industry. Utilizes benchmark data to streamline maintenance practices.

- Ensures that all work requests and work orders are received and processed efficiently.

- Performs quality assurance/quality control (QA/QC) functions including inspection reporting work order backlog monitoring, productivity and cost analysis and customer service surveying.

- Works with the MIS to update and maintain the application software and databases used by the Work Coordination group.

- Tracks work projects of large scope or long duration involving multiple trades, outside contractors and specialty materials delivery.

- Develops and implements, in coordination with warehouse personnel, a comprehensive "kitting" plan for all maintenance work orders.

- Represents Work Coordination group on maintenance related project teams such as the Facilities Asset Management Program.

- Develops, in conjunction with other Field Operations department manager, comprehensive work practices that ensure proper data integrity.

- Works with vendors and outside consultants in establishing maintenance plans for new and existing equipment. Participates in RCM II analyses and other planning to determine maintenance frequencies as required.

- Works with the Field Operations department managers to implement "team-building" and "cross-functional" training programs for maintenance staff.

- Reviews assigned employees performance per MWRA procedures.

- Resolves personnel and work rule issues through procedures outlined by MWRA union contracts and policy and procedure guidelines.

- Administers the application of collective bargaining provisions and personnel policies in the workplace. Serves as a Step-One grievance-hearing officer.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

(A) A four (4) year college degree in engineering, business administration, and planning or related field. Masters in science or an advanced degree in a related field preferred; and

(B) Eight (8) years experience in project management related to the operation and maintenance of a wastewater collection system, water distribution system or large industrial facility; and

(C) Two (2) to four (4) years of supervisory experience; or

(D) Any equivalent combination of experience or education.

Necessary Knowledge, Skills and Abilities:

(A) Organizational and systems management skills.

(B) A proven ability to organize effective training classes for maintenance field staff and managers.

(C) Knowledge of maintenance software packages, data management techniques and data QA/QC procedures.

(D) Knowledge of wastewater collection and water distribution operations. Knowledge of related process control theory, practices and principles.

(E) Strong communication and interpersonal skills necessary to interact at all levels of the organization are required.

(F) Detailed knowledge of Microsoft Access, Excel and Maximo or similar maintenance software packages.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Vehicle Operators License.

A valid Grade 3 Distribution Operator in Training License or Grade 4 Wastewater Treatment Plant Operator in Training License or the ability to obtain one of these licenses within one year.

A Certified Maintenance and Reliability Professional (CMRP) certification or the ability to obtain within one year.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

