

MASSACHUSETTS WATER RESOURCES AUTHORITY

Board of Directors Report

on

Key Indicators of MWRA Performance

for

Third Quarter FY2011

Q1	Q2	Q3	Q4



Frederick A. Laskey, Executive Director
Michael J. Hornbrook, Chief Operating Officer
May 11, 2011

Board of Directors Report on Key Indicators of MWRA Performance for Third Quarter FY2011

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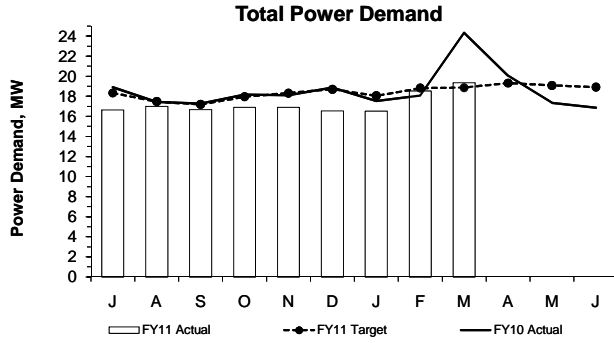
This quarterly report is prepared by MWRA staff to track a variety of MWRA performance measures for routine review by MWRA's board of directors. The content and format of this report is expected to develop as time passes. Information is reported on a preliminary basis as appropriate and available for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

Frederick A. Laskey, Executive Director
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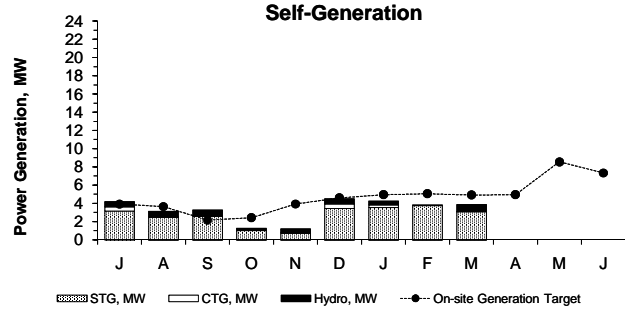
OPERATIONS AND MAINTENANCE

Deer Island Operations

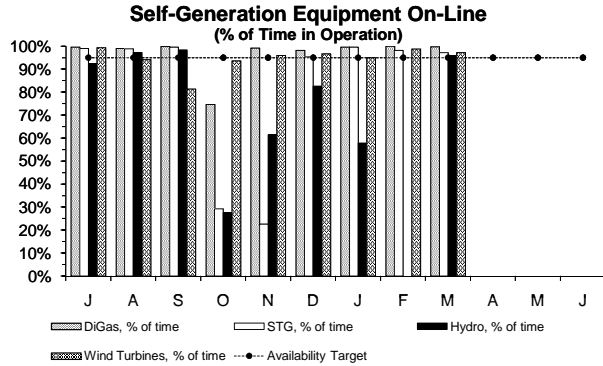
3rd Quarter - FY11



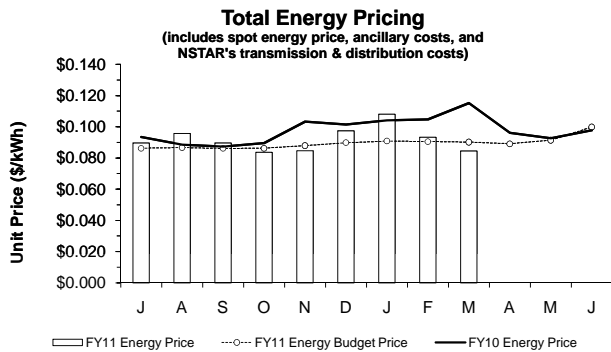
Total Power Demand in the 3rd Quarter was within 2% of target for the quarter. During the 3rd Quarter, power demand for pumping alone was 4.4% higher than expected, mostly due to higher-than-expected demand for pumping in the South System. Power demand for all other treatment processes was similar to or lower than expected for the quarter. Total Power Demand in the 3rd Quarter was 9% lower than during the same period in FY10 due to record setting high plant flows in March 2010 caused by a number of historic storm events.



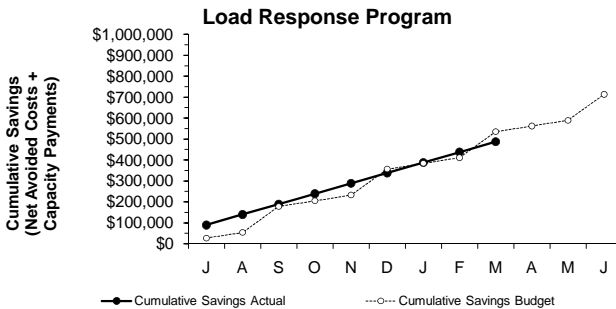
Power generated on-site was 13% lower than target for the 3rd Quarter. The STG, Hydro Turbines, and Solar Panels were below their generation targets for the quarter by 7%, 50%, and 79%, respectively, while generation by the CTGs and Wind Turbines exceeded their targets by 20% and 22%, respectively. Solar Power generation was 0.45% and Wind Turbine generation was 7.5% of the total power generated on-site for the 3rd Quarter. The CTGs were operated for a total of 21.1 hours in the quarter, of which 14.27 hours (on January 12) were during blizzard conditions in parallel with NSTAR power to ensure uninterrupted plant operation, 2.48 hours were for compliance opacity testing, and 4.4 hours were for routine maintenance and other miscellaneous events/testing. DI did not participate in any demand response events during the 3rd Quarter, as anticipated in the budget, as none were called.



The DiGas, STG, and Wind turbines all met their 95% Availability Target for the 3rd Quarter, while the Hydro system was 51.2% below target. The Hydro turbines were off-line for a significant portion of the quarter due to a broken cable on the intake gate (Turbine 1) and to a failed shaft seal (Turbine 2). Both Hydro turbines were back in service in March. Please note the 95% Availability Target for the Wind turbines is an overall annual availability target as specified in the turbine vendor contract (and not a monthly target).

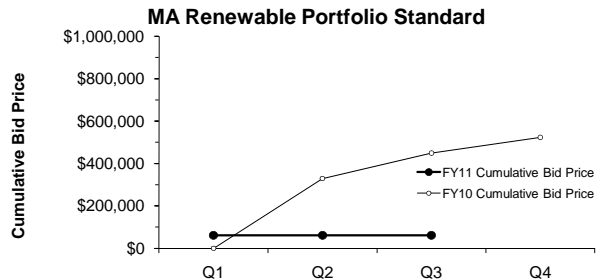


Under DI's energy supply contract, a block portion of DI's energy is a fixed rate and the variable load above the block is purchased in real time. Overall, the total energy price in the 3rd Quarter was 5% higher than the budgeted spot energy price due to 19% higher than expected prices in January. The total energy price includes a fixed block price, spot energy price, transmission & distribution charges, and ancillary charges. Please note the February and March total energy prices are estimated as the invoices have not been received. Year-to-date costs are estimated at approximately \$266,426 more than budgeted through the 3rd Quarter.



DI did not participate in any demand response events during the 3rd Quarter as none were called.

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 \$487,231 through the 3rd Quarter compared to the budgeted savings of \$535,050.

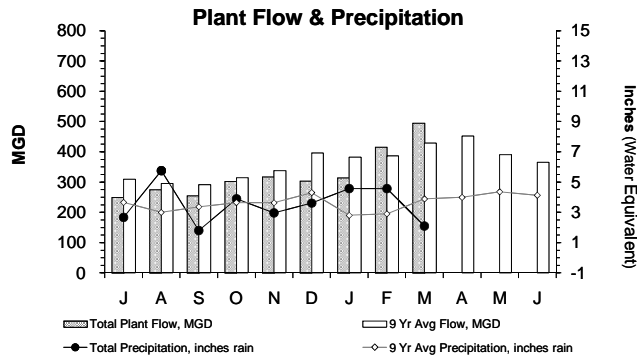


There were no Renewable Energy Certificate (REC) bids during the 3rd Quarter. RPS credits have been temporarily banked (not provided for bidding) until the market improves. The hope is to be on target by the end of FY11.

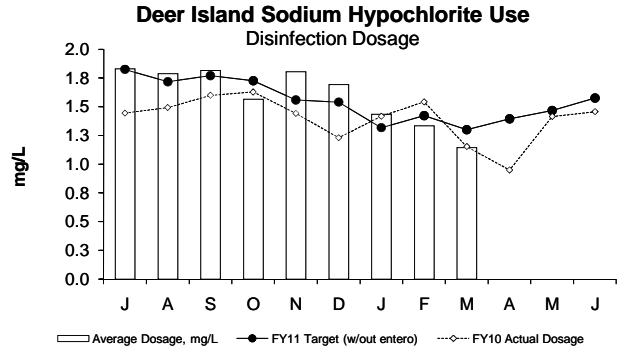
REC prices reflect the bid prices on the date that bids are accepted. Cumulative bid price reflects the total value of bids received to date. The FY11 budgeted cumulative bid estimate through March is \$464,598 while the actual bid total is \$612,880.

Deer Island Operations

3rd Quarter - FY11



The Total Plant Flow for the 3rd Quarter was within 2% of the 9-year average flow estimate (407.8 mgd actual vs. 398.8 mgd expected) even though precipitation was 17% higher than expected for the quarter (11.24 inches actual vs. 9.60 inches expected). A significant portion of this quarter's precipitation, especially in January and February, fell in the form of snow, which did not directly impact plant flow until March, at which time higher-than-normal daytime temperatures (thus, snowmelt), in combination with several sizeable rain events, resulted in elevated plant flows.



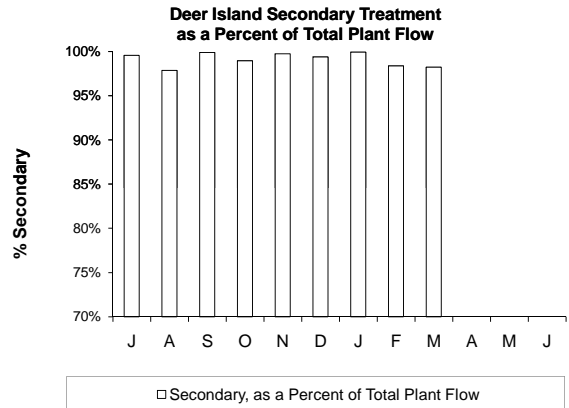
The disinfection dosing rate was only slightly below target for the 3rd Quarter. The average dosing rate of 1.31 mg/L was only 3% lower than the 1.35 mg/L expected.

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	1	1	0	99.6%	4.5
A	3	3	0	97.9%	19.51
S	1	1	0	99.9%	2.24
O	2	2	0	99.0%	12.81
N	2	2	0	99.8%	5.62
D	1	1	0	99.4%	7.62
J	1	1	0	99.9%	3.28
F	2	2	0	98.4%	21.30
M	7	6	1	98.3%	48.71
A					
M					
J					
Total	20	19	1	99.1%	125.6

There were 10 separate blending events during the 3rd Quarter. There was one blending event in January, two in February, and seven in March, resulting in a total of 78.1 hours of blending and 461.1 million gallons of Primary-only treated flow blended with Secondary effluent. All but one of the Secondary blending events that occurred during the quarter were due to high plant flows resulting from rain combined with snowmelt. A brief 12-minute blending event on March 30 resulted from essential maintenance activities on the bypass gate; 1.71 million gallons of flow was blended with Secondary effluent during this brief event. **Secondary permit limits were met at all times.**



Overall, 98.7% of the total plant flow to DITP received Secondary treatment during the 3rd Quarter. The Maximum Secondary Capacity for the entire quarter was 700 mgd.

Deer Island Operations & Maintenance Report

Environmental/Pumping:

The plant achieved a maximum average hourly flow rate of 1,159 mgd on February 25 as a result of a rainstorm that began overnight and intensified over the course of the morning and early afternoon. Moderate rainfall continued throughout the rest of the day and changed over to snow in the evening. A total of 1.63 inches of water equivalent precipitation fell that day. Pumping and treatment operations continued without incident throughout this storm event, as well as, throughout the entire quarter.

Residuals Treatment:

Module 3, Digester 3 was taken off-line temporarily on March 14 to replace a broken mixer and several pressure reducing valves. (The digester was placed back into operation on April 1). Six active digesters remained in operation during this period.

Odor Control:

Carbon media was changed out Carbon Adsorbers (CAD) 1 and 2 in the East Odor Control Facility in the 3rd Quarter. Additionally, the internal surface of CAD 8 in the West Odor Control, CAD 3 in the North Pumping Odor Control, and CAD 4 in the Residuals Odor Control Facilities were recoated this quarter and carbon media was added to these units. These adsorbers were recoated as a preventative maintenance measure to ensure the integrity of the underlying internal structure of the adsorber by preventing corrosion and wear as the existing coating has aged over time.

Deer Island Operations

3rd Quarter - FY11

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Deer Island Operations & Maintenance Report (continued)

Primary and Secondary Treatment (continued):

Progress continued on the major Primary and Secondary Clarifier Rehabilitation Project. Because of significant rain events and high plant flows in February and March, the contractor was not able to proceed with the rehabilitation work as anticipated for periods of time as a minimum number of clarifiers were needed to be available for operation during times of high flows. Rehabilitation of 79% of all clarifiers has been completed as of the end of the quarter.

Energy:

Opacity testing was performed and completed successfully on January 28 as part of the annual requirements for emissions reporting on the CTGs. The test requires each CTG to be operated (one at a time) at full load for one hour. During this time a certified "smoke reader" observes the condition of the stack exhaust and records the results.

Lumus Construction proceeded with significant progress on the installation of the new FloDesign wind turbine being installed on the northern side of Deer Island in an area near the Hydro Power Plant; staff expect completion by April 20, 2011.

Installation of two solar photovoltaic systems by Broadway Electric, one on the rooftop of the Grit Facility and another on the ground of the South Parking Lot (under the existing Wind Turbines), is nearing completion. Both systems are scheduled to be activated in April. These two solar panel systems were procured through a Solar Power Purchase Agreement, a financial arrangement in which a third-party developer designs, procures, installs, owns, operates and maintains the systems and the host customer provides the site and purchases the electricity. The installation cost is funded through the American Recovery and Reinvestment Act.

The installation of a new Back Pressure Steam Turbine Generator in the Thermal Power Plant was near completion by the end of March. The new turbine will improve utilization of the heat generated from the boilers during the summer periods by reducing the amount of excess (waste) thermal energy produced by the boilers but not utilized by the current STG when there is a lower heating demand. The new turbine utilizes a more efficient energy conversion mechanism than the current STG. Commissioning of the turbine generator started on March 14 and the Performance Test is scheduled for mid-April.

Clinton Wastewater Treatment Plant Operations & Maintenance Report

Aeration System Improvements and Redundant Pumps at the Influent and Intermediate Lift Stations:

The specifications have been completed and received. Advertisement for this procurement should commence soon.

Project Designs:

The design for the digester rehabilitation project is progressing. The total timeframe for the rehabilitation of both digesters is 30-36 months. The phosphorous pilot study is underway; early results look very promising. The study should be complete by the end of April. The 90% design of two influent gates (one for the Clinton influent and one for the Lancaster Sewer District) is complete. These gates will allow MWRA to protect the plant assets from extreme wet weather flows by throttling the influent to the plant, if necessary.

Operations and Maintenance:

Headworks Building - Staff greased the upper and lower bar rack and installed new grit buckets on Grit Elevator 2. Staff also removed the sump pump in the lower grit area and installed a temporary pump.

Dewatering Building - Staff changed the filters in the hydraulic pumps for belt filter presses, greased the motors on all piston pumps, and set up staging and began preparing for the replacement of the skimmer arm and support braces in Gravity Thickener 1.

Chemical Building - Staff disconnected the soda ash feed lines because of freeze up, thawed the lines, and then reassembled. Staff also removed the old soda ash slurry pumps and cleaned the tanks in preparation for painting and installation of a new feed pump.

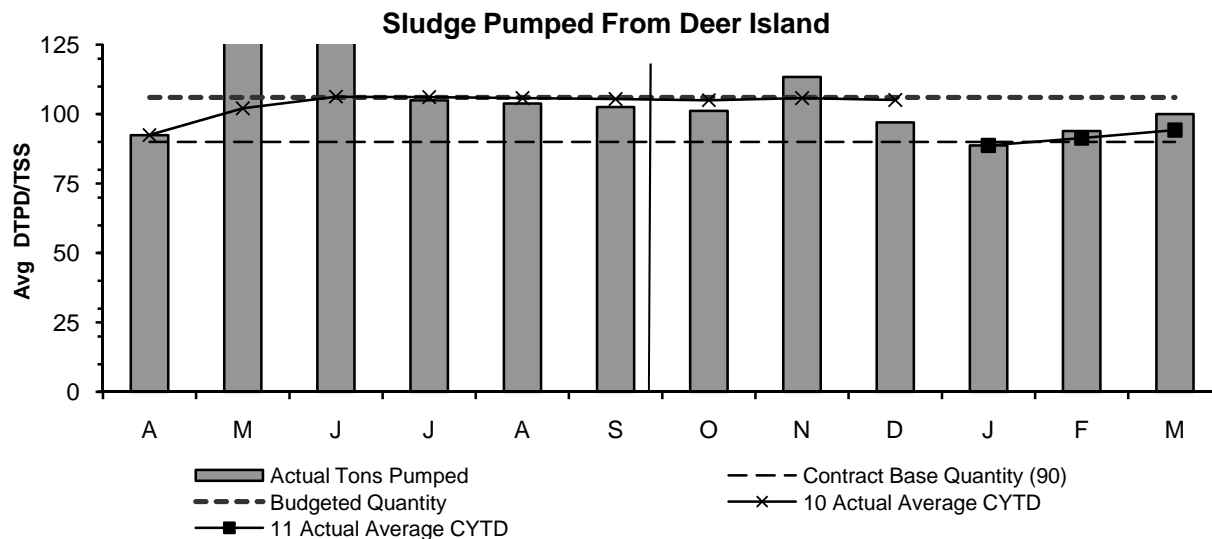
Digester Building - Staff installed new pistons in both sludge transfer pumps and flushed out Recirculation Pumps 1 & 2 to remove blockages.

Other - Staff took Trickling Filter 2 off line, installed distribution arms, adjustment cables and guide wires on Trickling Filter 3, and installed nozzles. Staff also checked for wear on the lower roller bearings Screw Pump 1 in the lift station and greased and purged all lift pumps. Staff also cleaned the strainers on plant's flushing water system.

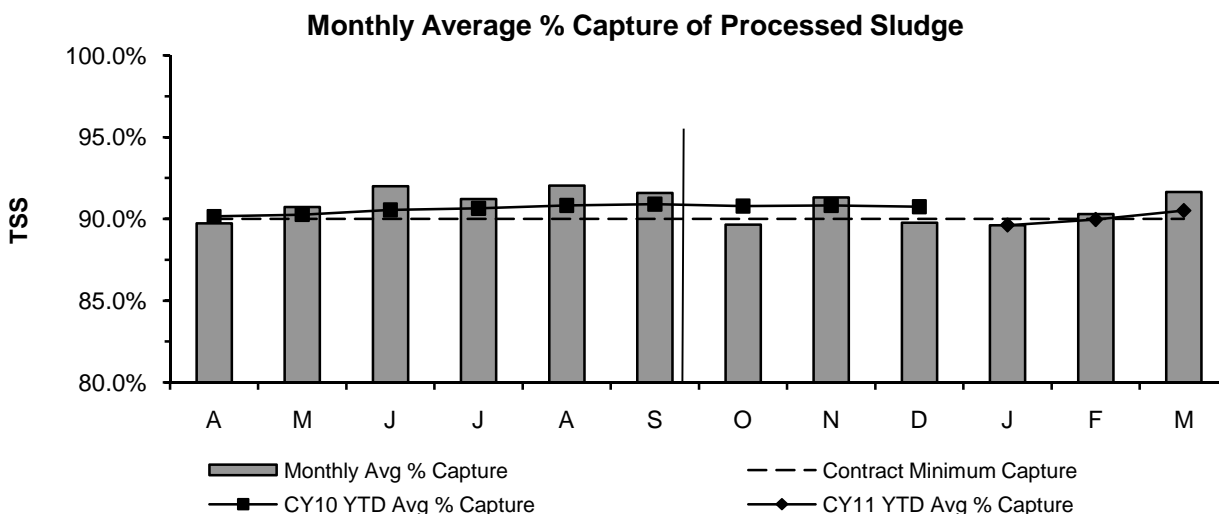
Deer Island Residuals

3rd Quarter - FY11

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 (FY11's budget is 106 DTPD/TSS).



The average total quantity of sludge pumped from DITP to FRSA in the 3rd Quarter was 94.3 DTPD, which is less than FY11's budget of 106 DTPD. The lower quantity is primarily a result of less secondary sludge going to digestion due to low temperatures but changes in sludge inventory, (retained on Deer Island), the performance of Primary and Secondary treatment, and upset conditions can all impact sludge quantities.



The contract requires NEFCo to capture at least 90% of the solids delivered to the Pelletizing Plant at FRSA; The solids capture rate for the 3rd Quarter was 90.5%. Staff interpret the contract requirement to be met at all times and will review the capture rate for each month at the end of the year to determine if cost recovery should be pursued.

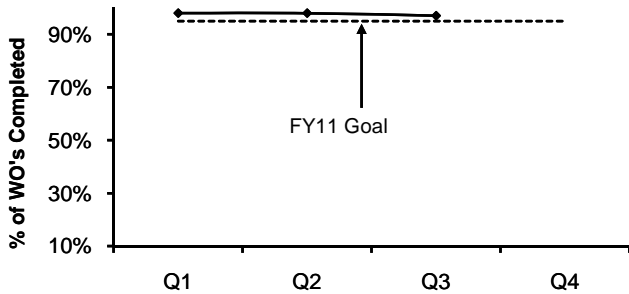
Deer Island Maintenance

3rd Quarter - FY11

Productivity Initiatives

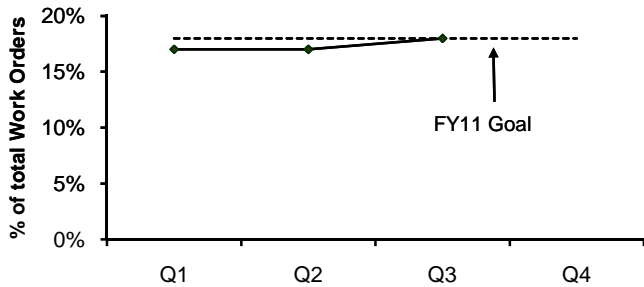
Productivity initiatives include increasing predictive maintenance tasks. Accomplishing this initiative should result in a decrease in the overall maintenance backlog.

Predictive Maintenance Compliance



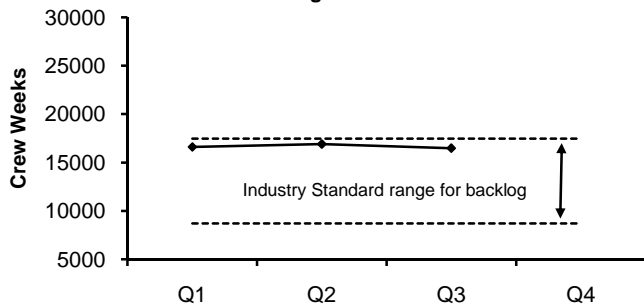
Deer Island is continuing with an aggressive predictive maintenance program. Deer Island's FY11 predictive maintenance goal is completion of 95% of all PdM work orders; Deer Island met this goal as it completed 97% of its PdM work orders this quarter.

Predictive Maintenance



Deer Island's FY11 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 this quarter.

Maintenance Project Backlog in Crew Weeks

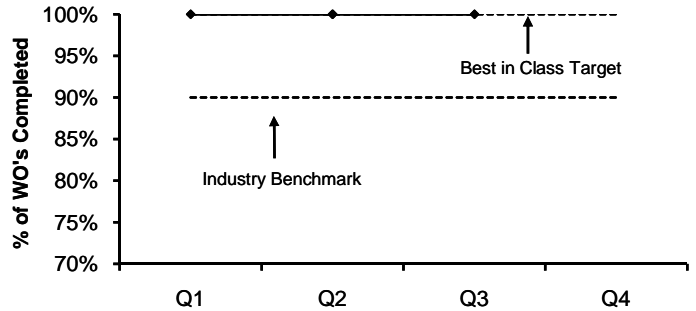


DITP's average backlog this quarter was 16,485 hours. The industry standard for maintenance backlog with 97 staff (currently planned staffing levels) is between 8,730 hours 17,460 hours. Maintenance is currently within the industry benchmark. Management continues to monitor backlog to ensure that all critical equipment and systems are available.

