

MASSACHUSETTS WATER RESOURCES AUTHORITY

Board of Directors Report

on

Key Indicators of MWRA Performance

for

Third Quarter FY2012

Q1	Q2	Q3	Q4



Frederick A. Laskey, Executive Director
Michael J. Hornbrook, Chief Operating Officer
May 16, 2012

Board of Directors Report on Key Indicators of MWRA Performance for Third Quarter FY2012

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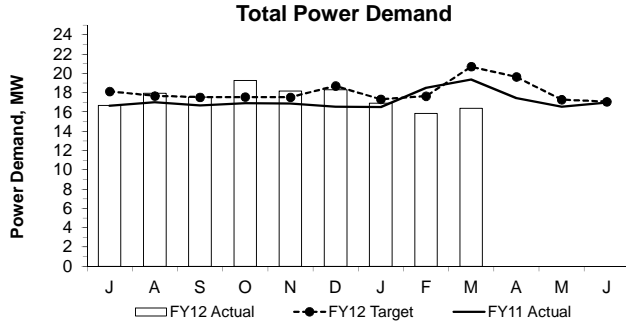
This quarterly report is prepared by MWRA staff to track a variety of MWRA performance measures for routine review by MWRA's board of directors. The content and format of this report is expected to develop as time passes. Information is reported on a preliminary basis as appropriate and available for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

Frederick A. Laskey, Executive Director
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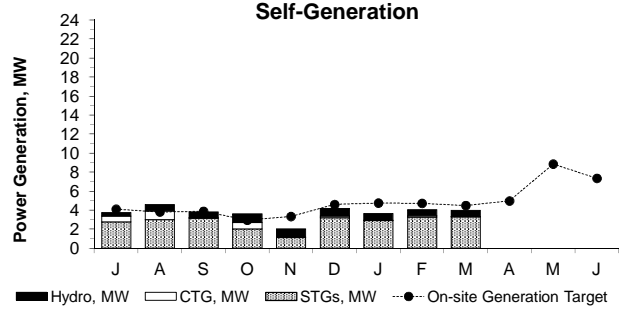
OPERATIONS AND MAINTENANCE

Deer Island Operations

3rd Quarter - FY12

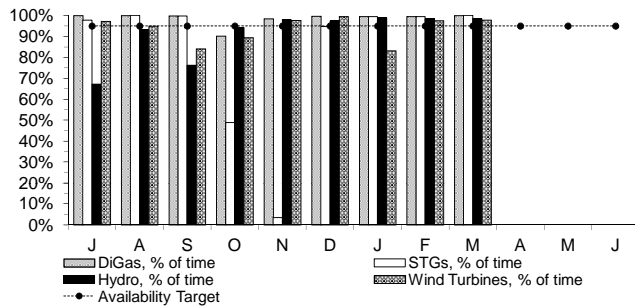


Total Power Demand in the 3rd Quarter was 12% lower than the target for the quarter as Total Plant Flow was 25% lower-than-expected. Total Power Demand was 10% lower than in FY11 for the same period.



Power generated on-site was below target by 9% for the 3rd Quarter. Generation by the Hydro Turbines was 11% higher than target for the quarter and generation by the Wind Turbines met target. Generation by the STGs and Solar Panels were 12% and 17% lower than their targets, respectively. Even though the STGs were available for operation all quarter, performance testing being conducted within the Thermal Power Plant in January and February required the STGs to be operated under a variety of operating conditions and resulted in the lower-than-expected power generation by the STGs. Monthly variances for Wind Turbine and Solar Panel generation are to be expected for the time being as we continue to compile historical monthly data for these units. The CTGs operated for routine maintenance/checkout purposes and for annual compliance opacity testing on February 8.

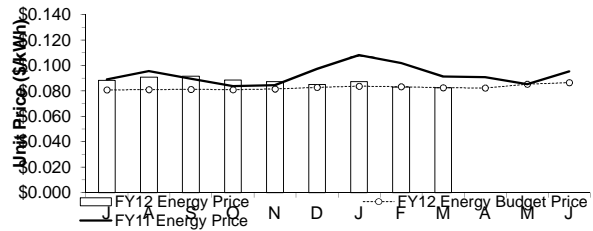
Self-Generation Equipment On-Line (% of Time in Operation)



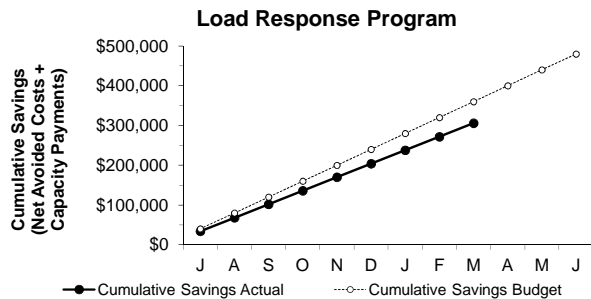
The DiGas, STGs, and Hydro Turbine systems all met their 95% Availability Target for the 3rd Quarter. The Wind Turbines' Availability for the 3rd Quarter was just shy of the 95% target due to lower than target availability in January as a result of scheduled maintenance on the Wind Turbines in the South Parking Lot. Also, Wind Turbine #2 in the South Parking Lot remained offline for a number of additional days following the maintenance as repairs were made to the yaw motors.

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; 0.232 MW was generated by the Solar Panels and 0.794 MW was generated by the Wind Turbines in the 3rd Quarter.

Total Energy Pricing (includes spot energy price, ancillary costs, and NSTAR's transmission & distribution costs)

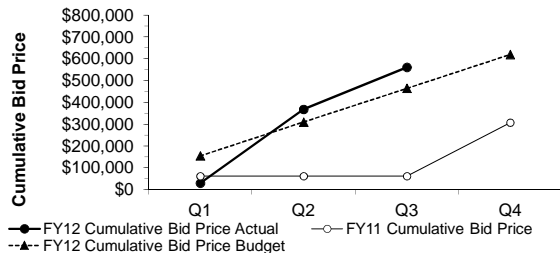


Under DI's energy supply contract, a block portion of DI's energy is a fixed rate and the variable load above the block is purchased in real time. Overall, the total energy price in the 3rd Quarter was within 1% of the FY12 budget estimate and 16% lower than the 3rd Quarter FY11 actual. The total energy price includes a fixed block price, spot energy price, transmission & distribution charges, and ancillary charges. Please note the March total energy price is an estimate as the invoice has not been received. Year-to-date costs are estimated at approximately \$432,104 more than budgeted through the 3rd Quarter of FY12 due to higher-than-expected total energy prices through the first seven (7) months of FY12 (once the actual total energy prices were available) and also to higher-than-expected power demand in four (4) of the nine (9) months in this fiscal year.



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 or high pricing, MWRA receives monthly Capacity Payments from ISO-NE. When it runs the CTGs at ISO-NE's request, MWRA receives energy payments from ISO-NE and also avoids NSTAR transmission and distribution charges. "Net Avoided Cost" is the avoided NSTAR payments offset by the cost of running the CTGs, and the energy payments from ISO-NE. Cumulative savings are the sum of Net Avoided Costs and monthly Capacity Payments - totaling \$305,896 through March compared to estimated budget savings of \$359,919.

MA Renewable Portfolio Standard

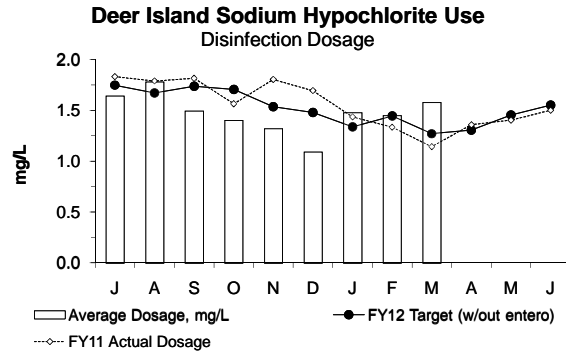
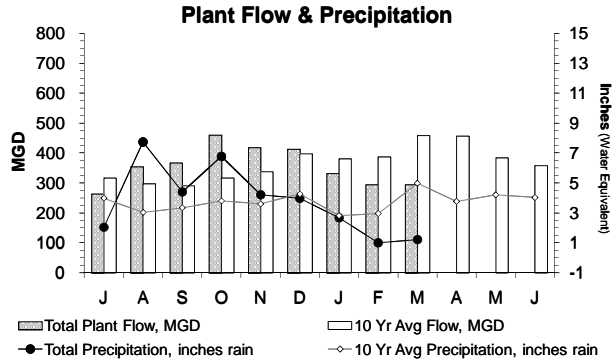


Bids were awarded in January for the sale of 98 Solar Renewable Energy Certificates (S-RECs) for a total value of \$45,363 and 6,204 Class I RECs for a total value of \$156,575. The value of the S-RECs is approximately 18 times higher than the current value of Class I RECs (for hydro and wind).

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 FY12 budgeted cumulative bid estimate through the 3rd Quarter is \$464,598 while the actual bid total is \$560,685.

Deer Island Operations

3rd Quarter - FY12



The Total Plant Flow for the 3rd Quarter was 25% lower than target (306.2 MGD actual vs. 408.5 MGD expected) as precipitation was 55% lower-than-expected for the quarter (4.88 inches actual vs. 10.76 inches expected). Total Plant Flow and precipitation were below target for each month this quarter. Precipitation was 72% lower-than-expected during the February through March period alone resulting in mild to moderate drought conditions in the region by the end of the quarter.

The disinfection dosing rate was 11% higher than the target for the 3rd Quarter. The average dosing rate for the quarter was 1.50 mg/L compared to the target of 1.35 mg/L. Dosing was higher-than-expected due to a higher chlorine demand as a result of stronger wastewater from the lower plant flows over the last several months. However, actual sodium hypochlorite usage for disinfection in gallons was 16.5% lower than target due to the lower plant flow.

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.

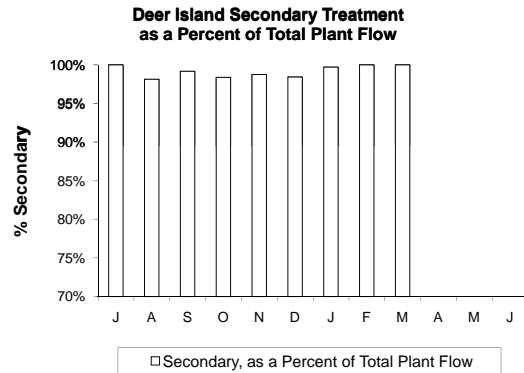
Secondary Blending Events

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	0	0	0	100.0%	0.00
A	7	7	0	98.1%	27.25
S	3	3	0	99.2%	10.25
O	10	10	0	98.4%	43.94
N	5	5	0	98.8%	20.72
D	2	3	0	98.4%	28.35
J	2	2	0	99.7%	6.48
F	0	0	0	100.0%	0.00
M	0	0	0	100.0%	0.00
A					
M					
J					
Total	29	30	0	99.1%	137.0

There were only a total of two (2) separate secondary blending events during the 3rd Quarter and both occurred in the month of January due to high plant flows resulting from rain events .

Each of the two blending events occurred following a rainfall of approximately one (1) inch of rain. These events resulted in a total of 6.48 hours of blending and 30.1 Mgal of flow blended with secondary effluent.

Secondary permit limits were met at all times during the 3rd Quarter.



Overall, 99.9% of the total plant flow to DITP received Secondary treatment during the 3rd Quarter of FY12. The Maximum Secondary Capacity for the entire quarter was 700 MGD.

Deer Island Operations & Maintenance Report

Environmental/Pumping:

The total precipitation of 4.88 inches for the 3rd Quarter of FY12 was 57% lower than the FY11 Q3 precipitation of 11.24 inches and 55% lower than the 10-year average precipitation of 10.76 inches. Measureable rain fell on 28 of the 91 days in the quarter.

Several DITP low flow records (post startup of the South System Pump Station in July 1998) were broken in March, including the average monthly total plant flow and the average monthly North System influent flow. The 293.7 MGD average monthly total plant flow this March surpassed the previous average monthly low of 294.83 MGD set in March 2006. Also, the 188.96 MGD average North System influent flow this March was lower than the previous low flow record of 196.96 MGD also set back in March 2006. Additionally, several other daily low flow records were broken this March.

The plant achieved a maximum average hourly flow rate of 961.5 MGD on January 12 as a result of a northeastern storm system with high winds and heavy rainfall totaling nearly one inch

Deer Island Operations

3rd Quarter - FY12

Deer Island Operations & Maintenance Report (continued)

Primary and Secondary Treatment:

The Primary and Secondary Clarifier Rehabilitation Project, MWRA contract #6899, was completed in January, three (3) months ahead of schedule. The primary scope of this \$59.4 million contract project was to replace all the longitudinal chains and sprockets in the Primary and Secondary Clarifiers, as well as replacement of broken flights and other limited repairs.

Odor Control:

A number of air duct expansion joint leaks were identified in the Residuals Odor Control (ROC) process area during a comprehensive survey conducted by DITP staff during the latter part of 2011. These leaks are a safety hazard for staff since the leaks vent within a building or structure. DITP staff is about half way through a significant project replace these leaking expansion joints which began in January and will continue into Quarter 4.

Energy:

A new DITP record for the highest percent of self generation was set on February 26 when the total power generated on-site accounted for 38.2% of Deer Island's total power demand. The previous record was set on June 2, 2011 when self generation accounted for 34.8% of the total power demand. Overall, total power generated on-site accounted for 25.8% of Deer Island's total power demand for the 3rd Quarter. Solar Power generation was 1.83% (0.232 MW) and Wind Turbine generation was 6.25% (0.794 MW) of the total power generated on-site for the 3rd Quarter.

Lumus Construction performed scheduled maintenance on both Wind Turbines in the South Parking Lot during the week of January 23 which required each turbine to be taken offline for several hours during the day while the maintenance was being performed. Damage to one of the two yaw motors on Turbine #2 was discovered during this maintenance. Repairs, including the replacement of both yaw motors (to ensure proper synchronization), were necessary before turbine operation could be restored. A general inspection of the main bearings on both Wind Turbines indicated that they were in good condition: some additional maintenance activities were suggested as a preventative maintenance measure.

The next phase of the major project to replace and upgrade the dump condenser in the Thermal Power Plant continued into the 3rd Quarter and involved the complete replacement of the old dump condenser with its associated equipment. The dump condenser is used to recover excess or spent steam from the boilers and the STGs. Performance testing in the Thermal Power Plant with both the Back Pressure STG and the new dump condenser now fully installed has been completed.

Opacity Testing was performed and completed successfully on February 8 as part of the annual requirements for emissions reporting on the CTGs. The test requires each CTG to be run while a certified "smoke reader" observes the condition of the stack exhaust and records the results.

During the week of February 6, DITP PICS (Process Information Control System) staff witnessed and approved the Factory Acceptance Test on the new Emerson Human Machine Interface ("HMI") project. All hardware and software associated with the new HMI was tested to demonstrate compliance with MWRA specifications. Emerson is now authorized to ship all of the HMI equipment and will be doing so over the next few months to start the installation and commissioning part of the project.

DITP experienced a momentary power surge on March 13 caused by the NSTAR transformer explosion and fire in Boston's Back Bay. The power surge on DITP only resulted in the shutdown of several pieces operating equipment, including the Back Pressure Steam Turbine Generator, an air compressor in the Cryogenic Oxygen Facility, and several mixers in the secondary reactors. The operation of all these units was quickly restored and there were no long term impacts on DITP as a result of this power surge.

MWRA received approval from the Federal Aviation Administration (FAA) for the installation of a wind turbine on DITP to be located on the site previously occupied by the former Construction Support Building.

Phase 4 of the DI Lighting project involving the upgrade to energy efficient light fixtures began in March in the Residuals Centrifuge building. The remaining facilities awaiting this upgrade are the Thermal Power Plant (TPP), the North Main Pump Station (NMPS), and the Reception/Training buildings.

Clinton Wastewater Treatment Plant Operations and Maintenance Report

The final digester rehab project and the new influent gates plans and specifications have been received from the consultant and final review is underway. The preliminary design for the new phosphorous treatment system is well underway. Test borings have been completed; the plant has been surveyed; and wetlands have been delineated and marked. The Aeration System Improvements and Redundant Pumps at the Influent and Intermediate Lift Stations construction job was awarded to R.H. White and a notice to proceed is expected soon. A construction trailer to support the construction staff assigned to oversee the 4 major construction projects planned for the plant over the next 4 years is now on site.

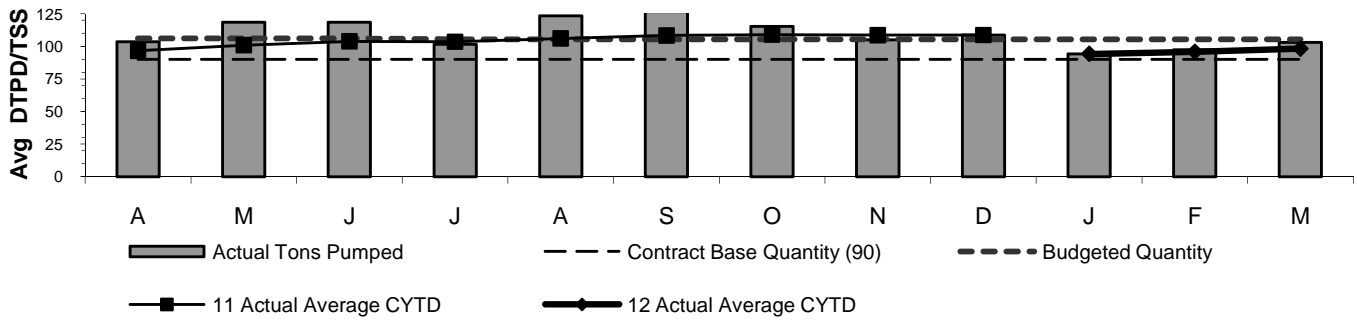
Routine maintenance and repair activities were conducted in the Headworks, Dewatering, Chemical and Digester Buildings.

Deer Island Residuals

3rd Quarter - FY12

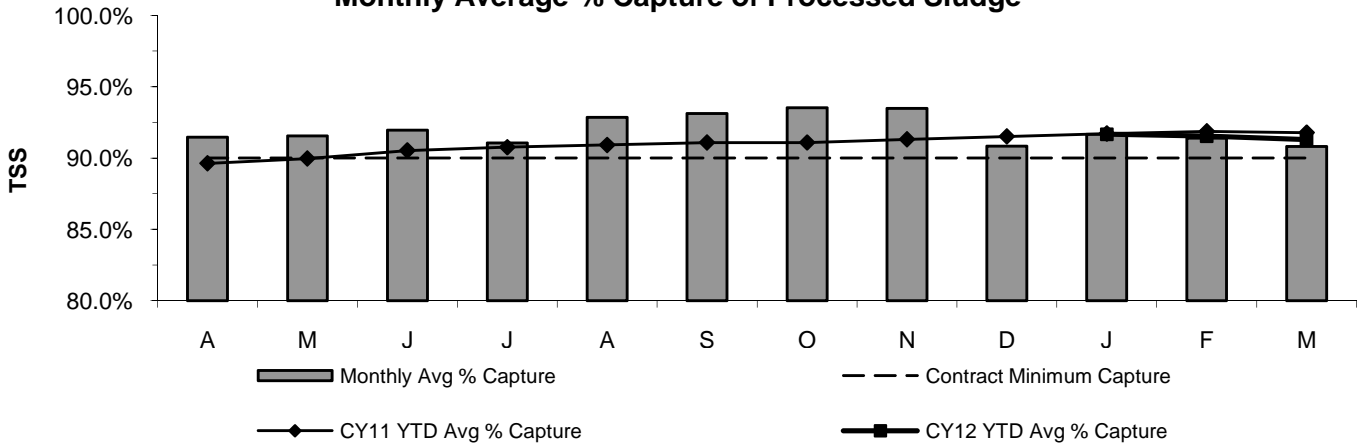
MWRA pays a fixed monthly amount for the calendar year to process up to 90 DTPD/TSS as an annual average. The monthly invoice is based on 90 DTPD/TSS (Dry Tons Per Day/Total Suspended Solids) times 365 days divided by 12 months. At the end of the year, the actual totals are calculated and additional 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 (FY12's budget is 105.5 DTPD/TSS).

Sludge Pumped From Deer Island



The average total quantity of sludge pumped in the 3rd Quarter was 98.2 DTPD, which is lower than FY12's budget of 105.5 DTPD.

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 3rd Quarter was 91.5%.

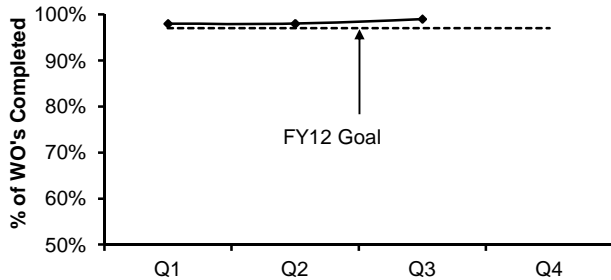
Deer Island Maintenance

3rd Quarter - FY12

Productivity Initiatives

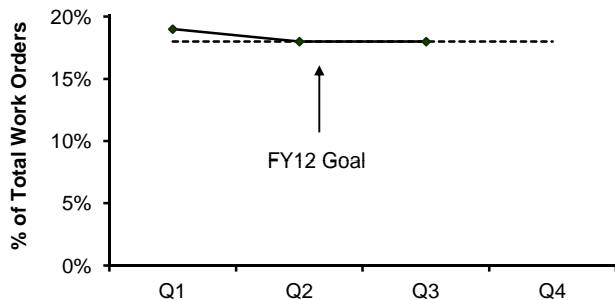
Productivity initiatives include increasing predictive maintenance tasks. Accomplishing this initiative should result in a decrease in the overall maintenance backlog.

Predictive Maintenance Compliance



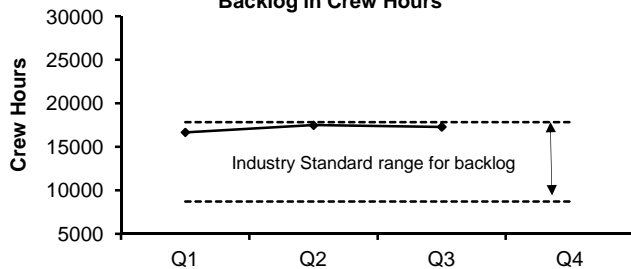
Deer Island is continuing with an aggressive predictive maintenance program. Deer Island's FY12 predictive maintenance goal is completion of 97% of all PdM work orders; Deer Island met this goal as it completed 99% of its PdM work orders this quarter.

Predictive Maintenance



Deer Island's FY12 goal is to increase PdM work orders to 18% of total work orders. The industry is moving toward increasing predictive maintenance work to reduce down time and to better predict when repairs are needed. DITP met the goal as 18% of total work orders this quarter were PDM.

Maintenance Project Backlog in Crew Hours

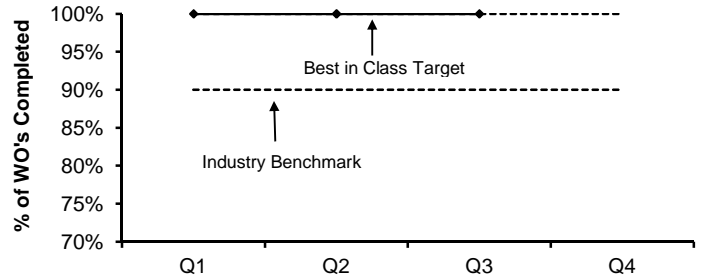


DITP's average backlog this quarter was 17,293 hours. The industry standard for maintenance backlog with 97 staff (currently planned staffing levels) is between 8,730 hours 17,820 hours. Maintenance is currently within the industry benchmark. Management continues to monitor backlog to ensure that all critical equipment and systems are available.

Proactive Initiatives

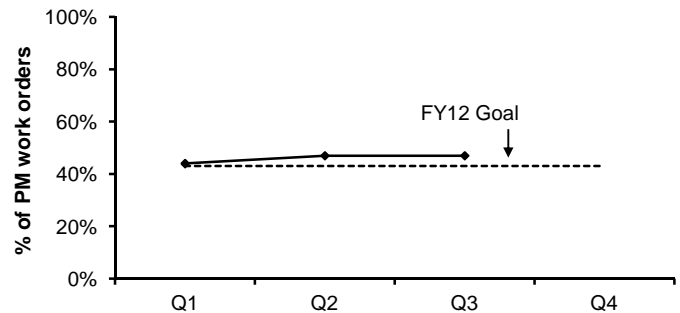
Proactive initiatives include completing 100% of all preventive maintenance tasks and increasing preventive maintenance kitting. These tasks should result in lower maintenance costs.