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

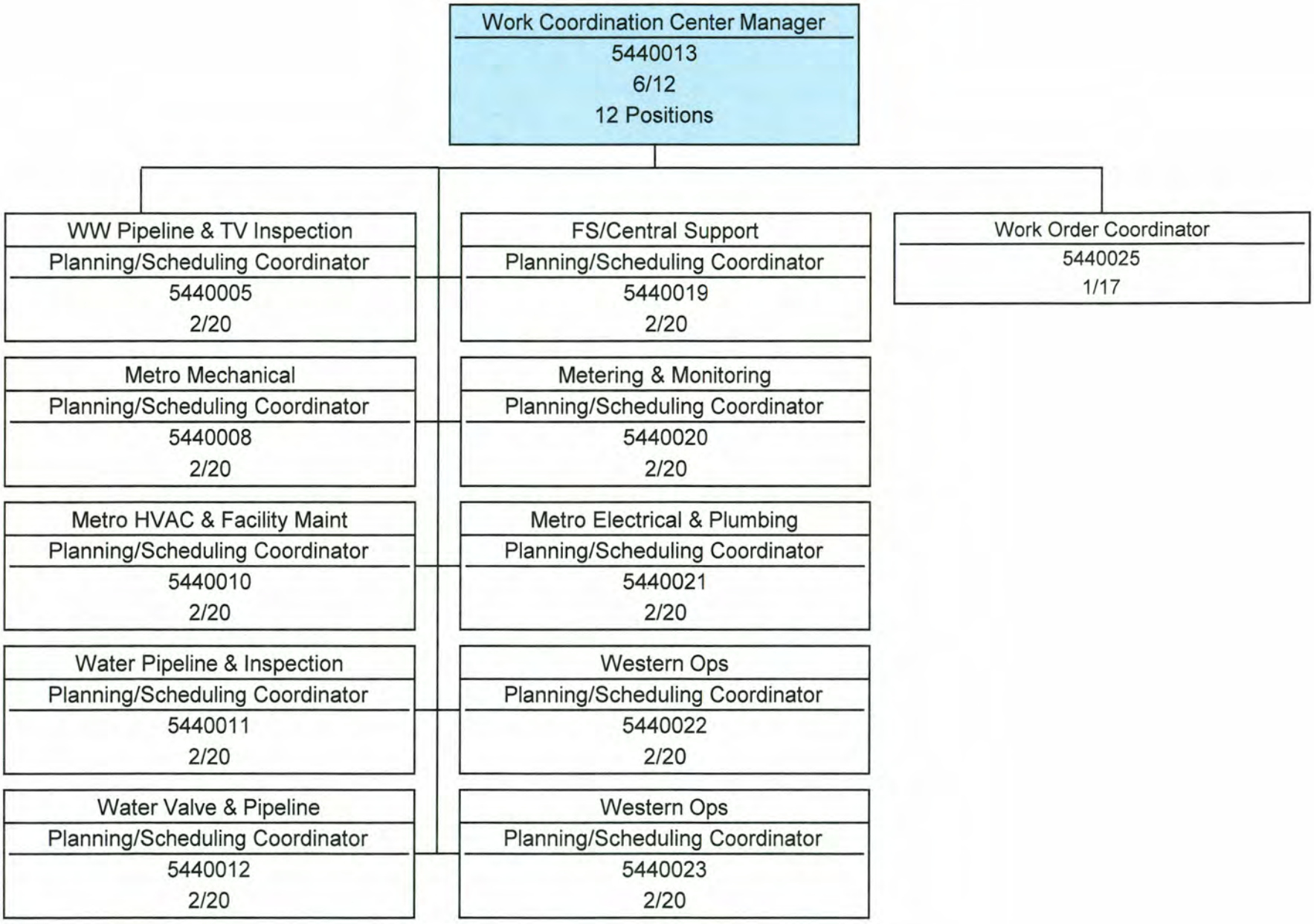
While performing the duties of this job, the employee regularly works in an office environment but will also require site visits to a variety of field locations. The noise level may be loud in field settings, moderately loud in pumping stations and moderately quiet in office settings.

July 2013

Operations-Wastewater O&M

Work Coordination Center

September 2013



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: FY14 Non-Union Compensation

COMMITTEE: Personnel and Compensation

X VOTE
_____ INFORMATION

RECOMMENDATION:

That the Board of Directors take the following actions in MWRA's FY14 Non-Union Compensation Program:

1. Authorize the Executive Director to implement a 1.5% across-the-board compensation adjustment for non-union managers effective July 1, 2013, and further authorize the Executive Director to implement a 1.5% across-the-board adjustment for non-union managers effective January 1, 2014.

2. Approve a revision to the non-union salary ranges for FY14 presented in Attachment A and filed with the records of the meeting.

DISCUSSION:

Under this proposal, there are 61 non-union managers who will be eligible for an adjustment. These adjustments are intended to provide appropriate compensation to non-union managers who receive fewer benefits than union employees and who did not receive a compensation adjustment for one year in which union employees did resulting in numerous salary compression issues between managers and their subordinates (please see "Fiscal Year Union ATB and Non-Union Managers ATB History" table on page 2). The Authority's union employees are eligible for annual step increases, longevity payments, sick leave buyback and subsidized parking programs (CNY only) in which non-union managers are not eligible to participate.

The following table summarizes the recent history of across-the-board increases for non-union managers as compared to union employees:

Fiscal Year Non Union Managers ATB & Union ATB History

Fiscal Year	Non-Union Managers ATB	Union ATB
July 1, 2009 (FY 2010)	0.0%	2.5%
July 1, 2010 (FY 2011)	0.0%	0.0%
July 1, 2011 (FY 2012)	2.0%*	2.0%
July 1, 2012 (FY 2013)	1.5%	1.5%
January 1, 2013 (FY 2013)	1.5%	1.5%
July 1, 2013 (FY 2014)	?	2.0%

* In FY12, non-union managers received the equivalent of a 2% ATB by calculating the aggregate dollar value of the 2% adjustment based on all manager salaries but distributing it evenly across all 61 eligible managers.

BUDGET/FISCAL IMPACT:

These adjustments for non-union managers result in a total annual cost of approximately $218,000 for FY2014.