Proactive Initiatives

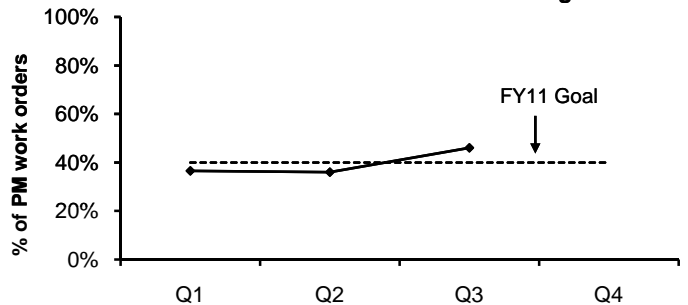
Proactive initiatives include completing 100% of all preventive maintenance tasks and increasing preventive maintenance kitting. These tasks should result in lower maintenance costs.

Preventive Maintenance Compliance



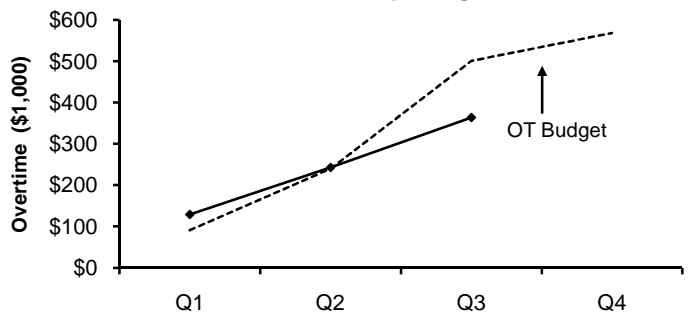
Deer Island's FY11 preventive maintenance goal is completion of 100% of all PM work orders from Operations and Maintenance. DITP met this goal in the 3rd Quarter.

Preventive Maintenance Kitting



Deer Island's FY11 preventive maintenance kitting goal is 40%; Deer Island completed 46% of maintenance kitting this quarter. Kitting is staging of parts/materials necessary to complete maintenance work. This will result in more wrench time and increased productivity.

Overtime Spending

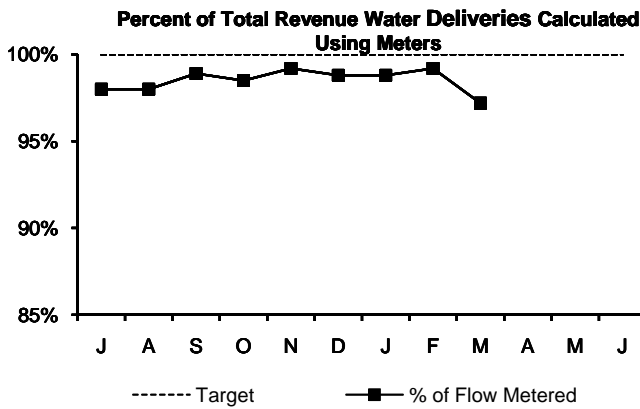


Overtime spending was (\$57K) under budget for the 3rd Quarter and is under budget by (\$55K) for the fiscal year. 3rd Quarter overtime was used for storm coverage and numerous snow storms, replacing Decant full port valves, repairing ferrous chloride valves, repairing the hypochlorite transfer line, and clarifier work. Management continues to limit overtime spending to critical maintenance activities.

Operations Division Metering

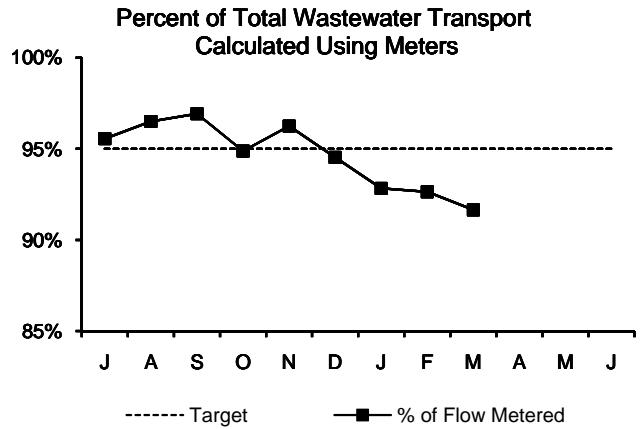
3rd Quarter - FY11

WATER METERS



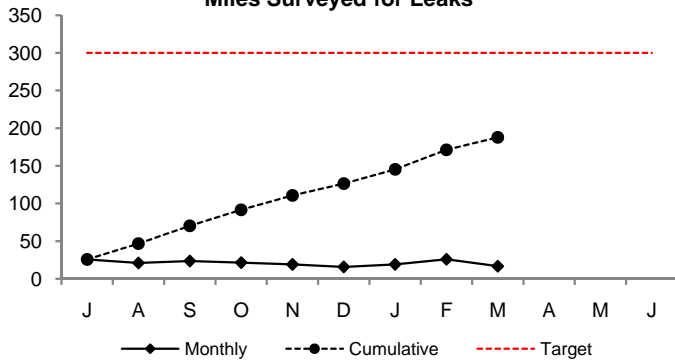
The target for revenue water deliveries calculated using meters is 100%. Estimates are generated for meters that are out of service due to instrumentation problems or in-house and capital construction projects. During the 3rd Quarter, on average, meter actuals accounted for 98.4% of flow; only 1.6% of total revenue water deliveries was estimated. The following is the breakdown of estimations:
In-house and Capital Construction Projects - 0.35%
Instrumentation Failure - 1.25%

WASTEWATER METERS



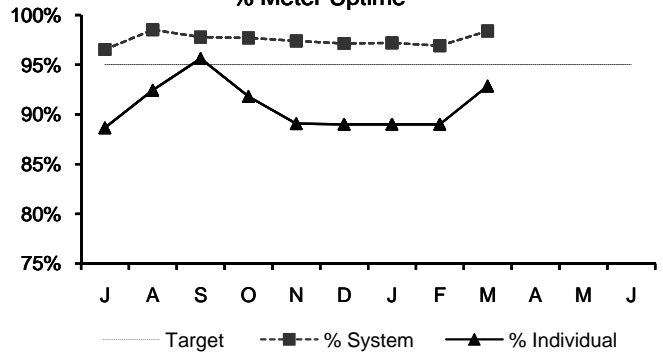
The target for revenue wastewater transport calculated using meters is 95%. Estimates are generated for meters missing data due to instrument failure and/or erratic meter behavior. Estimates are produced using data from previous time periods under similar flow conditions. During the 3rd Quarter, on average, meter actuals accounted for 92.3% of flow; 7.7% of wastewater transport was estimated. Most of this estimate was due to several meters out of service; one meter was out of service due to construction and two other meters are awaiting parts.

Miles Surveyed for Leaks



During the 3rd Quarter, 61.55 miles of water mains were inspected; this brings the total for the fiscal year to 187.9 miles.

% Meter Uptime



During the third quarter, out of a possible 1,572,480 data points, only 42,030 points were missed resulting in a system-wide up time of 97.5%. Of the 182 revenue meters installed, on average, 18 experienced down time greater than the 5% target resulting in a 89.8% individual meter uptime. During the 3rd Quarter, down time for an individual meter is defined by any individual meter, on average, having less than 2,736 data points.

Water Distribution System

Month	J	A	S	O	N	D	J	F	M	A	M	J
Leaks Detected	0	0	1	0	0	0	2	1	0			
Leaks Repaired	0	0	1	0	0	0	2	1	0			
Backlog	0	0	0	0	0	0	0	0	0			
Avg. Lag Time	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.8	1.8			

There were three leaks found and repaired during the 3rd Quarter. The leak backlog for FY11 remains at zero. The Pipeline Program's goal is to repair all leaks found during the fiscal year. However, if the goal cannot be reached due to restrictions, isolations, communities, or degree of difficulty, then the goal is to have not more than two leaks outstanding at year's end.

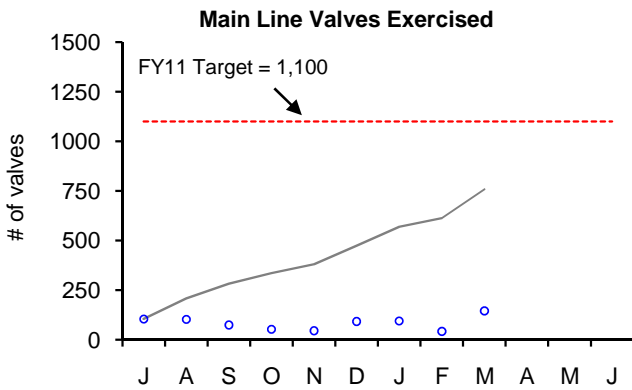
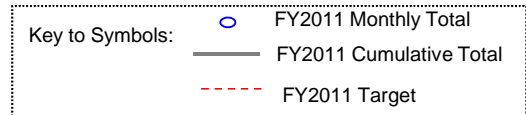
Water Distribution System Valves

3rd Quarter - FY11

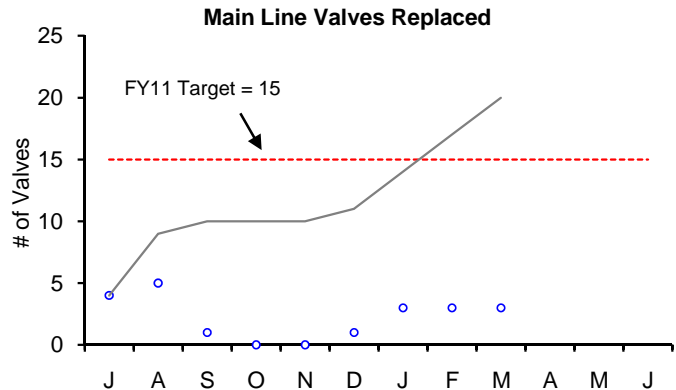
Background

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.

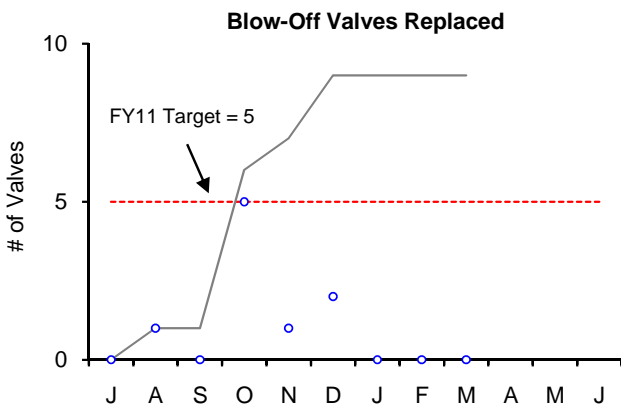
Type of Valve	Inventory #	Operable Percentage	
		FY11 to Date	FY11 Targets
Main Line Valves	2,083	95.8%	87%
Blow-Off Valves	1,193	93.5%	94%
Air Release Valves	1,335	91.7%	92%
Control Valves	48	94.0%	92%



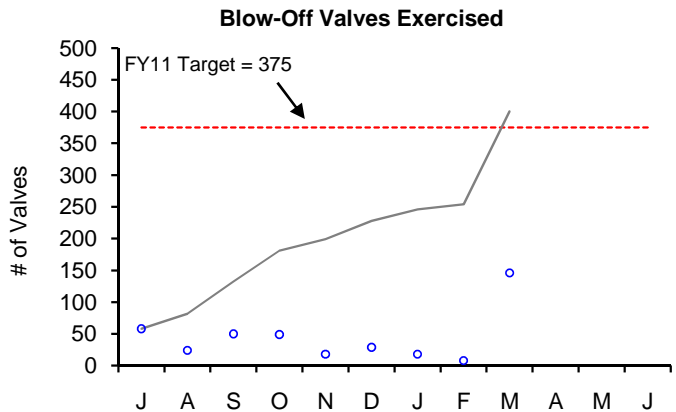
During the 3rd Quarter, staff exercised 284 main line valves bringing the total for the fiscal year to 759.



Staff replaced nine main line valves in the 3rd Quarter bringing the total for the fiscal year to 20.



Staff did not replace any blow-off valves in the 3rd Quarter so the total for the fiscal year remains at nine.



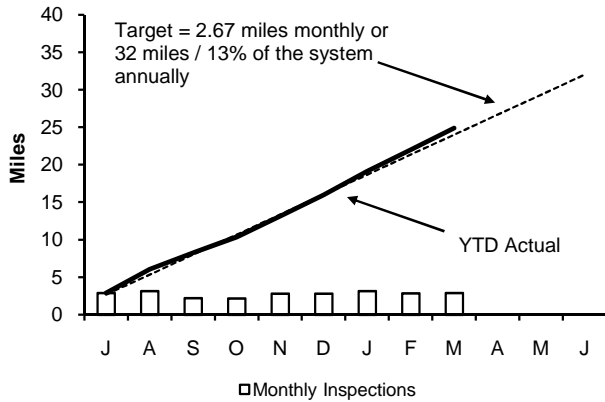
During the 3rd Quarter, staff exercised 172 blow-off valves bringing the total for the fiscal year to 400.

Wastewater Pipeline and Structure Inspections and Maintenance

3rd Quarter - FY11

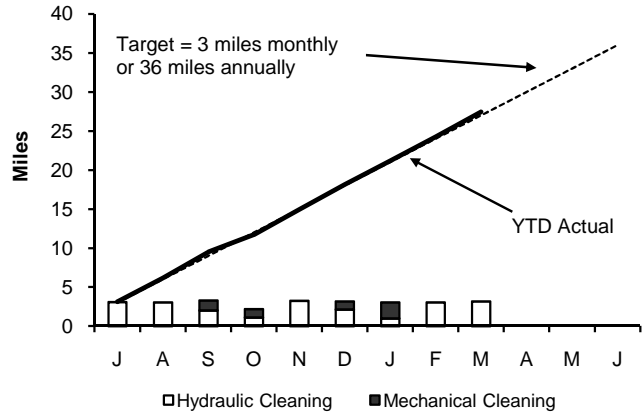
Inspections

Pipeline Inspections



Maintenance

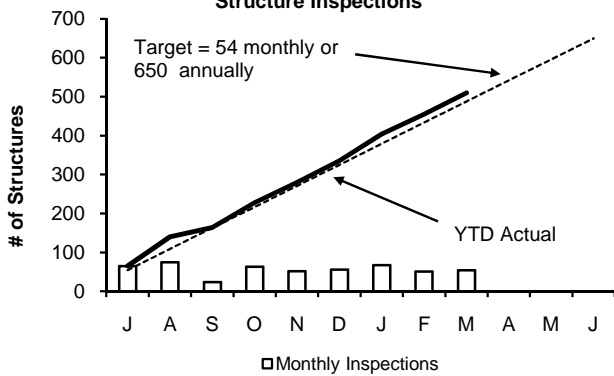
Pipeline Cleaning



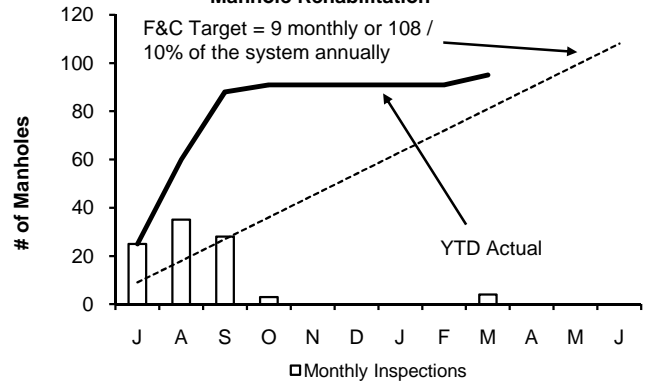
Staff internally inspected 8.91 miles of MWRA sewer pipeline in the 3rd Quarter, which is on target for three quarters of the fiscal year (24.88 miles). Staff also provided Community Assistance to the City of Somerville by inspecting 0.04 miles of the city's pipeline this quarter.

Staff cleaned 7.26 miles of MWRA's sewer system and removed 9 cubic yards of grit and debris during the 3rd Quarter bringing the total to date in FY11 to 27.44 miles, slightly ahead of the target for three quarters of the fiscal year. No Community Assistance was provided this quarter.

Structure Inspections



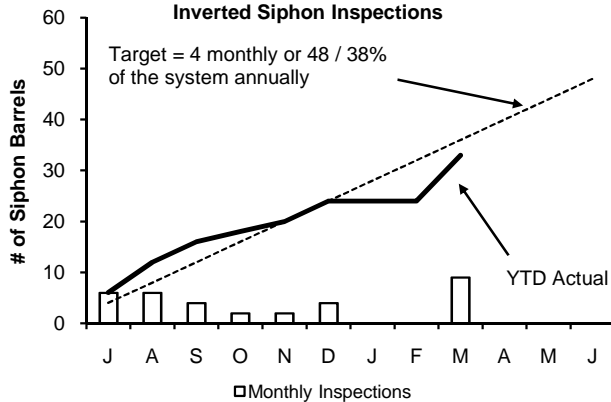
Manhole Rehabilitation



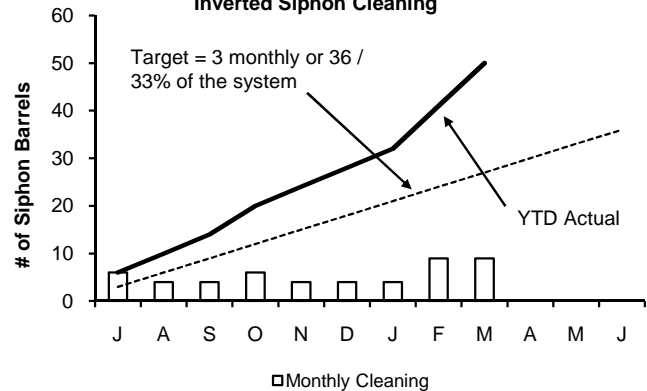
Staff performed a total of 174 inspections in the 3rd Quarter, which brings the total to 510 thus far in FY11, slightly ahead of the target for three quarters of the fiscal year. Staff also inspected the 12 CSO structures each month during the quarter.

Staff replaced four frames and covers in the 3rd Quarter bringing the total for FY11 to 95, well ahead of the FY11 target for three quarters of the fiscal year.

Inverted Siphon Inspections



Inverted Siphon Cleaning



Staff inspected nine siphon barrels in the 3rd Quarter bringing the total to date in FY11 to 33. This is just short of the target for the three quarters of the fiscal year because the sonar camera system was down for two months for repair.

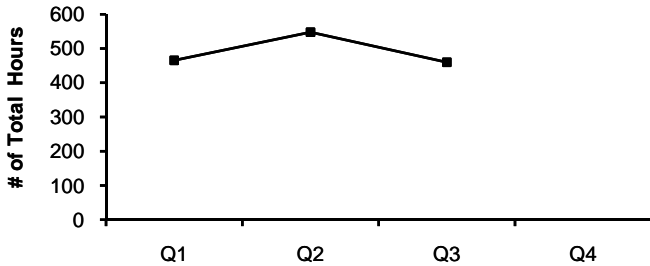
In the 3rd Quarter, staff cleaned 22 siphon barrels. The total to date in FY11 is now at 50, well above the target thus far for the fiscal year.

Field Operations' Metropolitan Equipment & Facility Maintenance

3rd Quarter - FY11

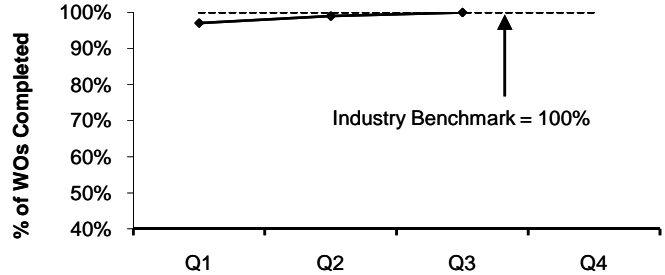
Several maintenance and productivity initiatives are in progress; Operators now performing light maintenance tasks is one of those productivity initiatives. This frees up maintenance staff to perform corrective maintenance and project work, thus reducing maintenance spending. Backlog and overtime metrics monitor the success of these maintenance initiatives.

Operations Light Maintenance PM Hours



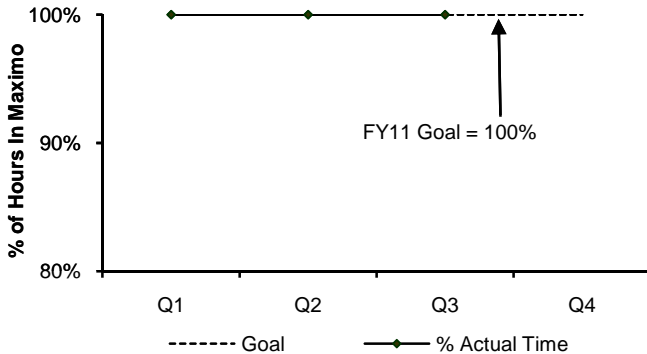
Operations staff averaged 460 hours of preventive maintenance during the 3rd Quarter, an average of 21% of the total PM hours for the 3rd Quarter, which is above the industry benchmark of 10% to 15%.

Overall Preventive Maintenance



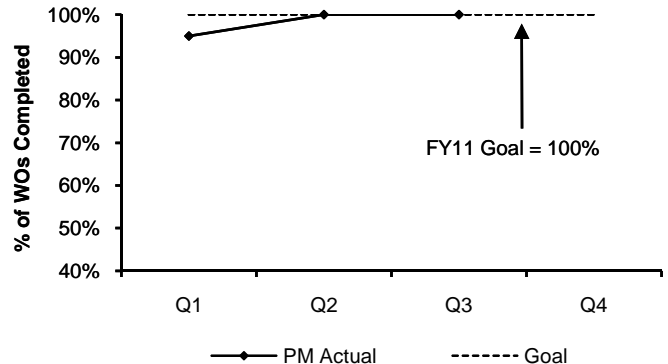
FOD's preventive maintenance goal for FY11 is 100% of all PM work orders. Staff completed an average of 100% of all PM work orders in the 3rd Quarter.

Time in Maximo



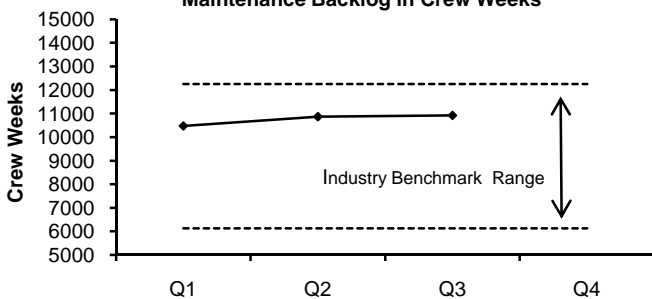
To ensure accurate data in the Maximo database, 8 hours of staff time each day must be entered into Maximo. The FY11 goal is 100%; 100% of time was entered in the 3rd Quarter.

Operations Light Maintenance % PM Completion



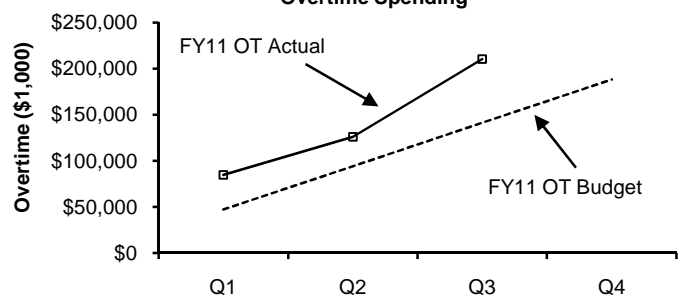
Operations' FY11 PM goal is completion of 100% of all PM work orders assigned. Operations completed an average of 100% of PM work orders in the 3rd Quarter.

Maintenance Backlog in Crew Weeks



The 3rd Quarter backlog average is 10,916 hours. The Mechanic's backlog has remained high due to additional project-related work. Management's goal is to control overtime and still stay within the industry benchmark of between 3,160 and 12,260 hours based on current staffing levels.