Preventive Maintenance Compliance



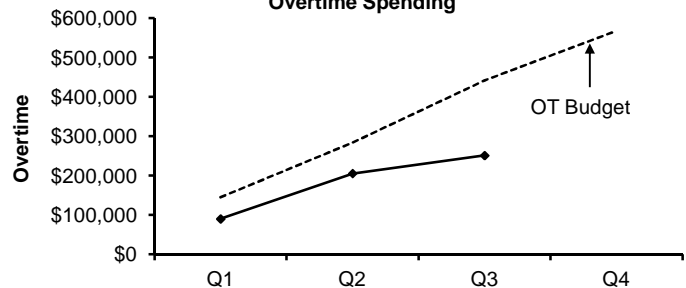
Deer Island's FY12 preventive maintenance goal is completion of 100% of all PM work orders from Operations and Maintenance. DITP met this goal as it completed 100% of PMs this quarter.

Maintenance Kitting



Deer Island's FY12 maintenance kitting goal is 43%; Deer Island completed 47% of maintenance kitting this quarter. Kitting is staging of parts/materials necessary to complete maintenance work. This has resulted in more wrench time and increased productivity.

Overtime Spending

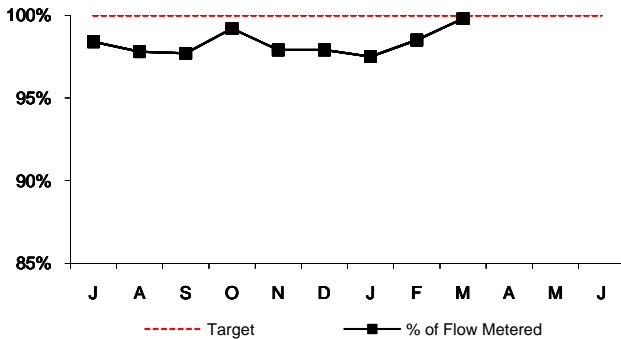


Overtime spending was \$113K under budget for the 3rd Quarter. 3rd Quarter overtime was used for storm coverage, rebuilding #2 cryogenics compressor, replacing gravity thickener upright bar, repairing conveyor belt #3 in grit facility, replacing plastic chain with stainless steel drive chain in east disinfection basin, and rebuilding thickened primary sludge pump #8.

Operations Division Metering 3rd Quarter - FY12

WATER METERS

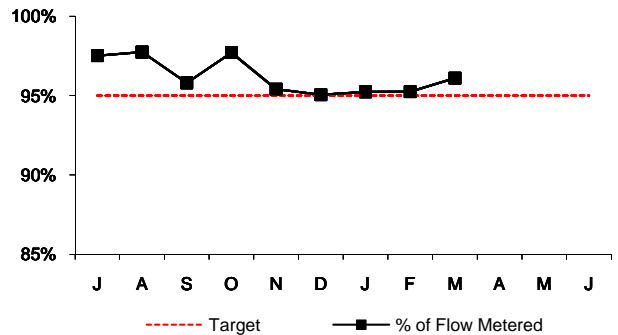
Percent of Total Revenue Water Deliveries Calculated Using Meters



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 3rd Quarter of FY12, meter actuals accounted for 98.6% of flow; only 1.4% of total revenue water deliveries were estimated. The following is the breakdown of estimations:
In-house and Capital Construction Projects - 0.9%
Instrumentation Failure - 0.5%

WASTEWATER METERS

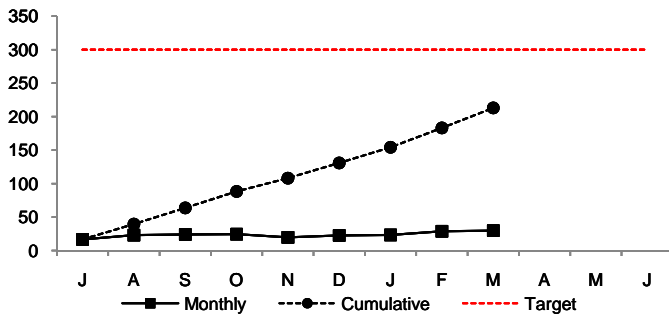
Percent of Total Wastewater Transport Calculated Using Meters



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 3rd Quarter of FY12, meter actuals accounted for 95.52% of flow; 4.48% of wastewater transport was estimated.

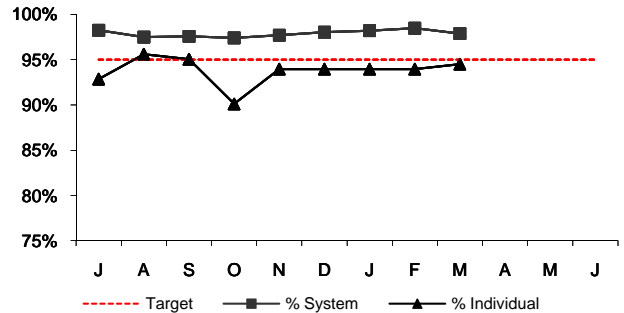
WATER DISTRIBUTION SYSTEM PIPELINES

Miles Surveyed for Leaks



During the 3rd Quarter of FY12, 82.22 miles of water mains were inspected; this brings the YTD total to 213.11.

% Wastewater Meter Uptime



During the 3rd Quarter of FY12, out of a possible 1,589,952 data points, only 29,038 points were missed resulting in a system-wide up time of 98.2%. Of the 182 revenue meters installed, on average 10.67 meters/mth. experienced down time greater than the 5% target resulting in a 94.2% individual meter uptime. For the 3rd Quarter of FY12, down time for an individual meter is defined by any individual meter having on average less than 2,766.4 data points out of a potential 2,912 data points.

Water Distribution System

Month	J	A	S	O	N	D	J	F	M	A	M	J
Leaks Detected	0	0	0	0	0	4	2	2	1			
Leaks Repaired	0	1	0	0	0	4	0	2	1			
Backlog	1	0	0	0	0	0	2	2	2			
Avg. Lag Time	31.0	47.0	47.0	47.0	47.0	13.2	13.0	15.5	20.3			

The first leak repair in FY 12 took 47 days. It was a carryover from FY11. Although minor in nature, it required a coordinated, scheduled isolation of two pipeline sections. During the 3rd Quarter of FY12, 5 leaks were detected and 3 of them were repaired. The remaining two leaks, detected in January and February, will be repaired later this fiscal year. A leak on Section 57 in Medford could only be worked on during school vacation weeks. It was excavated and measured during the February vacation, and repaired during April vacation. Repair of a leak on Section 56 under the General Edwards Bridge on the Revere/Lynn line requires complicated on-water staging from a barge which is being procured. The line is isolated until the repair can be made.

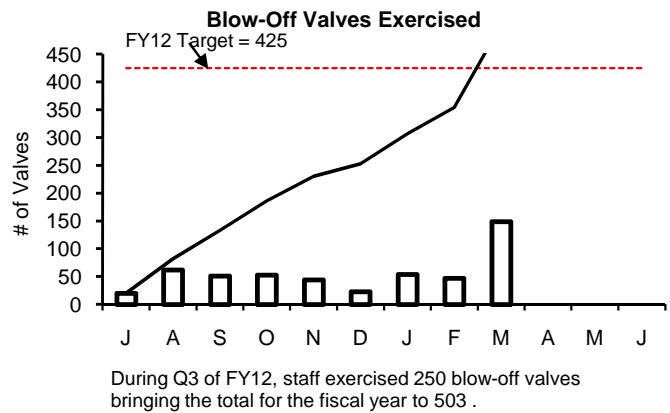
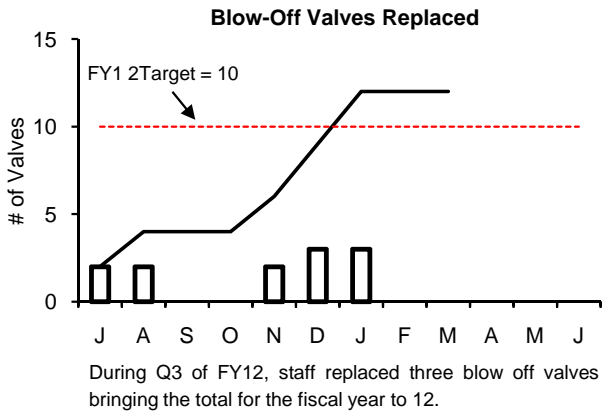
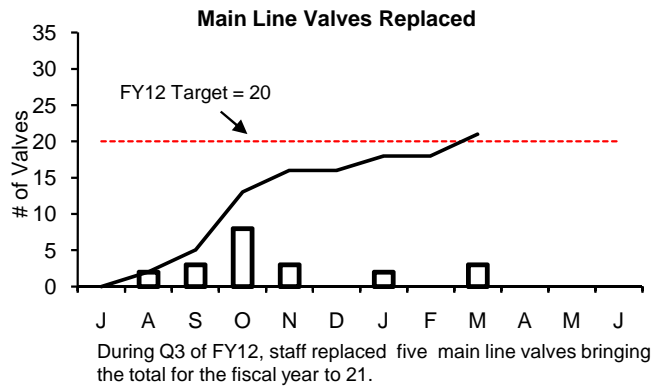
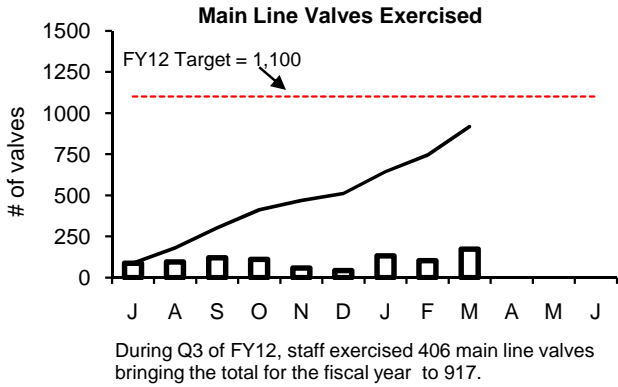
Water Distribution System Valves

3rd Quarter - FY 12

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.

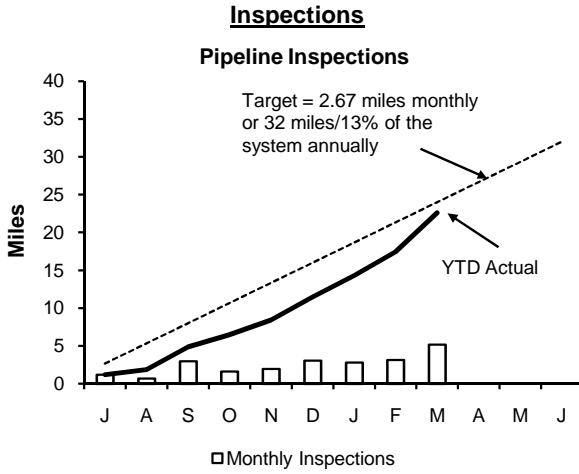
Type of Valve	Inventory #	Operable Percentage	
		FY12 to Date	FY12 Targets
Main Line Valves	2,092	96.7%	92%
Blow-Off Valves	1,206	92.8%	94%
Air Release Valves	1,335	92.9%	92%
Control Valves	48	100.0%	95%



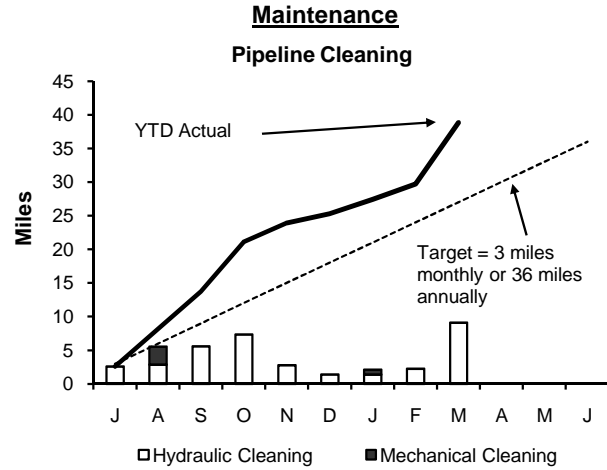
Wastewater Pipeline and Structure Inspections and Maintenance

Field Operations Highlights

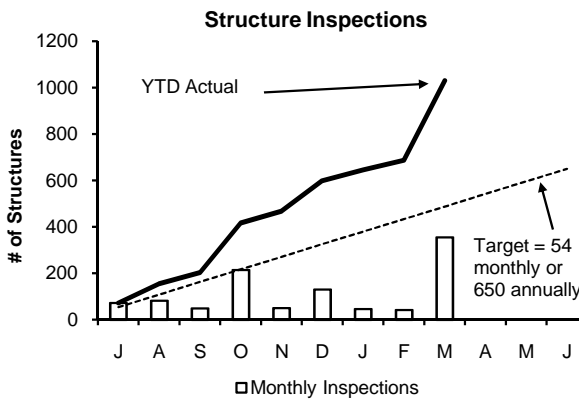
3rd Quarter - FY 12



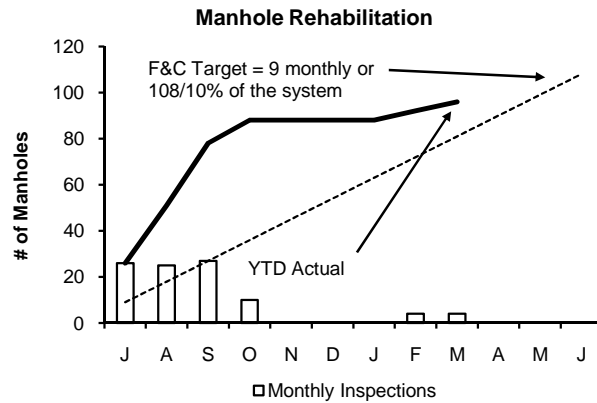
Staff internally inspected 11.12 miles of MWRA sewer pipeline during this quarter. The year to date total for FY12 is 22.60 miles. Community Assistance was provided to the cities of Everett and Somerville, resulting in 388 linear feet (0.073 miles) was inspected this quarter.



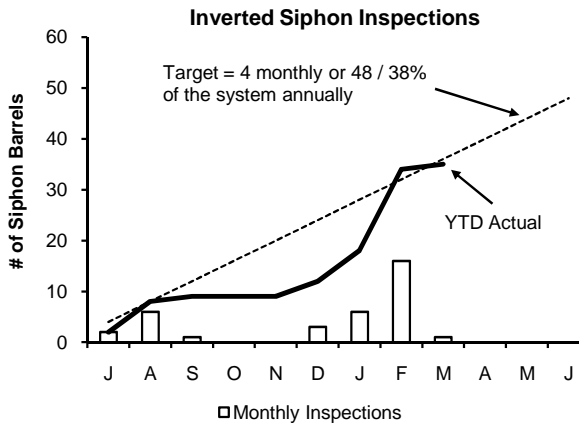
Staff cleaned 13.54 miles of MWRA's sewer system and removed 54 yards of grit and debris during this quarter, bringing the year to date total to 38.83 miles. Community Assistance was provided to the city of Everett, resulting in 1.23 miles (6,500 linear feet) this quarter.



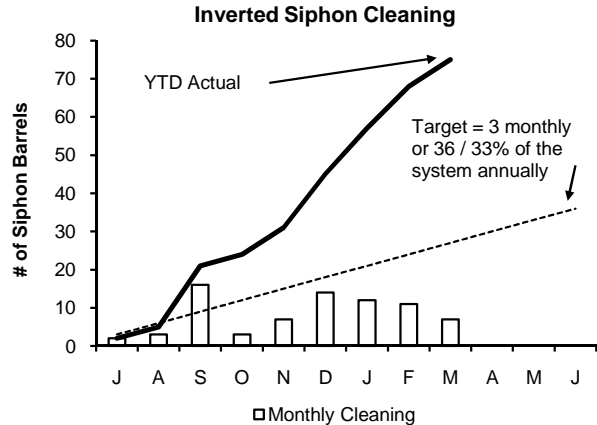
Staff inspected the 36 CSO structures and performed 408 additional manhole/structure inspections during this quarter, the year to date total to 1,030 inspections.



Staff replaced 8 frames & covers this quarter as part of a construction project. Staff has been reassigned to inside masonry projects at water and sewer facilities for the winter months. Outside work will resume in April.



Staff inspected 23 siphon barrels this quarter. The year to date total is 35 barrels.



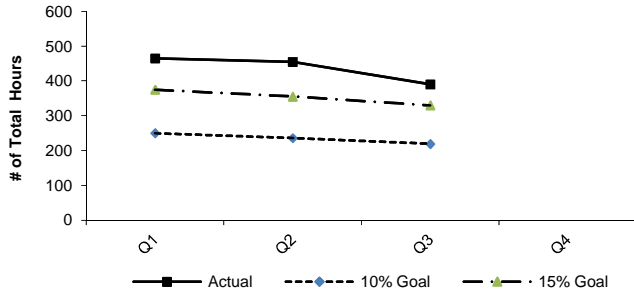
This quarter, staff cleaned 30 siphon barrels. The year to date total is 75 barrels.

Field Operations' Metropolitan Equipment & Facility Maintenance

3rd Quarter - FY12

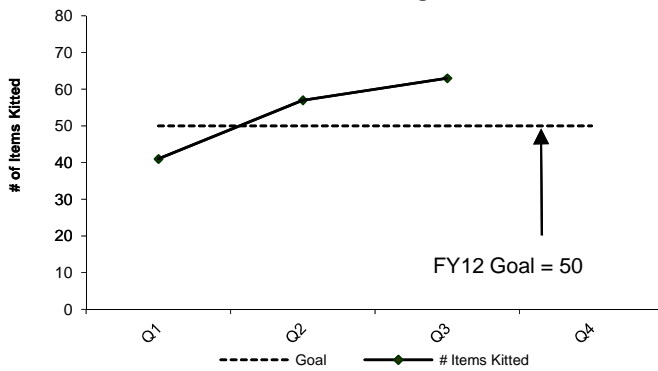
Staff are continuing with several maintenance and productivity initiatives; The Operator PM and kitting initiatives frees up maintenance staff to perform corrective maintenance and project work, thus reducing maintenance spending. Backlog and overtime metrics monitor the success of these maintenance initiatives.

Operations Light Maintenance PM Hours



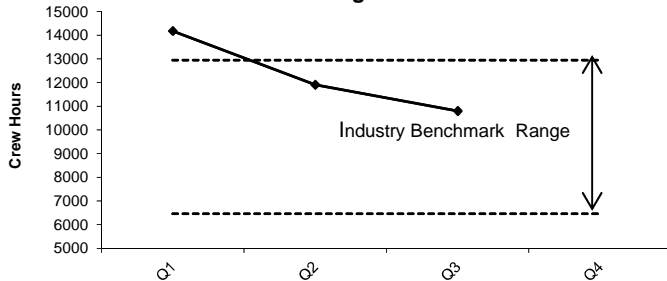
Operations staff averaged 390 hours of preventive maintenance during the 3rd Quarter, an average of 18% of the total PM hours for the 3rd Quarter, which is slightly above the industry benchmark of 10% to 15%.

Items Kitted Utilizing Maxim



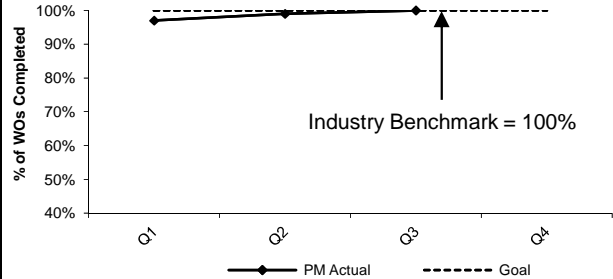
In an effort to more efficiently complete work, maintenance staff and work coordination staff have utilized the Lawson/Maxim interface to better kit stock and non stock material. The goal for FY12 is to "kit" 50 stock and non stock items total per month. An average of 63 items were kitted during the 3rd Quarter

Maintenance Backlog in Crew Hours



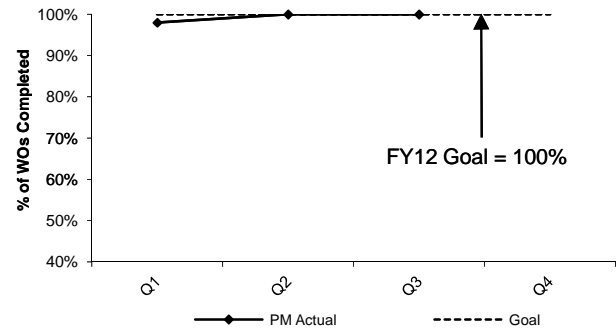
The 3rd Quarter backlog average is 10,798 hours, within the industry benchmark range. While the Mechanical backlog is above the industry average due to the addition of multiple projects including the Chelsea Screen House Screens, Alewife Screens and Nut Island Conveyor Repairs, other trades are within the range. Management's goal is to control overtime and still stay within the industry benchmark of 6450 to 12,940 hours.

Overall Preventive Maintenance



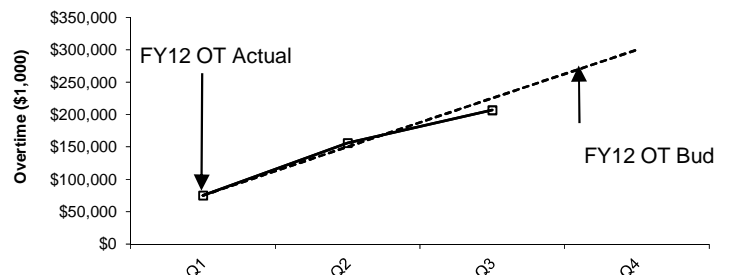
The Field Operations Department (FOD) preventive maintenance goal for FY12 is 100% of all PM work orders. Staff completed an average of 100% of all PM work orders in the 3rd Quarter.

Operations Light Maintenance % PM Completion



Wastewater Operators complete light maintenance PM's which frees up maintenance staff to perform corrective maintenance. Operations' FY12 PM goal is completion of 100% of all PM work orders assigned. Operations completed an average of 100% of PM work orders in the 3rd Quarter.

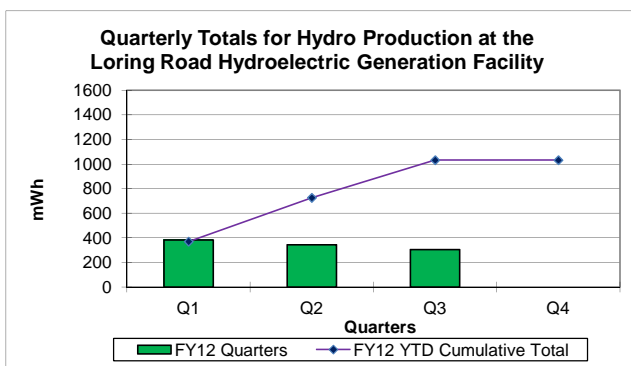
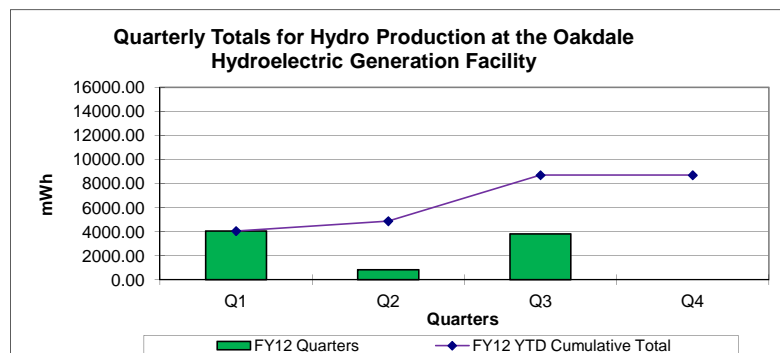
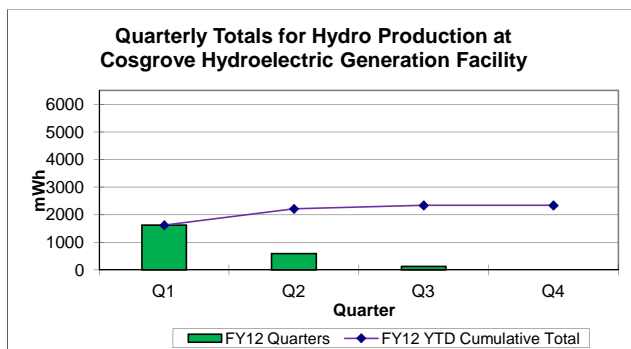
Overtime Spending



Maintenance overtime was \$18k under budget for the 3rd Quarter. Overtime was used to complete emergency repairs due to a variety of critical operational needs including the Chelsea Screen House screen repairs.

Field Operations Hydroelectric Generation Quarterly Report

3rd Quarter - FY12



In the 3rd Quarter, the **Cosgrove Hydroelectric Station** generated a net of 125 MWh; approximately 80% less than was generated during the same quarter in FY11. The reduced power generation in this quarter is due to the extended half-plant operation at CWTP related to UV construction. The revenue generated at Cosgrove in the third quarter was \$3,261, exclusive of Renewable Energy Certificates.