ATTACHMENT:

FY13 Non-Union Salary Ranges
FY14 Proposed Non-Union Salary Ranges

ATTACHMENT A

FY13 Non-Union Salary Ranges

Grade	Minimum	Maximum
13	$70,365	$109,339
14	$79,184	$120,341
15	$89,140	$133,210
16	$100,275	$147,032
17	$112,856	$158,276

FY14 Proposed Non-Union Salary Ranges effective July 1, 2013

Grade	Minimum	Maximum
13	$71,421	$110,979
14	$80,372	$122,146
15	$90,477	$135,208
16	$101,779	$149,237
17	$114,549	$160,650

FY14 Proposed Non-Union Salary Ranges effective July 1, 2014

Grade	Minimum	Maximum
13	$72,492	$112,644
14	$81,577	$123,978
15	$91,834	$137,236
16	$103,306	$151,476
17	$116,267	$163,059

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: September 18, 2013
SUBJECT: September 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 chart[1].

DISCUSSION:

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

These amendments are:

1. To provide an equity adjustment for four positions in A&F and Affirmative Action and Compliance to properly compensate these managers commensurate with their peers, with similar scope and responsibilities. The Commonwealth recently decided to address salary collision, compression and equity issues, due in part to its succession planning initiatives. This has caused us to review managers' salaries and we have identified four such instances: one involves a salary collision issue, and the remaining three address long-standing salary inequities.

2. Title and grade change to a vacant position (Inventory Control Supervisor to Asset Control Supervisor) in the Materials Management Department, A & F Division to address current staffing needs.

3. Grade and location change to a filled position (Safety Program Coordinator) in the Operations Division due to the assumption of additional responsibilities associated with the Automated Vehicle Location (AVL) system. Position changes location from Operations Engineering to Operations Administration.

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[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.

One amendment requires approval by the Personnel and Compensation Committee. The remaining 5 amendments require Board approval after review by the Personnel and Compensation Committee.

BUDGET/FISCAL IMPACT:

The annualized budget impact of these PCR amendments will range from a savings of $1,248 to a cost of $19,421. The actual budget impact will be dependent on the salary placement of the future hire for the Asset Control Supervisor. Staff will ensure that any 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 2014

PCR AMENDMENTS REQUIRING PERSONNEL & COMPENSATION COMMITTEE APPROVAL - September 18, 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
P2	Administration & Finance Materials Management 8820033	V	T/G	Inventory Control Supervisor	2	18	Asset Control Supervisor	2	19	$70,148	$52,963 - $73,632	-$17,185 - $3,484	To meet staffing needs of the department
				PERSONNEL & COMP COMMITTEE TOTAL=		1					**TOTAL**	-$17,185 - $3,484	
				GRAND TOTAL =		1					**TOTAL ESTIMATED COSTS:**	-$17,185 - $3,484	

PCR AMENDMENTS REQUIRING BOARD APPROVAL - September 18, 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
B2	Administration & Finance Human Resources 8520002	F	SA	Manager Labor Relations & Workers' Comp	NU	14	N/A	N/A	N/A	$90,447	$92,256 $92,256	$1,809 - $1,809	To address salary equity issues.
B3	Administration & Finance Human Resources 8510012	F	SA	Manager, Benefits and HRIS	NU	14	N/A	N/A	N/A	$96,794	$98,730 $98,730	$1,936 - $1,936	To address salary equity issues.
B4	Administration & Finance Human Resources 8520011	F	SA	Manager, Employment	NU	14	N/A	N/A	N/A	$109,323	$111,509 $111,509	$2,186 - $2,186	To address salary equity issues.
B5	AACU 8410001	F	SA	Special Assistant, AACU	NU	16	N/A	N/A	N/A	$108,043	$110,203 $110,203	$2,161 - $2,160	To address salary equity issues.
B1	Operations Op Engineering 5811010	F	G,L	Safety Program Coordinator	9	23	N/A	9	25	$84,722	$92,567 - $92,567	$7,845 - $7,845	Assuming additional responsibilities for implementation and oversight of the AVL system.
				BOARD TOTAL =		5					**SUBTOTAL:**	$15,937 - $15,937	
				GRAND TOTAL =		6					**TOTAL ESTIMATED COSTS:**	-$1,248 - $19,421	

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.