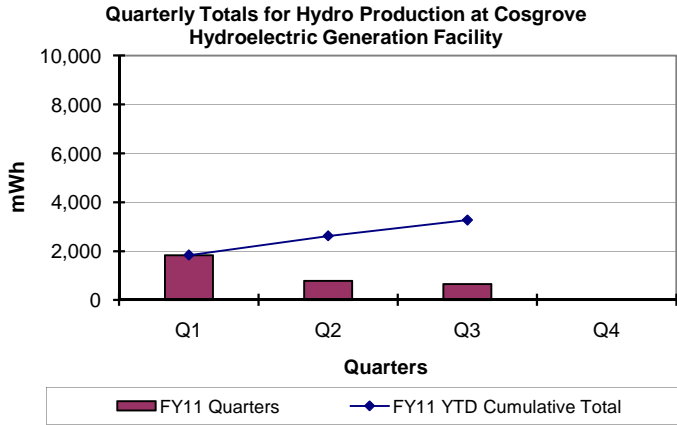
Overtime Spending



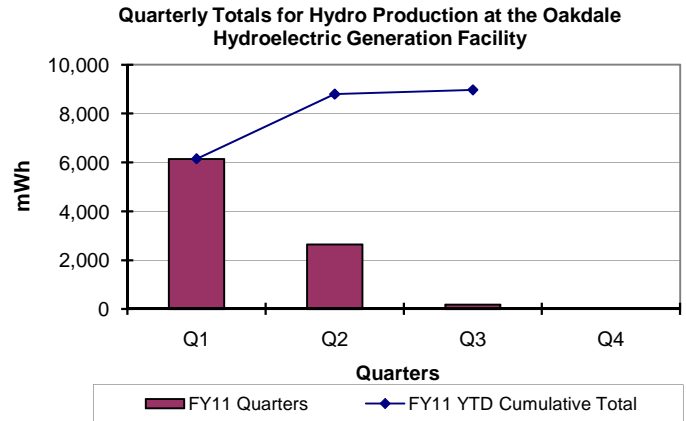
Maintenance overtime is \$69K over budget for FY11 and overtime spending was \$36K over budget for the 3rd Quarter. Overtime was used to complete emergency repairs due to a variety of critical operational needs as well as staff coverage during multiple snowstorm and wet weather events.

Field Operations Hydroelectric Generation Quarterly Report

3rd Quarter - FY11



In the 3rd Quarter, the Cosgrove Hydroelectric Station generated a net of 652 MWh, which was 41% less power than was generated during the same quarter in FY10 because the equipment was off-line more frequently this quarter for repair and maintenance than during the same period last year. The revenue generated at Cosgrove in the 3rd Quarter was \$32,046, which brings the total revenue generated to date at Cosgrove in FY11 to \$169,192.



In the 3rd Quarter, the Oakdale Station's hydroelectric plant generated a net of 177MWh, which was 62% less power than was generated during the same quarter in FY10 (see operating protocol below). The revenue generated at Oakdale in the 3rd Quarter was \$25,771, which brings the total revenue generated to date at Oakdale in FY11 to \$684,108. (Oakdale's operating protocol dictates that power is generated when water is transferred from Quabbin to Wachusett unless conditions result in flows that are in excess of generating capability.)

Loring Road Hydroelectric Project: Under the American Recovery and Reinvestment Act for Green Infrastructure projects, MWRA received \$1.5 million in stimulus funding from SRF for this project. The turbine generator was delivered on November 16 and was installed during the second quarter. Acceptance testing began in March and identified a problem, which is being resolved. A new acceptance test will begin in April 2011.

Wachusett Dam Hydroelectric Generation Study: MWRA completed a feasibility study of hydroelectric power at the Wachusett Dam. A generator would be installed at the existing gatehouse through which water is discharged to the South Branch of the Nashua River. MWRA was awarded a \$375,000 grant for design and construction under Massachusetts Technology Council's Small Hydropower Initiatives Program. Permitting and design has been delayed until agreement on stream releases and system expansion moves forward.

Carroll Water Treatment Plant (CWTP) Photovoltaic: Under the American Recovery and Reinvestment Act for Green Infrastructure projects, MWRA received \$1.5 million in stimulus funding from SRF for a 480-kW solar power system at the CWTP. A Notice to Proceed (NTP) was issued in January 2010 and work was complete by the end of the 3rd Quarter of FY11.

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 a contractor to evaluate the work necessary to implement this project and determine the appropriate incentive from NSTAR resulting from the projected energy savings.

Wind Power: Under the American Recovery and Reinvestment Act for Green Infrastructure projects, MWRA received \$4.75 million in stimulus funding from SRF for a wind turbine at the DeLauri Pump Station. MWRA issued an NTP for design/build of a 370-foot turbine in March 2010. Work is on-going and staff expect the turbine to be installed and tested by the 2nd Quarter of FY12.

CWTP Energy Audit: Installation of boiler controls for energy savings was evaluated for Carroll and is being implemented.

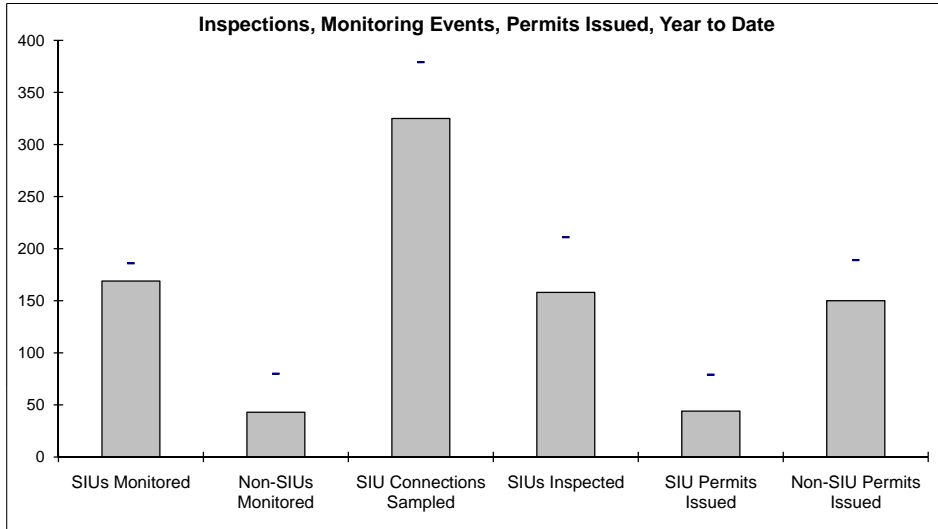
Chelsea Facility Energy Audit: The detailed audit of the Chelsea facility recommended installing an Energy Management System (EMS) for the Admin. Building, along with some equipment updates. Staff are proceeding with this recommendation and are working with NSTAR and its contractor to put together a specifications package system to be completed during the 4th Quarter. NSTAR has agreed to provide a \$168,000 incentive to MWRA for the installation of the EMS. In addition, energy efficient LED lighting will be installed in the parking areas at the Chelsea Facility in the 4th Quarter. NSTAR has committed to providing a \$46,000 incentive toward the cost of this project.

Energy Audit of Eight FOD Facilities: MWRA staff identified multiple facilities that would benefit from a comprehensive energy audit. The focus of this energy audit was lighting, HVAC, pumps, and motors. Implementation of the audit recommendations began at the end of the 1st Quarter of FY11 and is on-going.

Energy Audit of Fourteen FOD Facilities: Audits of 14 additional FOD facilities began in the 1st Quarter of FY11 and are expected to be completed by the end of the 4th Quarter of FY11.

Toxic Reduction and Control

3rd Quarter - FY11



EPA Required SIU Monitoring Events for FY11: 186
YTD: **169**

Required Non-SIU Monitoring Events for FY11: 80
YTD: **43**

SIU Connections to be Sampled For FY11: 379
YTD: **325**

EPA Required SIU Inspections for FY11: 211
YTD: **158**

SIU Permits due to Expire In FY11: 79
YTD: **44**

Non-SIU Permits due to Expire for FY11: 189
YTD: **150**

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.

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.

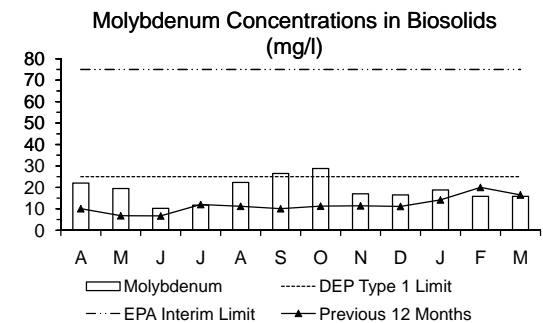
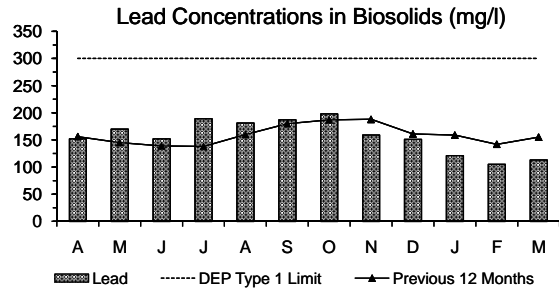
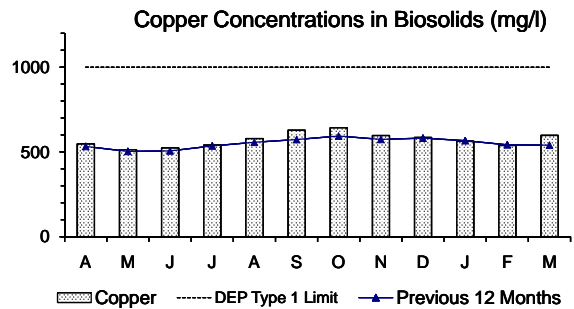
	Number of Days to Issue a Permit						Total Permits Issued	
	0 to 120		121 to 180		181 or more		SIU	Non-SIU
Jul	2	5	0	0	0	0	2	5
Aug	0	13	1	1	3	6	4	20
Sep	4	19	0	1	2	2	6	22
Oct	5	9	0	0	0	2	5	11
Nov	3	13	0	3	0	4	3	20
Dec	3	11	0	1	1	3	4	15
Jan	3	17	0	0	0	1	3	18
Feb	7	10	0	1	1	7	8	18
Mar	9	13	0	2	0	6	9	21
Apr							0	0
May							0	0
Jun							0	0
% YTD	82%	73%	2%	6%	16%	21%	44	150

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 the 3rd Quarter, one SIU permit was issued beyond 180 days due to staff workload.

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. MWRA met DEP's Type 1 Molybdenum limit for the entire two years in FY09 and FY10. Newspapers reported that summer 2010 was the hottest summer on record in the Northeast and a corresponding increase in molybdenum levels would appear to support this. In August and September FY11, the average concentrations exceeded the state standard for unrestricted use as a fertilizer within Massachusetts. In October, levels dropped again below the state limit and have remained below through March 2011.

Staff will review MWRA's voluntary program and evaluate whether or not a regulatory program is needed to control molybdenum levels.



Field Operations Highlights – Orange Notebook

3rd Quarter – FY11

Western Water Operations & Maintenance

- Carroll Water Treatment Plant (CWTP): Operations and Maintenance staff continued with half-plant winter maintenance during the quarter. Staff activated Treatment Train A and flushed the upper portion of the Hultman Aqueduct from CWTP to Shaft 4, placing it back into service. Staff completed maintenance tasks on Treatment Train B and the plant was transitioned back to full plant operation. Work on Train B included the cleaning of the primary and secondary contactors, cleaning of the storage tank, replacement of mud valves, and replacement of the rupture disks. The upper section of the MetroWest Tunnel was flushed and placed back into service. Also, Fuji Electric Corp. completed the overhaul of Ozone Generator 4.
- Hultman Aqueduct: Staff activated the four Hultman Aqueduct community connections for the Town of Framingham. The connections supply the town's Pleasant Street, Grove Street, Edgell Road and Elm Street Pumping Stations. The pumping stations are now being supplied from both the Hultman Aqueduct and the MetroWest Tunnel.
- Flood Control: Staff activated the Shaft 8 diversion of the Ware River to Quabbin Reservoir at the request of the Army Corp. of Engineers. Staff also operated the crest gate at the Wachusett Reservoir to adjust flows to the Nashua River.

Metro Water Operations & Maintenance

- Water Pipeline Program: Work was completed on the next Northern Intermediate High (NIH) site, which is a connection between Lexington and Woburn on Woburn Street. Two new gate valves and one pressure reducing valve (PRV) were installed as a part of the work. Work was completed on the installation of new surge control valves for Pump 5 at the Gillis Pump Station and Pump 3 at the Newton Street Pump Station. Work also was completed on the valve removal and replacement at the Cottage Farm Headworks. A new 12-inch PRV was installed at Meter 158 to Swampscott. A new 12-inch valve on Section 89 was installed for future emergency pumping at the Gillis Station. Staff repaired a collapsed four-inch sewer at the CWTP by installing 20 feet of new ductile iron pipe and started work at the Northern Intermediate High (NIH) Site 2 on the 8-inch emergency connection between Winchester and Woburn.
- Valve Program: Main line valve exercising was performed on a variety of pipeline sections throughout the MWRA Metropolitan service area. Preventative maintenance was performed on the PRVs at Shafts 7, 7B, 8, 9, 9A, WASM 14, Arlington Covered Reservoir, the Deer Island water tank, and Meters 152, 157, 171, and 175. Section 28 was returned to service after its rehabilitation through the CIP; this returned Meter 25 (Medford) and Meter 80 (Somerville) to normal supply. Preventative maintenance also was performed on the valve actuators (battery replacement) on the motor operated valves at Loring Road. Two of the four sleeve valves were temporarily isolated at Loring Road for the hydro turbine piping to be painted prior to its testing next month. Staff managed emergency reservoir elevations for Blue Hills, Chestnut Hill, Fells, and Spot Pond during the quarter. The drain valves were opened and closed several times in conjunction with forecasted weather events.

Wastewater Operations & Maintenance

Wastewater Operations

- North Dorchester Bay Facility: Operations staff attended start-up meetings, coordination meetings, a HMI Display/Control Strategy Review Meeting; reviewed and provided comments/amendments on Standard Operating Procedures (SOPs) and vendor training documentation. Staff also inspected the diversion chambers along the NDB storage conduit. Operations staff attending vendor training on sluice gates, wastewater pumps, actuators, electrical equipment, and the trash rake for the North Dorchester Bay Pump Station.
- Cottage Farm CSO Fuel System Upgrades: Operations staff reviewed and provided comments to the Process Control Group on the plans and specifications for the Cottage Farm fuel system upgrades.

TRAC

- Prison Point Pump Station: Operations and Construction staff have finalized the review process for the Prison Point Odor Control Systems Upgrades. Construction will begin tentatively on April 4, 2011, starting with demolition of the lobby ceiling. Operations staff will coordinate with Construction to ensure the facility is ready to operate as needed.
- Settlement Agreement Between Walgreens Co. and MWRA: TRAC and Walgreens Co. entered into a Settlement Agreement, effective March 9, 2011, to resolve a Penalty Assessment Notice (PAN) and Enforcement Order issued on February 12, 2010 for failing to comply with MWRA's regulations and reporting requirements of the Group Permit for Photo Processing and Printing Operations (Group Permit) for 48 Walgreens stores in MWRA's service area. Walgreens had appealed the penalty. The Settlement Agreement required Walgreens to pay \$130,000 penalty, implement a compliance plan to ensure compliance with MWRA regulations and the Group Permit, and pay stipulated penalties for a period of two years.
- PAN issued to Pharmalucence, Inc: On March 1, TRAC issued a \$5,000 PAN to Pharmalucence, Inc, located in Bedford, MA, for failure to submit a Baseline Monitoring Report and notification of intent to manufacture pharmaceuticals, a federally regulated process, at least 90 days prior to commencing manufacturing, and failure to obtain a revised MWRA Sewer Use Discharge Permit for the manufacturing process, in violation of federal and MWRA regulations.
- Suffolk Downs Race Track: Staff attended a meeting with representatives from U.S. EPA, Massachusetts DEP, U.S. Department of Justice, and Suffolk Downs Race Track to discuss EPA's ongoing regulatory discussions with Suffolk Downs concerning management of wastewater that comes in contact with its animal operations. EPA is requiring Suffolk Downs to comply with its categorical standard for Concentrated Animal Feeding Operations, which prohibits any discharge of wastewater from the operations below that which can be contained at a certain storm level. Suffolk Downs is seeking the ability to discharge to the sanitary sewer system under certain circumstances. MWRA is continuing to evaluate the information submitted to date and will continue to discuss the issues with the parties.

Metro Equipment and Facility Maintenance

Equipment Maintenance Program

- Headworks Repairs: Staff completed several maintenance and repair projects at Chelsea Creek, Nut Island, Ward Street and Columbus Park.
- Prison Point: MWRA staff have been upgrading all piping in the six detention tanks at Prison Point. The last tank supports were upgraded this month to complete this project. In addition, the check valve on Pump 1's discharge shaft had broken; a new check valve and associated piping was installed by the Plumbers.
- Cottage Farm: MWRA staff completed some repair work on the weirs and one gate actuator at Cottage Farm this quarter.
- Hayes Pump Station: Staff replaced the screen rake and brake assembly in its entirety and also installed a new gate actuator.
- Other Repairs: Staff completed a number of other repair projects at New Neponset, Squantum, Intermediate, Quincy, Hyde Park, Gillis, and Newton Street Pumps Stations.

Grounds/Custodial Maintenance

- Winter Projects: Staff completed fence repairs at Quincy, BOS019, Belmont, Hingham, Somerville, Prison Point, Chelsea, Braintree/Weymouth, and Framingham Pipeline. Staff also removed a number of fallen trees and spent a significant amount of time performing winter/snow-related clean-up/shoveling/sanding tasks this quarter.

Facility Maintenance

- Equipment Maintenance Support:
 - Masons repaired stairs; caulked and cemented holes at Prison Point; knocked down a damaged entrance wall at DeLauri; performed other tasks at New Neponset and Cottage Farm; cored holes at Columbus Park and Chelsea Administration Building for the Plumbers, and installed berms around the generators at Prison Point and Gillis.
 - Painters painted several areas in the Chelsea Administration and Maintenance Buildings, the lower level at the Belmont Pump Station, at Prison Point, and at the Intermediate Pump Station.
 - Carpenters built a cage at the DeLauri screen room to store spare screen chains, and they built weirs for Cottage Farm detention tanks, and replaced a window at Prison Point.

Operations Support

Operations Engineering

- Development of ERP Training Programs: Staff continued developing a comprehensive annual emergency plan training program to comply with DEP requirements. This training will be provided for MWRA staff and a version of the training will also be provided to staff from MWRA's water communities. Delivery of this training is expected to begin sometime this spring and will be continued annually, delivered in a series of sessions spread throughout the year.
- Shaft W Contingency Planning: Staff worked on contingency plans and hydraulic monitoring of the Shaft W piping in preparation for future work.

Metering and Monitoring

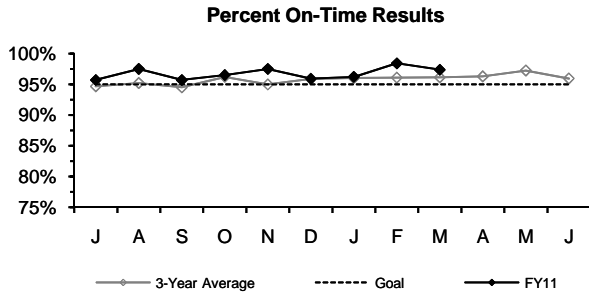
- Meter Systems: Staff are planning the replacement of Rosemount flow transmitters system-wide with a newer generation that allows a wider accurate span and proposals are being solicited to convert water meter data collection to wireless transmission to reduce costs.
- New Facility Startups: SCADA staff have been participating in the review of submittals and planning for start-up testing at Loring Road (hydropower) and North Dorchester Bay.
- Cyber Assessment: Staff continued participating in an internal cyber security audit covering the SCADA system and MIS administrative networks.

Water Quality Assurance

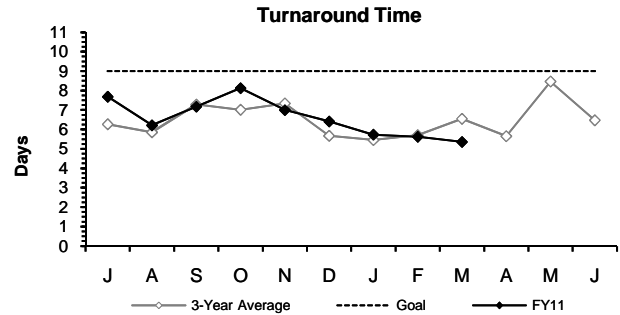
- Online Water Quality Monitoring: Staff continued working on updating the distribution system's water quality monitoring analyzer system. Equipment for the initial two sites was received and installed in late February. Start-up issues with these units were resolved in March. Additional units should begin arriving in April/May. Central data collection strategy and PC are expected to be delivered in April and a training program is currently being finalized. Staff continued implementing the associated data collection network with Verizon.

Laboratory Services

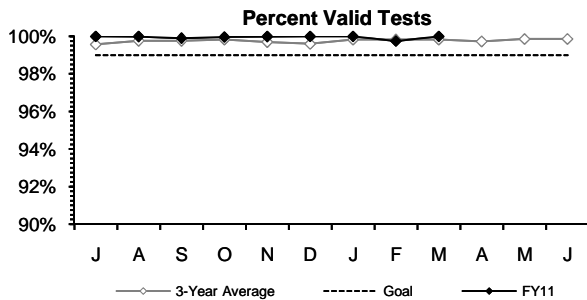
3rd Quarter - FY11



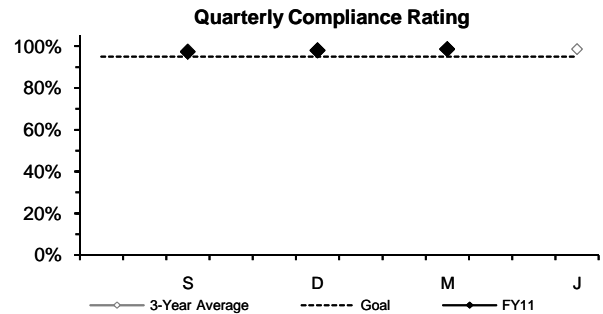
The Percent On-Time measurement was above the 95% goal for each month of the quarter.



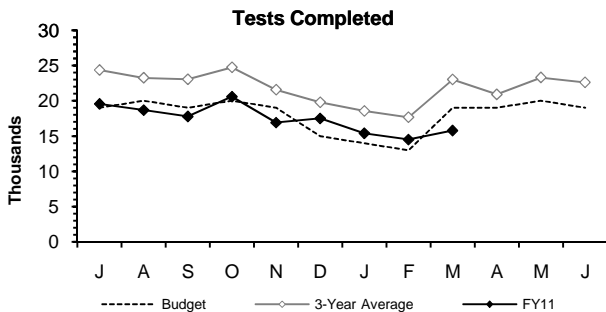
Turnaround Time was faster than the 9-day goal for each month of the quarter.



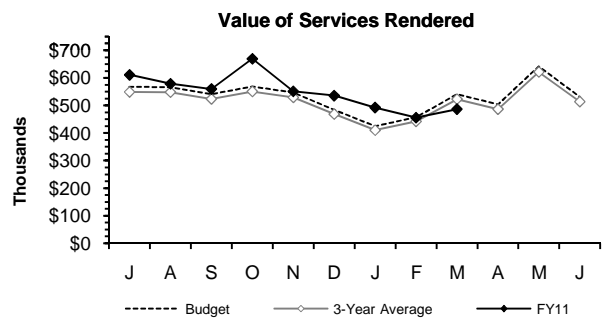
The Percent Valid Tests measurement stayed above the 99% goal for each month of the quarter.



An audit of data traceability at all five laboratory locations found good compliance with requirements. Compliance audits are performed in September, December, March, and June.



The Tests Completed measurement was below the budget goal for one month of the quarter due to the decreased scope of the Harbor and Outfall Monitoring program.



The Value of Services Rendered measurement was slightly below the seasonally budget projection for one month of the quarter due to the decreased scope of the Harbor and Outfall Monitoring program.

Highlights:

Quality Assurance: DEP audited the Chelsea Lab this quarter and no significant issues were identified. DLS completed a revised Quality Assurance Project Plan for the reduced Harbor and Outfall Monitoring water column project.

Clinton: The Lab began receiving samples from the phosphorus pilot treatment study; all required testing will be performed at the Central Lab. The month-long project, which began in March, needs "rush" turnaround for key parameters.

DITP: Staff met with DITP and a Northeastern University professor to discuss ammonia and Total Kjeldahl Nitrogen (TKN) results from the BIOCAST nutrient removal pilot study. Northeastern's results confirmed MWRA's results showing that ammonia and TKN are at about the same concentration in Fore River Pellet Plant centrate samples. DLS performed annual chemistry tests on process chemical samples.

ENQUAD: The reduced scope of the Harbor Monitoring sampling of Mass. Bay began in February. The Lab received fat particle samples from two wet weather Mass. Bay net tows as part of the new requirements for the Harbor and Outfall Monitoring program. These will be tested for trace contaminants in April, which will conclude this testing for 2010.

TRAC: Improved the LIMS procedure for automatically logging samples for QC testing. Lowered the LIMS reporting limit for prohibited PCBs. Worked with TRAC on proper preservation procedures for acrolein.

