

MASSACHUSETTS WATER RESOURCES AUTHORITY

Board of Directors Report

on

Key Indicators of MWRA Performance

for

Third Quarter FY2013

Q1	Q2	Q3	Q4



Frederick A. Laskey, Executive Director
Michael J. Hornbrook, Chief Operating Officer
May 15, 2013

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

Table of Contents

Operations and Maintenance

DITP Operations-Energy	1
DITP Operations	2
Residuals Processing	4
DITP Maintenance	5
Operations Division–Metering & Leak Detection	6
Water Distribution System–Valves	7
Wastewater Pipeline/Structures	8
FOD Metro Facility & Equipment Maintenance	9
Field Operations Energy Program	10
Toxic Reduction and Control	11
Field Operations – Narrative Topics	12
Laboratory Services	14

Construction Programs

Projects in Construction	15
CSO Control Update	17
CIP Expenditures	19

Drinking Water Quality and Supply

Source Water – Microbial & UV Results	20
Source Water – Turbidity & Treated Water	21
– pH and Alkalinity	21
Treated Water – Disinfection Effectiveness	22
Source Water – Algae & Drinking WQ	23
Customer Complaints	23
Bacteria and Chlorine Residual Results	24
Treated WQ: Disinfection By-Products	25
Water Supply/Source Water Management	26

Wastewater Quality

NPDES Permit Compliance –	
Deer Island	27
NPDES Permit Compliance –	
Clinton	28

Community Flows and Programs

Total Water Use –	29
Core Communities	30
Community Wastewater Flows	31
Infiltration/Inflow Local Financial Assistance Program	
Water-Local Pipeline & System Assist. Prog.	
Community Support Programs	32
Community Water System Leak Detection	
Community Water Conservation Outreach	

Business Services

Procurement	33
Materials Management	34
MIS Program	35
Legal Matters	36
Internal and Contract Audits	39

Other Management

Workforce Management	40
Workplace Safety Program	41
Job Group Representation	42
MBE/WBE Expenditures	43
CEB Expenses	44
Cost of Debt	45
Investment Income	46

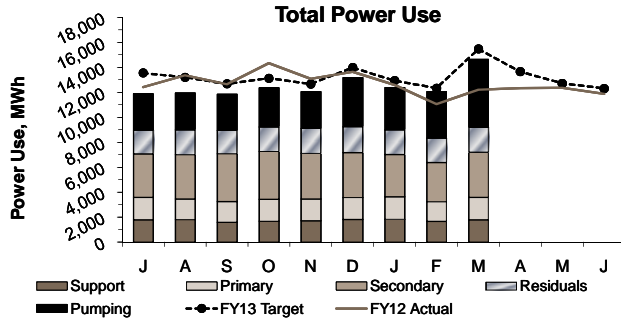
This quarterly report is prepared by MWRA staff to track a variety of MWRA performance measures for routine review by MWRA's board of directors. The content and format of this report is expected to develop as time passes. Information is reported on a preliminary basis as appropriate and available for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

Frederick A. Laskey, Executive Director
Michael J. Hornbrook, Chief Operating Officer
May 15, 2013