OLD

MWRA

POSITION DESCRIPTION

POSITION: Inventory Control Supervisor

PCR#:

DIVISION: Operations

DEPARTMENT: Procurement, Maintenance

BASIC PURPOSE:

Supervises assigned employees involved in the function of stock requisitioning activities, inventory control, and stock issuance and returns. Supervises the efficient utilization of the purchasing and inventory control system. Supports planning efforts conducted by the Maintenance work coordination center. May perform duties of the Warehouse/Inventory Control Manager as required.

SUPERVISION RECEIVED:

Works under the general supervision of the Warehouse/Inventory Control Manager.

SUPERVISION EXERCISED:

Exercises close supervision of the Inventory Control Specialists and other employees assigned.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Supervises efforts for the development of, and recommends new or revised inventory control system reports, systems and procedures changes in work flow, report formats, employees training, etc. Obtains the assistance and cooperation of related functions, such as MIS, Procurement, Maintenance, etc. as required for efficient implementation.

- Supervises periodic inventory audits to identify where recorded information does not reflect actual inventory levels, and recommends and implements corrective action.

- Supervises the efficient utilization of the computer based inventory control system to accurately reflect the issuance, receipt, and transfer of all items, and the count to materials

on hand, in accordance with MWRA policies and procedures.

- Reviews any required changes to the Item Master file, and submits to the Warehouse Managers office for approval.

- Supervises and performs activities to monitor the Inventory Master Records, to assure the efficient recording, revision, and utilization of a re-order points, unit costs, and lead times.

- Coordinates with the Deer Island staff and MWRA Procurement Department the replenishment of supplies materials equipment and relevant contract services to assure adequate on site inventory.

- Assures stock and non-stock requests for pending work orders are expedited and coordinates with the Maintenance Planning and scheduling Department of efficient Kiting procedures.

- Documents and maintains reports and records for all warehouse functions including material and equipment supplies movement (in-out).

- Identifies and coordinates the disposition of slow moving and/or obsolete material.

- Supervises the physical inventory process in accordance with MWRA, state regulatory and auditing requirements and prepares reports on inventory value.

- Develops and implements a plan for efficient space utilization of the warehouse.

- Recommends improvements to the warehouse management system.

- Ensures warehouse workers follow policies and procedures for materials relative to SARA and safety regulations.

- Utilizes personal computers, data terminals and specialized software packages for material replenishment, inventory control, etc.

- Develops and provides training to assigned staff.

- Reviews quality of work performed and assures that work assigned is completed in accordance with established standards.

- Reviews assigned employees performance in accordance to MWRA procedures.

- Assists employees with preparation of injury and illness reports, safety work orders and maintenance work order requests.

- Assists in maintaining harmonious labor management relations through proper application of collecting bargaining agreement provisions and established personnel policies.

SECONDARY DUTIES:

- Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

(A) A high school education or the equivalent; and

(B) Requires from (3) three to (5) five years of warehouse work experience; or

(C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

(A) A working knowledge of the principals, procedures, methods and practices of warehousing, procurement and inventory management.

(B) The ability to plan, organize, direct and assign duties to subordinates as obtained though the successful completion of a supervisory training program or approved substitution.

(C) Familiarity with the use of bar coding systems another methods of identifying stock is desirable.

(D) Basic reading, writing, math, science and oral communication skills.

SPECIAL REQUIREMENTS:

Must have Massachusetts Hoisting Operator's License (1C) or acquire within 6 months of appointment.

TOOLS AND EQUIPMENT USED:

Office machines as normally associated, with the use of telephone, personal computer including

word processing and other software, copy and fax machine.

PHYSICAL DEMANDS:

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

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

The employee must regularly 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 regularly works in an office environment.

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

NEW

MWRA

POSITION DESCRIPTION

POSITION: Asset Control Supervisor

PCR#:

DIVISION: Administration & Finance

DEPARTMENT: Procurement, Materials Management

BASIC PURPOSE:

Supervises assigned employees involved in the function of asset and inventory control, asset issuance and returns. Supervises the operation, maintenance and audit of various MWRA asset control systems and associated databases. Supervises the efficient utilization of the purchasing and inventory control system. Supports planning efforts conducted by Operations Maintenance work coordination center.

SUPERVISION RECEIVED:

Works under the general supervision of the Materials Manager.

SUPERVISION EXERCISED:

Exercises close supervision of the Inventory Control Specialists and other employees assigned.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Review detailed and written asset control procedures to ensure that all assets purchased under the Property Pass program are tracked and accounted for, including MIS materials.
- Reviews and recommends required changes to Property Pass files, and submits to the Materials Manager for approval.
- Performs activities to monitor the Property Pass Records, to assure the efficient recording, revision, and utilization of reorder points, unit costs, and lead times.