Water Quality Assurance: Completed samples from half-plant operation at CWTP. Prepared material for semi-annual community sampler training. Arranged for the Department of Public Health to test Quabbin and Wachusett Reservoir samples for radionuclides to demonstrate that they haven't been measurably impacted by the Japan nuclear accident. Tested water quality complaint samples from Boston, Medford, Quincy, and Waltham.

Outside Customers: Tested a weekend rush sample from Millis at Millis' expense. DEP suggested that Millis contact us since the Lab is open seven days a week. The town needed results to bring some bypass piping on line. The town's contracted Lab was not certified for the needed tests. Tested Medway samples from a stream suspected of being subject to sewage contamination for the Board of Health at Medway's expense. Tested sediment samples from a pond for DCR.

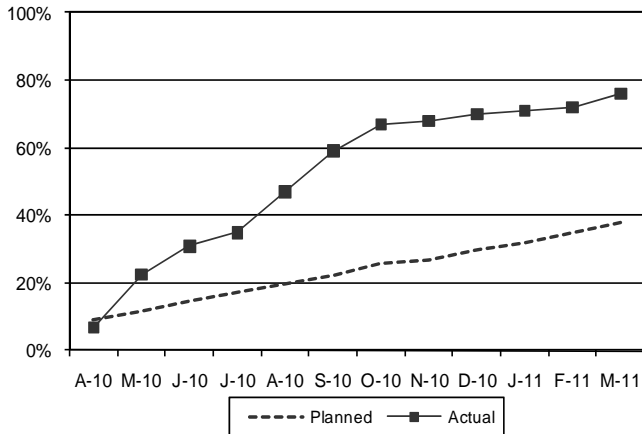
CONSTRUCTION PROGRAMS

Projects In Construction - 1

3rd Quarter - FY11

(Progress Percentages based on Construction Expenditures)

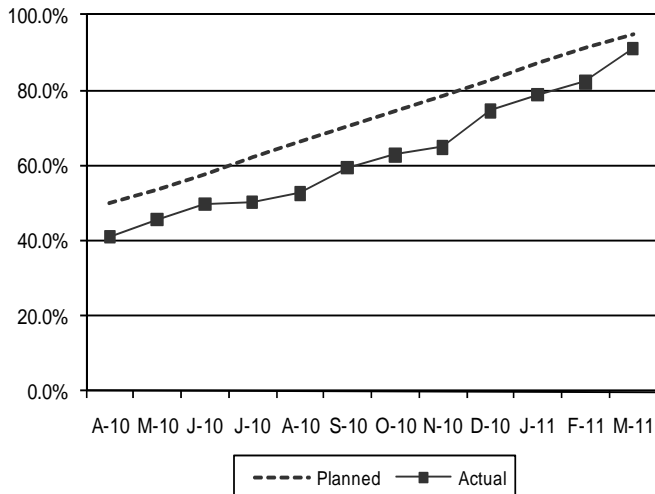
Southern Spine Water Mains Rehabilitation - Section 107
Progress - March 2011



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: In Milton, the contractor installed 29 lf of 48-inch ductile-iron pipe along Adams St. in Milton between Station 16+08 to Station 15+85 during the month of March. MWRA valve crews completed filling Section 107 between Fr. Carney Drive and Meter 27. Construction was completed on the installation of a 16-inch ductile-iron pipe between Meter 37 and the Milton tie-in. The contractor has assigned four construction crews to this work, more than originally scheduled. More crews, along with favorable weather in early 2010, has put the contract ahead of schedule.

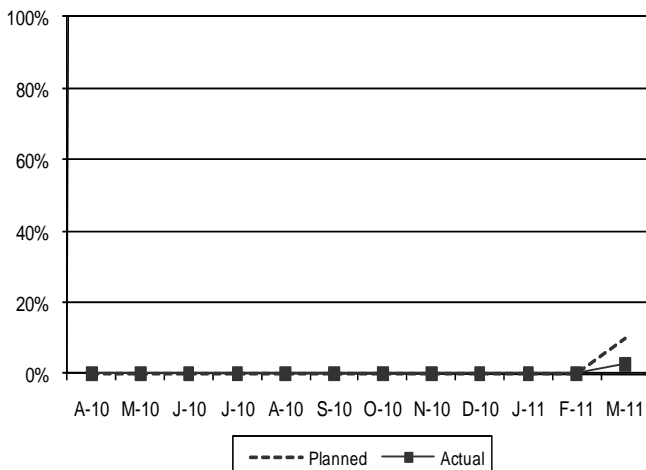
North Dorchester Bay Pump Station and Sewers
Progress - March 2011



Project Summary: Construction of 15-mgd CSO pump station, approximately 3,200 linear feet of 24-inch force main and 640 linear feet of 30-inch gravity sewers and appurtenant work.

Status and Issues: In March, the contractor energized the electrical distribution system. Dry/Wet checkout was completed on the pumps & valves, screen raking system, influent slide gate and overhead crane. Storm water was diverted into the tunnel for pump testing. The contractor commenced SCADA testing.

Lynnfield/Sagus Pipelines
Progress - March 2011



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.

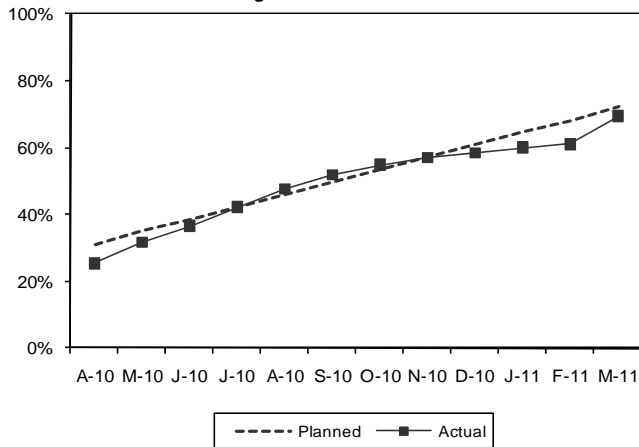
Status and Issues: The contractor continued working on submittals during March. No work can be performed on Route 1 during the Winter Moratorium. Construction is scheduled to begin in mid-April with pre-blast surveys, surveying, pre-construction videos and signage. Excavation activities are scheduled to commence in May.

Projects In Construction – 2

3rd Quarter FY11

(Progress Percentages based on Construction Expenditures)

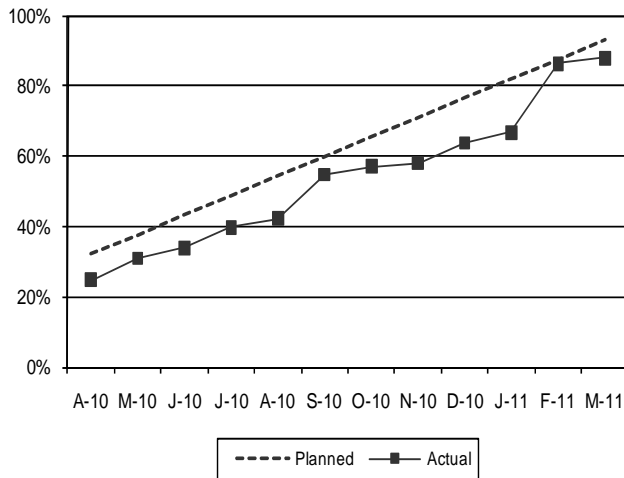
Section 18, 50 & 51 Rehabilitation in Medford/Somerville
Progress - March 2011



Project Summary: This project is one of the Shaft 7 to WASM 3 phases (CP-5) and provides for the rehabilitation of valves and 15,000 linear feet of 48, 20 and 16-inch pipe in Medford and Somerville including replacement of revenue Meter 32 in Somerville.

Status and Issues: On Section 18, no work was performed in March. On Section 51, the MWRA shutdown section 16W and dewatered. The contractor provided pre-construction TV inspections to the existing sewer in the vicinity of excavations. The contractor relocated 90-feet of 12-inch ductile iron pipe at Station 3+00 for city water main relocation. On Section 50, all construction work is complete.

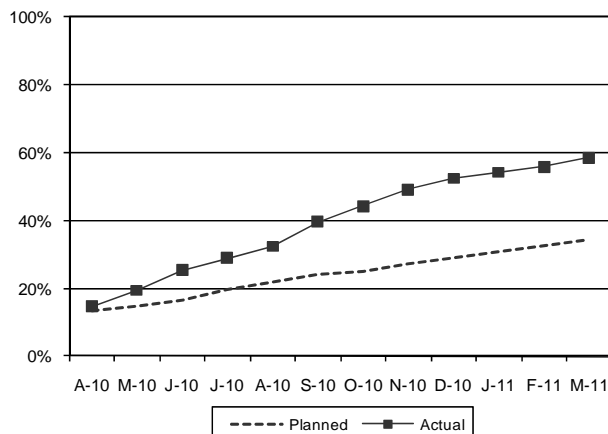
North Dorchester Bay Ventilation Building
Progress - March 2011



Project Summary: Construction of a ventilation building, interconnection to the NDB storage tunnel maintenance access structure at BOS-087 and final restoration of the -087 work area.

Status and Issues: During March, the contractor energized the electrical distribution system. Checkout and testing commenced on OC Unit No. 2. The contractor completed backfilling around the building. During testing in February, carbon absorber No. 1 failed. A new absorber was ordered and delivery is now expected in early April.

Hultman Aqueduct Interconnections Project
Progress - March 2011



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 contractor completed excavation and ledge removal for VC-N3 and began the forming and construction of N3 sump pit slab. The contractor also reinforcement of the concrete foundation and lower walls. The new sluice gate in Schencks Pond outlet structure was installed and work began on the replacement of automatic and manual air release valves and access manways on the Hultman segment "F". The contractor is ahead of schedule at the request of the MWRA.

CSO CONTROL PROGRAM

3rd Quarter - FY11

There are now 34 projects in MWRA's Long-Term CSO Control Plan, one less than reported last quarter. The Charles River Interceptor Gate Controls and Additional Interconnections project was removed from the Long-Term CSO Control Plan and Schedule Seven by order of the Federal District Court entered on April 14, 2011, granting MWRA's March 24, 2011 motion to amend Schedule Seven by deleting this project. As of March 31, 2011, 28 of the 34 projects were complete, including the Alewife Brook CAM400 Manhole Separation project completed by the City of Cambridge in March 2011. Four CSO projects are in construction and MWRA expects Cambridge to commence construction of the CAM004 Stormwater Outfall and Wetland Basin project (Contract 12) soon. MWRA plans to commence design of the remaining project - MWR003 Gate and Floatables Control, Rindge Ave. Siphon Relief and SOM01A Interconnection Relief and Floatables Control - in 2012.

Project	Court Milestones in Schedule Seven (Shaded milestones are complete)			Status as of March 31, 2011
	Commence Design	Commence Construction	Complete Construction	
North Dorchester Bay Storage Tunnel and Related Facilities	Aug 97	Aug 06	May 11	<p>MWRA continues to make substantial progress with construction of the \$272 million CSO control plan for the South Boston beaches.</p> <p><u>CSO Storage Tunnel</u>: The \$148 million contract is substantially complete.</p> <p><u>Dewatering Pump Station and Force Main</u>: The \$26.9 million contract was 91% complete as of March 2011 and on schedule for Substantial Completion in May 2011.</p> <p><u>Below-Ground Ventilation Building</u>: The \$5.2 million contract was 88% complete as of March 2011. As a result of delays with the installation of the two carbon adsorption vessels and with the electrical subcontractor's work, the contractor submitted a recovery schedule with no float time to Substantial Completion. (After March, further delay caused by failure of one of the adsorption vessels during on-site testing has necessitated re-fabrication of the vessel, which will delay Substantial Completion of the contract beyond May.)</p> <p>Despite the delay with Substantial Completion of the Ventilation Building, MWRA plans to bring the North Dorchester Bay CSO Storage Tunnel fully on-line by the end of May 2011 in compliance with Schedule Seven.</p>
Brookline Sewer Separation	Nov 06	Nov 08	Jul 13	<p>Brookline is making progress with the \$16.6 million second construction contract it commenced in January 2011. The second contract involves micro-tunneling along Beacon Street to install new sewers at significant depths, as well as the construction of several special structures that will connect the new sewers to existing laterals and to MWRA's interceptors. Main trunk combined sewers will be converted to storm drains. The contract calls for Substantial Completion in January 2013, in advance of the July 2013 milestone in Schedule Seven.</p> <p><u>MWRA Outfall MWR010</u>: In 2010, MWRA completed internal inspections and sediment analyses for CSO Outfall MWR010, which will convey the separated Brookline stormwater to the Charles River. MWRA continues to prepare a task order authorization for final design, specifications and permitting and expects to commence the design work in May 2011, commence the outfall cleaning contract in February 2012, and complete the work by July 2012. Capital funds for the outfall work are included in the FY11CIP within the total budget of \$25.7 million for the Brookline Sewer Separation project.</p>

Project		Court Milestones in Schedule Seven (Shaded milestones are complete)			Status
		Commence Design	Commence Construction	Complete Construction	
Reserved Channel Sewer Separation		Jul 06	May 09	Dec 15	In December 2010, BWSC completed the first of nine planned construction contracts for the \$67.2 million Reserved Channel Sewer Separation project. BWSC is making progress with three additional construction contracts it commenced in fall 2010, and BWSC plans to issue the Notice to Proceed for a fifth contract in April 2011. All work is scheduled to be complete by December 2015 in compliance with Schedule Seven.
Cambridge/ Alewife Brook Sewer Separation	CAM004 Outfall and Wetland Basin (Contract 12)		Apr 11*	Apr 13*	Commencement of construction of the CAM004 Stormwater Outfall and Wetland Basin project (Contract 12) is further delayed due to continuing difficulties faced by the City of Cambridge in obtaining necessary easements and rights of entry on private properties, in part due to foreclosures and sales of certain properties. Cambridge is working to complete its negotiations with private property owners, obtain the remaining necessary easements and rights of entry, and issue Notice to Proceed for Contract 12 by May 2011.
	CAM004 Sewer Separation	Jan 97	Jul 98	Dec 15*	Cambridge completed initial construction contracts for this project several years ago and plans to award three additional contracts to complete the work. Cambridge continues to make progress with design activities and plans to award the next construction contract by July 2012.
			Jul 12*		
	CAM400 Manhole Separation		Jan 10*	Mar 11*	Cambridge attained Substantial Completion of this project on March 30, 2011.
MWR003 Gate and Rindge Ave. Siphon	Apr 12*	Aug 14*	Oct 15*	MWRA plans to commence design of this last Alewife Brook project in April 2012.	
Other CSO Related Work					
South Dorchester Bay Sewer Separation Post-Construction Inflow Removal		N/A	N/A	N/A	BWSC continues to pursue additional storm water inflow removal (i.e., downspout disconnections) from the sanitary sewer system in order to mitigate the remaining risks of sewer system flooding in large storms. Design and flow metering activities are underway. BWSC expects to receive inflow removal recommendations in early 2012.
Lower Dorchester Brook Sewer Regulator Relocation and Sewer Separation		N/A	N/A	N/A	In August 2010, BWSC issued the Notice to Proceed for construction in the low bid amount of \$5,997,447.50, of which \$1,452,882 is eligible for MWRA funding. BWSC and MWRA agreed to a cap on MWRA funding for this project of \$2,030,000. BWSC is using the balance of the capped funds for design and construction administration services. The contract is scheduled to be substantially complete in July 2011.

* Current schedule and proposed Schedule Seven milestone.

CIP Expenditures 3rd Quarter FY11

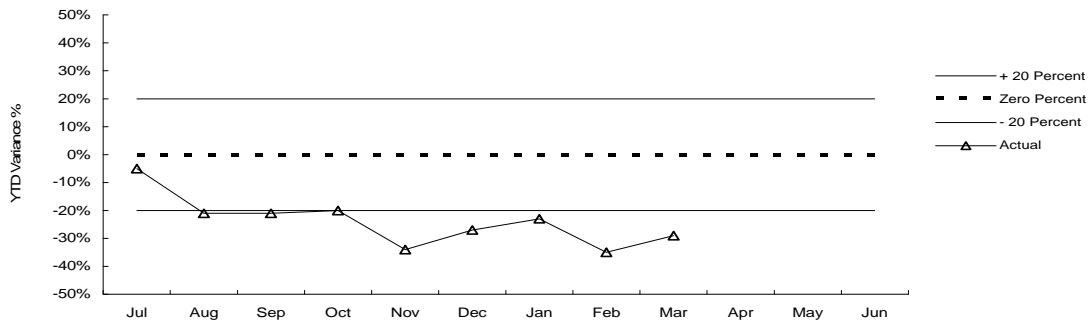
The Year-To-Date variances are highlighted below:

FY11 Capital Improvement Program Expenditure Variances through March by Program (\$000)				
Program	FY11 Budget Through March	FY11 Actual Through March	Variance Amount	Variance Percent
Wastewater	97,469	71,906	(25,563)	-26%
Waterworks	41,019	30,860	(10,159)	-25%
Business and Operations Support	15,439	5,901	(9,537)	-62%
Total	\$153,927	\$108,667	(\$45,260)	-29%

Underspending within Wastewater is primarily attributable to lower awards for the Reserved Channel Sewer Separation project, lower award and delay of the second Brookline Sewer Separation contract, delay in award of Cambridge Sewer Separation Contract 12, later payment requests on the North Dorchester Pump Station & Sewers and less Engineering Services during construction being needed, final contract costs for the East Boston Branch Relief Sewer being less than originally anticipated, timing of work for DI Electrical Equipment Upgrade 3, VFD Replacements, and delay in Process Information Control System construction. This was partially offset by accelerated progress on the DI Primary & Secondary Clarifier Rehabilitation, Heat Loop Pipe Replacement, and greater community requests for grants and loans. Underspending within Waterworks is primarily due to lower community requests for loans, timing of Watershed Land purchases, delay in schedule and lower award for Lynnfield Pipeline Construction 2, Carroll Water Treatment Plant Ancillary Modifications schedule change, and re-scheduling Quabbin Aqueduct Inspection work to be part of the Winsor Dam Pipeline Replacement project. This was partially offset by accelerated schedule and contractor progress on the Lower Hultman Aqueduct Rehabilitation (CP6A) contract and progress on the Southern Spine Section 107 Phase 2 project.

CIP Expenditure Variance

Total FY11 CIP Budget of \$208,000,000.



Construction Fund Management

All payments to support the capital program are made from the Construction Fund. Sources of fund revenues 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 4/23/11	\$71 million
Unused capacity under the debt cap:	\$612 million
Estimated date for exhausting construction fund without new borrowing:	May-11
Estimated date for debt cap increase to support new borrowing:	FY2013
Commercial paper outstanding:	\$194 million
Commercial paper capacity:	\$350 million
Budgeted FY11 capital spending*:	\$199 million
Projected FY10 grant and SRF receipt:	\$13 million

* Cash based spending is discounted for construction retainage.

DRINKING WATER QUALITY AND SUPPLY

Source Water – Microbial Results

3rd Quarter – FY11

Background

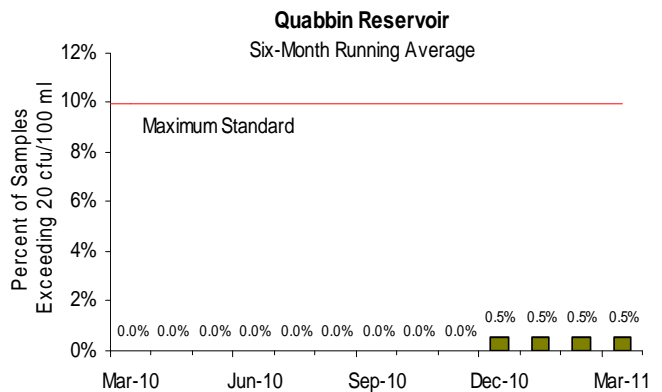
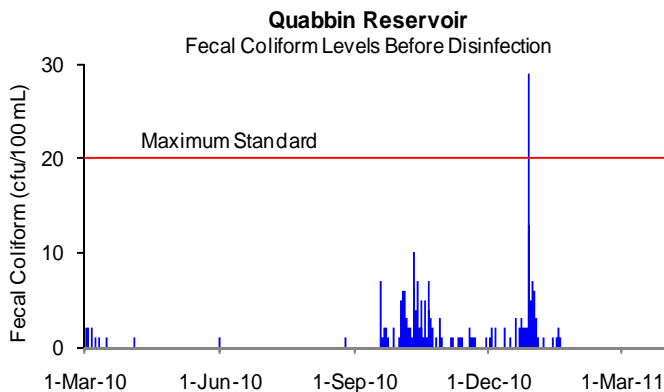
Total coliform bacteria are monitored in both source and treated water to provide an indication of overall bacteriological activity. Most coliforms are harmless. However, fecal coliform, a subclass of the coliform group, are identified by their growth at temperatures comparable to those in the intestinal 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 entering the CVA system.

All samples collected during the 3rd Quarter were below 20 cfu/100ml.

For the current six-month period (which includes Q2), 0.5% of the samples have exceeded a count of 20 cfu/100mL due to a single positive sample in December 2010.



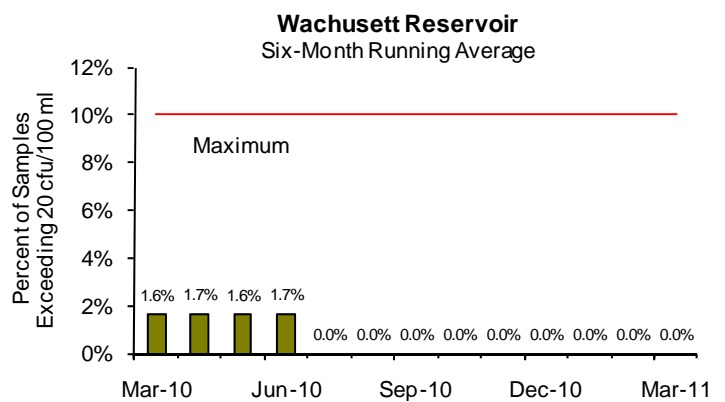
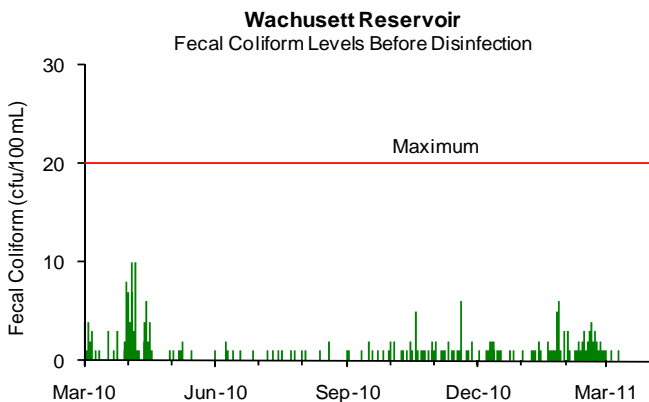
Sample Site: Wachusett Reservoir

Wachusett Reservoir water is sampled at the CWTP raw water tap in Marlborough before it enters 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 when the ice melts.