OPERATIONS AND MAINTENANCE

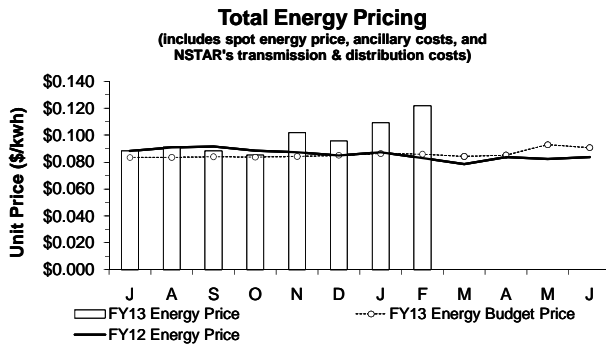
Deer Island Operations

3rd Quarter - FY13

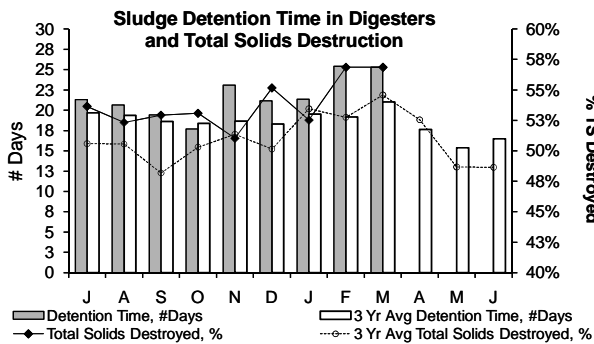


Total Power Use in the 3rd Quarter was 4% lower than the FY13 projections due principally to lower-than-expected Power Used for pumping (as a result of Total Plant Flow that was also 4% lower-than-expected) and for secondary wastewater treatment (as a result of energy optimization measures in the secondary reactor process area).

Year-to-date Total Power Use is 6.3% lower than the FY13 projections.

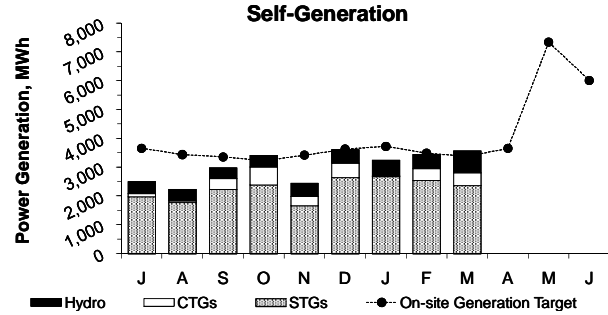


Under DI's energy supply contract, a block portion of DI's energy is a fixed rate and the variable load above the block is purchased in real time. Overall, the total energy price in the 3rd Quarter (January and February prices only) was 39% higher than the FY13 budget estimate for the quarter. The total energy price includes a fixed block price, spot energy price, transmission & distribution charges, and ancillary charges. Year-to-date costs are \$496,764 (8%) higher than budgeted as of the end of February (actuals only) due to a total energy price that is averaging 16% higher-than-expected. Note: Only the actual energy prices are now being reported. Therefore, the data lags by one (1) month due to the timing of invoice receipt. The March invoices have not yet been received.



Total solids (TS) destruction averaged 55% following anaerobic sludge digestion during the 3rd Quarter with an average sludge detention time in the digesters of 24.0 days. Solids destruction was 2% higher than the 3-year average for the quarter as DI operated with an average of 8.2 digesters. Sludge detention time in the digesters was 21% higher than the 3 year average detention time, but is mostly a temporary spike resulting from the transition of Module 2 to Module 3 operation.

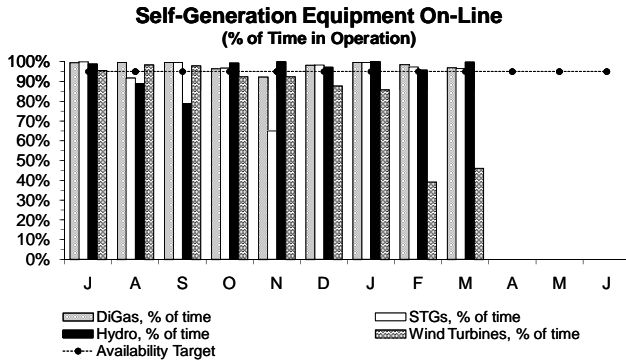
Total solids (TS) destruction is dependent on sludge detention time which is determined by primary and secondary solids production, plant flow, and the number of active digesters in operation. Solids destruction is also significantly impacted by changes in the number of digesters and the resulting shifting around of sludge.