- Documents and maintains reports and records for all asset functions including movement of materials, tools, and equipment.

- Develops and implements a plan for efficient space utilization of the Property Pass areas.

- Recommends improvements to the Property Pass management system.

- Ensures Property Pass staff follows policies and procedures for materials relative to SARA and safety regulations.

- Performs and/or supervise periodic audits to identify where recorded information does not reflect actual asset levels, and recommends and implements corrective action.

- Performs data entry and supervises the efficient utilization of computer based inventory control systems to accurately reflect the issuance, receipt, transfer, maintenance and audit of assets, in accordance with MWRA policies and procedures.

- Assures asset requests for pending work orders are expedited. Coordinates with MIS and Operations Departments to ensure efficient kitting procedures.

- Supervises the physical asset control process in accordance with MWRA, state regulatory and auditing requirements and prepares reports on asset value.

- Supervises efforts for the development of, and recommends new or revised asset control system reports, systems and procedure changes in work flow, report formats, employees training, etc. Obtains the assistance and cooperation of related functions, such as MIS, Procurement, Maintenance, etc. as required for efficient implementation.

- Supervises the efficient utilization of the computer based inventory control system to accurately reflect the issuance, receipt, and transfer of all items, and the count to materials on hand, in accordance with MWRA policies and procedures.

- Coordinates with the Operations staff and MWRA Procurement Department for the replenishment of materials, equipment and relevant assets to assure adequate on site inventory.

- Identifies and coordinates the disposition of surplus or obsolete material.

- Supervises the physical inventory process in accordance with MWRA, state regulatory and auditing requirements and prepares reports on asset value.

- Utilizes personal computers, data terminals and specialized software packages for asset control, etc.

- Develops and provides training to assigned staff.

- Reviews quality of work performed and assures that work assigned is completed in accordance with established standards.

- Reviews assigned employees performance in accordance to MWRA procedures.

- Assists employees with preparation of injury and illness reports, safety work orders and maintenance work order requests.

- Assists in maintaining harmonious labor management relations through proper application of collecting bargaining agreement provisions and established personnel policies.

SECONDARY DUTIES:

- Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

(A) A high school education or the equivalent; and

(B) (2) years supervisory or management experience;

(C) Requires from (4) four to (6) six years of asset control experience; or

(D) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

(A) A working knowledge of the principals, procedures, methods and practices of warehousing, procurement and inventory management.

(B) The ability to plan, organize, direct and assign duties to subordinates as obtained though the successful completion of a supervisory training program or approved substitution.

(C) Familiarity with the use of bar coding systems and other methods of identifying stock is desirable.

(D) Proficiency with microcomputer software such as word processing, spreadsheets, and database management.

(C) Ability to work independently in designing, executing and presenting analyses of detailed asset control issues.

(E) Excellent interpersonal, oral and written communication skills.

SPECIAL REQUIREMENTS:

Must have Massachusetts Hoisting Operator's License (1C) or acquire within 6 months of appointment.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

The employee must regularly 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 regularly works in an office environment.

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

August 2013

OLD

MWRA

POSITION DESCRIPTION

POSITION: Safety Program Coordinator

PCR#: 5811010

DIVISION: Operations

DEPARTMENT: Operations Engineering

BASIC PURPOSE:

Manages the implementation of safety programs for the Operations Department to ensure that employee safety hazard exposures are minimized and to assure compliance with all relevant laws, standards and procedures, and safety training programs.

SUPERVISION RECEIVED:

Works under the general supervision of the Manager, Operational Engineering.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Assists Operations Department staff in the implementation of the Authority's safety policy by coordinating the development and implementation of specific inspection protocols, standard operating procedures (SOPs) and safety training programs.

- Conducts safety hazard assessment audits in accordance with established procedures. Continuously monitors department procedures and activities to identify safety hazards.

- Coordinates the development and implementation of corrective action plans to eliminate or minimize safety hazards.

- Maintains Operations Department safety records, including records of tests, inspections, and accidents. Investigates accidents to determine causes and appropriate remedies.

- Conducts and coordinates training programs as required to foster safe employees work practices.

- Ensures that safety equipment is inspected and tested in accordance with SOPs.