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

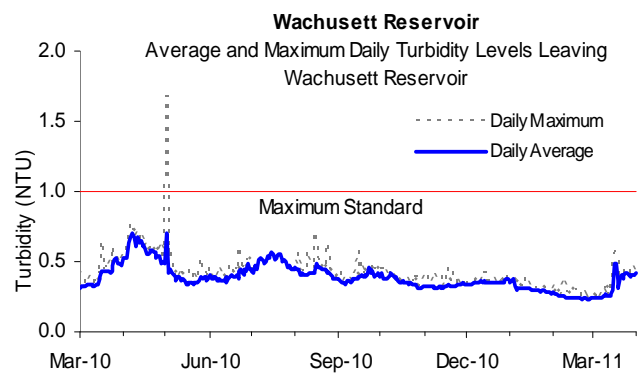
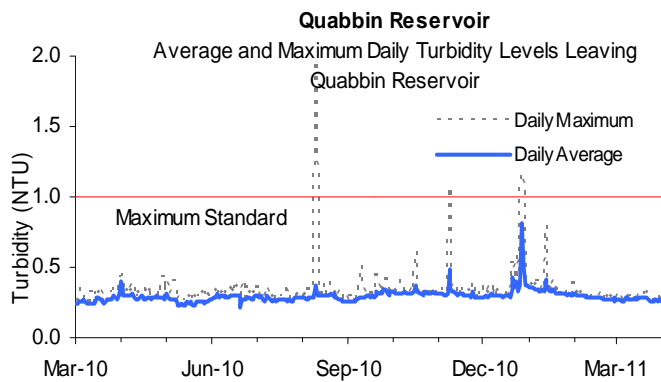
3rd Quarter – FY11

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

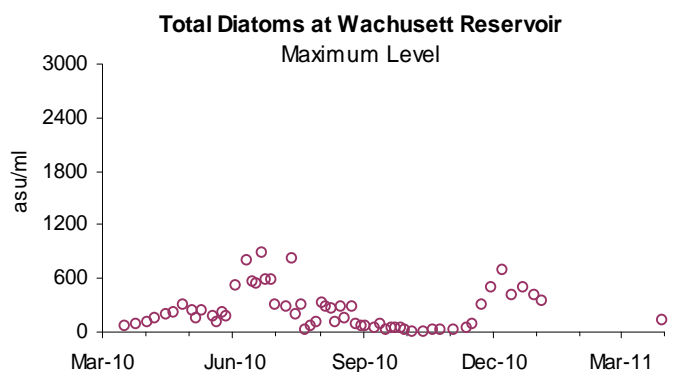
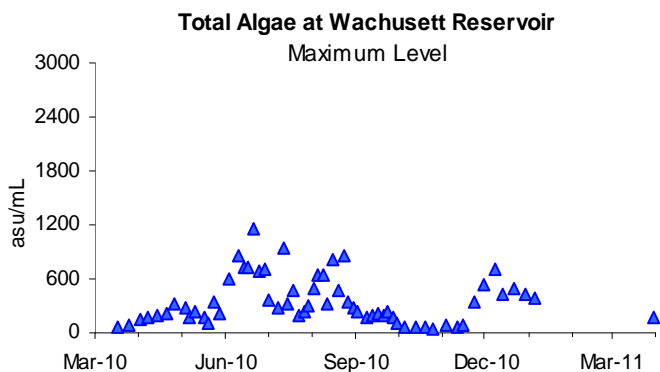


Source Water – Algae

Algal 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 using filters may notice a more frequent need to change their filters. Diatom levels are currently low.

Of the 10 complaints received for the quarter from local water departments, none concerned taste and odor that may be due to algae. Significant ice cover on the reservoir prevented safe algae sampling from January 6 until sampling began again on March 30.



Treated Water – Disinfection Effectiveness

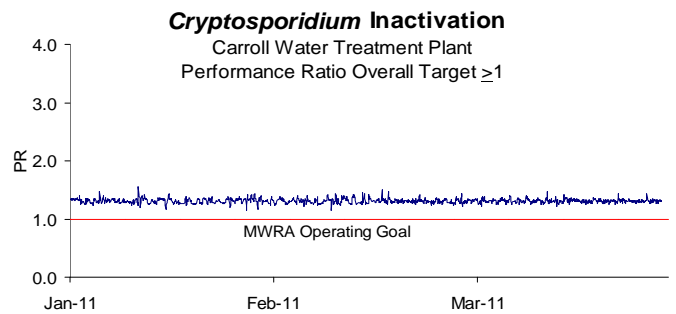
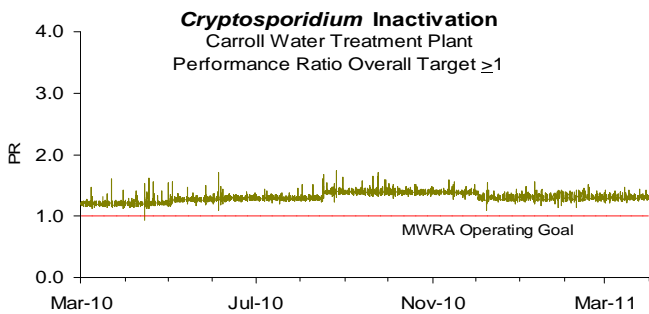
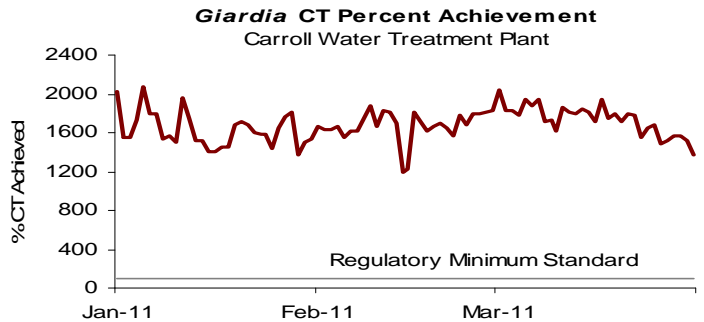
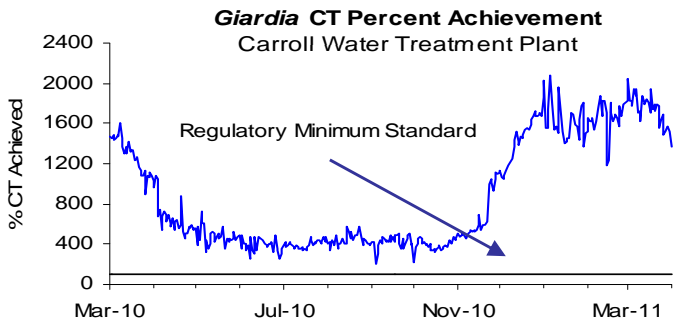
3rd Quarter – FY11

Background

With the activation of the Carroll Water Treatment Plant (CWTP), MWRA now 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 a percent of required CT achieved; 100% is the minimum allowed. To avoid confusion with regulatory requirements, inactivation of *Cryptosporidium* is reported as Performance Ratio (PR). A PR of 1 demonstrates inactivation of 99% of *Cryptosporidium* based on site-specific data.

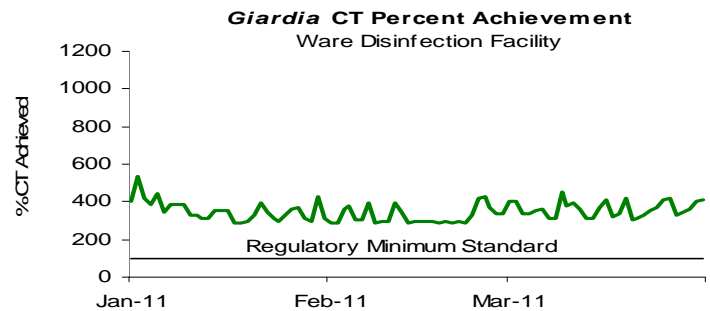
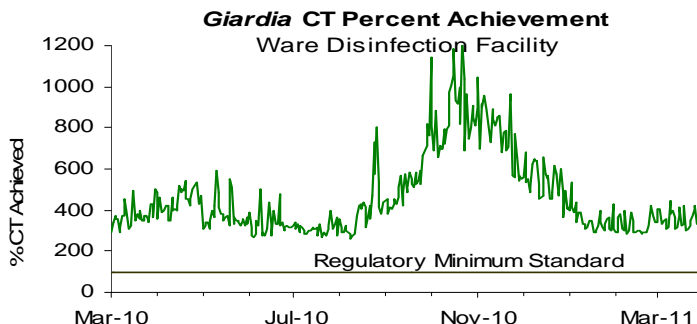
Wachusett Reservoir – MetroWest/Metro Boston Supply:

- CT was maintained above 100% at all times the plant was providing water into the distribution system this quarter.
- MWRA’s operating goal to meet a PR of 1 was met for every hour of the quarter.
- Ozone dose at the CWTP varied between 2.1 to 3.6 mg/L for the quarter.
- During months when the water is cold, a higher level of disinfection is required to achieve MWRA’s PR target for *Cryptosporidium*; this results in a much higher CT achievement for *Giardia*.



Quabbin Reservoir at Ware Disinfection Facility (CVA Supply):

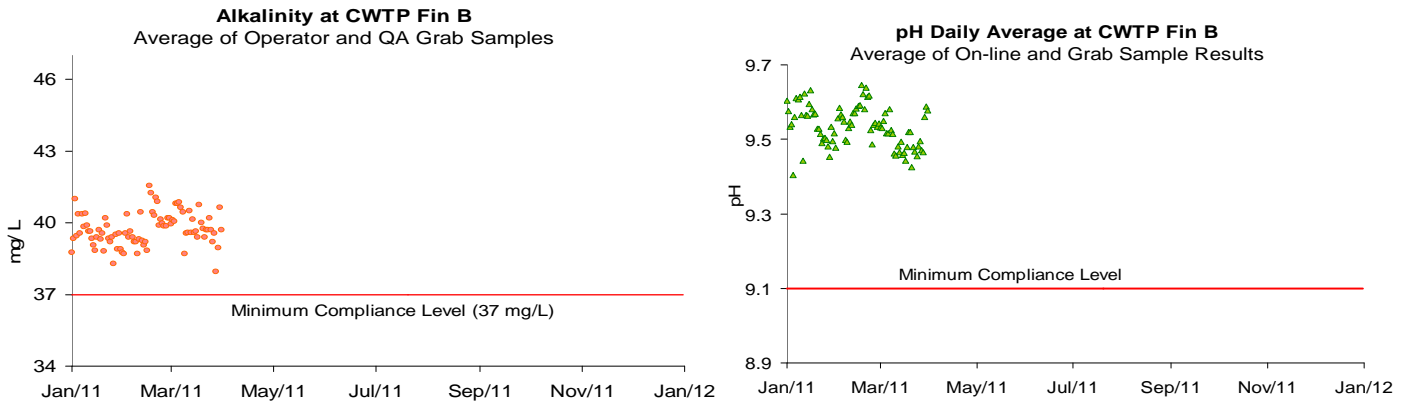
CT was maintained above 100% at all times the plant was providing water into the distribution system for the quarter, as well as every day for the last fiscal year. On January 12, the chlorine dose was lowered to 1.2 mg/L from 1.3 mg/L. On February 23, the chlorine dose was raised to 1.3 mg/L from 1.2 mg/L.



Treated Water – pH and Alkalinity Compliance 3rd Quarter – FY11

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’s target for distribution system pH is 9.3; the target for alkalinity is 40 mg/l. Per DEP requirements, samples from the CWTP Fin B tap 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 this level for more than nine days in a six-month period. MWRA tests finished water pH and alkalinity daily at the CWTP Fin B sampling tap. Distribution system samples are collected in March, June, September, and December.

Distribution system samples were collected on March 21 and 22, 2011; sample pH ranged from 9.2 to 9.7 and alkalinity ranged from 40 to 42 mg/L. No sample results were below DEP limits for this quarter.



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

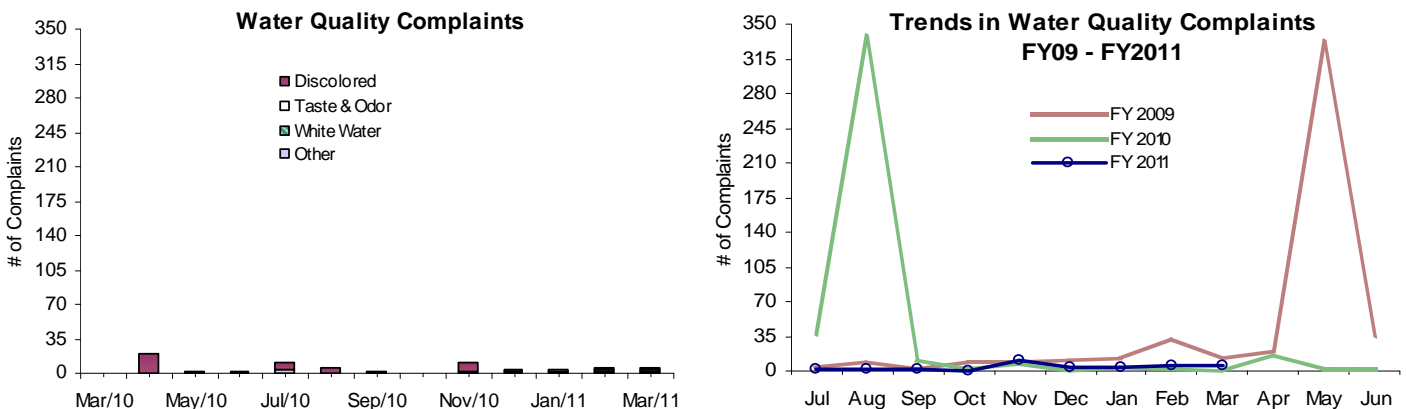
Background

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 10 complaints during the quarter; two were for “discolored water,” five were for “taste and odor,” two were for “white water,” and one was identified as “other.”



Bacteria & Chlorine Residual Results for Communities in MWRA Testing Program

3rd Quarter – FY11

While all communities collect bacteria samples for the Total Coliform Rule (TCR), 41 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, three of the 5,712 community samples (0.05% system-wide) submitted to MWRA labs for analysis tested positive for coliform (Chelsea - January; Boston - March); none of the 2,053 (0.00%) MWRA samples tested positive for total coliform. No sample tested positive for *E.coli*. All 41 systems that submitted chlorine residual data maintained an average disinfectant residual of at least 0.2 mg/L. Only 1.9% of the 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	182	0 (0%)	0.0%		0.11	1.91
BELMONT	104	0 (0%)	0.0%		1.30	1.90
BOSTON	737	2 (0.27%)	0.0%	No	1.26	2.21
BROOKLINE	221	0 (0%)	0.0%		0.03	2.00
CHELSEA	173	1 (0.58%)	0.0%	No	0.85	1.90
DEER ISLAND	52	0 (0%)	0.0%		1.61	2.10
EVERETT	130	0 (0%)	0.0%		0.01	1.13
FRAMINGHAM	216	0 (0%)	0.0%		0.28	1.99
HANSCOM AFB (Bedford) (b)	27	0 (0%)	0.0%		0.21	1.81
LEXINGTON	117	0 (0%)	0.0%		0.65	2.09
LYNNFIELD	18	0 (0%)	0.0%		0.60	1.52
MALDEN	196	0 (0%)	0.0%		1.28	1.37
MARBLEHEAD	72	0 (0%)	0.0%		0.26	1.74
MARLBOROUGH (b)	126	0 (0%)	0.0%		0.81	1.92
MEDFORD	221	0 (0%)	0.0%		1.04	1.89
MELROSE	117	0 (0%)	0.0%		0.02	1.10
MILTON	96	0 (0%)	0.0%		1.36	1.85
NAHANT	30	0 (0%)	0.0%		0.09	1.41
NEEDHAM (b)	123	0 (0%)	0.0%		0.05	0.75
NEWTON	278	0 (0%)	0.0%		0.25	1.93
NORTHBOROUGH	49	0 (0%)	0.0%		0.07	0.98
NORWOOD	117	0 (0%)	0.0%		0.05	1.73
QUINCY	297	0 (0%)	0.0%		0.35	1.87
READING	130	0 (0%)	0.0%		0.21	1.80
REVERE	196	0 (0%)	0.0%		1.01	1.90
SAUGUS	104	0 (0%)	0.0%		1.51	1.93
SOMERVILLE	288	0 (0%)	0.0%		1.64	2.27
SOUTH HADLEY FD1 (c)	48	0 (0%)	0.0%		0.05	0.44
SOUTHBOROUGH	30	0 (0%)	0.0%		0.13	1.87
STONEHAM	91	0 (0%)	0.0%		1.64	2.05
SWAMPSCOTT	48	0 (0%)	0.0%		0.32	1.67
WAKEFIELD (b)	143	0 (0%)	0.0%		0.49	1.62
WALTHAM	216	0 (0%)	0.0%		1.26	2.07
WATERTOWN	130	0 (0%)	0.0%		0.35	2.00
WELLESLEY (b)	108	0 (0%)	0.0%		0.03	0.57
WESTBORO HOSPITAL	15	0 (0%)	0.0%		0.03	0.91
WESTON	49	0 (0%)	0.0%		1.30	2.02
WILMINGTON (b)	87	0 (0%)	0.0%		1.03	1.89
WINCHESTER (b)	65	0 (0%)	0.0%		0.14	0.84
WINTHROP	72	0 (0%)	0.0%		0.38	1.26
WOBURN (b)	193	0 (0%)	0.0%		0.07	0.94
Total:	5712	3 (0.05%)	0.0%			
MASS. WATER RESOURCES AUTHORITY (d,e)	2053	0 (0%)	0.0%		0.01	1.94

(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 – FY11

Background

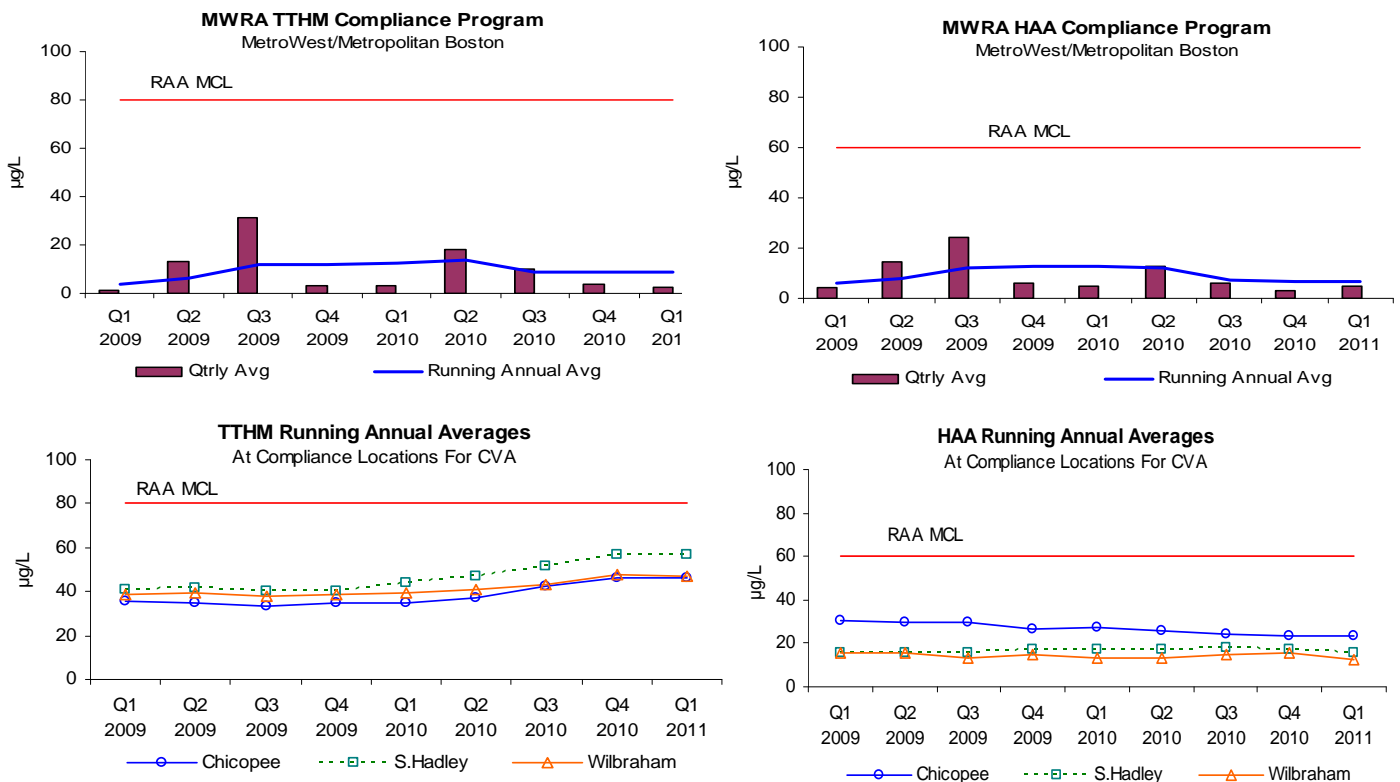
Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5s) are by-products of disinfection treatment with chlorine. TTHMs and HAA5s are of concern due to their potential adverse health effects at high levels. EPA's running annual average (RAA) standard is 80 ug/L for TTHMs and 60 ug/L for HAA5s. The 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 a surrogate measure of reactive organic matter. Regulated DBPs have dropped to very low levels with the CWTP coming on-line. However, UV-254 levels remain useful for estimating ozone dosage and serving as a trigger for Quabbin transfer consideration.

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.

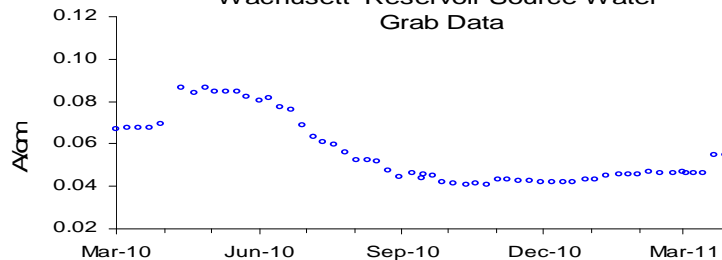
Outcome

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 = 8.7 ug/L; HAA5s = 6.8 ug/L. CVA's DBP levels continue to be below current standards. UV-254 levels are currently around 0.05 A/cm. The current RAA for Bromate = 0.0 ug/L.



UV 254

Wachusett Reservoir Source Water
Grab Data



Water Supply and Source Water Management

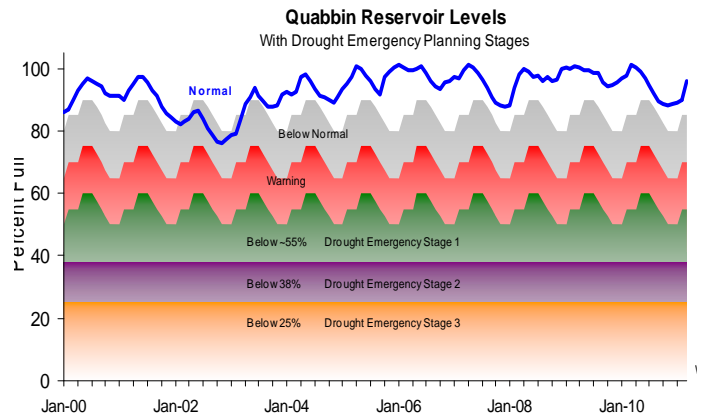
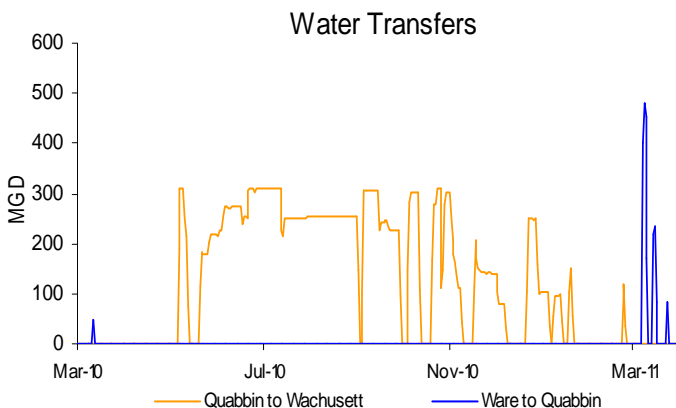
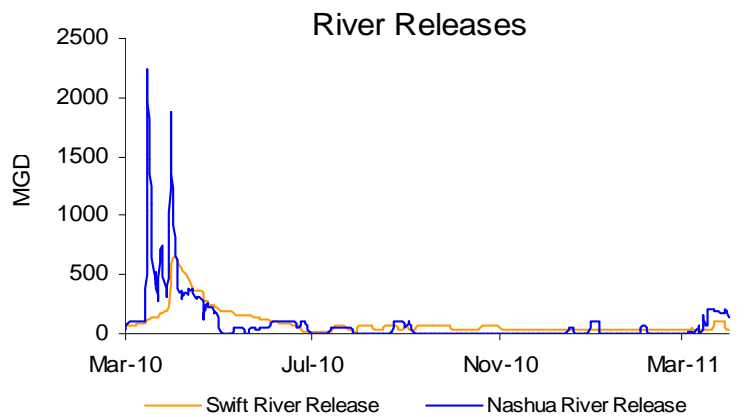
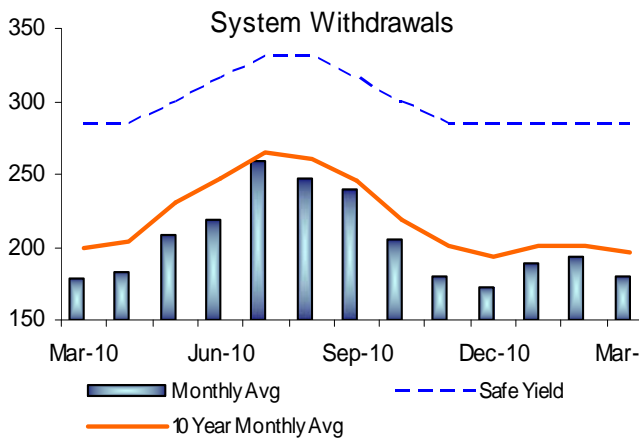
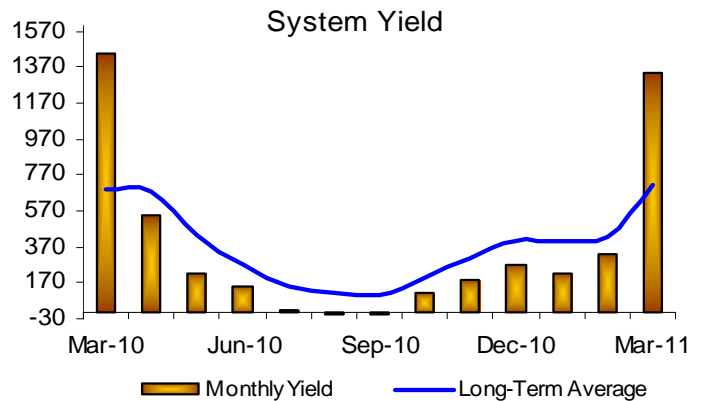
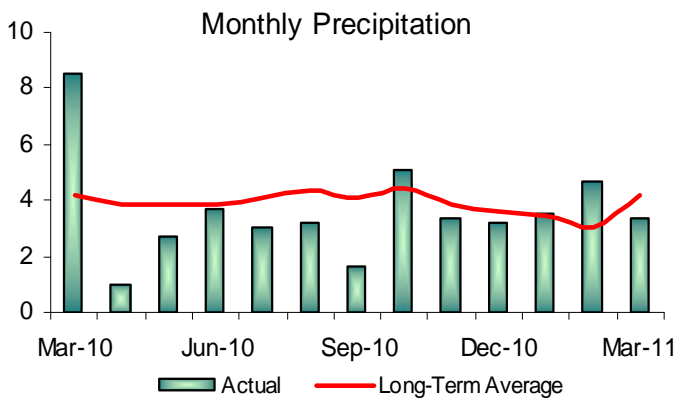
3rd Quarter – FY11

Background

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

Outcome

Quabbin Reservoir level remains above the normal operating range for this period of the year. The Reservoir was at 95.8% of capacity as of March 31, 2011; a 7.4% increase since January 1, which represents an increase of more than 30 billion gallons of storage. The winter snow melt and spring run-off contributed to a high system yield for the month of March and is reflected in the reservoir level increase during this period, which continues into the 4th Quarter. System withdrawals continue to be below the safe yield.