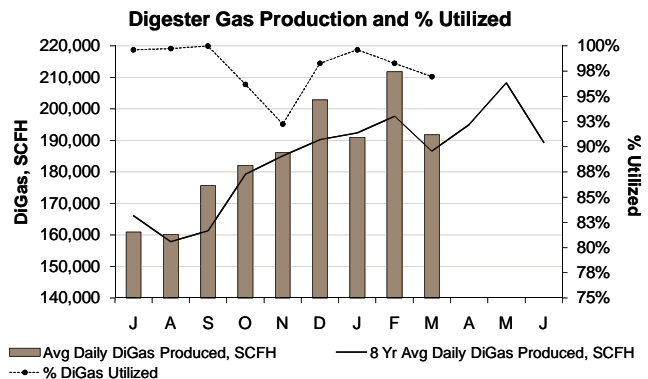
Power generated on-site during the 3rd Quarter was 2% higher than target due mainly to 3.75 times higher generation by the CTGs as a result of operation during extreme storm conditions in February and March in addition to operation for routine maintenance/checkout purposes. Generation by both Hydro Turbines and by Solar Panels were also 14% and 12% higher-than-expected, respectively, this quarter. Generation by the STGs was 4% lower than target this quarter and was 41% lower-than-expected by the Wind Turbines mostly as a result of Turbine #2 being out of service since January 23 due to bearing issues.

Year-to-date Total Power generated on-site is 6.9% lower than the FY13 target.

Note: Power generation by the Solar Panels and the Wind Turbines are not included in the graph (as the amounts generated cannot be seen within the current scale of this graph); a total of 153 MWh was generated by the Solar Panels and 433 MWh was generated by the Wind Turbines in the 3rd Quarter.



The DiGas, STGs, and Hydro Turbine systems all met their 95% Availability Target for the 3rd Quarter. The Wind Turbines fell 38% below the 95% target as Wind Turbine #2 has been out of service since January 23 due to a major bearing failure.

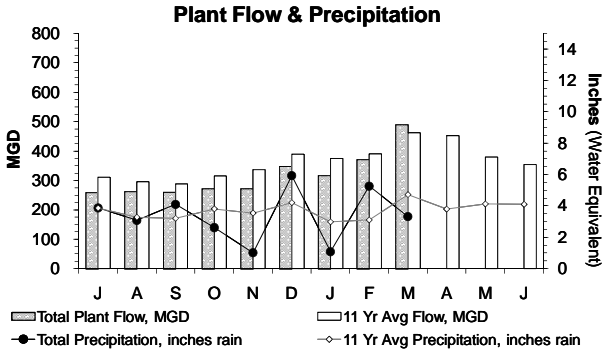


The Avg Daily DiGas Production during the 3rd Quarter was 3% higher than the 8 Year Avg Daily DiGas Production as Total Solids destruction following anaerobic digestion was also slightly higher than average. An average of 98% of all the DiGas produced in the 3rd Quarter was utilized at the Thermal Power Plant.

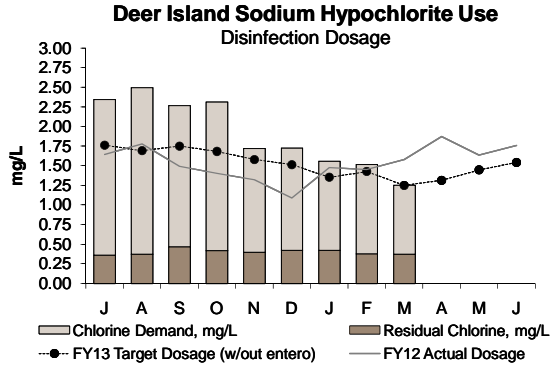
Deer Island Operations

3rd Quarter - FY13

Page 2 of 3



The Total Plant Flow for the 3rd Quarter was 4% lower than target (392.2 MGD actual vs. 408.5 MGD expected) as precipitation was 11% lower-than-expected for the quarter (9.66 inches actual vs. 10.8 inches expected). Only the 5.26 inches of precipitation in February exceeded the 11 year average precipitation of 3.10 inches. The effects of the much drier than normal conditions for much of this calendar year resulted in lower than normal plant flows for 14 consecutive months. However, the combination of rain with significant snowmelt in March resulted in higher-than-expected plant flows for the final month of the quarter.



The disinfection dosing rate in the 3rd Quarter was 7% higher than the target for the quarter. Dosing was higher-than-expected due to a higher chlorine demand as a result of stronger wastewater caused by the lengthy period of much lower-than-normal plant flows for more than the past year. DITP maintained an average disinfection chlorine residual of 0.39 mg/L this quarter with an average dosing rate of 1.44 mg/L (and chlorine demand of 1.05 mg/L). The target dosing rate for the quarter was 1.34 mg/L.