In the 3rd Quarter, the **Oakdale Hydroelectric Station** generated a net of 3,815 MWh; approximately 2,000% more than was generated during the same quarter in FY11. The revenue generated at Oakdale in the third quarter was \$117,268, exclusive of Renewable Energy Certificates. (Power is generated when water is transferred from Quabbin to Wachusett.)

In the 3rd Quarter, the **Loring Road hydroelectric 200 kW station** generated 305 MWh. 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.

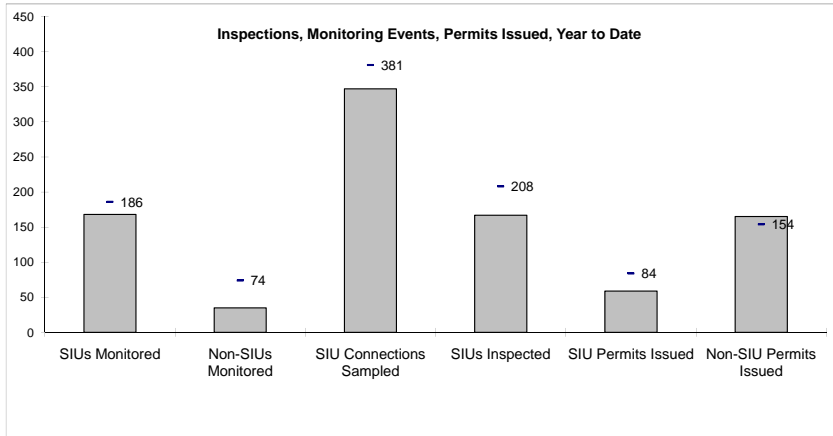
Southborough: An audit of the Southborough facility recommended a review of the HVAC system. Staff completed that work and have recommended the installation of an energy management system similar to the one being installed at the Chelsea Facility. Staff are working with NSTAR and its contractor to evaluate the work necessary to implement this project. NSTAR has committed to providing a \$30,000 incentive to this project based on the projected energy savings. This project falls under the requirements of the Green Communities Act since it would be under \$100,000. In addition, NSTAR provided ARRA funds in addition to its own incentive for the installation of energy efficient lighting at the Southborough complex that resulted in the installation of these lights at no cost to the MWRA. This work was completed in January 2012.

Chelsea Facility: The detailed audit of the Chelsea facility recommended installing an Energy Management System for the Admin. Building along with some equipment updates. NSTAR has agreed to provide a \$168,000 incentive to MWRA for the installation of the EMS. The project was bid and a contract was awarded during the second quarter of FY12. Work on this project began in the third quarter of FY12 and will be completed by during the first quarter of FY13. In addition, NSTAR provided ARRA funds in addition to its own incentive for the installation of lighting controls for all the common areas in the Chelsea Facility. This project was completed during the third quarter of FY12.

Energy Audits and Implementation of Audit Recommendations at FOD Facilities: MWRA staff identified multiple facilities that would benefit from a comprehensive energy audit. 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. Two of these projects were completed during the third quarter of FY12 - a lighting retrofit at the Prison Point Facility and installation of VFDs on the HVAC system at the Chelsea Creek Screen House to provide for set-backs of the HVAC system when the facility is empty. This VFD project was 100% funded by NSTAR through its incentive program and ARRA funds. Four additional VFD projects at Ward and Columbus Headworks were begun during the third quarter of FY12 and will be completed by the end of the fourth quarter of FY12. Audits of an additional 6 facilities will begin in the second quarter of FY12.

Toxic Reduction and Control

3rd Quarter - FY 2012



EPA Required SIU Monitoring Events for FY12: 186
YTD : **168**

Required Non-SIU Monitoring Events for FY12: 74
YTD : **35**

SIU Connections to be Sampled For FY12: 381
YTD: **347**

EPA Required SIU Inspections for FY12: 208
YTD: **167**

SIU Permits due to Expire In FY12: 84
YTD: **59**

Non-SIU Permits due to Expire for FY12: 154
YTD: **165**

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. 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's monitoring plan requires one additional sampling event for 40% of the SIUs and two additional sampling events for 10% of the SIUs. TRAC also monitors one-third of the non-SIUs each year. The number of SIUs inspected reflects the total number of facilities that were inspected throughout the year that were determined to be SIUs at some time during the year.

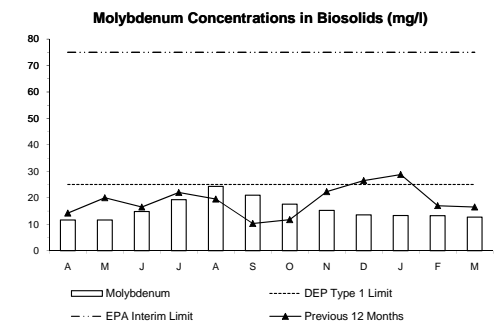
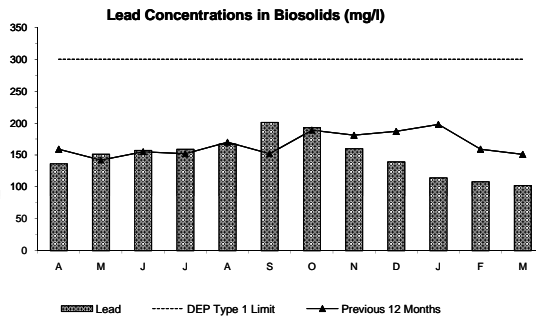
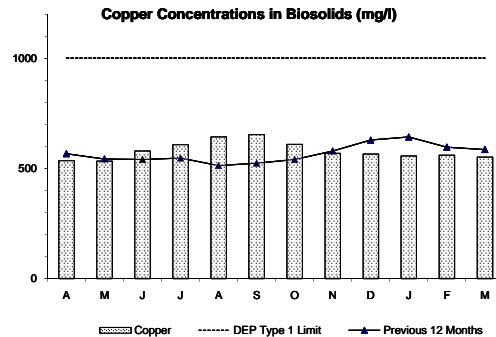
SIU and Non-SIU permits are issued with durations of two to five years, depending on the category of industry, varying the number of permits that expire in a given year.

	Number of Days to Issue a Permit						Total Permits Issued	
	0 to 120		121 to 180		181 or more		SIU	Non-SIU
Jul	5	10	0	0	0	0	5	14
Aug	4	13	4	2	0	0	8	20
Sep	2	11	1	2	0	0	3	16
Oct	13	18	0	2	0	0	13	23
Nov	9	20	0	1	0	1	9	22
Dec	2	16	1	2	0	0	3	18
Jan	2	23	0	1	0	0	2	24
Feb	5	14	0	1	0	0	5	19
Mar	10	7	1	0	0	0	11	9
Apr								
May								
Jun								
% YTD	88%	80%	12%	7%	0%	13%	59	165

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. EPA also requires the remaining 10% of SIU permits to be issued within 180 days. In March, one SIU permit was issued beyond 120 days because of a delay in paying permit charges. Two non-SIU permits were held longer than 180 days: one was awaiting payment and the other was held pending resolution of compliance schedule issues.

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. 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.

Molybdenum levels were lower than standard each month this quarter.



Field Operations Highlights – Orange Notebook

3rd Quarter – FY12

Western Water Operations & Maintenance:

CWTP: The plant transitioned back to full plant operation upon completion of the UV Contractor's work on the "A" Side, and then returned to half plant operation with Treatment Train A in service without the extended contractor. Both winter maintenance and the UV Contractor's work were completed and Operations Staff started refilling the "B" Side Storage Tank at the end of the quarter.

Hultman Aqueduct: Staff supported the Hultman Aqueduct Interconnections Contractor during pressure testing of new valves and during leak detection. Staff filled and dewatered portions of the aqueduct from Shaft 5 to the bifurcation valves and the seven-foot branch line. Wachusett Aqueduct: Staff supported the designer during flow testing of the aqueduct as part of the Wachusett Aqueduct Pump Station Design Project.

Cosgrove Intake and Power Station: Staff adjusted the bearings on both hydro turbines, while the turbine was down for replacement of the main transformer for the facility.

Metro Water Operations & Maintenance:

Water Pipeline Program: Staff replaced surge control valves at several of the water pump stations, similar to last winter. (Commonwealth Avenue, Lexington Street and Newton Street Pump Stations) surge control valves. A test pit was excavated on Section 57 on Riverside Avenue in Medford Square at the site of a suspected leak. The leak was on the face plate of the transition between the 36" steel slip lining and the original 48" steel water main, and measurements were taken so that an encapsulating coupling could be ordered. The work to install the coupling will occur during the April school vacation week. Preparatory work began at the Section 89 pipe bridge over Rt. 128 in anticipation of the north globe valve's removal, including exposing the roof slab and loosening and retightening bolts in early April. This will reduce the headloss and increase carrying capacity from the Bear Hill Tank to community meters at Wilmington and Reading.

Valve Program: The portion of Section 22 on Adams Street that had been recently repaired was returned to service after being chlorinated, flushed, and sampled. This returns all of the Southern High Service Area to active operation, including the newly installed Section 107 that had been activated in December.

Incidents: Power was lost to the Bear Hill Tank in Stoneham on January 24. The cause of the power loss was traced to a scheduled NStar outage for maintenance, for which we did not receive notice. Service was not impacted, as the signal for the tank to the Gillis Pump Station was maintained via the SCADA UPS System. The notification issue has been clarified with NStar. Assistance was requested and provided to Waltham due to a local water main break. Pipeline Staff assisted the State Police dive team at the Chestnut Hill Reservoir by deploying and removing the dive team boats from the reservoir over a period of several days.

Wastewater Operations & Maintenance:

Hingham Pump Station: Metro Maintenance, Engineering & Construction and Wastewater Operations worked together to install a temporary in-ground bypass line into the Hingham Pump Station that will allow for the installation of a new influent gate at the station while maintaining normal pumping operations.

RICE Retrofit Program: Operations Staff worked with the design engineer (FS&T) during site visits at both Cottage Farm and Prison Point CSO Facilities as part of the Reciprocating Internal Combustion Engine Retrofit Project related to emissions control.

Prison Point CSO: Staff worked with a contractor to make necessary repairs to leaks found within two sodium hypochlorite tanks, while maintaining equipment availability for wet weather operation. Major construction work on the HVAC/Odor Control Systems Upgrades has been completed and staff training for new equipment operation and maintenance is being scheduled for April 2012.

Emergency Planning and Response Facility Handbook: Staff continue to update and review Integrated Contingency Plans for all wastewater facilities. These plans include emergency notification procedures, contact personnel and emergency action plans. Spill Prevention Control and Countermeasures (SPCC) inspections were performed at Cottage Farm CSO, Prison Point CSO and Braintree Weymouth Pump Station. The DEP required inspections are performed monthly with records placed onsite in the EAP Cabinets and in the Operations Chelsea Office for reference and recommendation tracking.

Toxics Reduction and Control:

Enforcement: Penalty Assessment Notices (PANs) were issued to Beth Israel Deaconess Medical Center (BIDMC) for discharging wastewater containing excessive levels of mercury and to Environmental Compliance Corporation (ECC) for wastewater containing excessive levels of arsenic and other pollutants. BIDMC paid the \$44,800 penalty in full and has appealed the Supplemental Order to Comply. ECC has appealed the \$58,100 penalty.

Emergency Response: On January 25, 2012, TRAC staff assisted in responding to a sewer blocked with grease near Norman Street in Everett. Staff worked with the representatives from City of Everett to determine the area that discharges to the blocked sewer, conducted a survey of the area, and inspected companies that could be sources of the grease. Two facilities in the area had already been ordered to take corrective action to reduce grease buildup, and as it appears that the blockage was the result of many years of grease build-up, it is expected that continued compliance of these two facilities will prevent a recurrence of a blockage in this line.

Metro Equipment and Facility Maintenance:

Chelsea Headworks and Screen House: Both Screens 3 and 4 failed and were rebuilt: each screen carriage was removed and rebuilt, and all the pins and rollers were replaced. Welds on Screen #1 Rake failed causing the rake to bend and making the screen inoperable. The rake was removed, straightened and repaired, and new rake pads were fabricated and welded in place. The housing to the headworks scrubber developed some leaks, which were patched and repaired.

IPS Screening Belt Conveyor: The screening conveyor at the IPS received major maintenance. The conveyor covers, belting, rollers, bearings, alignment drums and plows were removed. The entire carriage assembly was cleaned. New bearings, roller, drums and plows were installed. New belts were strung, vulcanized, tested and returned to operation.

Operations Support:

Capital Project Support: In the 3rd Quarter, staff continued support to major capital projects and in-house projects with significant activity in supporting improvements at a number of ongoing projects including: Hultman CP6, CWTP UV, Spot Pond Tank Design/build Project, Sections 18, 50 and 51 Rehabilitation, Section 107, Section 36, Valve Rehabilitation 7, Lynnfield/Saugus Pipeline, and the North Dorchester Bay CSO Project. Staff also supported system expansion planning to help identify possible supply extension routes for abutting communities with supply issues.

Development of ERP Training Program: Staff continued delivering a comprehensive annual emergency plan training program to comply with DEP requirements. This training is being provided for MWRA Staff and for staff from the MWRA water communities. The community training sessions began in December and 4 all day sessions have been delivered to date through the 3rd Quarter. Two more sessions are planned in April and other sessions will extend through the fall of 2012, then they will be repeated annually in a series of sessions each year. An additional series of community training meetings was held in March targeting selected service areas with particular redundancy issues (March session targeted Section 89 in the NEH).

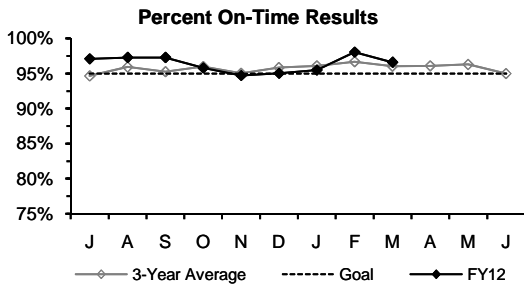
New Facility Startups: All work on water Sections 18, 50 and 51 was now complete and all associated pipelines are returned to service. Work on the Route 28, Reading-Stoneham connection, was completed and a test plan is being developed to verify gravity and temporary pumping flows. Lower Hultman return to service was being planned in March for April startup.

Meter Systems: Staff have begun implementing Rosemount flow transmitter replacement system-wide with a newer generation that allows a wider accurate span. Staff are also implementing converting water meter data collection to wireless transmission to cut costs.

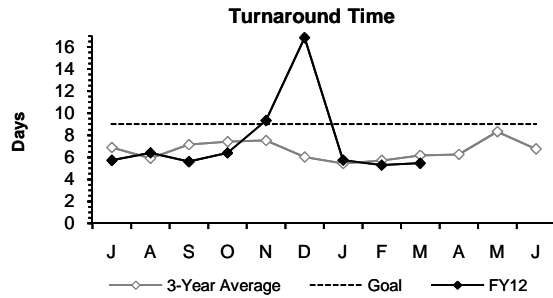
Online Water Quality Monitoring: Staff continued working on updating the distribution water quality monitoring analyzer system. Through the end of the 3rd Quarter, ten units have been installed and made operational via SCADA and several more are in progress. Central data collection equipment and its associated server installation were installed in September and are operational. Staff continued implementing the associated data collection network with Verizon field connection of necessary circuits being done site by site. Vendor training for Technicians and users was held in March. Response SOPs are being developed for alarm response when the system is fully operational.

Seasonal Work: Staff is continuing to do follow up with communities affected by summer nitrification issues to improve next summer's performance. Staff have also been supporting sampling and monitoring of half plant operations at CWTP in the 3rd Quarter.

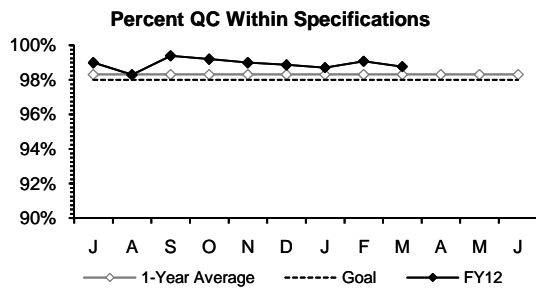
Laboratory Services Third Quarter FY 2012



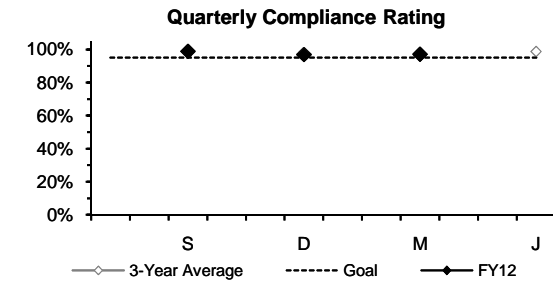
The Percent On-Time measurement exceeded the 95% goal.



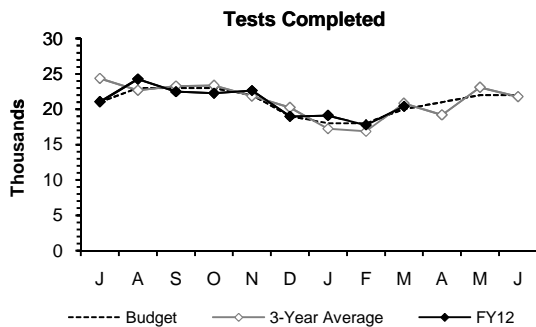
Turnaround Time was faster than the 9-day goal, recovering from completion of two longer turnaround projects in December.



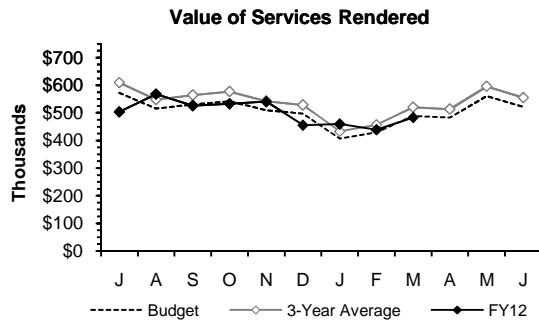
Percent of QC tests meeting specifications exceeded the 98% goal. The 1-year average is based on the new LIMS results.



An audit of all five lab locations on records archiving found good compliance with procedures. Compliance audits are performed in September, December, March, and June.



The Tests Completed was slightly above the seasonally adjusted budget goal. FY12 will be a transition year for this metric between the old and the new LIMS.



Value of Services Rendered was at the seasonally adjusted budget projection. FY12 will be a transition year for this metric between the old and new LIMS.

Highlights: The on-site construction work to replace six chemical fume hoods used to prepare samples for metals testing at the Central Lab is nearing completion. The new fume hoods and the lab's casework are made of polypropylene plastic to prevent samples to be tested for metals from getting contaminated in the lab. The project is scheduled to be completed in April.

Quality Assurance: Two white papers on statistical quality control procedures needed to maintain DEP certification were well received by the DEP Laboratory Advisory Committee meeting. The proposed approaches streamline the lab work and take advantage of the capabilities of the LIMS. This should aid our DEP audit at the Central Lab expected in May.

ENQUAD: Performed an experiment from Mass. Bay samples to see if alternatives in the Chlorophyll test affect the results. The current procedure appears to give more consistent results than the alternative procedure. Participated for the first time in a Performance Evaluation (PE) Study organized by the Northeast Laboratory Evaluation Officers and Managers (NELEOM) for compliance with the National Shellfish Sanitation Program (NSSP) standards in evaluating fecal coliform bacteria in shellfish growing waters. Our laboratory and all six analysts passed this PE study. A total of 31 laboratories with 76 analysts participated. We perform a monthly bacteria survey of Mass. Bay to comply with our NPDES permit. We are required to report fecal coliform levels to the Massachusetts Division of Marine Fisheries but also analyze eleven sites around the outfall for *enterococcus* bacteria.

Water Quality Assurance: The use of Colilert for testing Total Coliform Rule samples began in January. For the entire quarter, there were no *E. coli* positive and only a few Total Coliform positive samples out of about 6,000 samples. Tested final NPDES samples from annual half plant operation of CWTP. Tested Lead and Copper samples from Malden--this is the only community that needed to do twice a year Lead and Copper sampling. Tested special sulfate/chloride samples from Bedford to aid in an investigation of their distribution system.

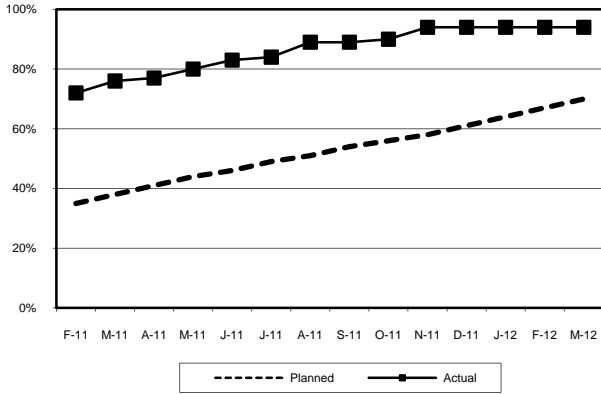
CONSTRUCTION PROGRAMS

Projects In Construction – 1

3rd Quarter FY 2012

(Progress Percentages based on Construction Expenditures)

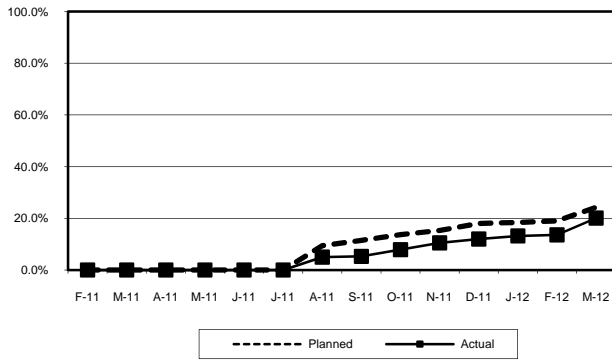
Southern Spine Water Mains Rehabilitation - Section 107
Progress - March 2012



Project Summary: This project for Section 107 includes the removal of 17,000-linear feet (lf) of 24-inch water main, installation of 9,400-lf of new 48-inch water main, replacement of three revenue meters, and the cleaning and lining of 1,000-lf of 24-inch & 1,500-lf of 48-inch water main.

Status and Issues: The Contractor, RJV Construction, worked on the completion of punch list work. Completed swing-tie as-builds and red line drawings. Black and Veatch, the Engineer, began work on the record drawings.

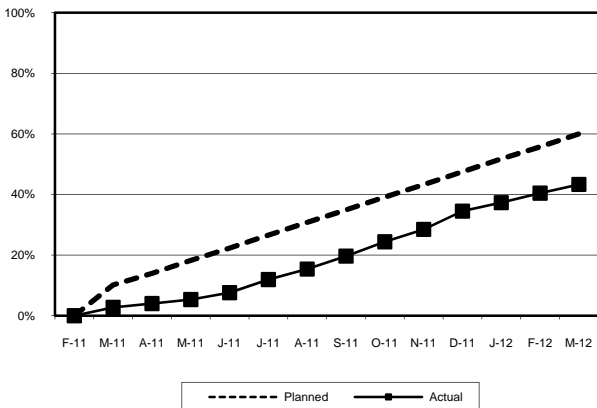
UV Disinfection Facilities CWTP
Progress - March 2012



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: The Contractor continued demolition of both the A & B sides; separated demolished concrete and re-bar for off-site disposal and continued with general site and house keeping clean-up. In addition, the contractor continued with Ozone Destruct Unit piping demolition inside the Post Treatment Building, and began the demolition of Sodium Hypochlorite and Bisulfite piping at the Post Treatment Building.

Lynnfield/Saugus Pipelines
Progress - March 2012



Project Summary: Installation of MWRA water mains including 1,800 linear feet of 36-inch pipe and 4,700 feet of 24-inch pipe. Project also includes 6,000 linear feet of 12-inch pipeline for the Town of Saugus. Pipeline construction is located along Route 1 in Saugus.

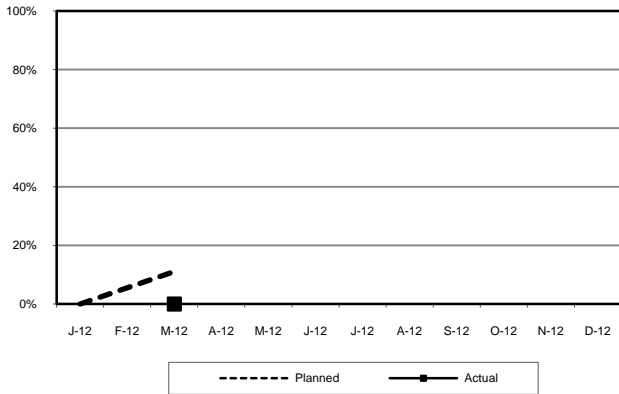
Status and Issues: The Contractor completed off road work in the Lynnfield Water District Pump Station property involving new piping and meter vault. They encountered a significant amount of unanticipated ledge that required the use of a non-explosive demolition agent because blasting is not allowed in the area of the pump station.