WASTEWATER QUALITY

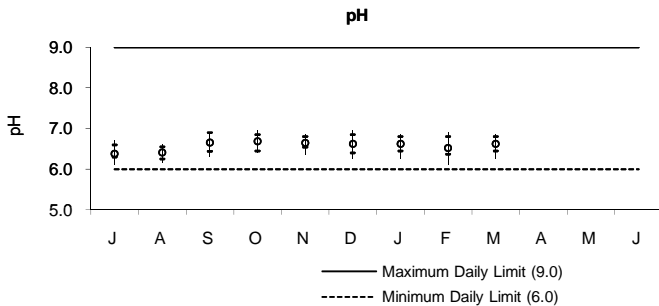
NPDES Permit Compliance: Deer Island Treatment Plant

3rd Quarter - FY11

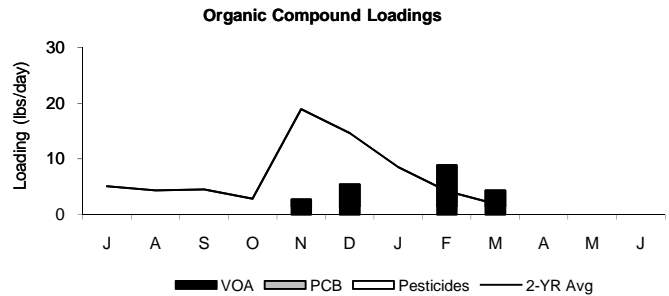
NPDES Permit Limits

Effluent Characteristics		Units	Limits	January	February	March	3rd Quarter Violations	FY11 YTD Violations
Dry Day Flow:		mgd	436	308.4	306.5	292.5	0	0
cBOD:	Monthly Average	mg/L	25	5.9	7.6	7.5	0	0
	Weekly Average	mg/L	40	6.7	28.6	9.3	0	0
TSS:	Monthly Average	mg/L	30	8.3	12.2	16.4	0	0
	Weekly Average	mg/L	45	10.3	31.6	23.8	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	13.1	15.0	13.1	0	0
	Weekly Geometric Mean	col/100mL	14000	6.5	7.0	19.8	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	6.3-6.9	6.1-6.9	6.3-6.9	0	0
PCB, Aroclors:	Monthly Average	ug/L	0.00045	UNDETECTED			0	0
Acute Toxicity:	Mysid Shrimp	%	50	>100	>100	>100	0	0
	Inland Silverside	%	50	73.5	75.2	>100	0	0
Chronic Toxicity:	Sea Urchin	%	1.5	100	100	100	0	0
	Inland Silverside	%	1.5	50	25	100	0	0

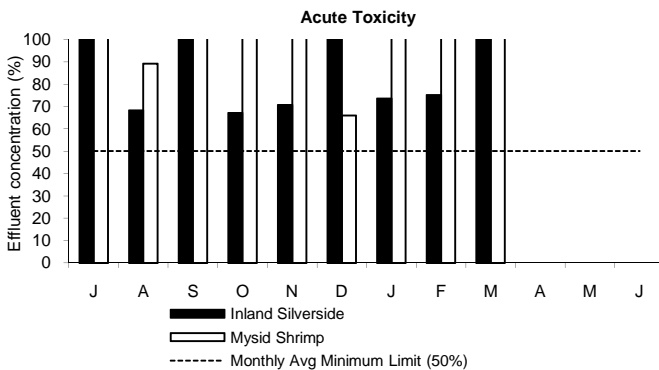
There have been no permit violations in FY11 at the Deer Island Treatment Plant.



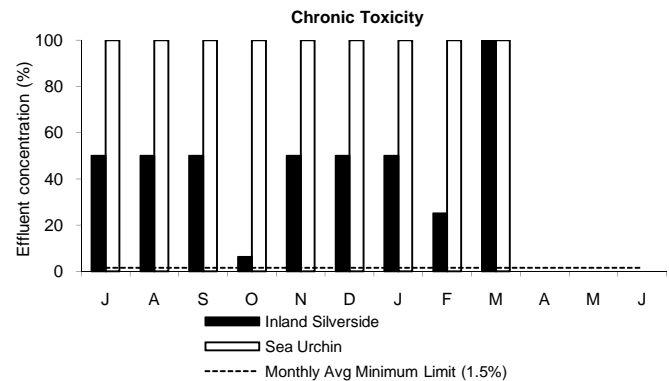
pH is a measure of the alkalinity or acidity of the effluent. Fluctuations in pH do not have an adverse effect on marine environments. Because of the pure oxygen used in the activated sludge reactor, the effluent pH tend to be at the lower pH range. pH measurements for the 3rd quarter were within the daily 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, 1.5% of the effluent 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

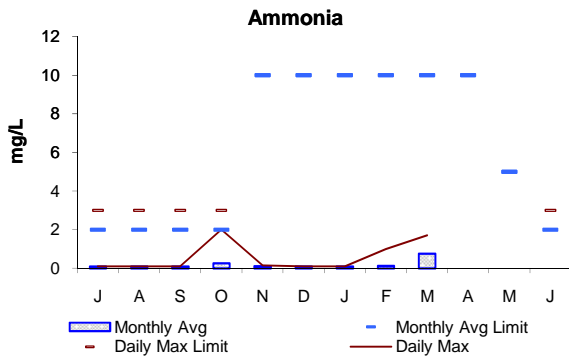
3rd Quarter - FY11

NPDES Permit Limits

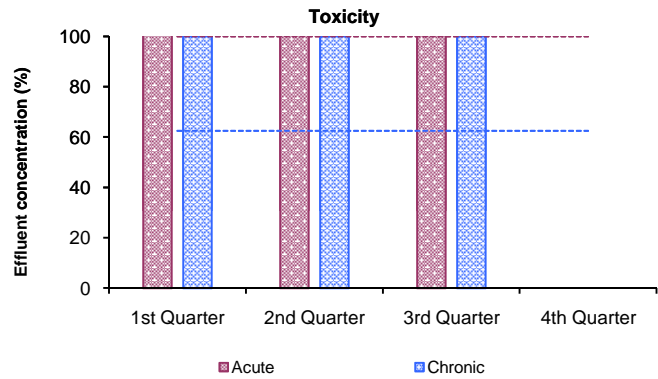
Effluent Characteristics		Units	Limits	January	February	March	3rd Quarter Violations	FY11 YTD Violations
Flow:		mgd	3.01	2.99	2.93	2.71	0	6
BOD:	Monthly Average:	mg/L	20	8.9	8.1	6.5	0	0
	Weekly Average:	mg/L	20	10.8	10.5	8.1	0	0
TSS:	Monthly Average:	mg/L	20	6.6	7.3	6.7	0	0
	Weekly Average:	mg/L	20	8.2	7.7	8.1	0	0
pH:		SU	6.5-8.3	7.0-7.7	7.2-8.0	7.0-7.6	0	0
Dissolved Oxygen: Daily Minimum:		mg/L	6	10.4	9.8	9.5	0	0
Fecal Coliform:	Daily Geometric Mean:	col/100mL	400	6.3	6.4	5.4	0	0
	Monthly Geometric Mean:	col/100mL	200	3.2	3.1	3.3	0	0
TCR:	Monthly Average:	ug/L	50	0	0	0	0	0
	Daily Maximum:	ug/L	50	0	0	0	0	0
Total Ammonia Nitrogen: Nov 1 - Mar 31								
Monthly Average:		mg/L	10.0	0.1	0.1	0.8	0	0
Daily Maximum:		mg/L	35.2	0.1	1.0	1.7	0	0
Copper: Monthly Average:		ug/L	20	7.8	9.8	5.6	0	0
Phosphorus: May 1 - Oct 31								
Monthly Average:		mg/L	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 were no permit violations at the Clinton Wastewater Treatment Plant during the 3rd Quarter.

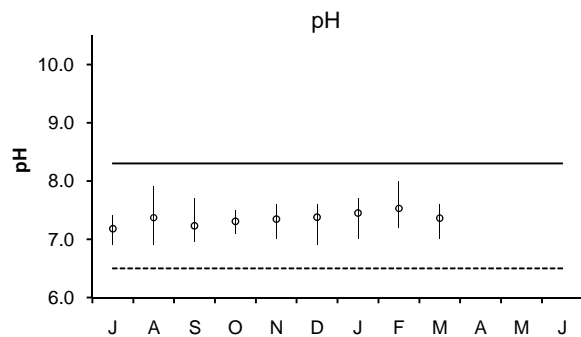
Toxicity testing is conducted on a quarterly basis.



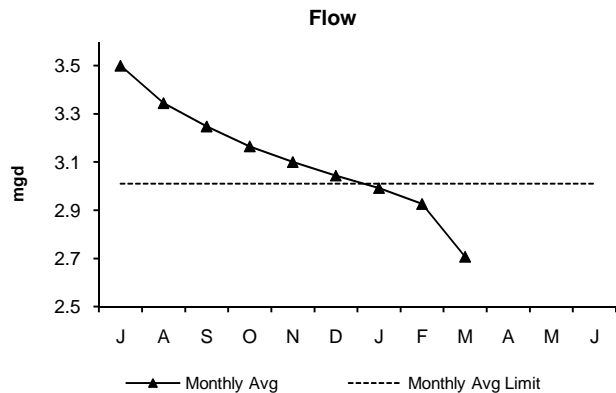
The 3rd Quarter monthly average and daily maximum concentrations were below the permit limits. The monthly average and daily maximum limits for the period of November 1 - March 31 are 10 mg/L and 35.2 mg/L, respectively. The permit limits are most stringent from June to October when warm weather conditions are most conducive to potential eutrophication.



Acute and chronic toxicity testing simulate 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.



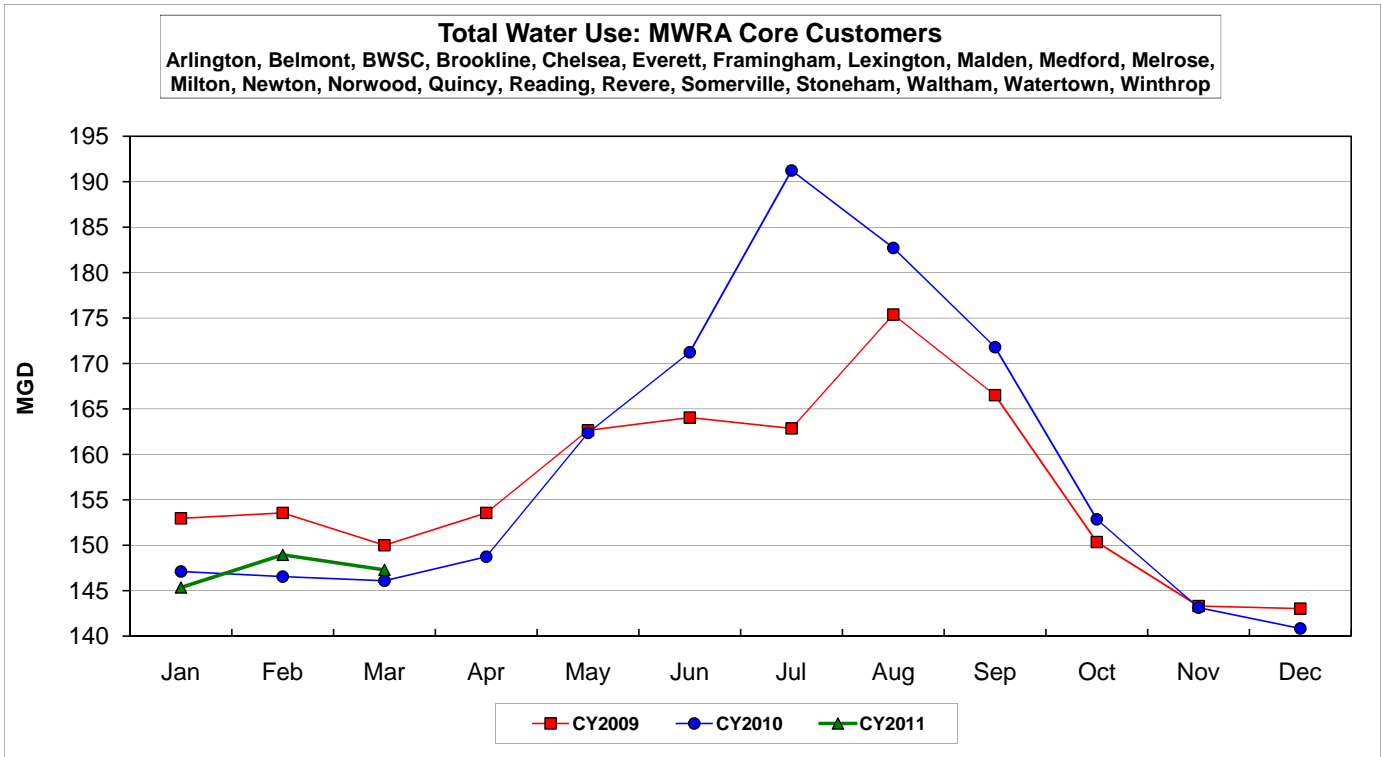
The graph depicts the average monthly flow, measured in million gallons per day, entering the plant. The average monthly flows during the 3rd Quarter were below the permit limit.

COMMUNITY FLOWS AND PROGRAMS

Massachusetts Water Resources Authority
Water Supplied: MWRA Core Communities

MGD	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
CY2009	152.955	153.548	150.008	153.576	162.628	164.037	162.866	175.388	166.509	150.376	143.335	143.043	156.543
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	145.351	148.938	147.299	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	147.138

MG	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
CY2009	4,741.614	4,299.349	4,650.244	4,607.285	5,041.476	4,921.104	5,048.836	5,437.043	4,995.272	4,661.647	4,300.060	4,434.327	57,138.257
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	4,505.879	4,170.272	4,566.271	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	13,242.422



Following the cool and extremely wet first quarter of 2010, the increased water use in the summer of 2010 was consistent with the hot weather. Water use returned to the low usage pattern's we have been seeing the past few years with December 2010 recording the lowest system usage in MWRA history.

While slightly higher than 2010, water use for first quarter of 2011 remains low.

Community Wastewater Flows
Third Quarter FY11

PLACE HOLDER

DATA IS NOT AVAILABLE AT THE TIME OF DISTRIBUTION

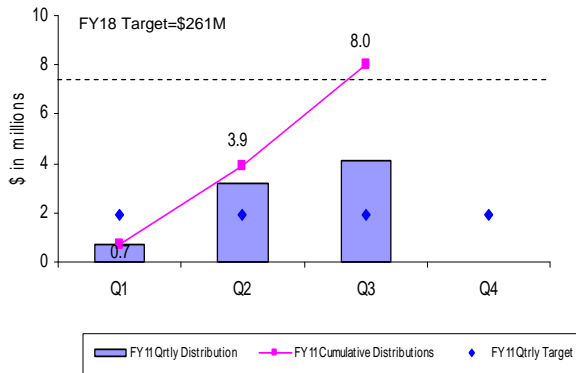
Community Support Programs

3rd Quarter – FY11

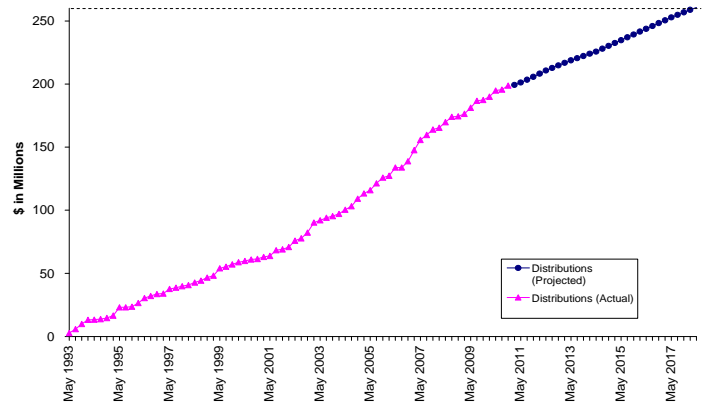
Infiltration/Inflow Local Financial Assistance Program

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.

FY11 Quarterly Distributions of Sewer Grant/Loans



I/I Local Financial Assistance Program Distribution FY93-FY18

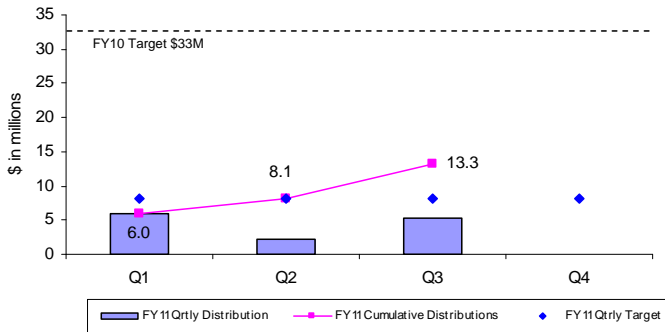


During the Third Quarter of FY11, \$4.1 million in financial assistance (45% grants and 55% interest-free loans) was distributed to fund local sewer rehabilitation projects in Arlington, BWSC, Lexington, Milton, Stoughton and Wakefield. Total grant/loan distribution for FY11 is \$8.0 million. From FY93 through the Third Quarter of FY11, all 43 member sewer communities have participated in the program and more than \$203 million has been distributed to fund over 400 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.

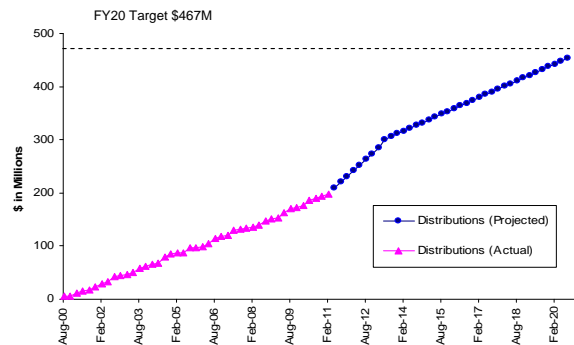
Water Local Pipeline and Water System Assistance Programs

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 and 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.

FY11 Quarterly Distributions of Water Loans



Local Pipeline and Water System Assistance Programs Distribution FY01-FY20

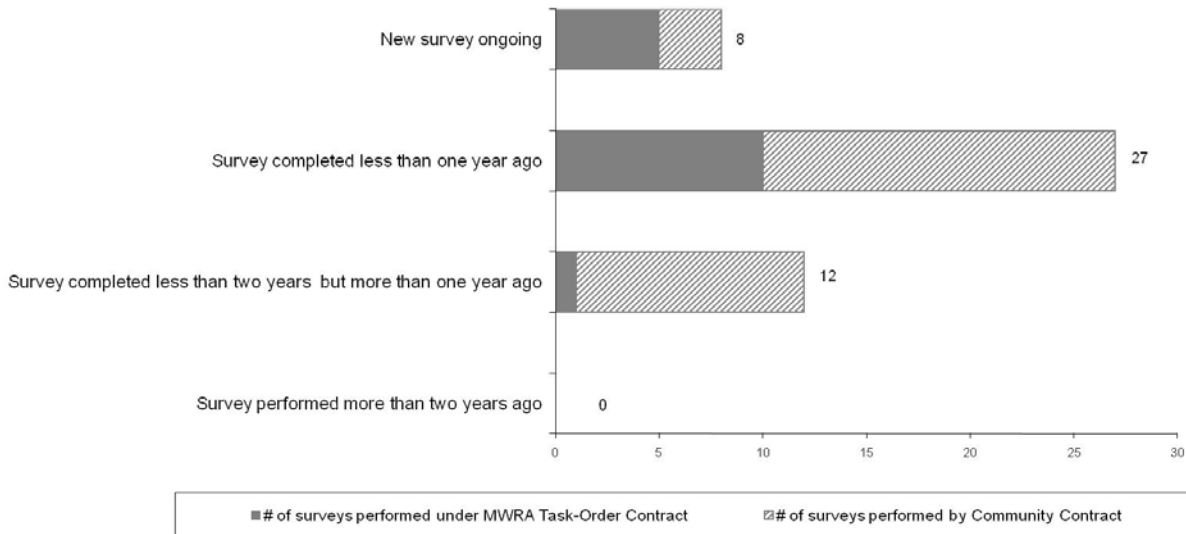


During the Third Quarter of FY11, \$5.2 million in interest-free loans was distributed to fund local water projects in BWSC, Everett, Newton, Wakefield and Wellesley. Total loan distribution for FY11 is \$13.3 million. From FY01 through the Third Quarter of FY11, more than \$198 million has been distributed to fund 231 local water system rehabilitation projects in 34 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.

Community Support Programs 3rd Quarter – FY11

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 contractor 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 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 by MWRA and the costs are billed to the community the following year. During the Third Quarter of FY11, all member water communities were in compliance with MWRA's Leak Detection Regulation.



Community Water Conservation Outreach

MWRA's Community Water Conservation Program helps to maintain average water demand below the regional water system's safe yield of 300 mgd. Current 5-year average water demand is less than 210 mgd. The local Water Conservation Program includes distribution of water conservation education brochures (indoor and outdoor bill-stuffers) and low-flow water fixtures and related materials (shower heads, faucet aerators, toilet leak detection dye tabs, and instructions), all at no cost to member communities or individual customers. The Program's annual budget is \$25,000 for printing and purchase of materials. Annual distribution targets and totals are provided in the table below. For FY11, the target for educational brochures has been lowered and the target for low-flow fixtures has been increased based on distribution trends over the last few years.