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

Secondary Blending Events

Month	Count of Blending Events	Count of Blending Events Due to Rain	Count of Blending Events Due to Non-Rain-Related Events	Secondary, as a Percent of Total Plant Flow	Total Hours Blended During Month
J	2	2	0	99.7%	5.78
A	1	1	0	99.9%	2.04
S	2	2	0	99.8%	4.35
O	3	3	0	99.6%	6.92
N	0	0	0	100.0%	0.00
D	4	4	0	98.3%	22.41
J	0	0	0	100.0%	0.00
F	1	1	0	97.0%	41.01
M	3	3	0	99.8%	10.92
A					
M					
J					
Total	16	16	0	99.3%	93.44

There were a total of four (4) separate secondary blending events during the 3rd Quarter of FY13; all were due to high plant flows resulting from heavy rain and snow melt. There were no secondary blending events in January, one (1) event in February, and three (3) separate events in March.

All four (4) blending events combined produced a total of 51.93 hours of blending and 343.58 Mgal of flow blended with secondary effluent.

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

Deer Island Operations & Maintenance Report

Environmental/Pumping:

The total precipitation of 9.66 inches for the 3rd Quarter of FY13 was 11% lower than the 11 year average precipitation for the quarter of 10.80 inches. Measureable precipitation fell in the form of both snow and rain in the Boston area. The total plant flow for the 3rd Quarter was 4% lower than the target total plant flow (392.2 actual vs. 408.5 MGD target) due to the lower-than-expected precipitation and to the lingering effects of the much drier than normal conditions observed for much of this calendar year. March was the first month in which the DITP plant flow was higher than target after having been lower than target for 14 consecutive months.

The plant achieved a maximum average hourly flow rate of 1,223 MGD during the evening of February 27 as a result of a storm system that brought a daily total rainfall of 1.37 inches to this area in combination with significant snowmelt. Plant flows were already elevated as a result of a Northeaster storm event on February 23 through February 24 that dropped a total of 1.06 inches of mostly rain. Another major Northeaster storm system earlier in the month ("Winter Storm Nemo") produced a historic winter event with near-blizzard conditions in Massachusetts from February 8 into February 9. This storm dropped 24.9" of snow in Boston, the fifth highest total ever recorded in the city, and set recording-breaking snowfall totals for many other communities. Pumping and treatment operations continued without incident through all these storm events, as well as throughout the entire quarter.

Deer Island Operations

3rd Quarter - FY13

Page 3 of 3

Deer Island Operations & Maintenance Report (continued)

Environmental/Pumping (continued):

March's 264.4 MGD Dry Day Flow is the lowest 365-Dry Day Flow in the history of the new NPDES Permit (1999). There were no "Dry Days" in March due to rain and snow melt conditions that persisted throughout the month. The previous 365-Dry Day Flow record of 265.8 MGD was recently set in February and before this was 267.7 MGD from December 2012.

Primary Treatment:

A project to perform a detailed assessment of the extent and nature of the internal corrosion within the Primary Sludge (PSL) piping for all four (4) primary batteries continued through the quarter. Progress on the video inspections of all the PSL piping has reached more than 50% completion. Scheduling of this work must be done while plant flows are at levels that would allow for at least one primary battery to be offline for a significant period of time as the piping has to be flushed and emptied prior to allowing staff to remove portions of the piping to perform the video inspection.

Secondary Treatment:

The level sensor (boroscope) for the secondary bypass flow control gate #1 malfunctioned on February 10. The level sensor is critical to the gate's operation and it was successfully replaced, calibrated, and tested on February 13 during dry weather conditions. Both the Environmental Protection Agency (EPA) and the Department of Environmental Protection (DEP) were prenotified of the impending repair work.

Residuals Treatment:

In addition to recently completing all the valve and piping replacement (installing over 150 new valves and 200 feet of replacement piping) work in digester Module #1 under MWRA Contract 7055: Piping and Valve Replacement Project, the Contractor has also completed work on a high pressure plant water flushing system for the digester sludge overflow boxes in Modules #1 and #3, and has finished installing electric motor actuators on digester gas relief vent piping on Modules #1 and #3. In February, the Contractor finished work on Digester Module #3, enabling that module to go on line. All four (4) digesters in Module 2 were taken out of service in March to undergo maintenance work also specified under this contract. Going forward, DITP will operate at steady state using eight (8) active digesters.