- Reviews safety-related purchase requisitions and assists in the preparation of purchase requests for safety equipment.

- Fulfills safety-reporting requirements for the Operations Department.

SECONDARY DUTIES:

- Assists Operations Department staff in the development and implementation of local safety plans.

- Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

(A) A four (4) year college program, preferably in engineering or science or related; and

(B) Knowledge of the operations of a large and complex wastewater system, acquired through four (4) to six (6) years of relevant experience; and

(C) Demonstrated abilities, acquired through four (4) to six (6) years of relevant experience, in monitoring safety programs, procedures and practices in a production or processing plant environment, in OSHA Compliance, and in identifying and correcting mechanical and physical plant and equipment hazards; or

(D) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

(A) Ability to conduct training courses.

(B) Demonstrated ability in interpreting and applying relevant codes, regulations, and procedures.

(C) Excellent interpersonal, oral and written communication skills.

SPECIAL REQUIREMENTS:

None.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

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

While performing the duties of this job, the employee regularly works in outside weather conditions. The employee regularly works near moving mechanical parts, and is occasionally exposed to risk of radiation and vibration. The employee is occasionally exposed to risk of electrical shock.

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

January, 2000

NEW

MWRA

POSITION DESCRIPTION

POSITION: Safety Program Coordinator

PCR#:

DIVISION: Operations

DEPARTMENT: Operations Administration

BASIC PURPOSE:

Manages the implementation and day to day administration and monitoring of the Automated Vehicle Locator (AVL) Program for the MWRA. Manages safety programs for the Operations Division to ensure that employee safety hazard exposures are minimized and to assure compliance with all relevant laws, standards and procedures, and safety training programs.

SUPERVISION RECEIVED:

Works under the general supervision of the Manager, Coordination and Control

SUPERVISION EXERCISED:

Provides oversight of AVL vendor. Supervises staff involved in AVL implementation as needed.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- During a safety or security event, tracks and dispatches relevant equipment and vehicles.
- Manages the implementation of the AVL contract, including coordinating the installation of hardware in vehicles, training of staff, identification of key items to track, and establishment of management reports and alerts.
- Establishes and oversees data collection & reporting, alert designations, mapping, and geo-fencing, data quality control and quality assurance procedures. Maintains records of QA/QC activities. Ensures accuracy and integrity of data. Documents and reports data anomalies.
- Works with the vendor to creates standard and special management reports. Distributes standard reports to managers on a regular basis, and special reports as needed. Brings

violations of established work procedures to the attention of senior management.

- Encourages consistent usage of AVL system by managers through consistent distribution of reports, consistent usage of alerts, and monitoring and auditing of AVL data and reports.

- Manages day to day operation of AVL contract, including monitoring project progress, review and approval process for invoices, contracts, and amendments, and providing such information for department monthly reports and CIP and CEB reports.

- Acts as the liaison with MIS and the vendor on all AVL technical issues.

- Continues to look for new uses of the AVL program to help promote worker efficiency and effectiveness.

- Manages all phases of selection and supervision of future AVL contract vendors including the development of scope of services, plans and specifications, costs estimates, references, selection process, etc. Ensures compliance with contract budgets, schedules, and terms.

- Assists Operations Department staff in the implementation of the Authority's safety policy by coordinating the development and implementation of specific inspection protocols, standard operating procedures (SOPs) and safety training programs.

- Conducts safety hazard assessment audits in accordance with established procedures. Continuously monitors department procedures and activities to identify safety hazards.

- Coordinates the development and implementation of corrective action plans to eliminate or minimize safety hazards.

- Maintains Operations Department safety records, including records of tests, inspections, and accidents. Investigates accidents to determine causes and appropriate remedies.

- Conducts and coordinates training programs as required to foster safe employees work practices.

- Ensures that safety equipment is inspected and tested in accordance with SOPs.

- Reviews safety-related purchase requisitions and assists in the preparation of purchase requests for safety equipment.

- Fulfills safety-reporting requirements for the Operations Department.

- Facilitates special projects as needed.

SECONDARY DUTIES:

- Assists Operations Department staff in the development and implementation of local safety plans.

- Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

(A) A four (4) year college program, preferably in engineering or science or related; and

(B) Project & contract management skills and knowledge of the operations of a large and complex water or wastewater system, acquired through five (5) to seven (7) years of relevant experience; and

(C) Demonstrated abilities, acquired through five (5) to seven (7) years of relevant experience, in monitoring safety programs, procedures and practices in a production or processing plant environment, in OSHA Compliance, and in identifying and correcting mechanical and physical plant and equipment hazards; or

(D) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

(A) Ability to conduct training courses.