Projects In Construction – 2

3rd Quarter FY 2012

(Progress Percentages based on Construction Expenditures)

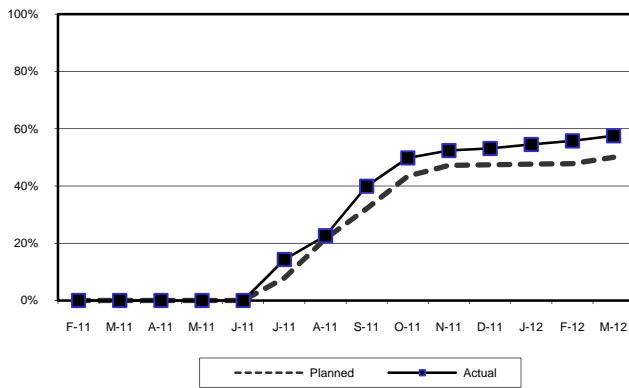
Spot Pond Water Storage Facility
Progress – March 2012



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: As of March, the Contractor installed the preliminary erosion controls and drainage swales on site and the site security fencing. The precharacterization of insitu soils was conducted, with the results to be provided prior to excavation.

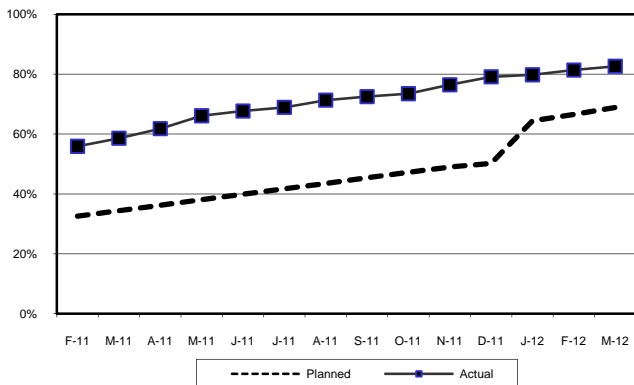
Phase 7 Valve Replacement
Progress – March 2012



Project Summary: This project consists of the replacement of 10 blow-off and 10 main line valves and the rehabilitation of various meters throughout the Authority's water distribution system.

Status and Issues: The Contractor began the excavation for Meter 48 on Perkins Street and the blowoff at Foss Park in Somerville.

Hultman Aqueduct Interconnections Project
Progress - March 2012



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: The visual leakage test was completed for two 60-inch, one 48-inch and one 120-inch valve. The contractor welded and mortared the leaking Hultman joint at Bifurcation, and then repaired the areas of the concrete encasement that had been removed to find the leak. The exterior of the Bifurcation and Branchline walls were waterproofed.

CSO CONTROL PROGRAM

3rd Quarter - FY12

As reported last quarter, 29 of the 35 projects in MWRA's Long-Term CSO Control Plan are complete and 4 CSO projects are in construction. MWRA recently commenced design of the remaining two projects: Outfall MWR003 Gate and Floatables Control/Rindge Ave. Siphon Relief and Outfall SOM01A Interceptor Connection Relief and Floatables Control, both related to Alewife Brook. Progress of ongoing and planned work to complete the CSO plan is described below.

Project	Court Milestones in Schedule Seven (Shaded milestones are complete.)			Status as of March 31, 2012															
	Commence Design	Commence Construction	Complete Construction																
Brookline Sewer Separation	Nov 06	Nov 08	Jul 13	<p>The \$25.9M Brookline sewer separation project comprises three construction contracts. All work is scheduled to be complete by July 2013, in compliance with Schedule Seven.</p> <p><u>Town of Brookline Sewer Separation Contract 1</u> Brookline attained substantial completion of the \$1.4M first construction contract in January 2010. It involved the installation of 5,658 linear feet of new storm drain.</p> <p><u>Town of Brookline Sewer Separation Contract 2</u> The \$16.5M second construction contract, which Brookline commenced in January 2011, was approximately 60% complete as of 3/31/12. This contract involves the installation of 3,790 linear feet of storm drain and 1,290 linear feet of sanitary sewer by open trench method and 4,550 linear feet of sanitary sewer by micro-tunneling. Town of Brookline expects the work to be complete by December 2012.</p> <p><u>MWRA Outfall MWR010 Cleaning Contract</u> On 3/14/12, the MWRA Board of Directors awarded the construction contract for cleaning CSO Outfall MWR010 in the amount of \$1,134,891. The work is intended to ensure that the outfall will have adequate capacity to convey Brookline's separated stormwater to the Charles River. MWRA issued Notice to Proceed on 4/6/12, and the work is scheduled to be complete by September 2012.</p>															
Reserved Channel Sewer Separation	Jul 06	May 09	Dec 15	<p>BWSC continues to make progress with five of nine planned construction contracts for the \$62.3 million Reserved Channel Sewer Separation project.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Contract 1 - CSO outfall rehab</td> <td style="width: 15%;">\$ 4.0M</td> <td style="width: 25%;">Subst. complete</td> </tr> <tr> <td>Contract 2 – sewer separation</td> <td>\$ 6.9M</td> <td>Complete</td> </tr> <tr> <td>Contract 3A – sewer separation</td> <td>\$ 9.9M</td> <td>60% complete</td> </tr> <tr> <td>Contract 3B – sewer separation</td> <td>\$10.9M</td> <td>30% complete</td> </tr> <tr> <td>Contract 7 – pavement restoration</td> <td>\$ 1.2M</td> <td>Subst. complete</td> </tr> </table> <p>On 3/7/12, BWSC advertised Contract 8 at an estimated \$9.6 million cost to provide final pavement restoration related to the work of contracts 3A, 3B and 4. On 3/28/12, BWSC advertised Contract 4, which primarily involves the installation of new storm drains in extensive neighborhood areas south and west of Reserved Channel. BWSC expects to issue the Notice to Proceed with this estimated \$10.6 million contract this summer and plans to award the remaining three construction contracts – Contract 5 (sewer cleaning and relining), Contract 6 (downspout disconnections) and Contract 8 (additional final paving) – sequentially through April 2013 and complete all work by December 2015, in compliance with Schedule Seven.</p>	Contract 1 - CSO outfall rehab	\$ 4.0M	Subst. complete	Contract 2 – sewer separation	\$ 6.9M	Complete	Contract 3A – sewer separation	\$ 9.9M	60% complete	Contract 3B – sewer separation	\$10.9M	30% complete	Contract 7 – pavement restoration	\$ 1.2M	Subst. complete
Contract 1 - CSO outfall rehab	\$ 4.0M	Subst. complete																	
Contract 2 – sewer separation	\$ 6.9M	Complete																	
Contract 3A – sewer separation	\$ 9.9M	60% complete																	
Contract 3B – sewer separation	\$10.9M	30% complete																	
Contract 7 – pavement restoration	\$ 1.2M	Subst. complete																	

Project		Court Milestones in Schedule Seven (Shaded milestones are complete.)			Status as of March 31, 2012
		Commence Design	Commence Construction	Complete Construction	
Cambridge/ Alewife Brook Sewer Separation	CAM004 Outfall and Wetland Basin		Apr 11	Apr 13	Cambridge continues to make progress with construction of the \$16.1 million CAM004 stormwater outfall and wetland basin (\$3.6 million MWRA share), which Cambridge commenced in April 2011. The contract is more than 40% complete. Cambridge's contractor completed utility relocations and the wetland basin's perimeter berm and outlet structure and commenced excavation of the 3.4-acre basin in 2011. Deeper excavation and shaping of the wetland basin is ongoing. The contractor has also completed major sections of the box conduit outfall, including the sections beneath railroad tracks, as well as associated special structures. The contractor is currently installing additional sections of the outfall between the MBTA railroad tracks and Cambridge Park Drive. Cambridge expects to complete the outfall and wetland basin in April 2013, in compliance with Schedule Seven.
	CAM004 Sewer Separation	Jan 97	Jul 98	Dec 15	Cambridge completed four initial construction contracts for this project several years ago and plans to award three additional contracts (contracts 8A, 8B and 9) to complete the work. Final design of Contract 8A is approximately 60% complete, and Cambridge plans to advertise this contract this summer and issue the Notice to Proceed by September 2012, in compliance with Schedule Seven. Design investigations for contracts 8B and 9 are also in progress.
			Sep 12		
	MWR003 Gate and Rindge Ave. Siphon	Apr 12	Aug 14	Oct 15	On 3/14/12, the MWRA Board of Directors awarded the single contract for design and construction services for both projects in the amount of \$1,456,244 for a 53-month contract duration. These projects involve localized hydraulic improvements to the Alewife Brook interceptor system. Staff expect to issue the Notice to Proceed in April, in compliance with Schedule Seven.
SOM01A Connection Relief and Floatables Control	Sep 13		Jun 14		
Other CSO Related Work					
South Dorchester Bay Sewer Separation Post-Construction Inflow Removal		N/A	N/A	N/A	BWSC continues to pursue additional stormwater inflow removal (i.e., downspout disconnections) from the sanitary sewer system, to mitigate the remaining risks of sewer system flooding in large storms. BWSC's receipt of its consultant's report on inflow removal recommendations has been delayed as its consultant performs additional hydraulic performance evaluations in part to address questions raised from MWRA staff review.
Lower Dorchester Brook Sewer Regulator Relocation and Sewer Separation		N/A	N/A	N/A	BWSC has nearly completed its \$6.0 million construction contract for Lower Dorchester Brook Sewer CSO Regulator Relocation and Sewer Separation, which is partially funded by MWRA. BWSC completed 25 acres of sewer separation and recently activated the new CSO regulator and plugged the old regulator, thereby removing the contract separated stormwater flows, as well as previously separated stormwater, from the BWSC and MWRA sewer systems. Remaining work includes the installation of two large tide gates in the BWSC's Dorchester Brook Conduit at the new regulator.

CIP Expenditures 3rd Quarter FY12

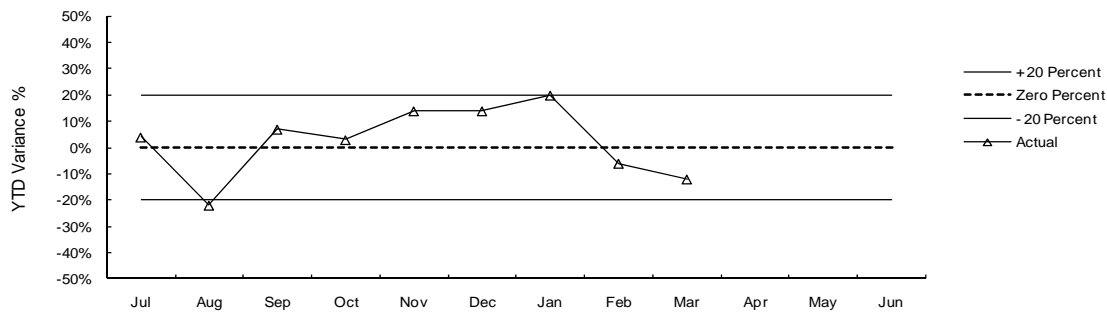
The Year-To-Date variances are highlighted below:

FY12 Capital Improvement Program Expenditure Variances through February by Program (\$000)				
Program	FY12 Budget Through March	FY12 Actual Through March	Variance Amount	Variance Percent
Wastewater	59,641	53,886	(5,755)	-10%
Waterworks	40,872	34,341	(6,531)	-16%
Business and Operations Support	6,059	5,026	(1,033)	-17%
Total	\$106,572	\$93,253	(\$13,319)	-12%

Underspending within Wastewater is due to: lower than budgeted award for the North Main Pump Station VFD Replacement, delays in Digester Modules 1 & 2 Pipe Replacement, Clarifier Flushing System, Process Information Control System (PICS) contracts, and less than anticipated CSO land easement expense due to favorable negotiation of temporary easement lease terms. This was partially offset by timing of payments for Brookline Sewer Separation, progress on Section 156 Rehabilitation Design/Build, timing of work for Primary & Secondary Clarifier Rehabilitation, greater than budgeted spending on North Dorchester Dewater Pump Station and Sewers due to timing and unanticipated work, and Cambridge Sewer Separation contracts. Underspending in Waterworks is due to: lower than anticipated community requests for loans and lower award for the Spot Pond Storage Facility Design/Build contract. This was partially offset by contractor progress on the Lower Hultman Aqueduct Rehabilitation (CP6A), Reading/Stoneham Interconnections, Dam Safety Modifications and Repairs, and timing of work for the Lynnfield/Saugus Pipeline Construction 2 project.

CIP Expenditure Variance

Total FY12 CIP Budget of \$165,497,000.



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 3/26/2012	\$64 million
Unused capacity under the debt cap:	\$666 million
Estimated date for exhausting construction fund without new borrowing:	May-12
Estimated date for debt cap increase to support new borrowing:	FY2020
Commercial paper outstanding:	\$144 million
Commercial paper capacity:	\$350 million
Budgeted FY12 capital spending*:	\$157 million

* Cash based spending is discounted for construction retainage.

DRINKING WATER QUALITY AND SUPPLY

Source Water – Microbial Results

3rd Quarter – FY12

Background

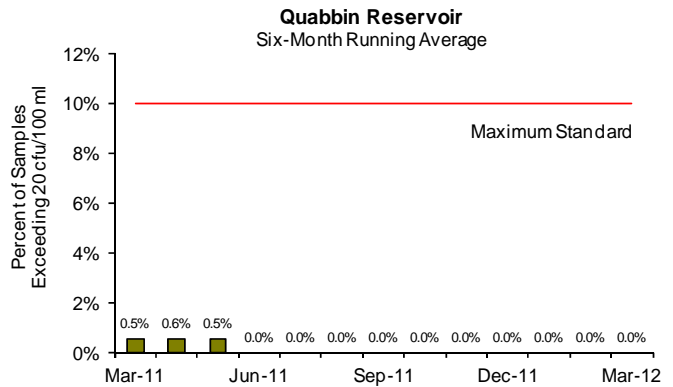
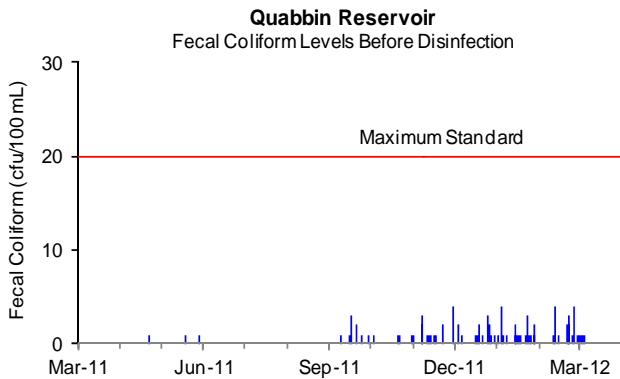
Total coliform bacteria are monitored in both source and treated water to provide an indication of overall bacteriological activity. Most coliforms are harmless. However, fecal coliform, a subclass of the coliform group, are identified by their growth at temperatures comparable to those in the intestinal 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 3rd Quarter were below 20 cfu/100ml.

For the current six-month period, 0.0% of the samples have exceeded a count of 20 cfu/100mL .



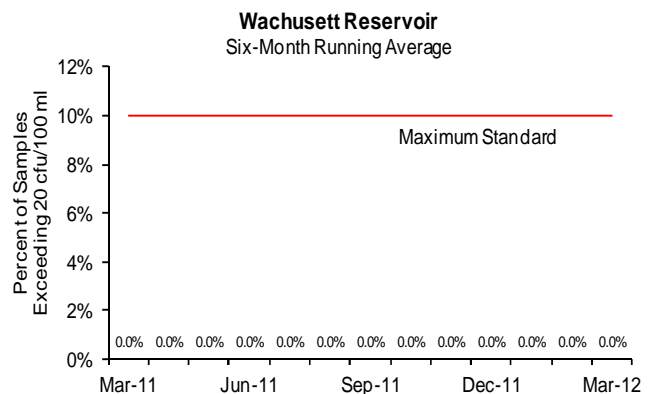
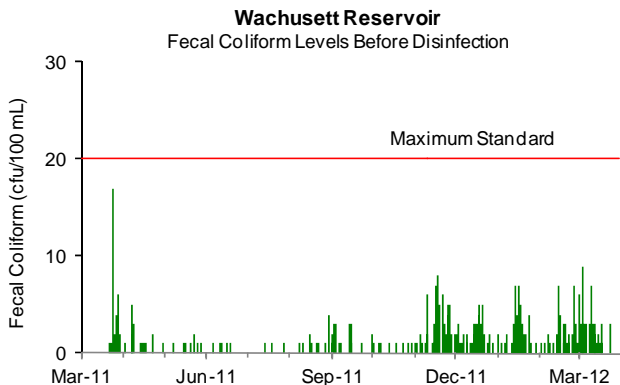
Sample Site: Wachusett Reservoir

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 3rd 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 – Turbidity

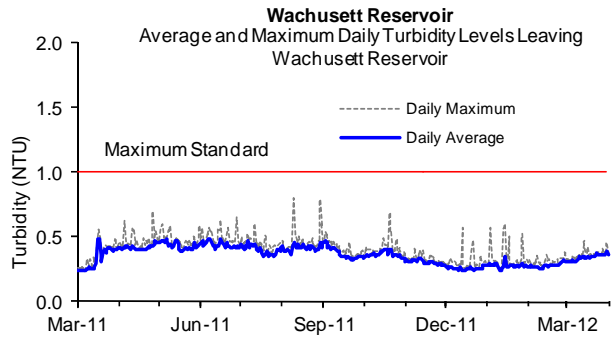
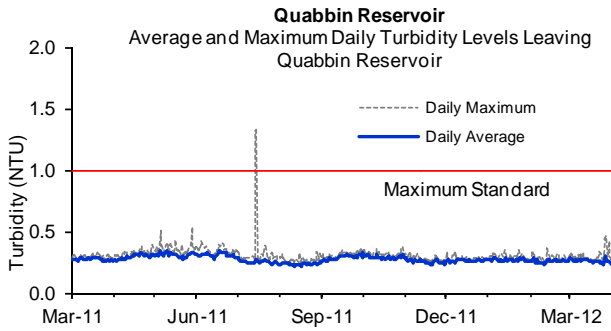
3rd Quarter – FY12

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.

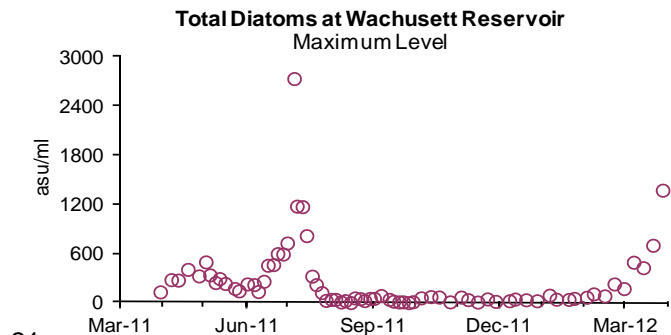
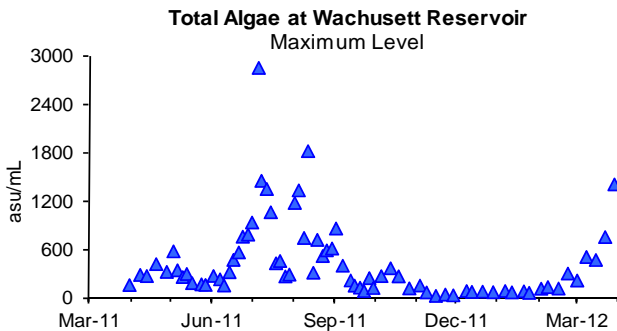


Source Water – Algae

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 algacide. 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 3rd Quarter, there were no complaints related to algae reported from local water departments.



Treated Water – Disinfection Effectiveness

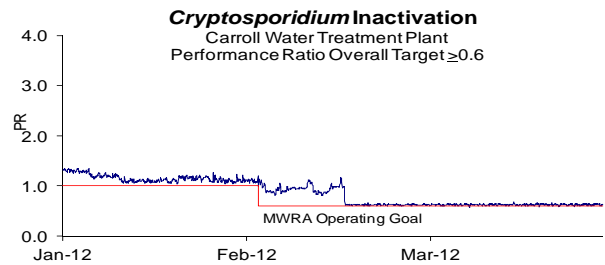
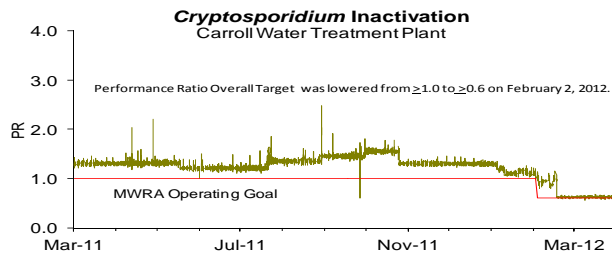
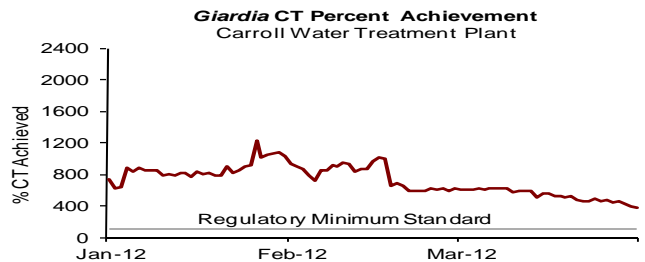
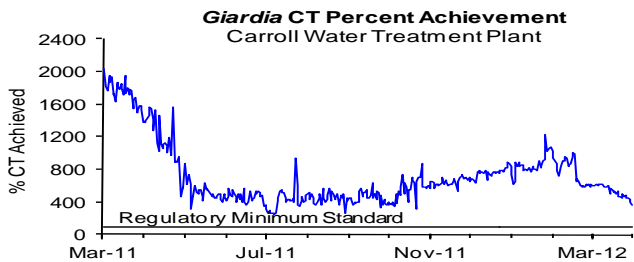
3rd Quarter – FY12

Background

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.

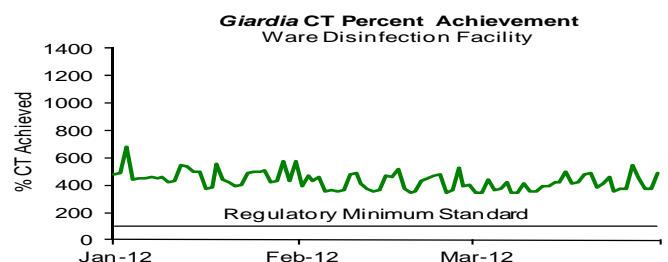
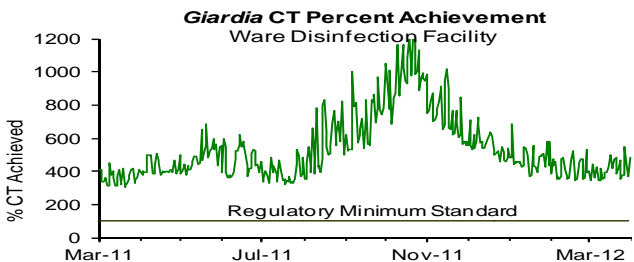
Wachusett Reservoir – MetroWest/Metro Boston Supply:

- Ozone dose at the CWTP varied between 3.0 to 5.9 mg/L for the quarter.
- 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.
- Carroll Water Treatment Plant is undergoing winter maintenance and UV construction. Train A was off-line from October 26, 2011 through January 26, 2012. Train B was removed from service on February 2 and will remain off-line for approximately twelve weeks.
- Ultraviolet light treatment will be added to CWTP and construction is underway. As part of this work the extended ozone contactors are being removed from service during half plant operations this winter, first on the A-side, and then on the B-side. When the extended contactors are no longer available, MWRA will not be able to meet the voluntary 2-log (99%) *Cryptosporidium* inactivation target. It is anticipated that at least 90% inactivation will be achieved. The transition to a reduced disinfection target occurred February 2, 2012 when Train B was removed from service. This change in treatment was reviewed and approved by the Massachusetts Department of Environmental Protection as part of its permitting for this project. The current PR target of 0.6 indicates at least 93.7% inactivation.



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 target of ≥ 0.75 mg/L at Ludlow Monitoring Station. The chlorine dose at WDF varied between 1.4 mg/L to 1.5 mg/L for the quarter.