	Annual Target	Q1	Q2	Q3	Q4	Annual Total
Educational Brochures	150,000	8,152	19,802	43,645		71,599
Low-Flow Fixtures (showerheads and faucet aerators)	10,000	2,615	1,313	4,287		8,215
Toilet Leak Detection Dye Tablets	-----	8,218	1,651	3,708		13,577

BUSINESS SERVICES

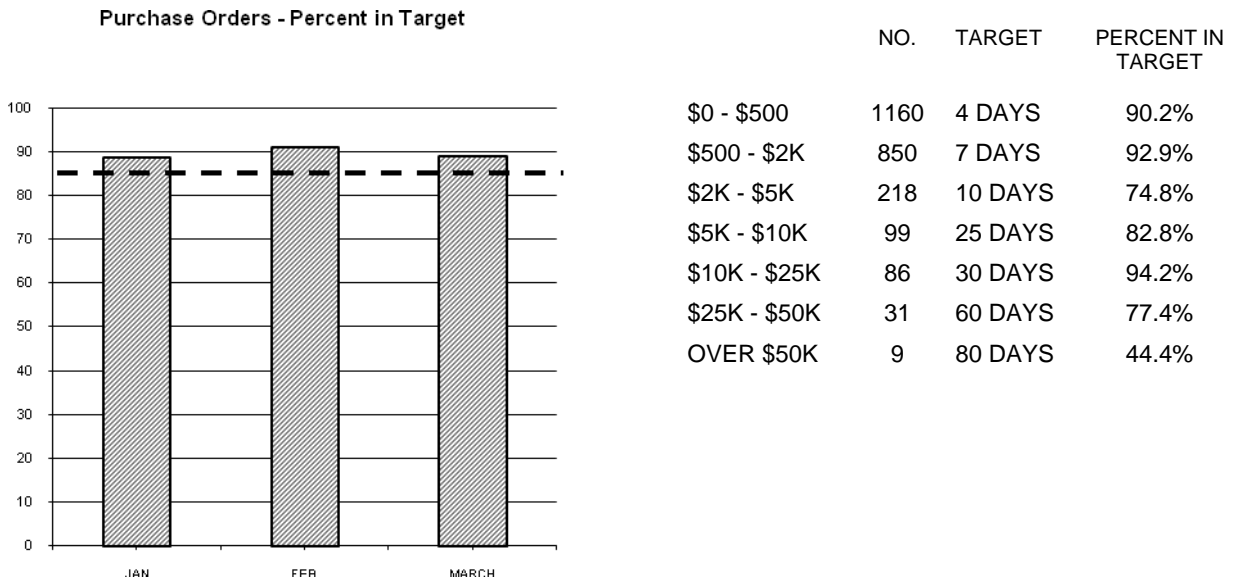
Procurement: Purchasing and Contracts

Third Quarter FY11

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

Outcome: Processed 89% of purchase orders within target; Avg. Processing Time was 4.99 days vs. 4.53 days in Qtr 3 of FY10. Processed 86% (31 of 36) contracts within target timeframes; Avg. Processing Time was 116 days vs. 133 days in Qtr 3 of FY10.

Purchasing



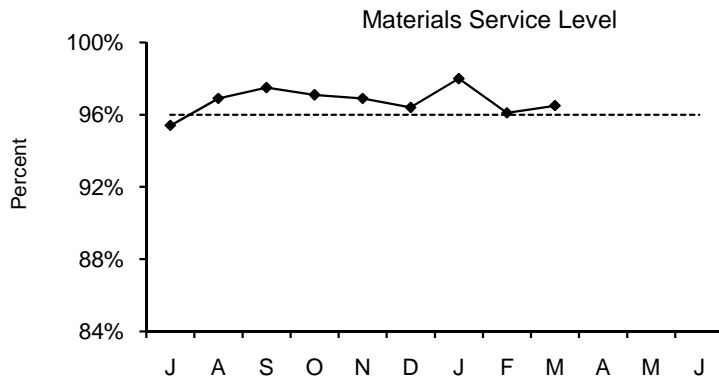
- Purchasing Unit processed 2453 purchase orders, 126 more than the 2327 processed in Qtr 3 of FY10, for a total value of \$6,350,569 vs. a dollar value of \$8,223,077 in Qtr 3 of FY10.
- The target was not achieved for the \$2k - \$5k category due to sourcing of vendors, finalization of specifications and delay in vendor response, the \$25k - \$50k category because of to clarification of specifications, a re-bid and holding the purchase order until the service was needed, and the over \$50k category due to changes in scope, extended end user testing, and holding the purchase order until the service was needed.

Contracts, Change Orders and Amendments

- Five contracts were not processed within target timeframes. Reasons include: multiple revisions to specifications; re-bid of filed sub-bids required plus an extended qualification review; contractor delay complying with insurance requirements; and timing of the need for the services.
- Procurement processed thirty-six contracts with a value of \$20,114,886 and twelve amendments with a value of \$3,473,766.
- Thirty-two change orders were executed during the period, but several were large balancing change orders at the end of jobs, and are recorded as credits or negative numbers. The dollar value of all non-credit change orders during Qtr 3 of FY11 was \$3,250,832 and the value of credit change orders was (\$418,250).
- In addition, staff reviewed 101 proposed change orders and 37 draft change orders.

Materials Management

3rd Quarter, FY11



The service level is the percentage of stock requests filled. The goal is to maintain a service level of 96%. Staff issued 7,944 (96.8%) of the 8,207 items requested in Q3 from the inventory locations for a total dollar value of \$1,188,383.

Inventory Value - All Sites

Inventory goals focus on:

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

The FY11 goal is to reduce consumable inventory from the July '10 base level (\$7.35 million) by 2.0% (approximately \$147,061), to \$7.20 million by June 30, 2011 (see chart below).

Items added to inventory this quarter include:

- Deer Island – high speed pinion gear and siemens chain pins for Liquid Train; retaining cap, cap shield, electrode and nozzle for plasma cutter for Core.
- Chelsea – norp tube assembly, shaft assembly, safety switch, derian reducer, governor generator and pressure isolator ring for FOD; diesel nozzle, plow cables and tubing for VMM; transmitter and EMT clip for SCADA; stearns brake and heater block for Work Order Coordination Group.
- Southboro – ultrasonic transmitter for Carroll Water Treatment Plant; water filter and electrical wire for Maintenance.

Property Pass Program:

- Audits were conducted at Barre, Chelsea Paint, Mechanical Maintenance, Tech Base and Leak Detection in addition to Sewer Metering during Q3.
- Numerous obsolete computers, printers, monitors, keyboard, mice and scanners 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 \$4,456.

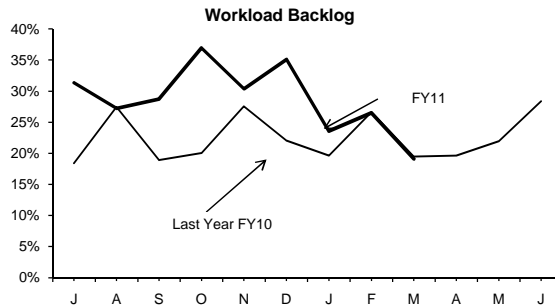
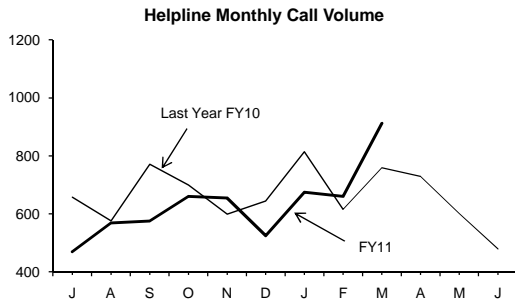
Items	Base Value July-10	Current Value w/o Cumulative New Adds	Reduction / Increase To Base
Consumable Inventory Value	7,353,045	7,150,668	-202,377
Spare Parts Inventory Value	6,888,860	6,925,235	36,375
Total Inventory Value	14,241,905	14,075,903	-166,002

Note: Approximately \$370,456 worth of MIS equipment remains under warehouse inventory, the majority of which is related to the halfway completed PC rollout that will be finished by the end of Q4. This equipment's value is reflected in the consumable inventory value.

MIS Program 3rd Quarter FY11

Operations

Highlights:

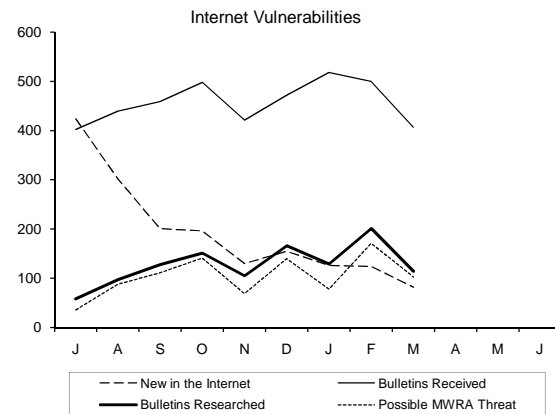
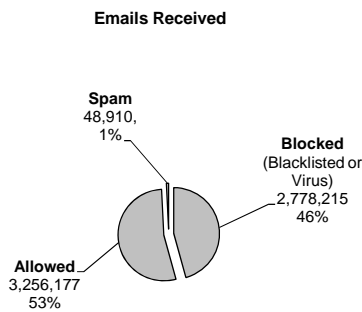


Performance

- Call volume peaked in March and has increased by 7.12% from Q3 last year. For Q3 the backlog peaked in February and is slightly below the targeted benchmark of 20%. The mix of calls for the quarter indicate issues with password resets and software configuration requests due to the PC Rollout.

Business System Plan

- Cyber Security: During Q3, staff pushed security fixes and updates to desktops and servers throughout the quarter in order to protect against the 43 newly revealed vulnerabilities.
- LANdesk Antivirus quarantined 24 distinct viruses from 31 MWRA computers. MWRA's systems are current with anti-virus providers' signatures for all known malware.
- PC Rollout: 780 New PCs procured as of Q3 65% deployed.



Applications/Training/Records Center

Area	Significant Accomplishments
Staff Summary	Implemented a new application for selected Procurement Department staff to track staff summary routing and bid information replacing Procurement's existing tracking system.
Lawson System	Tested the production cluster fail over on the two production servers. This test proved that for the three failure scenarios identified as the highest risk, both servers are ready to support Lawson and Oracle in the event of hardware failures. Modified the Graphical User interface (GUI) to resolve a windows display problem impacting some timesheet approvers.
ArcGIS 10	Replaced a legacy custom GIS application for ENQUAD that utilizes ArcGIS 10 desktop software. The new software utilizes real time database links and simplifies ENQUAD's monthly reporting routines. The new software is fully supported by the vendor, ESRI, and will be upgraded as new releases become available.
MAXIMO	Created a custom Maximo trigger for DITP that will email the work order initiator when the status changes to complete. This enhancement helps save time by eliminating the need for the user to login into Maximo and perform a query. Additionally, a new "Valve Air Release" report was created for FOD. This report uses data from the Maximo Custom Valve Application to show various air release valve attributes such as Description, Pressure Zone, Size, Address, and Maximo Equipment number.
CSO Tunnel Monitoring Application	Initiated development of a new application to support the Dorchester Bay CSO Tunnel Project. This new application downloads weather data via FTP from a service provider at a configured interval during wet weather events and updates an MS Excel spreadsheet. This spreadsheet is used as an input to a calculation developed by the tunnel engineering vendor (CH2MHill) that aids staff in determining when to close the tunnel gates. Final testing will occur after the weather service contract has been procured and tunnel vendor releases their calculator.
Library & Records Center	The Library completed 76 research requests (204 YTD), added 17 books, distributed 91 periodicals and 2,782 electronically (9,583 YTD) linked articles to staff and continued management of Shaft 5 Evidence room access and assets. The Records Center added 88 boxes, conducted 5 training sessions, and attended two Record Conservation Board Meetings.
Training	For the quarter, 212 staff attended 10 classes and 21 workshops. Year-to-date, 531 staff have attended 51 classes and 59 workshops. 21.6% of the workforce have attended at least one class year-to-date.

Legal Matters

3rd Quarter FY2011

PROJECT ASSISTANCE

COURT AND ADMINISTRATIVE ORDERS

- **Boston Harbor Litigation and CSO:** Drafted and filed quarterly compliance and progress report and filed the CSO annual report. Filed motion and memorandum to amend schedule seven by deleting certain milestones related to the Charles River Valley/South Charles River Relief Sewer Gate Controls and Evaluation of Additional Charles River Interceptor Interconnection.

REAL ESTATE AND CONTRACT AND OTHER SUPPORT

- **Fore River Railroad Corporation:** Drafted amendment to the Agreement between the MWRA, Fore River Railroad and the MBTA for the pedestrian crossing in the Fore River Shipyard.
- **Conley Terminal:** Finalized a License among MWRA, NSTAR and Massport for the provision of power to the North Dorchester Bay CSO Pump Station.
- **Hultman Aqueduct Interconnector Project:** Finalized acceptance of the grant of an additional permanent easement from the Town of Weston.
- **Weston Water Main:** Provided support and guidance regarding potential litigation claims arising out of the water main break on May 1, 2010 and other litigation strategy issues.
- **Miscellaneous:** Reviewed and approved twenty-four (24) Section 8(m) Permits, and two (2) Direct Connect Permit; continued work re: Methuen Construction.

ENVIRONMENTAL

- **Statutes/Regulations-Amendments:** provided guidance concerning development and ownership of hydropower created by dams and water turbines on drinking water supply stream.

LABOR, EMPLOYMENT AND ADMINISTRATIVE

New Matters

Six demands for arbitration were filed.

Matters Concluded

Received an arbitrator's decision in favor of MWRA finding that the MWRA did not violate Article 15 when it did not pay the Grievant the salary of a Program Manager.

Settled an arbitration regarding the suspension of an employee.

LITIGATION/TRAC

New Lawsuits

During the Third Quarter of FY 2011, four new lawsuits were reported.

United Student Aid Funds, Inc./Pioneer Credit Recovery, Inc. v. MWRA and (current employee). This is a wage garnishment action for a current MWRA employee for student aid debt in the amount of \$49,721.37.

D & C Construction Company, Inc. v. MWRA: Plaintiff is a construction contracting firm based in Rockland, Ma. Plaintiff alleges that on June 26, 2008, it entered into MWRA Contract No. 7080, "Cottage Farms/Brookline Connection and Inflow Controls in Boston and Cambridge, Massachusetts, " in the lump sum amount of \$1,976,000. Plaintiff alleges that its work under the Contract included dismantling, evacuation and clean up of certain

overflow chambers, included under Bid Item 1, and that plaintiff was required by the terms of the Contract to include a \$200,000 allowance for this work. Plaintiff alleges that MWRA has breached its Contract with plaintiff by failing to compensate it for the aforementioned work in accordance with the terms of the Contract.

Verizon New England v. MWRA: On or about November 11, 2008, plaintiff Verizon owned and maintained certain underground facilities, consisting of cable and conduit, which were properly and lawfully placed and maintained in the area of Washington and Broad Streets, Lynn, MA. The MWRA while in the process of excavating, allegedly struck and damaged Verizon's underground property. Plaintiff is claiming negligence and /or its violations of dig safe law was the proximate cause of Verizon's damages. The plaintiff is claiming property damage in the amount of \$8,109.75

(Current Employee) – US Bankruptcy Court for the District of Rhode Island: This is a wage garnishment matter involving a current employee. An Order of Withholding was issued in the amount of \$330 a month for twenty six months. Beginning on May 15, 2011, the withholding is \$830 for thirty months. All payment are to be forwarded to the Office of the Standing Chapter 13 Trustee.

Significant Developments

(Former Employee) v. United Steelworkers Local 9360, et al.: In this employment matter, the Plaintiff, a former MWRA employee, was terminated pursuant to a Last Chance Agreement executed by plaintiff and Local 9360 on or about June 19, 2008. As to defendant MWRA, plaintiff alleges wrongful termination/discharge in violation of public policy, breach of section 301 of the Labor Relations Act, unfair labor practices in violation of National Labor Relations Act, breach of implied covenant of good faith and fair dealing, and breach of implied contract. As to defendant USW Local 9360, plaintiff alleges breach of duty of fair representation and breach of contract. On February 3, 2011, the MWRA served a Motion to Dismiss in this matter.

MWRA v. Chutehall, et al.: This is an action to collect \$11,347.17 and costs relative to a TRAC penalty against Chutehall for discharging ground and storm water from a construction site to the sewer without a permit. After several years of litigation and appeals, Chutehall has paid all sums due to MWRA. MWRA has circulated a final Stipulation of Dismissal to all the defendants. As soon as all the signatures have been obtained, MWRA will file the Stipulation and close the case.

Closed Cases

One lawsuit was reported closed and one claim was reported closed during the Third Quarter FY 2011.

Alice Nicholas v. MWRA and P. Caliacco Corp.: This matter was settled in December of 2010. A Settlement Agreement was executed by plaintiff, Alice Nicholas and defendants MWRA and P. Caliacco Corp. MWRA agreed to pay \$6,500 for over staying on the temporary construction easement and for using more of plaintiff's property than the temporary easement area allowed for. MWRA also agreed to dismiss without prejudice its counterclaim against the plaintiff for trespass. MWRA issued a revocable and non-transferable 8(m) permit to plaintiff thus preserving MWRA's right to assert a trespass if needed. P. Caliacco Corporation paid \$38,500 for property damages to the Nicholas home during the course of its work at the site. Plaintiff has executed a General Release, and the parties have filed appropriate Stipulations of Dismissal.

Vincent LaForce Claim: By letter dated January 19, 2007, an attorney representing Vincent LaForce, of Malden, Mass., notified MWRA's Risk Management and P. Gioioso & Sons of Mr. LaForce's claim for property damage arising out of Gioioso's excavation work on the Spot Pond Supply Mains Contract #6381. MWRA has received no further communication from Mr. LaForce or his attorney after the January 2007 notice of claim. On March 21, 2011, Risk Management contacted Liberty Mutual who advised that Liberty likewise did not receive any follow up information from Mr. LaForce or his attorney and has closed its file. At this time, it appears that the claimant has decided not to pursue the matter.

Subpoenas

During the Third Quarter of FY 2011 no new subpoenas were received and one subpoena was pending at the end of the Third Quarter FY 2011.

Public Records

During the Third Quarter of FY 2011 three new public records requests were received and four requests were closed at the end of Third Quarter FY 2011.

SUMMARY OF PENDING LITIGATION MATTERS

TYPE OF CASE/MATTER	As of March 2011	As of Dec 2010	As of Sept 2010
Construction/Contract/Bid Protest (other than BHP)	4	3	3
BHP Claims/Contract Cases	0	0	0
Tort/Labor/Employment	8	8	5
Environmental/Regulatory/Other	1	1	1
Eminent Domain/Real Estate	2	2	2
total – all defensive cases	15	14	11
Affirmative Cases:	2	2	2
<u>MWRA v. (current employee)</u>			
<u>MWRA v. Chutehall Construction Co., Ltd, et al.</u>			
Other Litigation matters (restraining orders, etc.)	0	0	0
total – all pending lawsuits	17	16	13
Significant claims not in suit:	2	2	2
<u>Geico/Travelers Insurance Claims</u>			
Bankruptcy	4	4	3
Wage Garnishment	9	7	7
TRAC/Adjudicatory Appeals	2	3	3
Subpoenas	1	1	3
TOTAL – ALL LITIGATION MATTERS	35	33	31

TRAC/MISC.

New Appeals: One new appeal was received in the 3rd Quarter FY 2011.

Boston Pretzel Bakery; MWRA Docket No. 11-01

Settlement by Agreement of Parties

One case was settled by Agreement of Parties in 3rd Quarter FY 2011.

Walgreens Company; MWRA Docket No. 10-01

Stipulation of Dismissal

No cases were dismissed by Stipulation of Dismissal.

**Notice of Dismissal
Fine paid in full**

One case was dismissed by Notice of Dismissal, fine paid in full.

Boston Salads & Provisions Company, Inc.; MWRA Docket No. 10-04

Tentative Decisions

No Tentative Decisions were issued in 3rd Quarter FY 2011.

Final Decisions

No Final Decisions were issued during the 3rd Quarter FY 2011.

INTERNAL & CONTRACT AUDIT PROGRAM
3rd Quarter FY11

Highlights

FACILITY CARD ACCESS CONTROLS (Completed: February 22, 2011)

At the request of the Director, Office of Emergency Preparedness (OEP), Internal Audit reviewed the employee and contractor ID/access card program. The review resulted in 20 recommendations, including developing and implementing written procedures to strengthen controls over the ordering, custody, issuance, and use of ID badges. Ten of the recommendations were implemented immediately.

Status of Open Audit Recommendations (13 recommendations 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)	5	0
Chelsea Data Center Physical Controls (5/5/10)	3	8
Review of Emergency Action Plans (6/30/10)	3	4
Warehouse Practices (9/30/10)	3	6
Controls of Permalogers, Tools & Equipment (2/14/11)	3	5
Facility Card Access Controls (2/22/11)	10	10
Total Recommendations	28	35

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.

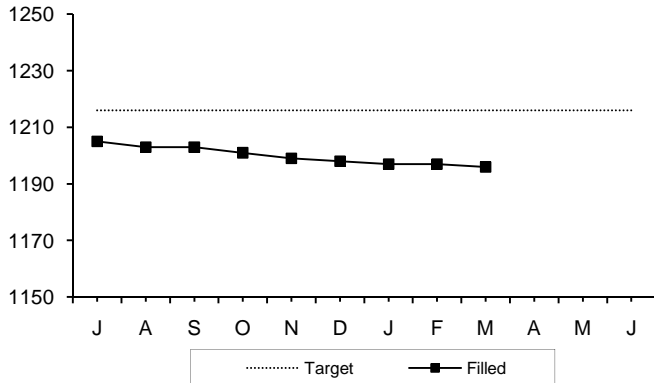
Savings	FY07	FY08	FY09	FY10	FY11 (3Q)	TOTAL
Consultants	\$358,341	\$55,901	\$316,633	\$194,238	\$340,980	\$1,266,093
Contractors & Vendors	\$637,378	\$2,147,311	\$1,262,088	\$599,835	\$2,283,729	\$6,930,341
Internal Audits	\$183,840	\$0	\$438,027	\$206,282	\$17,150	\$845,299
Total	\$1,179,559	\$2,203,212	\$2,016,748	\$1,000,355	\$2,641,859	\$9,041,733

OTHER MANAGEMENT

Workforce Management

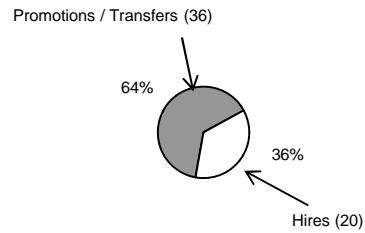
3rd Quarter FY11

Filled Position Tracking



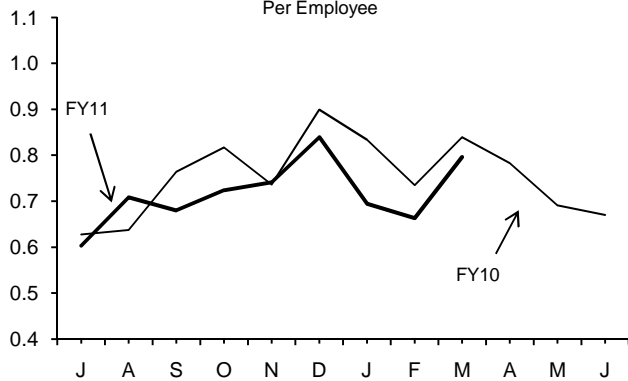
FY11 Target for Filled Positions = 1216
Filled Positions as of March 2011 = 1196

**Positions Filled by Hires/Promotions
FY11**



	Pr/Trns	Hires	Total
FY08	63 (62%)	39(38%)	102
FY09	63 (73%)	23(27%)	86
FY10	66 (76%)	21(24%)	87

**Average Monthly Sick Leave Usage
Per Employee**



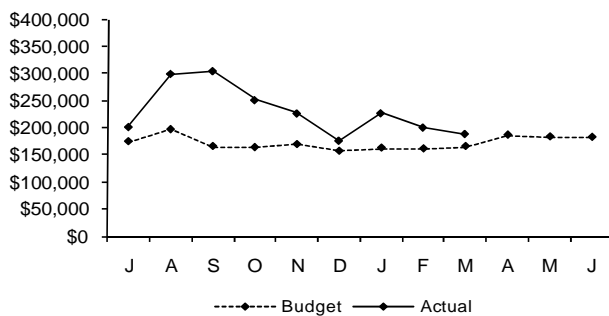
In FY11, the average monthly sick leave usage has decreased 6.38% from the same time last year.

	Number of Employees	YTD	Annualized Total	Annual FMLA %	FY10
A&F	194	5.92	7.90	21.6%	N/A
Aff. Action	7	5.44	7.26	8.3%	N/A
Executive	4	1.89	2.52	0.0%	3.96
Int. Audit	8	3.56	4.75	38.3%	N/A
Law	18	7.88	10.51	5.3%	10.03
OEP	5	4.22	5.63	0.0%	N/A
Operations	930	6.64	8.85	20.3%	9.26
Planning	21	3.65	4.86	1.7%	6.08
Pub. Affs.	13	5.78	7.70	26.6%	N/A
MWRA Avg	1200	6.47	8.63	20.0%	9.03

Percent of sick leave usage attributable to Family and Medical Leave Act (FMLA) leave is 20.0% ending March 31, 2011.

Field Operations

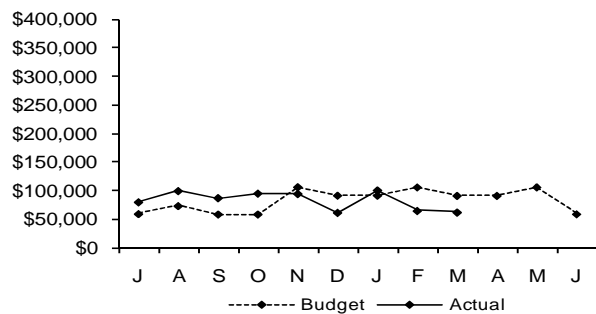
Overtime Expenditure Variance



Field Operations' overtime spending in the 3rd Quarter was \$617,104 or 26.7% over budget. Most of the overspending occurred in January and February, and was related to snow removal and wet weather preparation and response.