(B) Proficiency with personal computers and knowledge of word processing, spreadsheets, and database applications software required.

(C) Ability to analyze large amounts of data, and create effective management reports.

(D) Demonstrated ability in interpreting and applying relevant codes, regulations, and procedures.

(E) Demonstrated ability to work effectively as part of an Authority-wide team and also to function independently, with minimal supervision.

(F) Excellent interpersonal, oral and written communication skills, and the ability to handle sensitive information with discretion.

SPECIAL REQUIREMENTS:

None.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

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

While performing the duties of this job, the employee regularly works in outside weather conditions. The employee regularly works near moving mechanical parts, and is occasionally exposed to risk of radiation and vibration. The employee is occasionally exposed to risk of electrical shock.

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

September 2013

MASSACHUSETTS WATER RESOURCES AUTHORITY

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

Frederick A. Laskey
Executive Director

Telephone: (617) 242-6000
Fax: (617) 788-4899
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REVISED

BOARD OF DIRECTORS' MEETING

to be held on

Wednesday, September 18, 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**

A. Presentation: Update on Co-Digestion Program

IV. **BOARD ACTIONS**

A. Approvals

1. Delegation of Authority to Execute a Contract for the Purchase and Supply of Electric Power for the Deer Island Treatment Plant and Interval Accounts (ref. AF&A B.1)

2. Appointment of Senior Shift Manager, Operations, Deer Island Treatment Plant (ref. P&C A.1)

3. Appointment of Work Coordination Center Manager, Operations (ref. P&C A.2)

4. FY2014 Non-Union Compensation (ref. P&C A.3)

5. PCR Amendments – September 2013 (ref. P&C A.4)

6. Dental Insurance (ref. AF&A B.2)

B. **Contract Awards**

1. Replacement of Scum Skimmers – Deer Island Treatment Plant: Walsh Construction Company, Contract 7396 (ref. WW B.1)

2. Pump, Gearbox and Diesel Engine Upgrade – Prison Point and Cottage Farm CSO Facilities: IPC Lydon, LLC, Contract 7452 (ref. WW B.2)

3. Agency-Wide Technical Assistance Consulting Services: Dewberry Engineers Inc., Contract 7436; Fay, Spofford & Thorndike, LLC, Contract 7437; Hazen and Sawyer, P.C., Contract 7456 (ref. WW B.3)

4. Section 4, Webster Avenue Water Main, Somerville - Final Design/CA/RI: Dewberry Engineers, Inc., Contract 7334 (ref. W A.1)

5. Water Quality Reporting System: McInnis Consulting Services, Inc., Bid WRA-3685Q (ref. W A.2)

C. **Contract Amendments/Change Orders**

1. Pretreatment Information Management System: Inflection Point Solutions, LLC: Contract 6177D, Amendment 3 (ref. AF&A C.1)

2. Three-Year Contract to Provide Water Chestnut Control at the Sudbury Reservoir: Lycott Environmental, Inc., Bid WRA-3435, Amendment 1 (ref. W B.1)

V. CORRESPONDENCE TO THE BOARD

VI. OTHER BUSINESS

VII. EXECUTIVE SESSION

A. Real Estate

1. Watershed Land Acquisition Approval

2. Surplus of Water Easement at Squire Road, Revere

3. Surplus and Disposition of Fox Point CSO Facility, Dorchester

b. Litigation

1. Appointment of Additional Counsel – Boston Harbor Case

VIII. ADJOURNMENT

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Board of Directors

July 17, 2013

A meeting of the Board of Directors of the Massachusetts Water Resources Authority was held on July 17, 2013 at the Authority facility in Southborough. Chairman Sullivan presided. Present from the Board were Ms. Wolowicz and Messrs. Barrera, Carroll, Flanagan, Foti, Swett, Vitale and Walsh. Messrs. Cotter and 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, Russell Murray, Director of MIS, Daniel O'Brien, Director of Deer Island Treatment Plant, Richard Adams, Manager, Engineering Services, Pamela Heidell, Policy & Planning Manager, Frederick Brandon, Assistant Director, Engineering, Robert Donnelly, Director of Human Resources, and Bonnie Hale, Assistant Secretary. The meeting was called to order at 1:40 p.m.