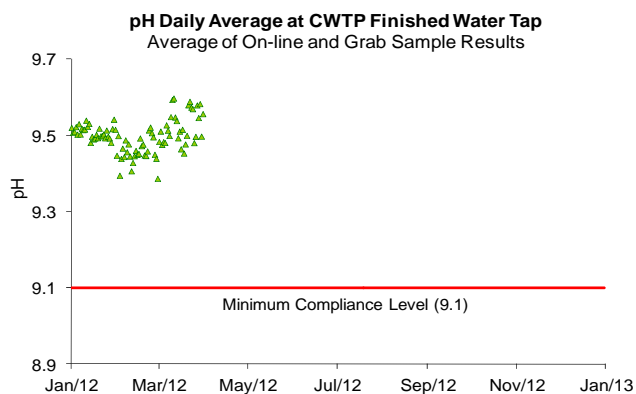
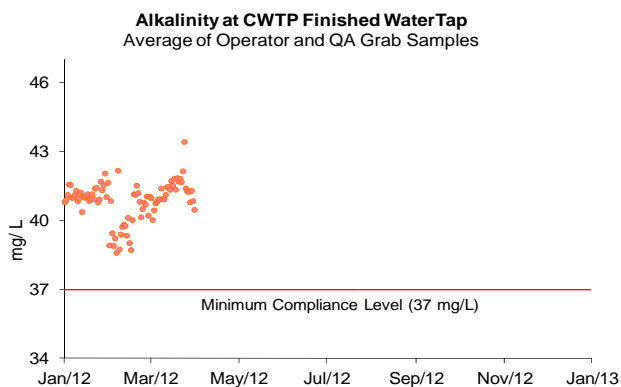


Treated Water – pH and Alkalinity Compliance

3rd Quarter – FY12

MWRA adjusts the alkalinity and pH of Wachusett water to reduce its corrosivity, which minimizes the leaching of lead and copper from service lines and home plumbing systems into the water. MWRA tests finished water pH and alkalinity daily at the CWTP's Fin B sampling tap. MWRA's target for distribution system pH is 9.3; the target for alkalinity is 40 mg/l. Per DEP requirements, CWTP samples have a minimum compliance level of 9.1 for pH and 37 mg/L for alkalinity. Samples from 27 distribution system taps have a minimum compliance level of 9.0 for pH and 37 mg/L for alkalinity. Results must not be below these levels for more than nine days in a six-month period. Distribution system samples are collected in March, June, September, and December.

Distribution system samples were collected on March 14 and 15, 2012. Distribution system sample pH ranged from 9.2 to 9.6 and alkalinity ranged from 41 to 43 mg/L. No sample results were below DEP limits for this quarter.



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

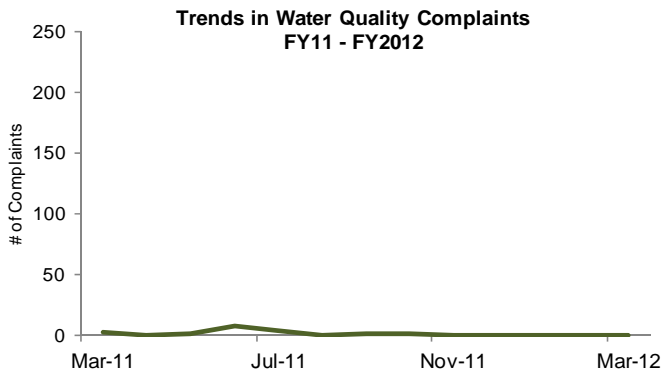
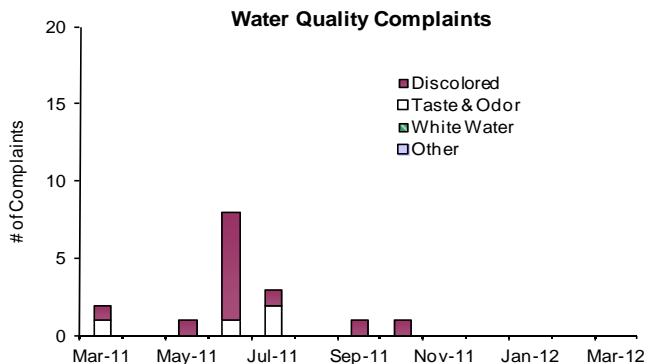
Background

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.

Outcome

Communities reported no water complaints during the quarter compared to 10 complaints for 3rd Quarter of FY11.



Bacteria & Chlorine Residual Results for Communities in MWRA Testing Program

3rd Quarter – FY12

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. The other 10 MWRA customer communities (including Lynn's GE plant) have their samples tested elsewhere and these towns should be contacted directly for their monthly results.

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. Additional testing is conducted immediately and joint corrective action by DEP, MWRA, and the community is undertaken. 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 3rd Quarter, five of the 5,831 community samples (0.09% system-wide) submitted to MWRA labs for analysis tested positive for coliform (Somerville – in January; Hanscom AFB (Bedford) – in February; Boston, Waltham, Woburn – in March). Of the 1,851 (0.05%) MWRA samples taken, one tested positive for total coliform. No sample tested positive for E.coli. Hanscom AFB (Bedford) did not violate the TCR since only one sample was positive in their system which collects fewer than 40 samples/ month. All 42 systems that submitted chlorine residual data maintained an average disinfectant residual of at least 0.2 mg/L. Only 3.7% of samples had any results with a disinfectant residual lower than 0.2 mg/L for the quarter.

TCR results by Community						
Town	Samples Tested for Coliform (a)	Total Coliform # (%) Positive	E.coli % Positive	Public Notification Required?	Minimum Chlorine Residual (mg/L)	Average Chlorine Residual (mg/L)
ARLINGTON	180	0 (0%)	0.0%		0.03	1.59
BEDFORD	59	0 (0%)	0.0%		0.01	0.62
BELMONT	104	0 (0%)	0.0%		0.24	1.64
BOSTON	785	1 (0.13%)	0.0%	No	0.64	1.98
BROOKLINE	221	0 (0%)	0.0%		0.01	1.86
CHELSEA	169	0 (0%)	0.0%		0.71	1.74
DEER ISLAND	60	0 (0%)	0.0%		1.66	1.90
EVERETT	130	0 (0%)	0.0%		0.81	1.16
FRAMINGHAM	218	0 (0%)	0.0%		0.23	1.79
HANSCOM AFB (Bedford) (b)	31	1 (3.23%)	0.0%	No	0.01	1.10
LEXINGTON	117	0 (0%)	0.0%		0.86	1.94
LYNNFIELD	18	0 (0%)	0.0%		0.40	1.39
MALDEN	195	0 (0%)	0.0%		1.30	1.47
MARBLEHEAD	72	0 (0%)	0.0%		0.10	1.44
MARLBOROUGH (b)	126	0 (0%)	0.0%		0.03	1.59
MEDFORD	221	0 (0%)	0.0%		0.67	1.76
MELROSE	117	0 (0%)	0.0%		0.02	0.80
MILTON	96	0 (0%)	0.0%		1.01	1.60
NAHANT	30	0 (0%)	0.0%		0.09	1.34
NEEDHAM (b)	123	0 (0%)	0.0%		0.09	0.59
NEWTON	277	0 (0%)	0.0%		0.61	1.80
NORTHBOROUGH	48	0 (0%)	0.0%		0.07	1.27
NORWOOD	108	0 (0%)	0.0%		0.03	1.40
QUINCY	299	0 (0%)	0.0%		0.26	1.80
READING	130	0 (0%)	0.0%		0.01	1.37
REVERE	194	0 (0%)	0.0%		1.02	1.86
SAUGUS	104	0 (0%)	0.0%		1.26	1.76
SOMERVILLE	291	1 (0.34%)	0.0%	No	1.05	1.87
SOUTH HADLEY FD1 (c)	48	0 (0%)	0.0%		0.06	0.50
SOUTHBOROUGH	30	0 (0%)	0.0%		0.31	1.72
STONEHAM	91	0 (0%)	0.0%		0.42	1.80
SWAMPSCOTT	48	0 (0%)	0.0%		0.03	1.53
WAKEFIELD (b)	147	0 (0%)	0.0%		0.33	1.29
WALTHAM	220	1 (0.45%)	0.0%	No	0.26	1.78
WATERTOWN	130	0 (0%)	0.0%		0.91	1.84
WELLESLEY (b)	108	0 (0%)	0.0%		0.03	0.66
WESTBORO HOSPITAL	15	0 (0%)	0.0%		0.01	0.19
WESTON	48	0 (0%)	0.0%		1.48	1.94
WILMINGTON (b)	90	0 (0%)	0.0%		1.43	2.03
WINCHESTER (b)	65	0 (0%)	0.0%		0.15	0.83
WINTHROP	73	0 (0%)	0.0%		0.37	1.18
WOBURN (b)	195	1 (0.51%)	0.0%	No	0.11	0.88
Total:	5831	5 (0.09%)				
MASS. WATER RESOURCES AUTHORITY (d,e)	1851	1 (0.05%)	0.0%	No	0.01	1.79

(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 sampling program includes a subset of community TCR sites as well as sites along the transmission system, tanks and pumping stations.

(e) 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

3rd Quarter – FY12

Background

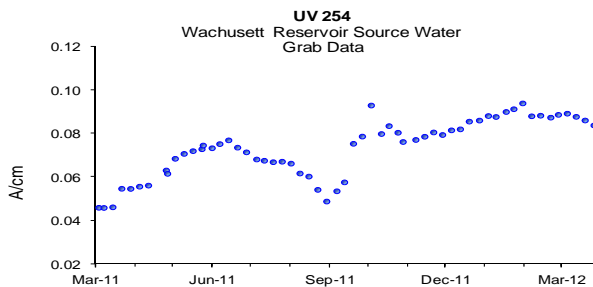
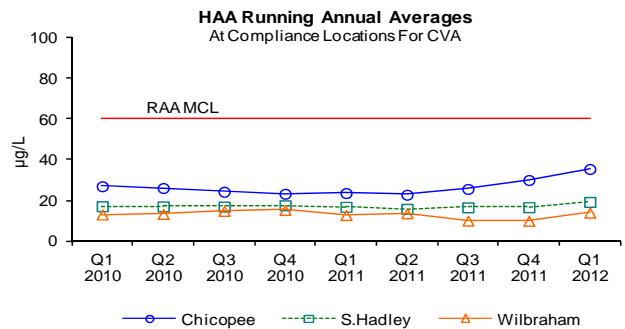
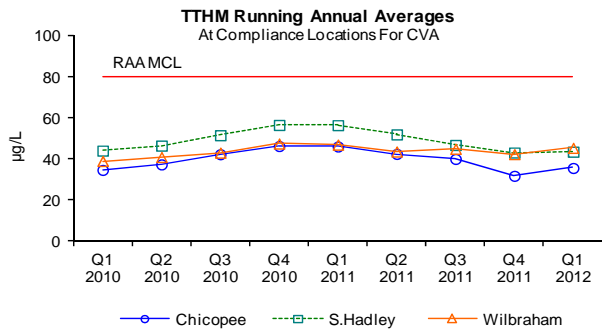
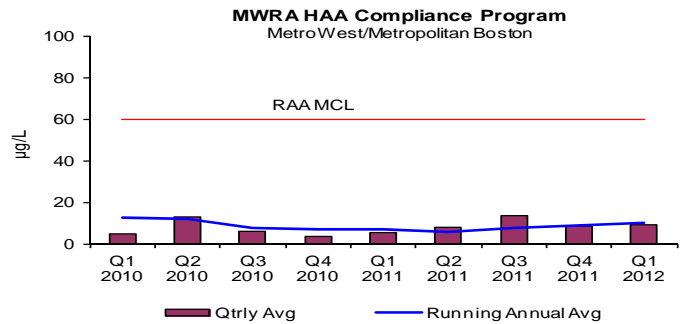
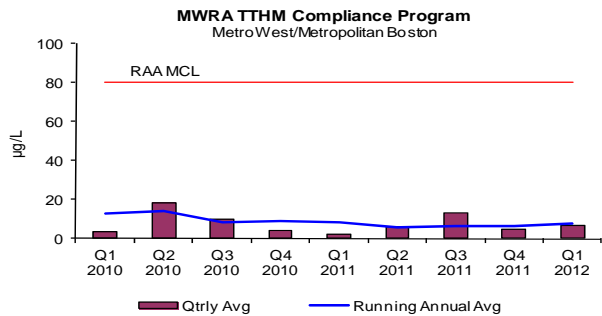
Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5s) are by-products of disinfection treatment with chlorine. TTHMs and HAA5s are of concern due to their potential adverse health effects at high levels. EPA's running annual average (RAA) standard is 80 ug/L for TTHMs and 60 ug/L for HAA5s. The switch from chlorine to ozone for primary disinfection and the consolidation of treatment has lowered DBP formation and results are now more uniform. DEP requires that compliance samples be collected quarterly. Partially served communities are responsible for their own compliance monitoring and reporting and must be contacted directly for their results.

Absorbance, measured as UV-254, is one measurement of the amount and reactivity of natural organic material in source water. After Hurricane Irene, UV-254 measurements in Wachusett Reservoir rose sharply due to the action of the storm, increased tributary flows and above average fall precipitation. The higher UV-254 levels caused increased ozone and chlorine demand resulting in the need for higher ozone and chlorine doses. There were no impacts on regulatory compliance.

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.

Outcome

The RAA for TTHMs and HAA5s for MWRA's Compliance Program (represented as the line in the top two graphs below) remained below current standards. The RAA for TTHMs = 7.8 ug/L; HAA5s = 9.7 ug/L. CVA's DBP levels continue to be below current standards. UV-254 levels are currently around 0.08 A/cm. The current RAA for Bromate = 0.0 ug/L.



Water Supply and Source Water Management

3rd Quarter – FY12

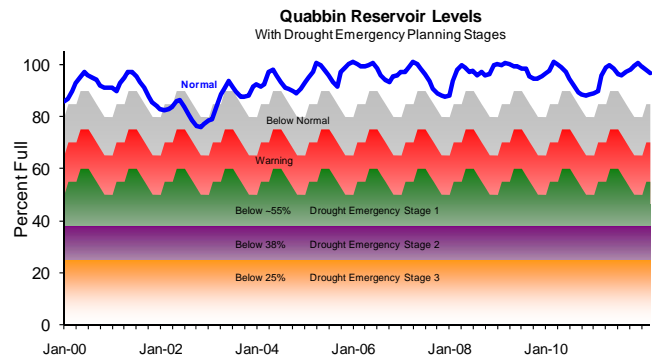
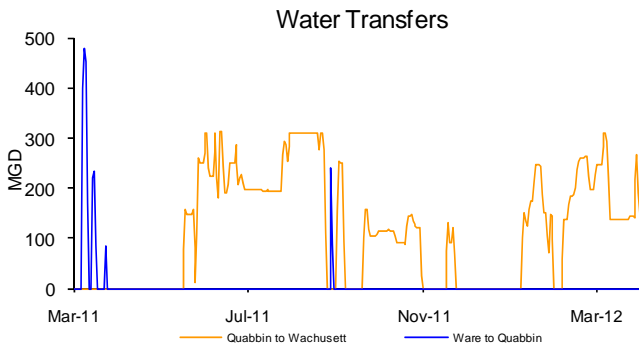
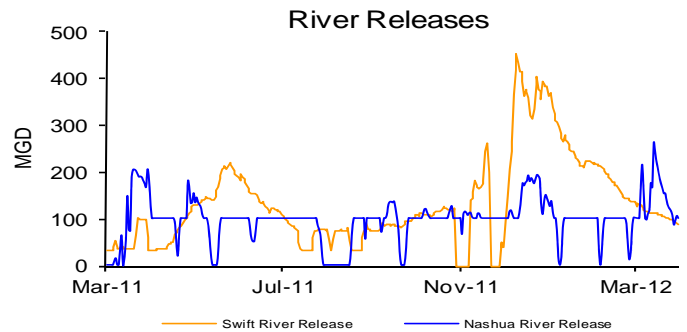
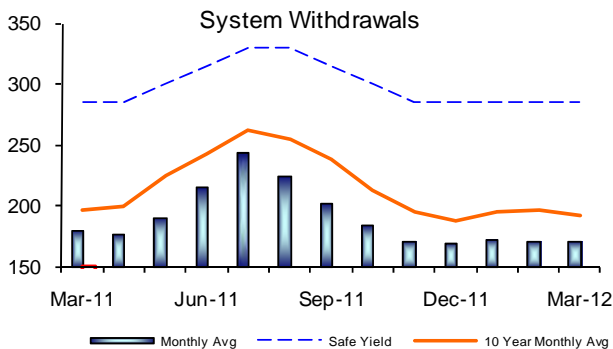
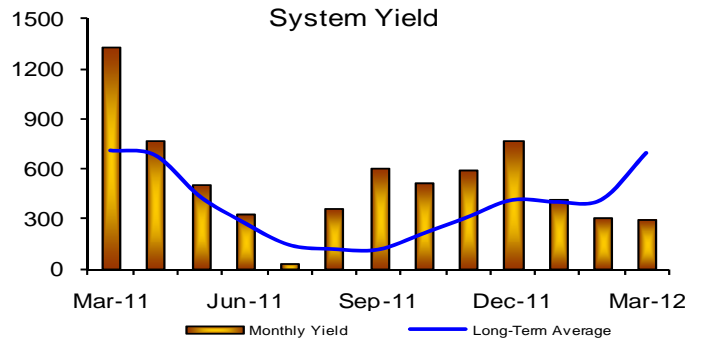
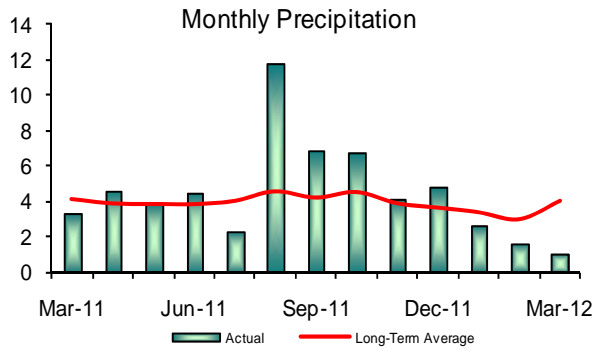
Background

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's precipitation total for the month of March was only 0.50". This is the lowest monthly total out of any month since 1985. Quabbin's level is still above its normal operating band for this time of year, but with the lack of precipitation this spring in combination of virtually no snow pack recharge for the watershed; the reservoir level has dropped over 2' which represents a loss of storage of more than 16 billion gallons since Jan 1, 2012. Precipitation and Yield for the quarter were below their respective long term averages. Monthly withdrawals continue to be below the long-term average.

Last Quarter, the USGS gauge used to measure the flow in the Swift River was found to be faulty. The gauge was replaced December 5, 2011. Debris such as fallen trees in the river from the various storm events caused backwater conditions resulting in inaccurate flows from the USGS meter. Debris was cleared from the river on December 2, 2011. The higher reservoir elevation this quarter even with the minimal rainfall, impacted the River releases which were significantly higher this quarter.



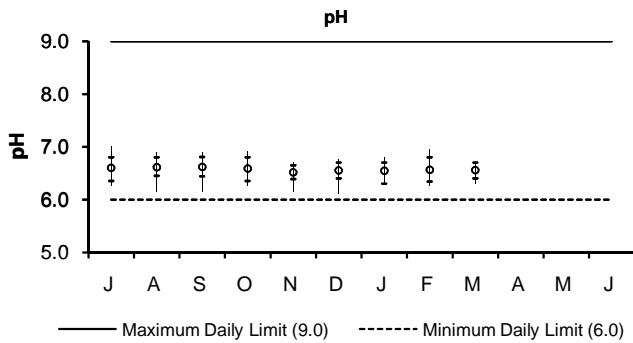
WASTEWATER QUALITY

NPDES Permit Compliance: Deer Island Treatment Plant
3rd Quarter - FY12

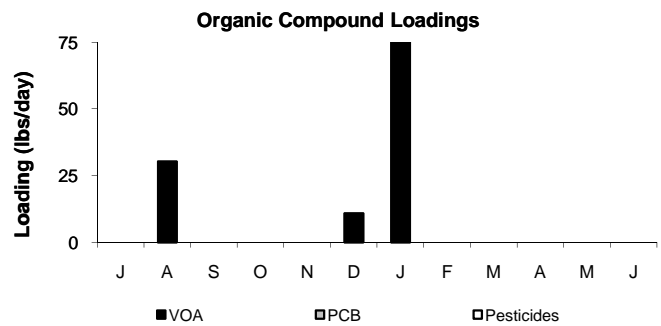
NPDES Permit Limits

Effluent Characteristics		Units	Limits	January	February	March	3rd Quarter Violations	FY12 YTD Violations
Dry Day Flow:		mgd	436	327.0	321.9	316.1	0	0
cBOD:	Monthly Average	mg/L	25	5.4	4.7	6.1	0	0
	Weekly Average	mg/L	40	7.2	5.3	6.9	0	0
TSS:	Monthly Average	mg/L	30	8.8	8.5	9.3	0	0
	Weekly Average	mg/L	45	11.7	10.1	10.8	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	34.5	10.0	31.6	0	0
	Weekly Geometric Mean	col/100mL	14000	8.4	5.3	8.3	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	6.3-6.8	6.3-7.0	6.3-6.7	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	25	13	25	0	0
	Inland Silverside	%	1.5	100	100	100	0	0

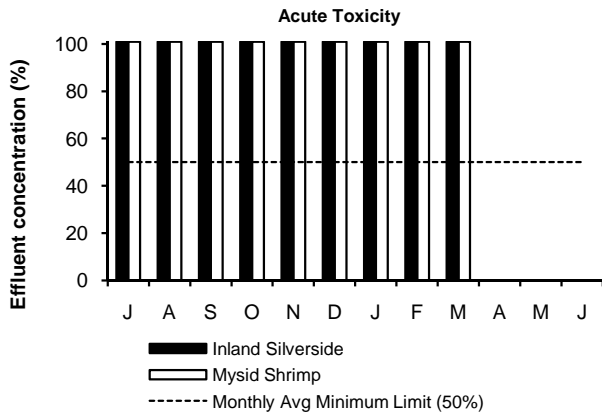
There have been no permit violations in FY12 at the Deer Island Treatment Plant.



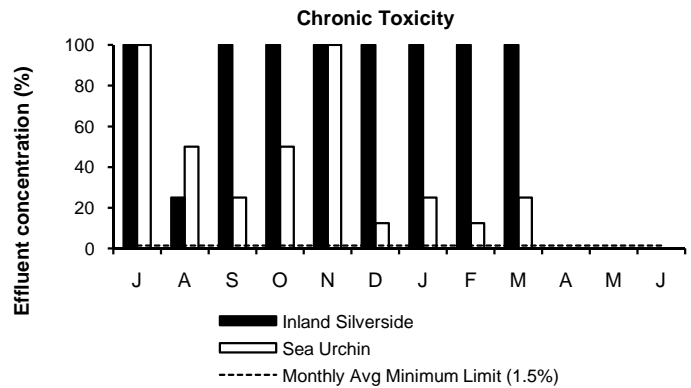
pH is a measure of the alkalinity or acidity of the effluent. Fluctuations in pH do not have an adverse effect on marine environments. Because of the pure oxygen used in the activated sludge reactor, the effluent pH tends to be at the lower pH range. pH measurements for the 3rd Quarter were within the 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 compound loadings 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 3rd 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% dilution water must show no observed effect on the growth and reproduction of the test species. Chronic toxicity permit limits were met for the 3rd Quarter for both the inland silverside and sea urchin.

NPDES Permit Compliance: Clinton Wastewater Treatment Plant
3rd Quarter - FY12

NPDES Permit Limits

Effluent Characteristics	Units	Limits	January	February	March	3rd Quarter	FY12 YTD
			Violations	Violations	Violations	Violations	Violations
Flow:	mgd	3.01	3.52	3.56	3.41	3	6
BOD:	Monthly Average:	20	5.8	4.9	6.2	0	0
	Weekly Average:	20	6.0	6.1	7.3	0	0
TSS:	Monthly Average:	20	5.9	5.6	5.7	0	0
	Weekly Average:	20	6.5	6.7	6.7	0	0
pH:	SU	6.5-8.3	7.3-7.8	7.2-7.7	6.9-7.7	0	0
Dissolved Oxygen:	Daily Minimum:	6	6.9	7.6	6.2	0	1
Fecal Coliform:	Daily Geometric Mean:	400	10.9	7.0	7.6	0	0
	Monthly Geometric Mean:	200	3.8	3.5	3.3	0	0
TCR:	Monthly Average:	50	0	0	0	0	0
	Daily Maximum:	50	0	0	0	0	0
Total Ammonia Nitrogen: 11/1 - 3/31							
	Monthly Average:	10.0	0	0	0	0	0
	Daily Maximum:	35.2	0	0	0	0	0
Copper:	Monthly Average:	20	8.9	7.1	6.9	0	0
Phosphorus: May 1 - Oct 31							
	Monthly Average:	1.0	N/A	N/A	N/A	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 seven permit violation in Fiscal Year 2012 at the Clinton Treatment Plant.