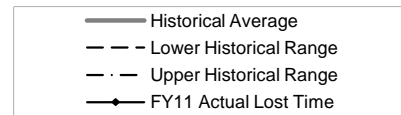
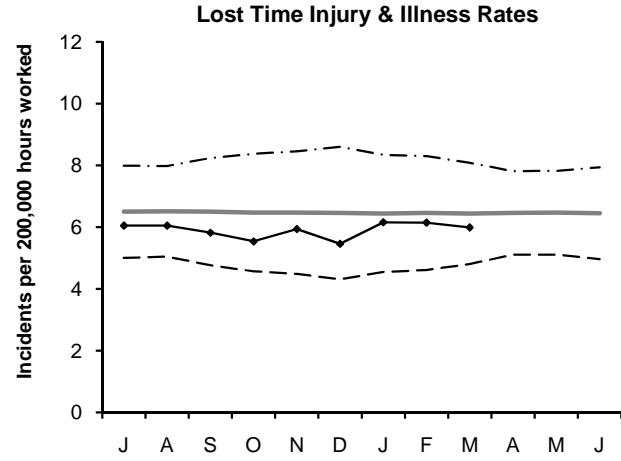
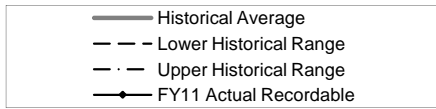
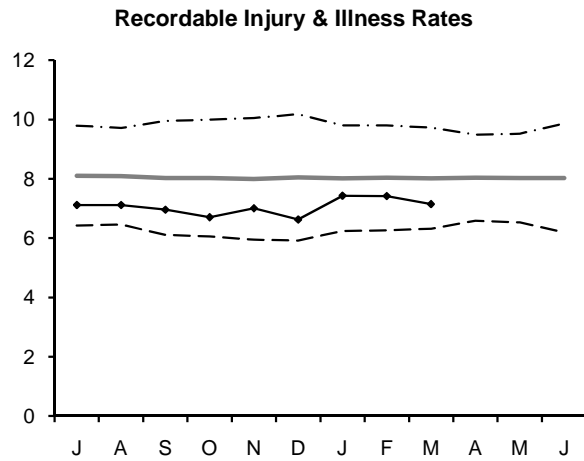
Deer Island Treatment Plant

Overtime Expenditure Variance



Deer Island's overtime spending in the 3rd Quarter was \$227,205 or (21.2%) under budget. The underspending was mainly the result of less unplanned maintenance needs than anticipated.

Workplace Safety 3rd Quarter FY11



"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.

"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.

The "Historical Average" is computed using the actual MWRA monthly incident rates for FY99 through FY10. The "Upper" and "Lower Historical Ranges" are computed using these same data – adding and subtracting two standard deviations respectively. FY11 actual incident rates can be expected to fall within this historical range.

Workers Compensation Claims Highlights

	New	Closed	Open Claims
Lost Time	7	8	55
Medical Only	64	52	51
	New		YTD Returns
Light Duty Returns	1		2

Highlights / Comments

Light Duty Returns

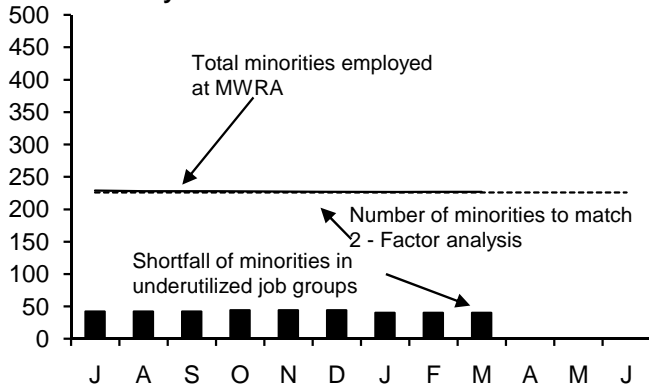
1 employee returned to light duty part time from IA

Regular Duty Returns

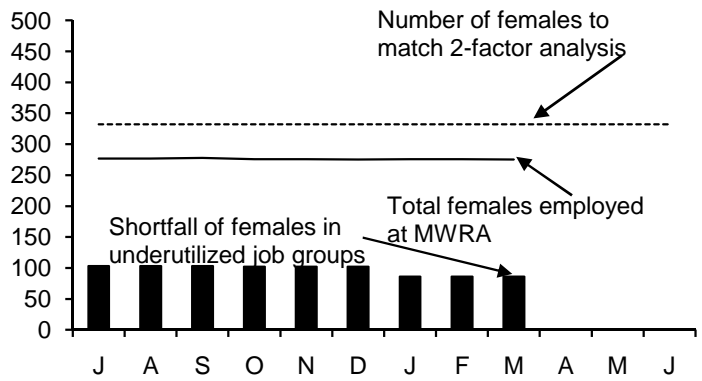
11 employees returned to regular duty from IA.

MWRA Job Group Representation 3rd Quarter FY11

Minority - Affirmative Action Plan Goals



Female - Affirmative Action Plan Goals



Highlights:

At the end of Q3 FY11, 7 job groups or a total of 40 positions are underutilized by minorities as compared to 8 job groups or a total of 45 at the end of Q3 FY10; for females 12 job groups or a total of 86 positions are underutilized by females as compared to 14 job groups or a total of 107 at the end of Q3 FY10. During Q3, 0 minorities and 1 female was hired. During this same period, 0 minorities and 1 female terminated.

Underutilized Job Groups - Workforce Representation

Job Group	Employees as of 3/31/2011	Minorities as of 3/31/2011	Achievement Level	Minority Over or Under Under utilized	Females As of 3/31/2011	Achievement Level	Female Over or Under Under utilized
Administrator A	16	3	2	1	2	5	-3
Administrator B	23	0	4	-4	6	6	0
Clerical A	47	21	11	10	41	11	30
Clerical B	36	9	9	0	16	3	13
Engineer A	83	16	15	1	11	15	-4
Engineer B	46	9	3	6	6	23	-17
Craft A	116	14	21	-7	0	2	-2
Craft B	148	29	25	4	3	9	-6
Laborer	65	16	10	6	5	4	1
Management A	107	18	17	1	33	37	-4
Management B	56	10	12	-2	14	27	-13
Operator A	69	5	8	-3	2	4	-2
Operator B	66	7	10	-3	4	3	1
Para Professional	58	11	25	-14	27	51	-24
Professional A	36	2	9	-7	22	16	6
Professional B	168	40	32	8	77	81	-4
Technical A	51	15	9	6	4	9	-5
Technical B	9	2	2	0	2	4	-2
Total	1200	227	224	43/-40	275	310	51/-86

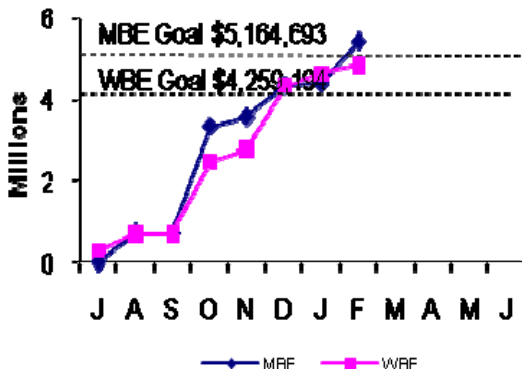
AACU Candidate Referrals for Underutilized Positions

Job Group	Title	# of Vac	Requisition Int. / Ext.	Promotions/ Transfers	AACU Ref. External	Position Status
Craft A	Sr. WDS Foreman	2	Int	1	0	W/M/Pending
Craft A	Sewer Maintenance Foreman	1	Int	1	0	W/M
Craft A	WSS Foreman (Grounds)	1	Int	1	0	W/M
Craft A	M&O Specialist	2	Int	0	0	Pending
Craft B	Construction Pipelayer	1	Int	0	0	Pending
Craft B	Heavy Equipment Operator	1	Ext	0	0	Pending
Operator B	Operator	1	Ext	0	0	Pending
Technical A	Sr. Field Service Technician	1	Int	0	0	Pending
Technical B	CADD Coordinator	1	Int	0	0	Pending

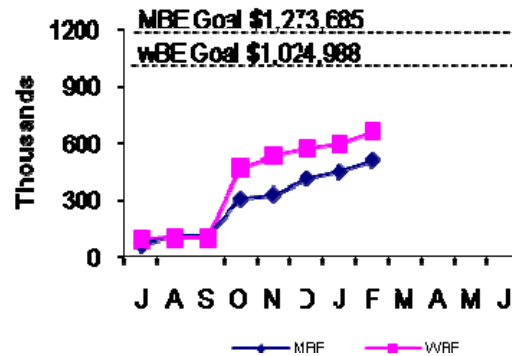
MBE/WBE Expenditures Third Quarter 2011

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.

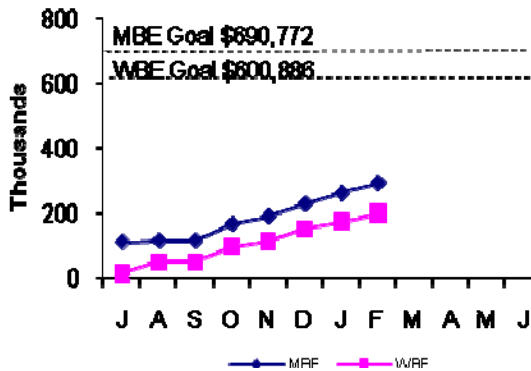
Construction



Professional



Goods/Services



FY11 spending and percentage of goals achieved, as well as FY10 performance are as follows:

	MBE				WBE			
	FY11 Year-to-Date		FY10		FY11 Year-to-Date		FY09	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Construction	5,429,338	105.1%	5,267,811	69.1%	4,862,418	114.2%	9,419,315	148.9%
Professional Svc.	511,987	40.2%	1,516,786	134.7%	665,518	64.9%	921,543	101.8%
Goods & Svcs.	<u>292,085</u>	<u>42.3%</u>	<u>514,900</u>	<u>72.5%</u>	<u>200,052</u>	<u>33.3%</u>	<u>386,870</u>	<u>62.6%</u>
Total	\$6,233,410	87.4%	\$7,299,497	77.2%	\$5,727,988	97.3%	\$10,727,728	136.7%

MWRA FY11 CEB Expenses through 3rd Quarter FY11

	March 2011 Year-to-Date					
	Period 9 YTD Budget	Period 9 YTD Actual	Period 9 YTD Variance	%	FY11 Approved	% Expended
	EXPENSES					
WAGES AND SALARIES	\$ 65,856,944	\$ 63,765,674	\$ (2,091,270)	-3.2%	\$ 91,151,296	70.0%
OVERTIME	2,438,331	3,073,318	634,987	26.0%	3,310,659	92.8%
FRINGE BENEFITS	13,451,496	12,945,867	(505,629)	-3.8%	17,995,660	71.9%
WORKERS' COMPENSATION	1,402,501	1,755,741	353,240	25.2%	1,870,000	93.9%
CHEMICALS	7,094,933	6,624,924	(470,009)	-6.6%	9,797,118	67.6%
ENERGY AND UTILITIES	17,078,016	17,139,807	61,791	0.4%	23,314,734	73.5%
MAINTENANCE	20,473,577	18,687,110	(1,786,467)	-8.7%	28,759,673	65.0%
TRAINING AND MEETINGS	168,651	85,326	(83,325)	-49.4%	231,783	36.8%
PROFESSIONAL SERVICES	4,297,678	4,292,289	(5,389)	-0.1%	5,961,508	72.0%
OTHER MATERIALS	2,519,594	2,804,480	284,886	11.3%	4,612,316	60.8%
OTHER SERVICES	16,672,395	16,054,670	(617,725)	-3.7%	22,607,937	71.0%
TOTAL DIRECT EXPENSES	\$ 151,454,116	\$ 147,229,206	\$ (4,224,909)	-2.8%	\$ 209,612,684	70.2%
INSURANCE	\$ 1,939,499	\$ 865,215	\$ (1,074,284)	-55.4%	\$ 2,586,000	33.5%
WATERSHED/PILOT	18,558,694	18,391,336	(167,358)	-0.9%	24,744,920	74.3%
BEC _o PAYMENT	2,943,007	2,820,360	(122,647)	-4.2%	4,174,256	67.6%
MITIGATION	1,138,799	1,105,516	(33,283)	-2.9%	1,518,401	72.8%
ADDITIONS TO RESERVES	(305,685)	(305,685)	-	0.0%	(407,581)	75.0%
RETIREMENT FUND	5,342,856	5,342,856	-	0.0%	5,342,856	100.0%
POST EMPLOYEE BENEFITS	-	-	-	---	-	---
TOTAL INDIRECT EXPENSES	\$ 29,617,170	\$ 28,219,598	\$ (1,397,572)	-4.7%	\$ 37,958,852	74.3%
DEBT SERVICE	\$ 260,146,227	\$ 246,815,071	\$ (13,331,156)	-5.1%	\$ 354,326,676	69.7%
DEBT SERVICE ASSISTANCE	-	-	-	---	-	---
TOTAL DEBT SERVICE	\$ 260,146,227	\$ 246,815,071	\$ (13,331,156)	-5.1%	\$ 354,326,676	69.7%
TOTAL EXPENSES	\$ 441,217,513	\$ 422,263,875	\$ (18,953,636)	-4.3%	\$ 601,898,212	70.2%
REVENUE & INCOME						
RATE REVENUE	\$ 427,350,003	\$ 427,350,003	\$ -	0.0%	\$ 569,800,000	75.0%
OTHER USER CHARGES	4,918,465	5,019,708	101,243	2.1%	7,065,350	71.0%
OTHER REVENUE	3,847,154	3,925,552	78,398	2.0%	4,693,216	83.6%
RATE STABILIZATION	3,772,305	3,772,305	-	0.0%	5,029,744	75.0%
INVESTMENT INCOME	11,390,943	11,272,865	(118,078)	-1.0%	15,309,902	73.6%
TOTAL REVENUE & INCOME	\$ 451,278,870	\$ 451,340,434	\$ 61,563	0.0%	\$ 601,898,212	75.0%

As of March 2011, total revenue was \$451.3 million, \$62,000 more than budget. Total expenses were \$422.3 million, \$19.0 million or 4.3% less than budget.

Expenses –

- **Direct Expenses** are \$147.2 million, \$4.2 million or 2.8% less than budget.
- **Wages and Salaries** are \$2.1 million or 3.2% underspent due to less filled positions than budgeted, higher leave balance accrual use, and more employees out on work related injury or unpaid leave status than anticipated.
- **Maintenance** is \$1.8 million or 8.7% underspent year-to-date mostly related to service contracts. The majority of the underspending is related to timing.
- **Overtime** is \$635,000 or 26.0% over budget mainly for emergencies such as the Shaft 5A leak, hurricane preparations, and snow removal.
- **Other Services** are \$618,000 or 3.7% under budget mostly due to sludge pelletization of \$460,000 due to lower quantities, Health/Safety of \$56,000, Printing/Duplicating of \$46,000, and Telephones of \$41,000.
- **Fringe Benefits** are \$506,000 or 3.8% under budget for lower Health Insurance of \$343,000, Dental Insurance of \$77,000, Medicare of \$45,000, and Unemployment Insurance of \$40,000.
- **Chemicals** are \$470,000 or 6.6% less than budget due to lower usage and pricing of Sodium Hypochlorite of \$229,000 at DITP, Sodium Bisulfite of \$133,000, Liquid Oxygen of \$106,000, offset by higher usage of Nitrazyme of \$128,000 in the Framingham Extension Relief Sewer for odor control and Activated Carbon of \$117,000.
- **Workers' Compensation** is \$353,000 or 25.2% higher than budget mostly driven by projected reserve requirements contingent upon the number and severity of the cases and effect of any settlements.
- **Other Materials** are \$285,000 or 11.3% higher than budget due to higher vehicle purchases of \$541,000 due to timing offset by lower spending for Computer Hardware of \$89,000, Lab & Testing Supplies of \$65,000 and Postage of \$58,000.
- **Utilities** are \$62,000 or 0.4% more than budget. Higher spending on Diesel Fuel of \$249,000 mainly due to higher usage and pricing in FOD offset by lower Electricity of \$146,000 at Deer Island due to lower usage as a result of lower flows offset by higher pricing in Field Operations, and lower Natural Gas of \$72,000.
- **Indirect Expenses** are \$28.2 million, \$1.4 million or 4.7% under budget due to lower Insurance expenses of \$1.1 million mainly for lower claims and lower Watershed reimbursements of \$167,000 as a result of a \$211,000 FY10 overaccrual.
- **Debt Service Expenses** totaled \$246.8 million, \$13.3 million or 5.1% less than budget due, to lower variable interest rates and liquidity contract variances.

Revenue and Income –

- **Total Revenue / Income** for March was \$451.3 million, \$62,000 more than budget. This increase is due to higher net Non-Rate Revenue of \$180,000 which is comprised of a variety of smaller variances offset by lower Investment Income of \$118,000 driven by lower rates. It should be noted that the Authority received \$234,000 from the Federal Emergency Management Agency (FEMA) as reimbursement for excessive overtime related expenses during the FY10 Spring wet weather events.

Cost of Debt 3rd Quarter FY11

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

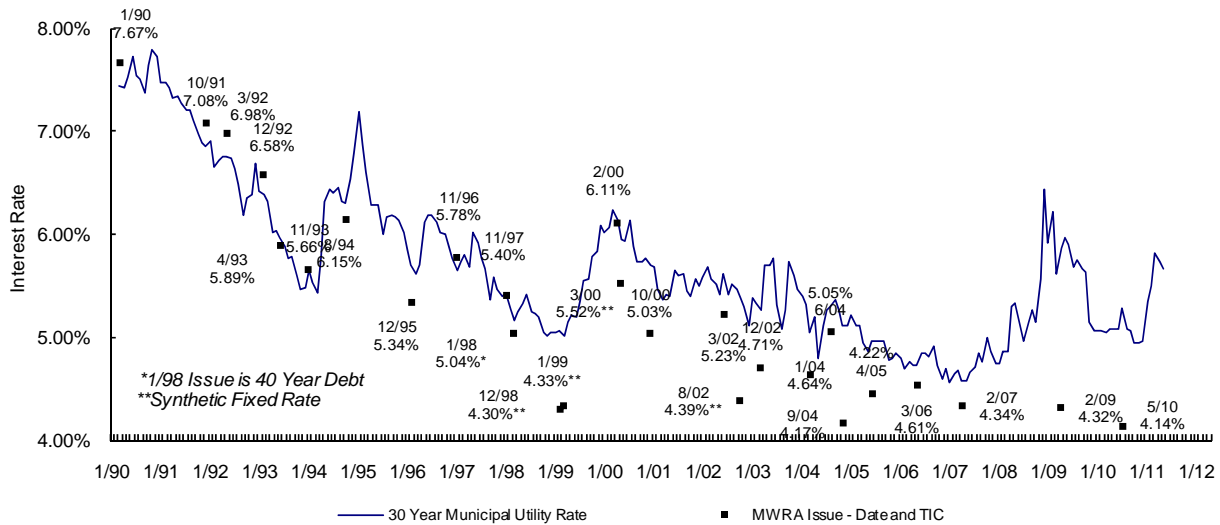
Fixed Debt (\$3,974)	4.55%
Variable Debt (\$566)	0.86%
SRF Debt (\$1,071)	1.07%

Weighted Average Debt Cost (\$5,611) 3.51%

Most Recent Senior Fixed Debt Issue May 2010

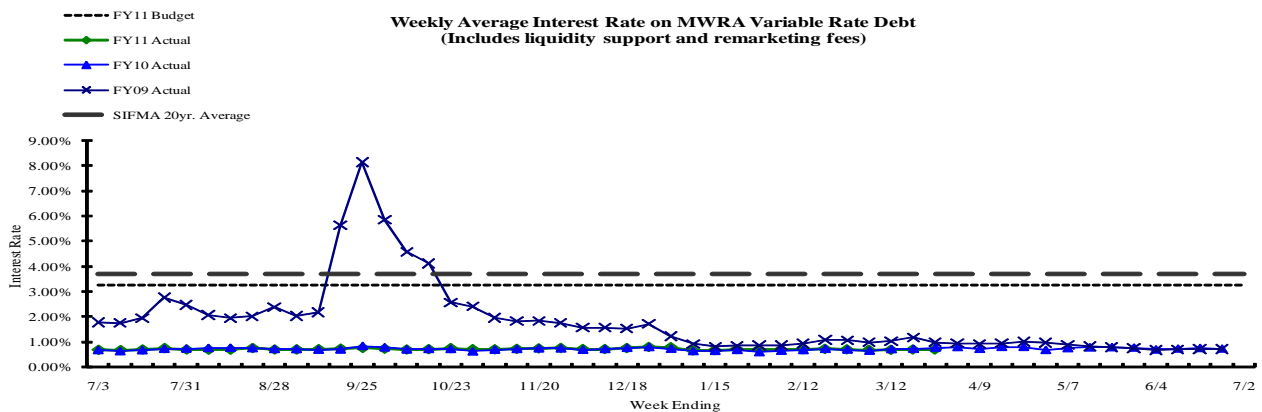
2010 Series A & B (\$284) 4.14%

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



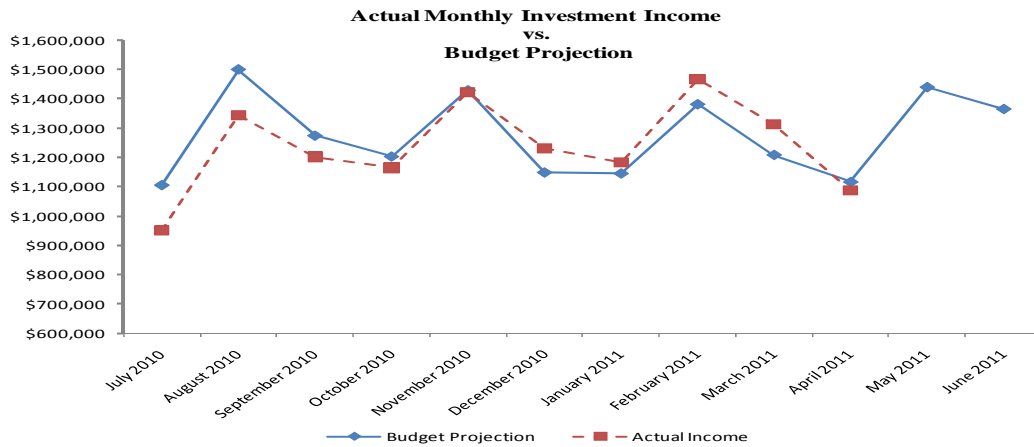
Weekly Average variable Interest Rates vs. Budget

MWRA currently has nine variable rate debt issues with \$1.3 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 0.26% and a low of 0.24%. 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.

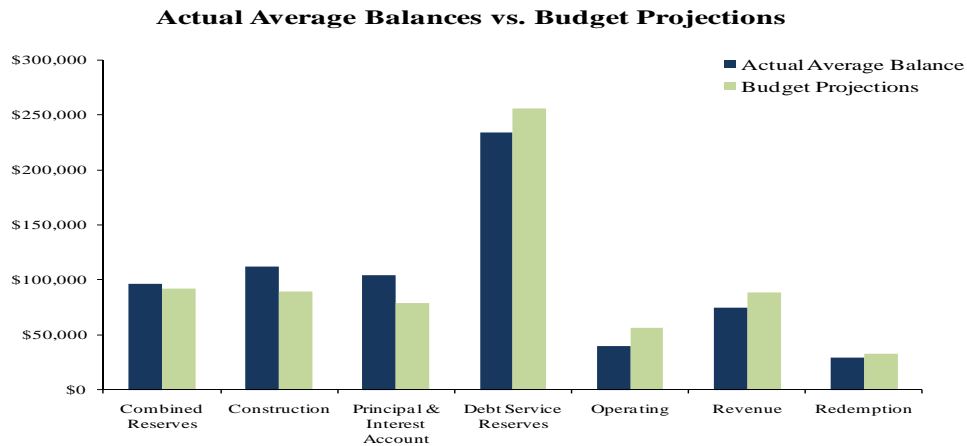


Investment Income 3rd Quarter FY11

The chart provides an overview of actual combined investment income numbers versus the budget projections.



The chart below shows the budgeted average account balances versus the actual average balances through March.



The chart below depicts long term and short term investment balances.