APPROVAL OF MINUTES

Upon a motion duly made and seconded, it was

Voted to approve the minutes of the Board of Directors' meeting of June 26, 2013, as presented and filed with the records of the meeting.

REPORT OF THE CHAIR

Mr. Sullivan expressed his appreciation for the tour of the Southborough facility given to Board members, congratulated Mr. Vitale on his appointment as Executive Director of the Boston Water & Sewer Commission, and thanked Mr. Favaloro for his efforts regarding Debt Service Assistance.

REPORT OF THE EXECUTIVE DIRECTOR

Mr. Laskey reported on various matters, including thanks to Chairman Sullivan for his support of Debt Service Assistance; noted that the permitting approvals for the harbor dredging project appear to be moving forward and that the issue of the cross-harbor cable by the Reserve Channel will be coming back; and complimented the MWRA Retirement Board for being ranked 4th in the state by the Pioneer Institute.

ADMINISTRATION, FINANCE & AUDIT COMMITTEE

INFORMATION

Delegated Authority Report – June 2013

There was question and answer on the IT purchases listed in the report.

WASTEWATER POLICY & OVERSIGHT COMMITTEE

APPROVALS

Memorandum of Understanding and Financial Assistance Agreement with the City of Cambridge for Implementation of CSO Control Projects, Amendment 10

There was general discussion and question and answer on the reasons for cost increases.

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to execute Amendment 10 to the Memorandum of Understanding and Financial Assistance Agreement with the City of Cambridge for the Implementation of CSO Control Projects, increasing the award amount by $2,074,374.00 from $77,302,963.00 to $79,377,337.00.

CONTRACT AWARDS

Electrical Diagnostic Testing and Services – Deer Island Treatment Plant: American Electrical Testing Company, Inc., Contract S521

Upon a motion duly made and seconded, it was

Voted to approve the award of Contract S521, Electrical Diagnostic Testing and Services – Deer Island Treatment Plant, to the lowest eligible and responsible bidder, American Electrical Testing Company, Inc., and to authorize the Executive Director, on behalf of the Authority, to execute and deliver said contract in the bid amount of $1,770,775.00 for a term of 1,095 calendar days from the Notice to Proceed.

WATER POLICY & OVERSIGHT COMMITTEE

CONTRACT AWARDS

Two-Year Purchase Order Contract for the Supply and Delivery of Liquid Oxygen to the John J. Carroll Water Treatment Facility: Airgas, U.S.A., LLC, Bid WRA-3648

Upon a motion duly made and seconded, it was

Voted to approve the award of a two-year purchase order contract for the Supply and Delivery of Liquid Oxygen to the John J. Carroll Water Treatment Facility to the lowest eligible and responsible bidder under bid WRA-3648, Airgas USA, LLC, and to authorize the Executive Director, on behalf of the Authority, to execute and deliver said purchase order contract in an amount not to exceed $1,305,200.00 from August 15, 2013 to August 14, 2015.

Hatchery Pipeline and Hydroelectric Design, Construction Administration and Resident Inspection Services: Fay, Spofford & Thorndike, LLC, Contract 7017A

There was general discussion and question and answer.

Upon a motion duly made and seconded, it was

Voted to approve the recommendation of the Consultant Selection Committee to select Fay, Spofford & Thorndike, LLC to provide design,

construction administration, and resident inspection services for the Hatchery Pipeline and Hydroelectric Project and to authorize the Executive Director, on behalf of the Authority, to execute Contract 7017A with Fay, Spofford & Thorndike, LLC in an amount not to exceed $749,577.00 for a term of 48 months from the Notice to Proceed.

PERSONNEL & COMPENSATION COMMITTEE

APPROVALS

PCR Amendments – July 2013

Upon a motion duly made and seconded, it was

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

Appointment of Senior Program Manager, Quality Assurance

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint David L. Gottshall to the position of Senior Program Manager, Quality Assurance (Unit 9, Grade 30) at an annual salary of $112,540.89 effective July 20, 2013.

EXECUTIVE SESSION

It was moved to enter executive session to discuss security.

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		
Flanagan		
Foti		
Swett		
Vitale		
Walsh		
Wolowicz		
Sullivan		

Voted to enter executive session to discuss the deployment of security personnel or devices, or strategies with respect to security.

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

* * * *

EXECUTIVE SESSION

* * * *

The meeting returned to open session at 2:10 p.m. and adjourned.