3rd Quarter:

There were three permit violations in the 3rd Quarter of FY12. The monthly average flow limit of 3.01 mgd was exceeded three times during the 3rd Quarter. The official monthly average flow during January, February, and March were 3.52 mgd, 3.56 mgd, and 3.41 mgd, respectively. The high flow rates have historically been attributed to excessive wet weather conditions. The flow is calculated using a 12-month running average.

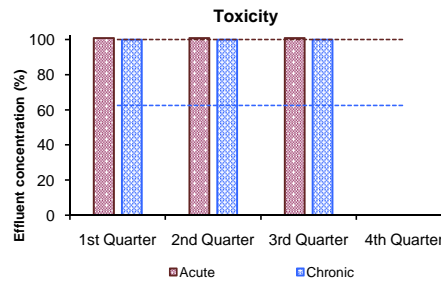
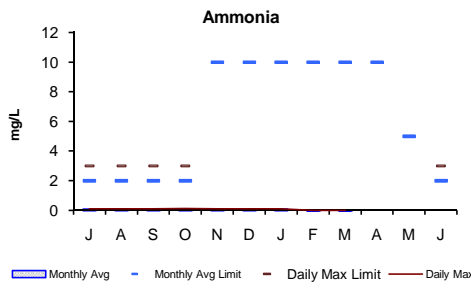
2nd Quarter:

There were three permit violations in the 2nd Quarter of FY12. The monthly average flow limit of 3.01 mgd was exceeded three times during the 2nd Quarter. The official monthly average flow during October, November, and December were 3.09 mgd, 3.25 mgd, and 3.41 mgd, respectively. The high flow rates have historically been attributed to excessive wet weather conditions. The flow is calculated using a 12-month running average.

1st Quarter:

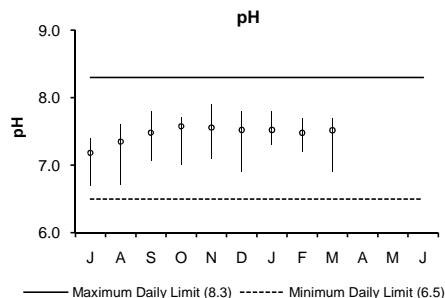
There was one permit violation in the 1st Quarter of FY12. The August 9, 2011 dissolved oxygen result of 5.1 mg/L did not meet the minimum permit limit of 6.0 mg/L. There was no known reason for this violation. The plant process and monitoring parameters were within the normal operating range on August 9 and there were no equipment failures or plant upsets reported during the monitoring period.

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

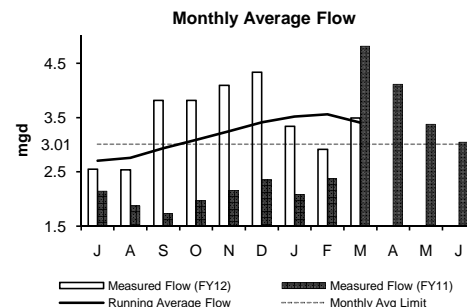


The 3rd Quarter's monthly average and daily maximum concentrations were below the permit limits. The monthly average and daily maximum limits for the 3rd Quarter are 10.0 mg/L and 35.2 mg/L, respectively. The permit limits are most stringent from June to October when warm weather conditions are most 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 3rd Quarter.



pH is a measure of the alkalinity or acidity of the effluent. All daily pH results for the 3rd Quarter were within the range set by the permit.



The graph depicts the running annual average monthly flow, measured in million gallons per day, exiting the plant. The average monthly flows during the 3rd Quarter were above the NPDES permit limit.

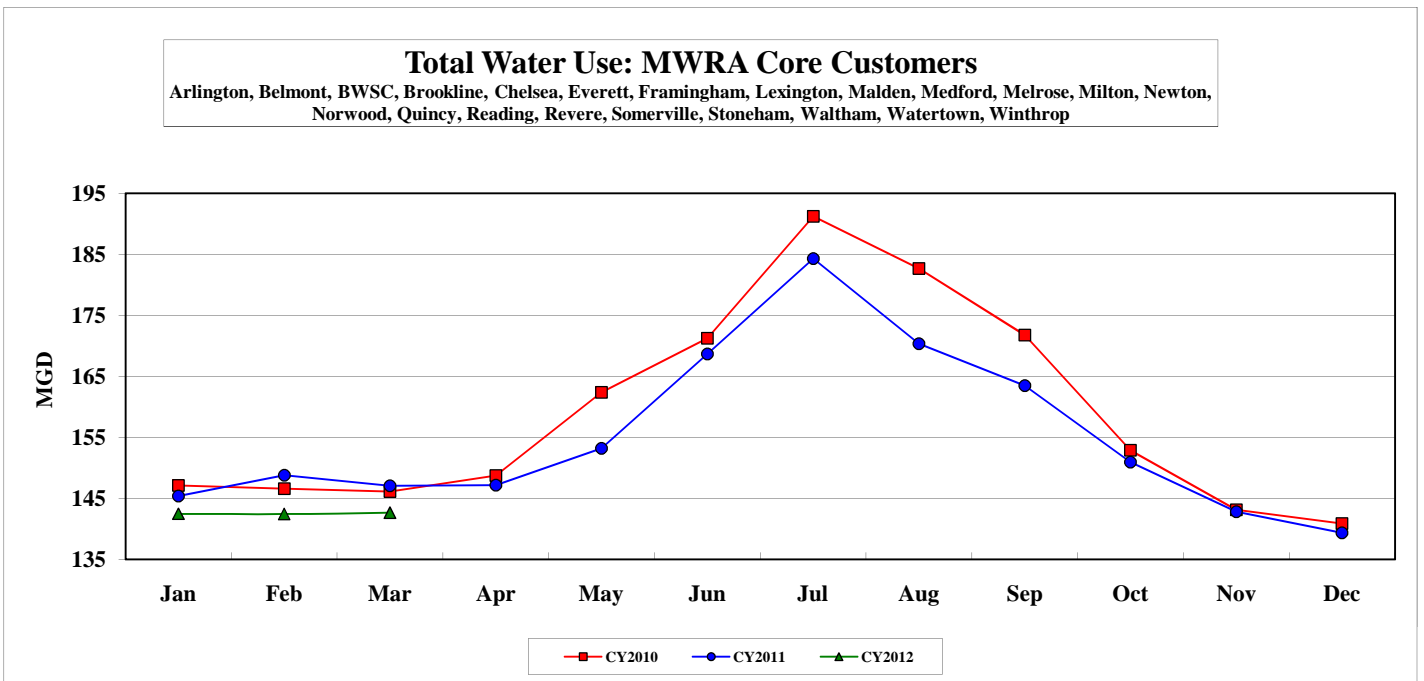
COMMUNITY FLOWS AND PROGRAMS

Water Supplied: MWRA Core Communities 3rd Quarter FY-12

MWRA
Water Supplied: MWRA Core Communities

MGD	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
CY2010	147.109	146.572	146.104	148.736	162.362	171.224	191.222	182.708	171.780	152.865	143.132	140.875	158.824
CY2011	145.371	148.782	147.051	147.188	153.188	168.673	184.336	170.378	163.482	150.928	142.805	139.350	155.175
CY2012	142.472	142.431	142.663	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	142.524

MG	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
CY2010	4,560.379	4,104.007	4,529.220	4,462.067	5,033.225	5,136.713	5,927.887	5,663.942	5,153.392	4,738.813	4,293.973	4,367.117	57,970.734
CY2011	4,506.504	4,165.900	4,558.577	4,415.643	4,748.836	5,060.182	5,714.425	5,281.711	4,904.458	4,678.774	4,284.158	4,319.858	56,639.028
CY2012	4,416.638	4,130.494	4,422.557	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	12,969.688



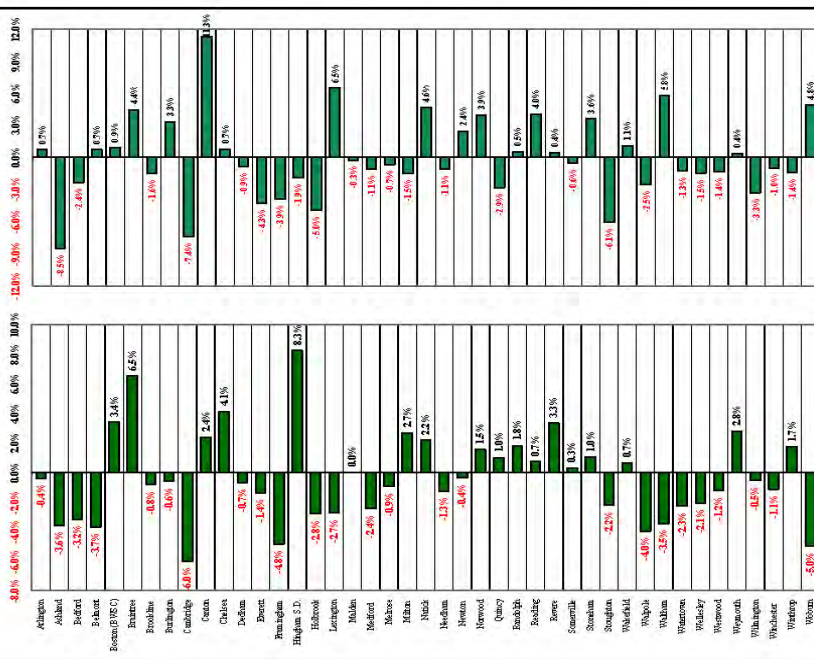
Community Wastewater Flows

Second Quarter-FY12

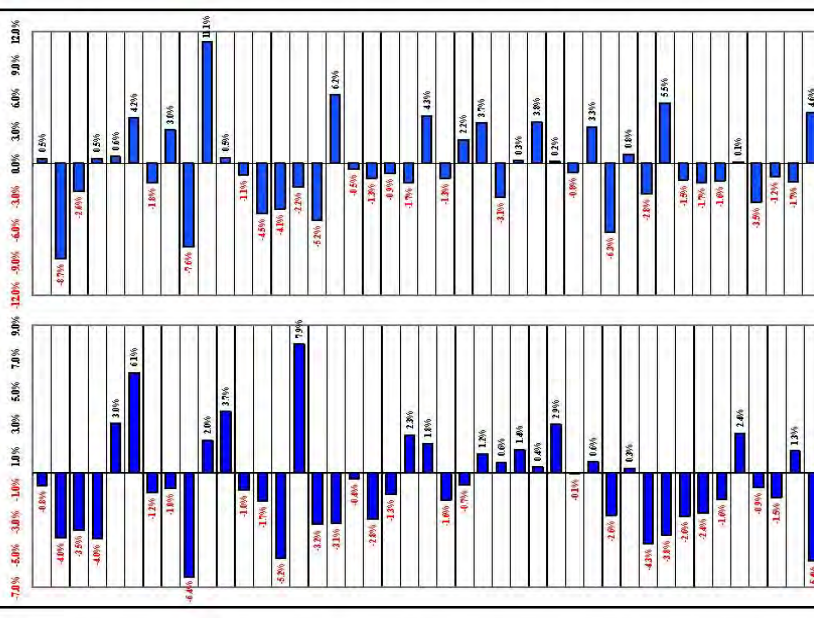
How Projected CY2011 Community Wastewater Flows Could Effect FY2013 Sewer Assessments 1,2,3

The flow components of FY2013 sewer assessments will be calculated using a 3-year average of CY2009 to CY2011 wastewater flows compared to FY2012 assessments that used a 3-year average of CY2008 to CY2010 wastewater flows.

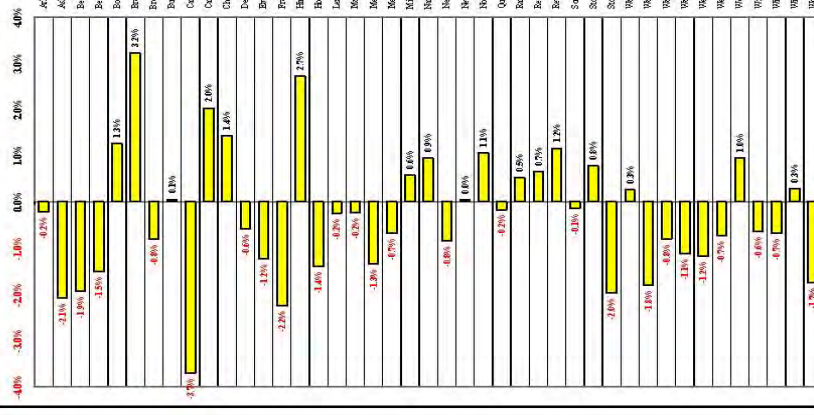
Change in Average Flow



Change in Max. Month Flow

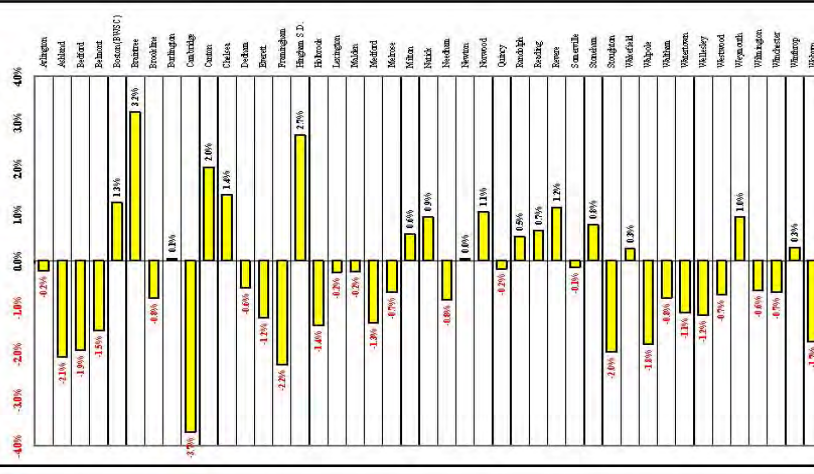


Change in Max Month Flow Share



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

Assessment Impact Due to Change in Flow Share



Notes:

- 1. MWRA uses a 2-year flow average to calculate sewer assessments. Three-year averaging smooths 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 CY2008 to CY2011 average wastewater flows as of 01/01/12. Flow data is preliminary and subject to change pending additional MWRA and community review.
- 3. CY2008 to CY2010 wastewater flows based on actual meter data. CY2011 flows based on actual meter data for January to October and projected flows for November to December.
- 4. Represents the impact on the total BASE assessment resulting from the changes in average and maximum wastewater FLOW SHARES.

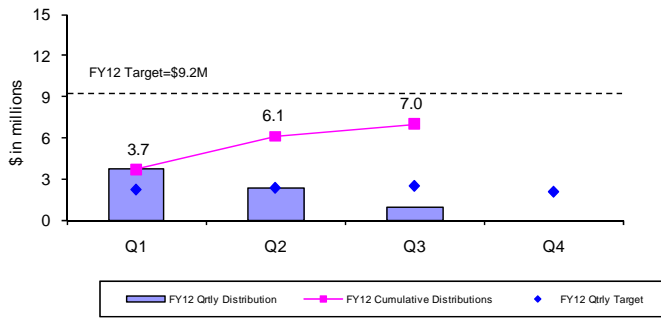
Community Support Programs

3rd Quarter – FY12

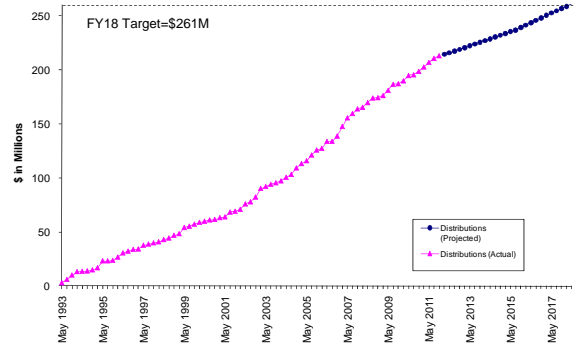
Infiltration/Inflow Local Financial Assistance Program

MWRA's Infiltration/Inflow (I/I) Local Financial Assistance Program provides \$260.75 million in grants and interest-free loans (average of about \$10 million per year from FY93 through FY18) 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.

FY12 Quarterly Distributions of Sewer Grant/Loans



I/I Local Financial Assistance Program Distribution FY93-FY18

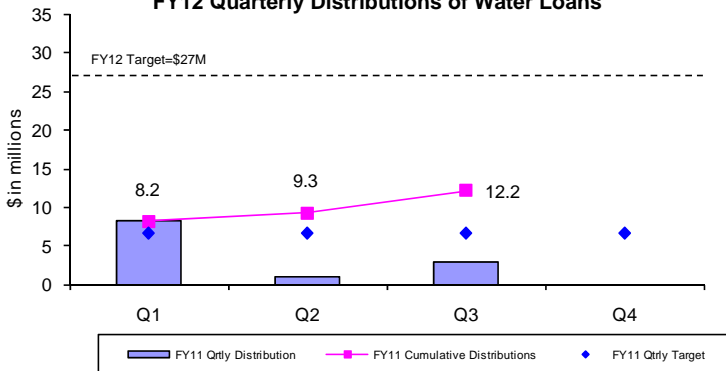


During the 3rd Quarter of FY12, \$0.9 million in financial assistance (45% grants and 55% interest-free loans) was distributed to fund local sewer rehabilitation projects in Needham, Stoughton and Westwood. Total grant/loan distribution for FY12 is \$7.0 million. From FY93 through the 3rd Quarter of FY12, all 43 member sewer communities have participated in the program and more than \$214 million has been distributed to fund 418 local I/I reduction and sewer system rehabilitation projects. Distribution of the remaining funds has been approved through FY18 and community loan repayments will be made through FY23. All scheduled community loan repayments have been made.

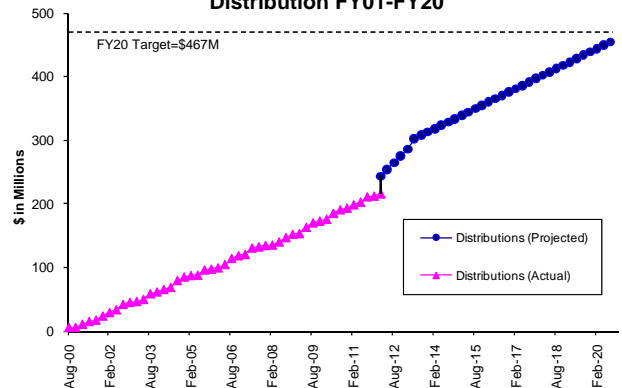
Water Local Pipeline and Water System Assistance Programs

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.

FY12 Quarterly Distributions of Water Loans



Local Pipeline and Water System Assistance Programs Distribution FY01-FY20



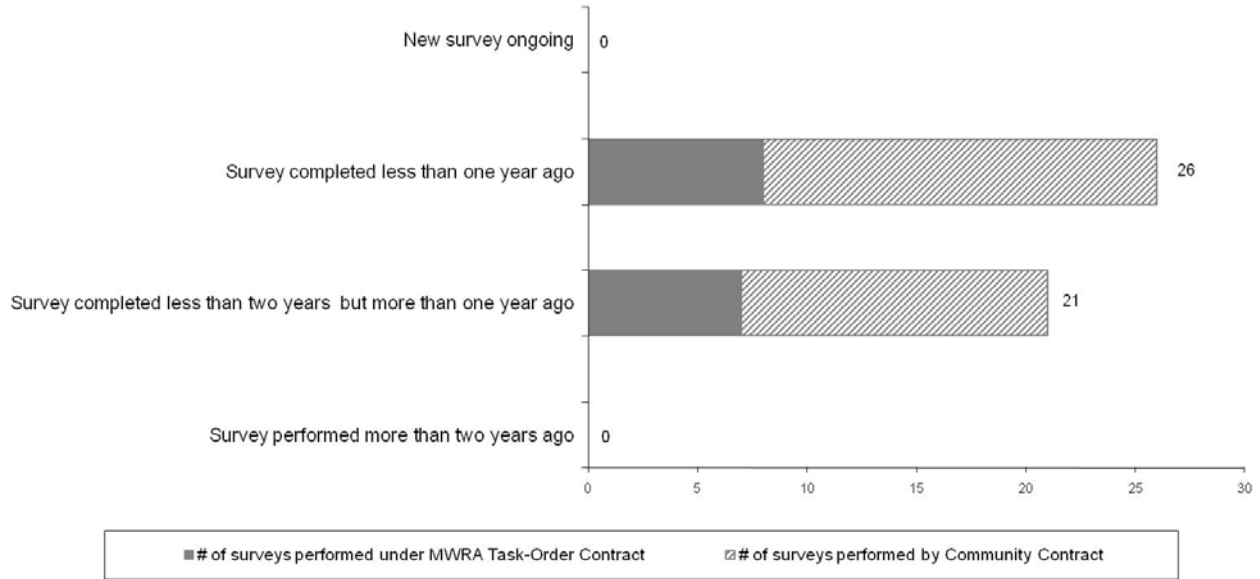
During the 3rd Quarter of FY12, \$2.9 million in interest-free loans was distributed to fund local water projects in Belmont, Chicopee and Medford. Total loan distribution for FY12 is \$12.2 million. From FY01 through the 3rd Quarter of FY12, more than \$215 million has been distributed to fund 252 local water system rehabilitation projects in 37 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 (Phase 2 Local Water System Assistance loans began in FY11 and will be distributed through FY20). A portion of the Phase 1 loan budget is not expected to be utilized by the communities. A revised Phase 1 budget has been developed for FY13.

Community Support Programs

3rd Quarter – FY12

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 3rd Quarter of FY12, 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 and provide customers the mean to manage their water and sewer bills. 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. The largest distribution of brochures is typically in the spring.

FY12 DISTRIBUTION	Annual Target	Q1	Q2	Q3	Q4	Annual Total
Educational Brochures	150,000	1,994	4,796	19,470		26,260
Low-Flow Fixtures (showerheads and faucet aerators)	10,000	1,945	2,712	3,557		8,214
Toilet Leak Detection Dye Tablets	-----	3,683	1,535	3,631		8,849

BUSINESS SERVICES

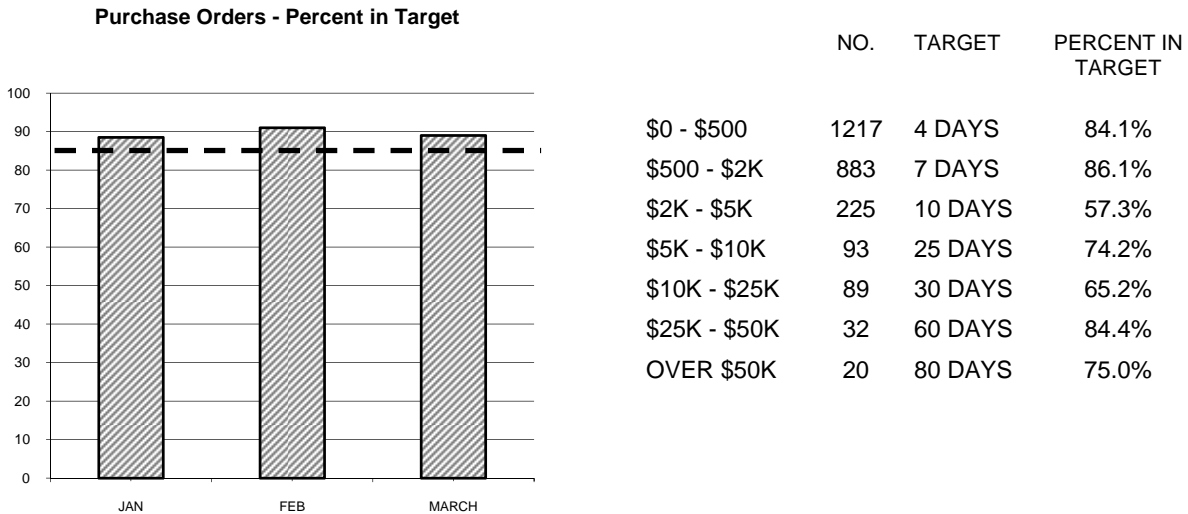
Procurement: Purchasing and Contracts

Third Quarter FY12

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

Outcome: Processed 81% of purchase orders within target; Avg. Processing Time was 6.81 days vs. 4.99 days in Qtr 3 of FY11. Processed 83% (15 of 18) contracts within target timeframes; Avg. Processing Time was 118 days vs. 116 days in Qtr 3 of FY11.

Purchasing



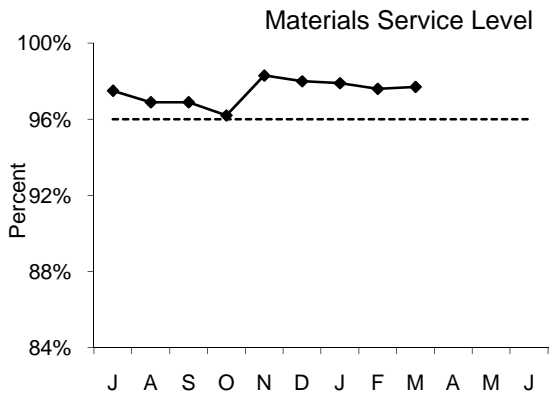
- Purchasing Unit processed 2559 purchase orders, 106 fewer than the 2453 processed in Qtr 3 of FY11, for a total value of \$8,866,584 vs. a dollar value of \$6,350,569 in Qtr 3 of FY11.
- The target was not achieved for the \$2k – \$5k category due to end user confirmation of specifications and an extended review of quotes, the \$5k - \$10k category because of delay in vendor response, vendor sourcing, and timing of the need for the services, the \$10k – \$25k category due to verifying end user needs, the \$25k - \$50k category due to extended bid development and review processes and the over \$50k category because of bid consolidation, extended bid development and bid review processes and determination of the scope of work needed.

Contracts, Change Orders and Amendments

- Three contracts were not processed within target timeframes. One was due to specification development and slow document submission after award, and one contract was postponed until market conditions were favorable, One contract was processed within two weeks of target.
- Procurement processed eighteen contracts with a value of \$9,291,335 and six zero dollar value amendments.
- Forty-nine 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 3rd quarter FY12 was \$3,460,746 and the value of credit change orders was (\$526,317).
- In addition, staff reviewed 118 proposed change orders and 62 draft change orders.

Materials Management

3rd Quarter, FY12



The service level is the percentage of stock requests filled. The goal is to maintain a service level of 96%. Staff issued 8,712 (97.7%) of the 8,916 items requested in Q3 from the inventory locations for a total dollar value of \$879,375.

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 FY12 goal is to reduce consumable inventory from the July '11 base level (\$6.8 million) by 4.0% (approximately \$273,659), to \$6.5 million by June 30, 2012 (see chart below).

Items added to inventory this quarter include:

- Deer Island – pillow block bearing, Siemens relay, copper cable and indicators for Core; explosion proof elbows and alloy screw sets for Residuals.
- Chelsea – radiator hose, vacuum pump, plow light and grease gun for VMM; 75 HP motor, 2" couplers, contact assembly, pilot lights and vibration isolator for Work Order Coordination Group.
- Southboro – ballasts and threaded rod for Maintenance; Valve repair kit for Carroll Water Treatment Plant.

Property Pass Program:

- Audits were conducted at Southboro masons and paint shops, Chelsea masons, plumbers, paint and electric shops and leak inspection and Norumbega during Q3.
- Numerous obsolete network switches, monitors, fax machines, printers, keyboards, servers, cameras and cell phones 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 \$5,012.

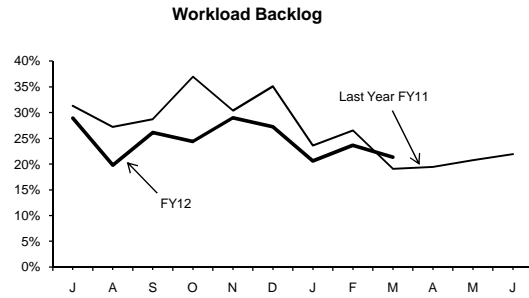
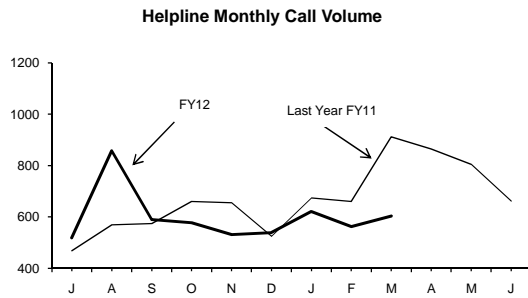
Items	Base Value July-11	Current Value w/o Cumulative New Adds	Reduction / Increase To Base
Consumable Inventory Value	6,841,475	6,325,255	-516,220
Spare Parts Inventory Value	7,057,082	7,036,039	-21,043
Total Inventory Value	13,898,557	13,361,294	-537,263

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 3rd Quarter FY12

Operations

Highlights:



Performance

- Call volume for Q3 peaked in January and has decreased by 7.9% from Q2 last year. For Q3 the backlog peaked in February and is 3% above the targeted benchmark of 20%.

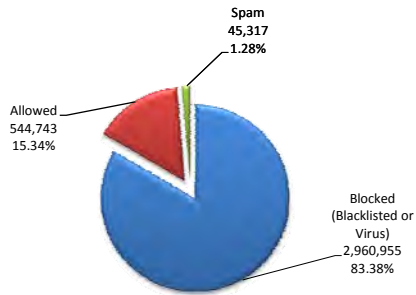
Infrastructure

- Uninterrupted Power Supply (UPS): Maximo work orders for quarterly inspections of UPS batteries have been set up. For Q3, all MIS related UPS batteries were inspected and labeled for identification.
- NET2020 project (LAN Switch replacement): In Q3 installed Local Area Network switch replacements at at Deer Island and Chelsea. To date 46 switches have been installed at multiple sites with 26 remaining to be done.

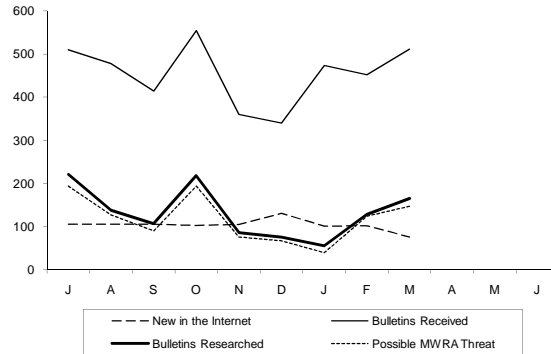
Information Security

- Cyber Security: During Q3, staff pushed security fixes and updates to desktops and servers throughout the quarter in order to protect against the 35 vulnerabilities. In addition, 279 new vulnerabilities were discovered throughout the Internet during Q3.
- LANDesk Antivirus quarantined 98 distinct viruses from 64 MWRA computers. MWRA's systems are current with anti-virus providers' signatures for all known malware.

Emails Received in Q3 = 3,551,015



Internet Vulnerabilities



Applications/Training/Records Center

Area	Significant Accomplishments
MWRA Emergency Notification Systems (ENS)	Trained Office of Emergency Preparedness (OEP) staff and Public Affairs staff in the systems that comprise the MWRA ENS (Community Contacts, MWRA 911, Communicator! NXT). Assisted OEP with three drills to contact the ESU group using the remote activation function of Communicator! NXT. Added three new Lawson users fields (personal email, personal cell, work cell phone #2), modified export and import files, and updated data as required for notifications.
Lawson	Application v9.0.1 Upgrade: Progress continues on the application upgrade and the testing. Target completion is for Q4 FY12. Electronic Time Entry/Approval: Implemented the electronic timesheet approvals process for DI Directors Office, DI Assets, Work Coordination and Condition Monitoring, and DI Safety and Security Departments eliminating the need for filling out and approving paper timesheets. These Departments have a total of 40 employees with 9 Summary approvers.
Maximo	Application v7.5 Upgrade: Database has been successfully upgraded from version 7.1.1.8 to 7.5, which was the final iteration before converting from the system from 5.2 to 7.5. A test environment using Deer Island data is ready to present to power users. A statement of work is being drafted under ITS43 for assistance with implementing a single Maximo 7.5 system by combining Deer Island and FOD.
Library & Records Center	The Library completed 52 research requests (154 YTD), added 42 books (93 YTD), distributed 82 periodicals and 2,557 electronically (8,647 YTD) linked articles to staff. The Records Center added 54 boxes (196 YTD), conducted 2 training sessions, and attended 3 Record Conservation Board Meetings. Relocated Shaft 5 evidence to new location and updated access procedures. Met with State Archivist on 3/21/12 and submitted Records Conservation Board forms for 228 boxes already reviewed by Law to be reviewed for disposition approval at 4/4/12 RCB meeting.
IT Training	For the quarter, 132 staff attended 21 classes and 11 workshops. 12% of the workforce have attended at least one class year-to-date.

Legal Matters

3rd Quarter FY2012

PROJECT ASSISTANCE

COURT AND ADMINISTRATIVE ORDER

- **Boston Harbor Litigation and CSO:** Drafted and filed quarterly compliance and progress report; filed CSO annual report.
- **NPDES:** Reviewed MWRA's draft nine minimum controls document; drafted memorandum relating to infiltration and inflow.

REAL ESTATE, CONTRACT AND OTHER SUPPORT

- **MassDOT License – Chelsea:** Drafted license agreement for MassDOT to grant MWRA use of the abandoned right-of-way.
- **Chelsea Headworks Land Sale:** Drafted legislation to authorize the sale of the property adjacent to the Chelsea headworks to the City of Chelsea.
- **Boston Bar Association Continuing Legal Education:** Represented the MWRA at a panel discussion on the intersection of Private and Public Real Estate issues organized by the Boston Bar Association as part of its Continuing Legal Education Program.
- **G.L. c. 148/527 CMR 1.00:** Drafted Opinion Letter to the Department of Fire Services which opined that MWRA was exempt from the requirements of G.L. c. 148 and regulations promulgated pursuant to that statute, 527 CMR 1.00 et seq, commonly referred to as the state fire code, relating to Above Ground Storage Tanks (AST).
- **Underground Storage Tanks:** advised staff regarding the new DEP regulations pertaining to UST operators' training and certification, and their application to the MWRA.
- **Weston Water Main:** Provided continued attention to matters regarding litigation claims and strategies arising out of the water main break on May 1, 2010; continued the process of attempting early settlement through mediation to take place on May 22 and 23, 2012; filed a Motion to Amend the First Amended Complaint to add Fay Spofford & Thorndike as a party defendant.
- **Miscellaneous:** Reviewed and approved twenty-two (22) Section 8(m) Permits; reviewed and made recommendations on eight (8) construction claims;

ENVIRONMENTAL

- **Clean Air Regulations:** Reviewed Clean Air regulations relating to the national emission standards for existing stationary compression ignition (CI) reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP).
- **Miscellaneous:** Researched and advised on U.S. wastewater treatment plants that are combining organic solid wastes with wastewater treatment residuals in anaerobic digesters.

LABOR, EMPLOYMENT AND ADMINISTRATIVE

New Matters

Received an arbitrator's decision granting the MWRA's motion to dismiss a grievance regarding the assignment of employees for lack of substantive jurisdiction.

Received an arbitrator's decision in favor of the MWRA finding that the MWRA did not violate a collective bargaining agreement when it did not pay the grievant out of title pay.

Received an arbitrator's decision in favor of a union finding that the MWRA violated a collective bargaining agreement when it did not negotiate with the union about the grade of a reclassified position.

Received an arbitrator's decision in favor of a MWRA finding that the MWRA did not violate a collective bargaining agreement when it terminated the grievant.

Received a dismissal from the MCAD for lack of probable cause of a charge of discrimination on the basis of gender.

Settled an arbitration regarding the transfer of an employee.

Matters Concluded Six demands for arbitration were filed.

LITIGATION/TRAC

New Lawsuits During the Third Quarter of FY 2012 one new lawsuit was reported.

PDA Financial v. (current employee): This wage garnishment matter has been "reactivated" by the creditor's attorneys, with service of a new trustee summons on Feb. 13, 2012. The matter was initiated in September of 2010, and has been inactive since October 2010. The amount of the attachment is \$3,935.67. Previous Execution issued in Waltham District Court in this matter in the amount of \$2,944.36 from July 2008.

Significant Developments

Linebarger Googan Blair & Sampson, LLP: The Notice dated January 3, 2012 from Linebarger Googan Blair & Sampson, LLP concerning an alleged debt owed to the US Department of Health & Human Services. There are no specifics in the notice. Law Division has requested supporting information from Linebarger et al, and will follow up once the information is received.

(Former employee) v. MWRA: This is an employment litigation matter whereby the plaintiff is a former employee appealing the arbitration decision upholding his termination. He is seeking reinstatement. In August 2011, the MWRA filed its Motion for Summary Judgment. On February 6, 2012, the court allowed MWRA's Motion dismissing the plaintiff's complaint against the MWRA with costs.

(Former employee) v. MWRA: This is an employment matter whereby plaintiff alleged race discrimination in his conditions of employment and his termination from employment, all in violation of federal (42 USC 2000e) and state (G.L. C. 151 B Section 1) law. MWRA moved for summary judgment on all claims based upon plaintiff's execution of a release at the time of the termination of his employment, and his subsequent ratification of that release. On March 16, 2012, the court ruled in favor of MWRA's Motion for Summary Judgment dismissing the plaintiff's complaint against the MWRA with costs. Plaintiff filed a Notice of Appeal on March 23, 2012.

William A. Davison, Mary J. Davison, and Paul W. DiMaura, Trustees of Heather Realty Trust v. Massachusetts Water Resources Authority: In this eminent domain case, Heather Realty Trust, a real estate trust, sued MWRA for damages for the eminent domain takings of temporary and permanent easements approved by the Board in 2005 with respect to the Plaintiffs' adjoining parcels located at 1625, 1665 and 1675 VFW Parkway, Boston, MA (Route 1 South). The takings consisted of temporary easements during construction of the Upper Neponset Valley Relief Sewer ("UNVRS Project") and its connection to the Wellesley Extension Relief Sewer ("WERS"), including an expansion of the pre-existing permanent easements taken by MDC and the City of Boston on the property. The eminent domain case was tried to a 12-person jury before Suffolk Superior Court Judge Paul Troy. The jury was impaneled on March 8, 2012 and it returned its verdict late in the afternoon of Friday, March 23, 2012. In the intervening days, the jury took a "view" of Plaintiffs' premises, heard 10 days of testimony from 8 witnesses, including Michael Hornbrook, and had at its disposal 105 exhibits introduced in evidence by the parties. The jury deliberated for only 2 - 3 hours before returning a verdict very favorable to MWRA in that it exclusively used the lower land and rental values (\$431,500) relied upon by MWRA's expert, Steven Foster. The jury appears to have disregarded the values of Plaintiffs' expert, Robert Coleman, which were four times higher (\$1.73 million). Of greatest significance, the jury's verdict awarded zero dollars to the Plaintiffs for their claims that MWRA's takings had damaged their ability to continue to use and/or develop the parcels for any use other than parking. The amount of the verdict, \$431,500, will be reduced by the sum of \$161,800 which has previously been paid to the Plaintiffs. The balance, \$269,700, does not include pre-judgment interest from the date of the taking in 2005. Pre-judgment interest will amount to approximately \$43,000 through April, 2012. Interest will continue to accrue until a judgment enters and is paid. The current "per diem" is approximately \$2/day. The rate currently stands at a fraction of one percent per annum (0.2%). The interest rate will next re-set on or about April 14, 2012 and is expected to remain at a level well below one percent. Among the post-trial issues that Plaintiff may raise includes whether the variable interest rate has dropped so low, for so long, as to constitute an unconstitutional deprivation of property without "just compensation." MWRA has served a motion to use the low statutory interest rate and to have a final judgment entered as quickly as possible to minimize the payment required to be made to Plaintiffs. Following the entry of judgment, Plaintiffs and MWRA will have the right to appeal.

Closed Cases Midland Funding, Inc. vs. (Current Employee) and MWRA: In this wage garnishment action, MWRA received on March 23, 2012 a Voluntary Dismissal of Trustee Process as to the defendant and MWRA as Trustee was filed in Charlestown District Court.

D & C Construction Company, Inc. v. MWRA: On or about June 26, 2008, D&C entered into public construction contract with MWRA for a project known as "Cottage Farm/ Brookline Connection and Inflow Controls in Boston and Cambridge, MA in lump sum amount of \$1,976,000. The Contract for the Project was MWRA Project No. 7080. D&C's work under the Contract included dismantling, evacuation and cleanup of certain chambers related to anticipated overflow events during the course of the Project. Plaintiff claimed breach of contract by a general contractor on a public construction project to recover monies due under its lump sum contract with the Authority and is claiming damages in the amount of \$187,106.60. On March 5, 2012, the court ruled that D&C's Motion for Summary Judgment be denied and MWRA's Motion for Summary Judgment be allowed. The Complaint of the plaintiff, D&C Construction Company, Inc., has been dismissed against the MWRA, with costs, subject to appeal rights.

Subpoenas During the Third Quarter of FY 2012, one new subpoena was received, one subpoena was re-activated and three subpoenas were pending at the end of the Third Quarter FY 2012.

Public Records During the Third Quarter of FY 2012 eleven new public records requests were received and seven requests were closed at the end of the Third Quarter FY 2012.

SUMMARY OF PENDING LITIGATION MATTERS

TYPE OF CASE/MATTER	As of Mar 2011	As of Dec 2011	As of September 2011
Construction/Contract/Bid Protest (other than BHP)	2	4	5
Tort/Labor/Employment	7	6	8
Environmental/Regulatory/Other	1	1	1
Eminent Domain/Real Estate	1	2	2
total – all defensive cases	11	13	16
Affirmative Cases: <u>MWRA v. (current employee)</u> <u>MWRA v. J. F. Shea Co., Inc., et al.</u>	2	2	2
Other Litigation matters (restraining orders, etc.)	0	0	0
total – all pending lawsuits	13	15	18
Significant claims not in suit: <u>Giaquinto/Geico Automobile Accident Claims</u>	2	2	2
Bankruptcy	3	3	3
Wage Garnishment	8	8	8
TRAC/Adjudicatory Appeals	0	0	1
Subpoenas	4	3	3
TOTAL – ALL LITIGATION MATTERS	30	31	35

TRAC/MISC.

New Appeals No news appeals were received in the 3rd Quarter FY 2012.

Settlement by Agreement of Parties No cases were settled by Agreement of Parties in 3rd Quarter FY 2012.

Stipulation of Dismissal No cases were dismissed by Stipulation of Dismissal.

Notice of Dismissal Fine paid in full No cases were dismissed by Notice of Dismissal, fine paid in full.

Tentative Decisions No Tentative Decisions were issued in 3rd Quarter FY 2012.

Final Decisions No Final Decisions were issued during the 3rd Quarter FY 2012.

INTERNAL & CONTRACT AUDIT PROGRAM
3rd Quarter FY12

Highlights

Review of Fleet Services Activities

The review was performed at the request of the Director and Deputy Director of A&F. The review found that improvements are needed in scheduling and documenting preventative and corrective maintenance. Controls also need to be strengthened over the receipt, custody and use of automotive parts and shop tools and equipment.

Management took immediate corrective action by issuing new procedures for both preventative and corrective maintenance. The Maximo system will be used to schedule preventative maintenance, and to capture mechanic hours and automotive parts used to complete each work order. Internal Audit will re-evaluate Fleet Services' practices in six months.

Status of Open Audit Recommendations (1 recommendation closed in the 3rd 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
Boston Water & Sewer Commission CSO Financial Assistance Agreement (9/18/09)	1	2
Construction Change Order Pricing (12/31/09)*	4	1
Chelsea Data Center Physical Controls (5/5/10)	1	10
Review of Emergency Action Plans (6/30/10)	1	6
Warehouse Practices (9/30/10)	2	8
Facility Card Access Controls (2/22/11)	3	17
Review of TRAC Operations (5/19/11)	1	5
DITP Data Center Access Controls (10/14/11)	14	8
FRRC Financial and Management Controls (12/14/11)	4	3
Workers' Compensation (12/23/11)	3	1
Review of Fleet Services Activities	<u>4</u>	<u>1</u>
Total Recommendations	38	62

*Recommendations involve an updated construction manual with a target completion of June 2012.

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.

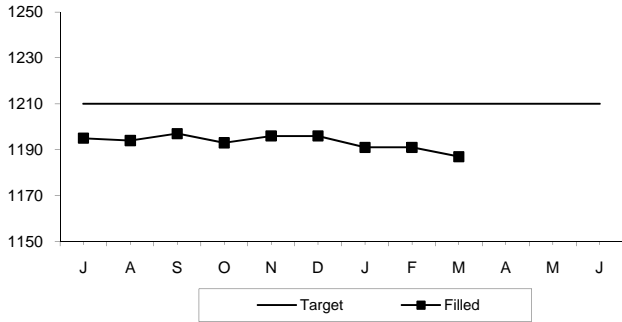
Savings	FY08	FY09	FY10	FY11	FY12 (3Q)	TOTAL
Consultants	\$55,901	\$316,633	\$194,238	\$520,176	\$219,426	\$1,225,204
Contractors & Vendors	\$2,147,311	\$1,262,088	\$599,835	\$3,129,538	\$130,199	\$7,268,971
Internal Audits	\$0	\$438,027	\$206,282	\$152,478	\$371,747	\$965,799
Total	\$2,203,212	\$2,016,748	\$1,000,355	\$3,802,192	\$721,372	\$9,459,974

OTHER MANAGEMENT

Workforce Management

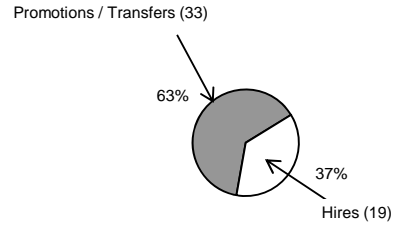
3rd Quarter FY12

Filled Position Tracking



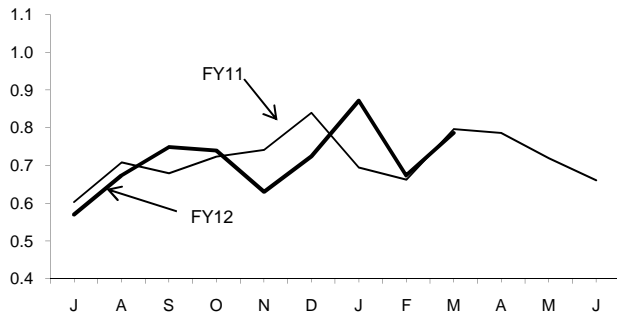
FY12 Target for Filled Positions = 1210
 Filled Positions as of March 2012 = 1187

Positions Filled by Hires/Promotions
FY12-YTD



	Pr/Trns	Hires	Total
FY09	63 (73%)	23 (27%)	86
FY10	66 (76%)	21 (24%)	87
FY11	48 (62%)	30 (38%)	78

Average Monthly Sick Leave Usage
Per Employee



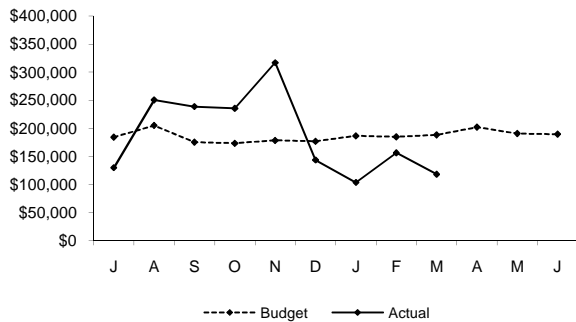
In FY12, the average monthly sick leave usage has decreased .48% from the same time last year.

	Number of Employees	YTD	Annualized Total	Annual FMLA %	FY11
A&F	191	5.88	7.83	17.9%	8.01
Aff. Action	7	8.98	11.97	23.4%	7.63
Executive	5	6.00	8.00	60.3%	3.29
Int. Audit	8	4.53	6.04	13.9%	4.47
Law	17	9.02	12.03	34.6%	9.95
OEP	4	2.66	3.54	0.0%	5.74
Operations	927	6.48	8.64	18.3%	8.86
Planning	21	4.82	6.43	15.2%	4.68
Pub. Affs.	12	4.85	6.46	0.0%	8.15
MWRA Avg	1192	6.42	8.56	18.5%	8.64

Percent of sick leave usage attributable to Family and Medical Leave Act (FMLA) leave is 18.5% ending March 31, 2012.

Field Operations

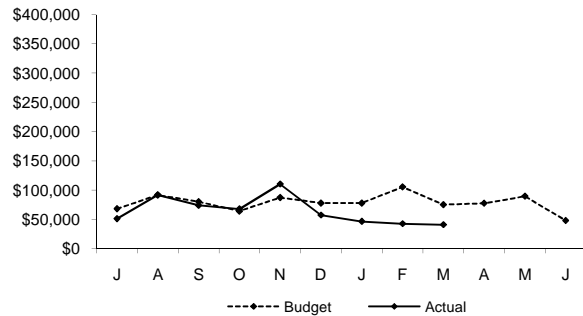
Overtime Expenditure Variance



Total overtime for Field Operations through the third quarter was \$1,691,449, which is (\$39k) under budget. Emergency overtime was \$843k, which is \$42k over budget. Of that amount, \$246k was for emergency maintenance, \$163k for rain events, \$147k for rain event pre-staging, \$54k for CSO activation. Coverage overtime was \$413k, which was \$94k over budget. Vacation coverage was \$214k; sick coverage was \$72k, coverage for vacancies in force was \$36k. Planned overtime was \$436k or (\$97k) under budget. \$86 was for planned operations, \$75k was for maintenance off-hours work, \$69k for maintenance work completion, \$65k was half plant operations at Carroll. The majority of under spending in the third quarter is attributed to the relatively dry weather, which is offset, year to date, by significant wet weather activity in the first quarter in response to Hurricane Irene and the October storm.

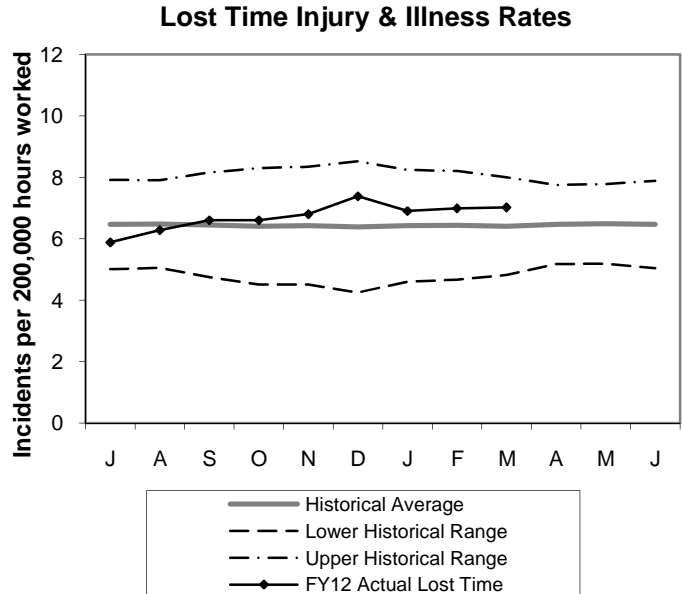
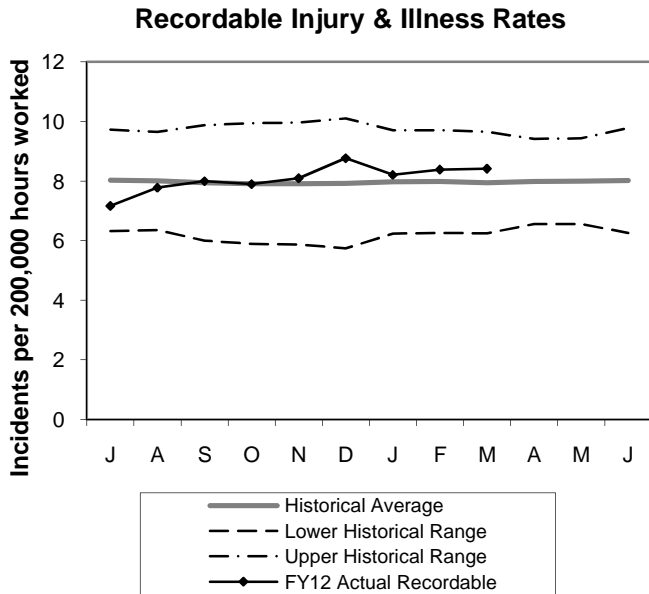
Deer Island Treatment Plant

Overtime Expenditure Variance



Total overtime for Deer Island through the third quarter was \$582k, which is (\$145k) under budget. Storm coverage overtime was (\$147k) under budget due to less than budgeted storm requirements. Shift coverage overtime was \$56k over budget due to higher than expected coverage needs, while Management's continued efforts to control overtime spending by allowing repairs of critical systems and equipment only, resulted in a combined savings in planned/unplanned overtime of \$54k.

Workplace Safety 3rd Quarter FY12



- 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 FY11. The "Upper" and "Lower Historical Ranges" are computed using these same data – adding and subtracting two standard deviations respectively. FY12 actual incident rates can be expected to fall within this historical range.

Workers Compensation Claims Highlights - Third Quarter FY12

	New	Closed	Open Claims
Lost Time	4	15	46
Medical Only	52	55	54
	New		YTD Light Duty Returns
Light Duty Returns	3		7

Highlights/Comments:

Light Duty returns

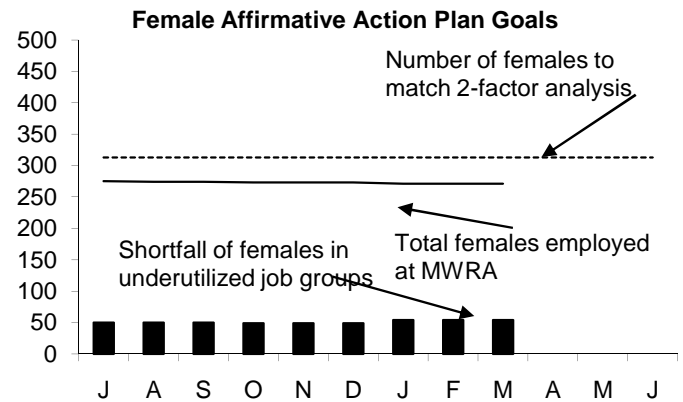
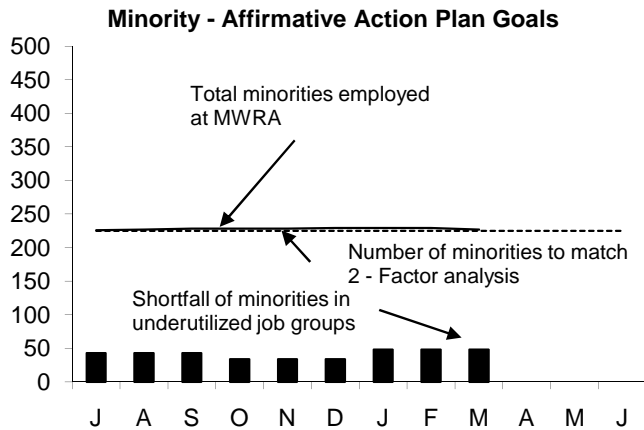
- Jan none
- Feb 1 employee returned to work in a light duty capacity from IA
- Mar 2 employees returned to work in a light duty capacity from IA (1 of whom was only out 6 days)

Regular Duty returns

- Jan 6 employees returned to work in a regular capacity (1 of whom returned to IA after 1 week)
- Feb 3 employees returned to work in a regular capacity (1 of whom was only out 1 week)
- Mar 4 employees returned to work in a regular capacity (1 of whom was only out 5 days)
- 1 employee returned to work in a light duty capacity from light duty
- 2 employees were cleared to return to work for their work related injuries but remained out on FMLA

MWRA Job Group Representation

Third Quarter FY12



Underutilized Job Groups - Workforce Representation

Job Group	Employees	Minorities	Achievement Level	Minority	Females	Achievement Level	Female
	as of 3/31/2012	as of 3/31/2012		Over or Under Under utilized	As of 3/31/2012		Over or Under Under utilized
Administrator A	18	3	2	1	3	5	-2
Administrator B	20	0	3	-3	5	5	0
Clerical A	46	20	11	9	40	4	36
Clerical B	35	9	9	0	15	3	12
Engineer A	83	16	17	-1	11	17	-6
Engineer B	47	10	5	5	6	17	-11
Craft A	115	13	21	-8	0	4	-4
Craft B	149	29	22	7	3	9	-6
Laborer	64	16	12	4	4	16	-12
Management A	106	16	22	6	33	47	-14
Management B	53	11	11	0	14	26	-12
Operator A	66	5	6	-1	2	3	-1
Operator B	67	7	13	-6	4	5	-1
Para Professional	57	11	25	-14	26	49	-23
Professional A	36	2	7	-5	22	16	6
Professional B	166	40	31	9	76	77	-1
Technical A	54	17	10	7	5	11	-6
Technical B	9	2	2	0	2	4	-2
Total	1191	227	229	48/-38	271	318	54/-101

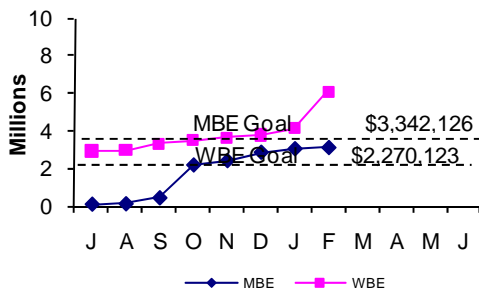
AACU Candidate Referrals for Underutilized Positions

Job Group	Title	# of Vac	Requisition Int. / Ext.	Promotions/ Transfers	AACU Ref. External	Position Status
Craft A	Trades Foreman	1	Int	1	0	Promo-W/M
Craft A	WSS Foreman	1	Int	0	0	Pending
Craft B	Facilities Specialist	1	Ext	0	0	Pending
Craft B	HVAC Specialist	1	Int/Ext	0	0	Pending
Engineer A	Sr. Mon. & Contrl Eng.	1	Ext	0	0	Pending
Engineer A	Mechanical Designer	1	Int/Ext	0	0	Pending
Management B	Shift Operations Manager	1	Int	1	0	Promo-W/M

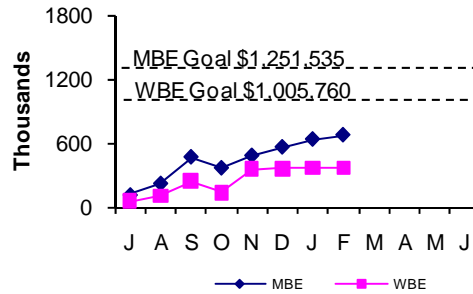
MBE/WBE Expenditures Third Quarter FY 2012

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 February.

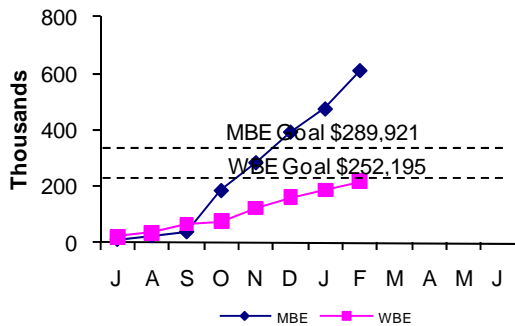
Construction



Professional



Goods/Services



FY12 spending and percentage of goals achieved, as well as FY11 performance are as follows:

	MBE		FY11		WBE		FY11	
	FY12 Year-to-Date Amount	Percent	Amount	Percent	FY12 Year-to-Date Amount	Percent	Amount	Percent
Construction	3,098,382	92.7%	6,672,772	129.2%	6,067,422	267.3%	7,871,501	184.8%
Professional Svc.	669,686	53.5%	2,045,576	160.6%	363,170	36.1%	1,212,947	118.3%
Goods & Svcs.	613,463	211.6%	393,060	56.9%	219,042	86.9%	345,590	57.5%
Total	\$4,381,531	89.7%	\$9,111,408	127.8%	\$6,649,634	188.5%	\$9,430,038	160.2%

MWRA FY12 CEB Expenses through 3rd Quarter FY12

	March 2012 Year-to-Date					
	Period 9 YTD Budget	Period 9 YTD Actual	Period 9 YTD Variance	%	FY12 Approved	% Expended
EXPENSES						
WAGES AND SALARIES	\$ 64,378,698	\$ 64,367,828	\$ (10,870)	0.0%	\$ 90,319,013	71.3%
OVERTIME	2,627,106	2,474,357	(152,749)	-5.8%	3,508,630	70.5%
FRINGE BENEFITS	13,343,654	13,147,230	(196,424)	-1.5%	17,954,076	73.2%
WORKERS' COMPENSATION	1,575,000	1,204,994	(370,006)	-23.5%	2,100,000	57.4%
CHEMICALS	6,730,401	6,730,068	(333)	0.0%	9,047,275	74.4%
ENERGY AND UTILITIES	16,843,590	17,177,952	334,362	2.0%	22,654,931	75.8%
MAINTENANCE	20,205,491	17,891,753	(2,313,738)	-11.5%	29,470,020	60.7%
TRAINING AND MEETINGS	151,400	124,394	(27,006)	-17.8%	251,550	49.5%
PROFESSIONAL SERVICES	4,195,486	3,706,180	(489,306)	-11.7%	5,892,441	62.9%
OTHER MATERIALS	2,497,080	2,589,832	92,752	3.7%	4,765,483	54.3%
OTHER SERVICES	16,969,422	16,944,001	(25,421)	-0.1%	23,323,074	72.6%
TOTAL DIRECT EXPENSES	\$ 149,517,328	\$ 146,358,589	\$ (3,158,738)	-2.1%	\$ 209,286,493	69.9%
INSURANCE	\$ 1,714,403	\$ 1,473,203	\$ (241,200)	-14.1%	\$ 2,285,870	64.4%
WATERSHED/PILOT	19,182,205	19,049,637	(132,568)	-0.7%	25,576,274	74.5%
BECo PAYMENT	2,888,752	2,685,610	(203,142)	-7.0%	3,965,500	67.7%
MITIGATION	1,146,525	1,120,934	(25,591)	-2.2%	1,528,700	73.3%
ADDITIONS TO RESERVES	146,600	146,600	-	0.0%	195,467	75.0%
RETIREMENT FUND	7,340,438	7,363,170	22,732	0.3%	7,340,438	100.3%
POST EMPLOYEE BENEFITS	-	-	-	---	-	---
TOTAL INDIRECT EXPENSES	\$ 32,418,923	\$ 31,839,154	\$ (579,769)	-1.8%	\$ 40,892,249	77.9%
DEBT SERVICE	\$ 270,443,817	\$ 270,443,817	\$ -	0.0%	\$ 367,979,918	73.5%
DEBT SERVICE ASSISTANCE	(262,500)	(262,500)	-	0.0%	-	---
TOTAL DEBT SERVICE	\$ 270,181,317	\$ 270,181,317	\$ -	0.0%	\$ 367,979,918	73.5%
TOTAL EXPENSES	\$ 452,117,568	\$ 448,379,060	\$ (3,738,508)	-0.8%	\$ 618,158,660	72.5%
REVENUE & INCOME						
RATE REVENUE	\$ 442,275,000	\$ 442,275,000	\$ -	0.0%	\$ 589,700,000	75.0%
OTHER USER CHARGES	4,957,611	5,049,990	92,379	1.9%	7,142,495	70.7%
OTHER REVENUE	4,004,281	4,463,675	459,394	11.5%	4,872,342	91.6%
RATE STABILIZATION	818,835	818,835	-	0.0%	1,091,780	75.0%
INVESTMENT INCOME	11,207,363	11,930,128	722,765	6.4%	15,352,043	77.7%
TOTAL REVENUE & INCOME	\$ 463,263,091	\$ 464,537,628	\$ 1,274,538	0.3%	\$ 618,158,660	75.1%

As of March 2012, total revenue was \$464.5 million, \$1.3 million or 0.3% more than budget. Total expenses were \$448.4 million, \$3.7 million or 0.8% less than budget, resulting in a net variance of \$5.0 million.

Expenses –

- **Direct Expenses** are \$146.4 million, \$3.2 million or 2.1% less than budget.
- **Maintenance** is \$2.3 million or 11.5% less than budget. Services are underspent by \$1.5 million and materials are underspent by \$800,000.
- **Professional Services** are \$489,000 or 11.7% under budget due to lower spending for Lab and Testing of \$263,000, as-needed Engineering of \$118,000, Security of \$69,000, and Legal of \$30,000.
- **Workers' Compensation** is \$370,000 or 23.5% lower than budget due to Compensation Payments of \$417,000, offset by Medical Payments of \$55,000.
- **Utilities** are overspent by \$334,000 or 2.0% mainly for Electricity of \$303,000 at Deer Island, Water usage of \$211,000 at Deer Island and FOD offset by lower spending for Natural Gas of \$151,000.
- **Fringe Benefits** are lower by \$196,000 or 1.5% mainly due to lower spending for Health Insurance of \$129,000, Unemployment Insurance of \$26,000, Medicare of \$19,000, and Dental Insurance of \$11,000.
- **Overtime** is \$153,000 or 5.8% under budget mainly due to lower than projected snow removal and managements' curtailment of non-emergency overtime due to higher spending for emergency overtime during the Fall.
- **Other Materials** are \$93,000 or 3.7% higher than budget mainly for Vehicle Purchase/Replace of \$171,000 due to timing, offset by lower spending for Equipment Furniture of \$47,000 due to lab equipment delays, Computer Hardware of \$37,000, and Postage of \$34,000.
- **Indirect Expenses** are \$31.8 million, \$580,000 or 1.8% under budget mainly due to lower Insurance claims of \$205,000 and premiums of \$37,000 and lower Watershed Reimbursement of \$137,000 due to an FY11 accrual.
- **Debt Service Expenses** total \$270.2 million. Debt Service Expenses are at budget level after the approved transfer of an additional \$2.0 million of year-to-date savings to the defeasance account in March. The defeasance account has a balance of \$13.1 million year-to-date March.

Revenue and Income –

- **Total Revenue / Income** for March is \$464.5 million, \$1.3 million or 0.3% higher than budget and is mainly due to higher Investment Income of \$723,000 and non-rate revenue of \$552,000.

Cost of Debt 3rd Quarter FY12

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.

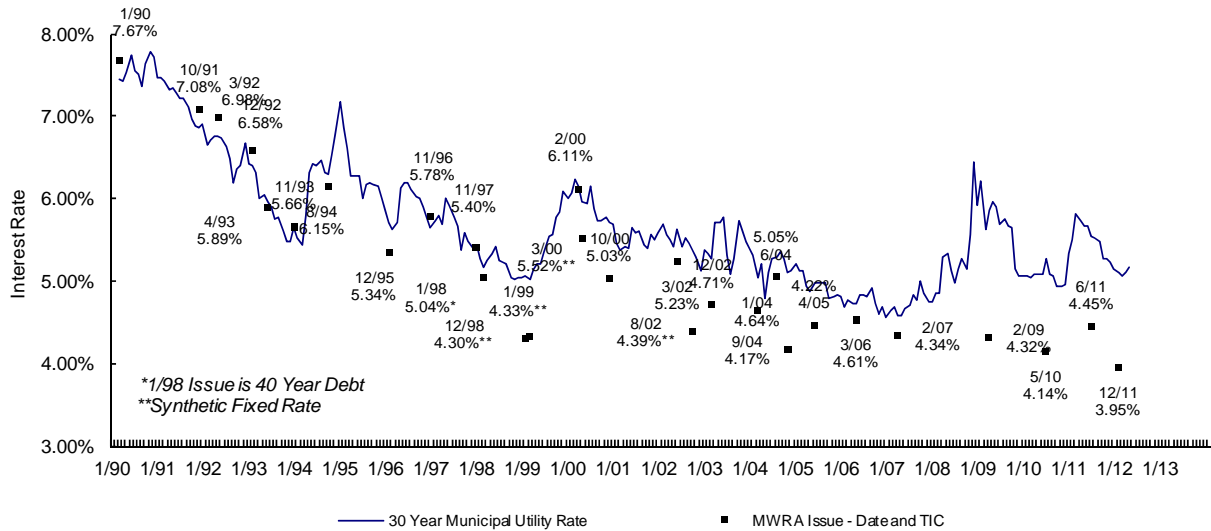
Average Cost of MWRA Debt

Fixed Debt (\$4,034)	4.48%
Variable Debt (\$544)	0.85%
SRF Debt (\$1,022)	1.07%
 Weighted Average Debt Cost (\$5,610)	 3.50%

Most Recent Senior Fixed Debt Issue December 2011

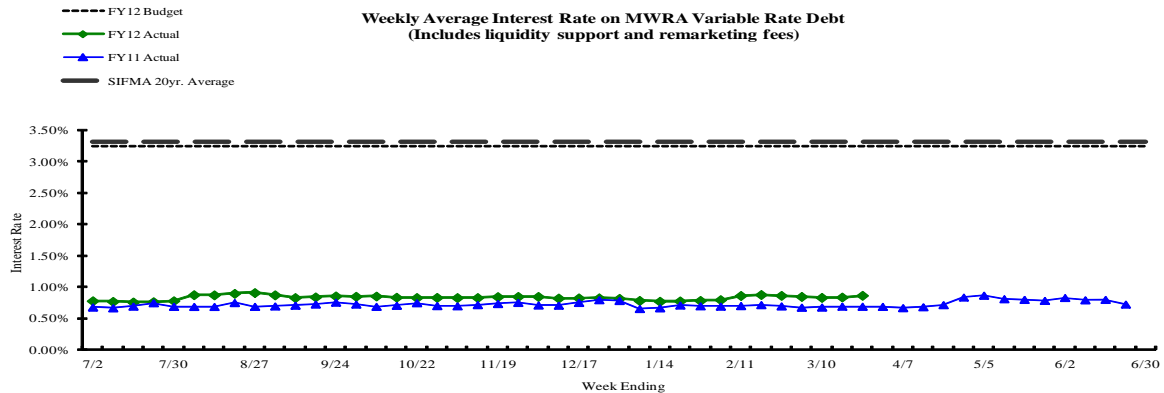
2011 Series C (\$327)	3.95%
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MWRA Fixed Rate Debt vs. 30 Year Municipal Utility Interest Rate



Weekly Average variable Interest Rates vs. Budget

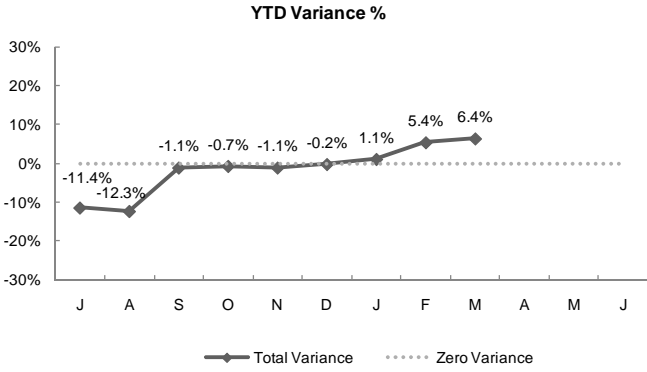
MWRA currently has nine variable rate debt issues with \$1.2 billion outstanding, excluding commercial paper. Of the nine outstanding series, five have portions which have been swapped to fixed rate. Variable rate debt has been less expensive than fixed rate debt in recent years as short-term rates have remained lower than long-term rates on MWRA debt issues. In March, SIFMA rates fluctuated with a high of 0.19% and a low of 0.13%. 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

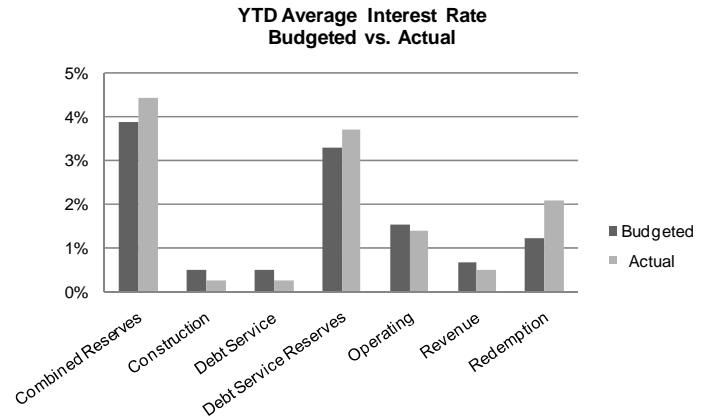
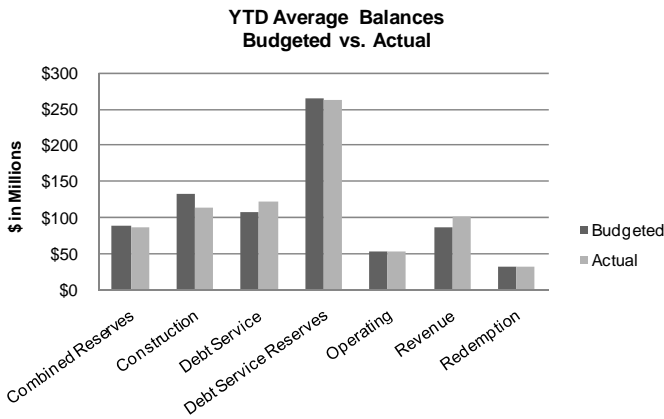
3rd Quarter FY12

Year To Date



	YTD BUDGET VARIANCE			
	(\$'000)			
	BALANCES IMPACT	RATES IMPACT	TOTAL	%
Combined Reserves	(\$59)	\$353	294	11.5%
Construction	(\$45)	(\$231)	(276)	-56.1%
Debt Service	\$52	(\$217)	(166)	-41.4%
Debt Service Reserves	(\$53)	\$820	768	11.9%
Operating	\$0	(\$48)	(48)	-8.1%
Revenue	\$52	(\$111)	(59)	-13.8%
Redemption	\$1	\$209	210	70.0%
Total Variance	(\$52)	\$775	\$723	6.4%

➤ The positive variance is attributed to the change in the liquidity requirements which allowed long-term investments to be made rather than reinvesting these funds at short-term rates.



Monthly