Odor Control Treatment:

Activated carbon media was replaced in carbon adsorber (CAD) units #5 and #6 in the East Odor Control (EOC) Facility in February, and in units #4 in the North Pumping Odor Control (NPOC) Facility and #3 in the West Odor Control (WOC) Facility in March. Additionally, the internal surface of CAD units #1 in the East Odor Control (EOC) Facility, #1 and #4 in the North Pumping Odor Control (NPOC) Facility were recoated in March. CAD recoating began at the end of March for CAD unit #5 in the West Odor Control (WOC) Facility and is estimated to begin in April for CAD unit #1 in the Residuals Odor Control (ROC) Facility. These adsorbers are being 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.

Energy and Thermal Power Plant:

Solar Power generation was 1.41% (153 MWh) and Wind Turbine generation was 3.99% (433 MWh) of the total power generated on-site for the 3rd Quarter (10,843 MWh). Solar power generation includes solar installations on the roof of the Residuals Odor Control (ROC) Facility, Maintenance/Warehouse (M/W), and the Grit Facility buildings, in addition to the solar installation on the ground of the South Parking Lot. Wind Turbine power generation includes generation by the two wind turbines located in the South Parking Lot and intermittent generation during optimization and testing by the FloDesign wind turbine installed near the Hydro Power Plant.

Other:

Charles Tyler, Program Manager of Process Engineering for the DITP, was one of this year's recipients of EPA's 2012 Regional Wastewater Treatment Plant Operator Excellence Award. Mr. Tyler was nominated by many of his colleagues in the industry for his outstanding accomplishments over the years associated with the operation of the Deer Island Treatment Plant. An Awards Luncheon was held in Boston to honor the regional recipients.

Co-Digestion Bench Scale Tests were performed and are in progress at UMass-Amherst (UMA), with guidance from MWRA staff and consultants, to evaluate the digestibility of DITP's wastewater sludges with varying concentrations of source separated organics ("SSO"). The objective of these tests is to measure the impacts of SSO on methane gas generation potential and digester operation. This work is being carried out under one of MWRA's existing energy-efficiency task order contracts with partial grant funding from Mass. Clean Energy Center (Mass CEC).

Clinton AWWTP:

The construction contract for the fine bubble diffused air system, the influent and intermediate redundant pumps has been completed. NGRID has performed its review of energy use, and has given final approval for the \$177,000 grant.

The plant continues to meet its running average flow limit. The permit limit is 3.01 MGD and the monthly running average for March was 2.38 MGD.

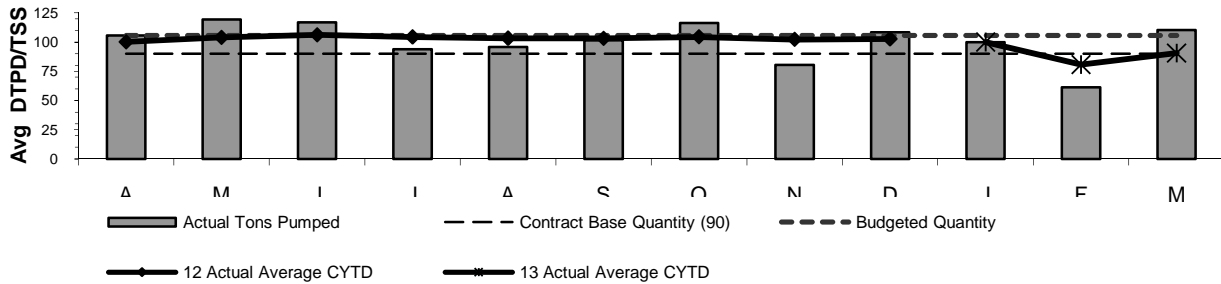
A selection committee was formed, and has met, to select a design consultant for the Phosphorus (P) Reduction System required by the MWRA's Draft NPDES Permit to meet new P effluent limitations at the Clinton Plant. The Committee will select a designer who will prepare a final design from the Preliminary Design Report (PDR) previously prepared. The PDR specifies the selected technology for final design will be disc filtration.

Deer Island Residuals

3rd Quarter - FY13

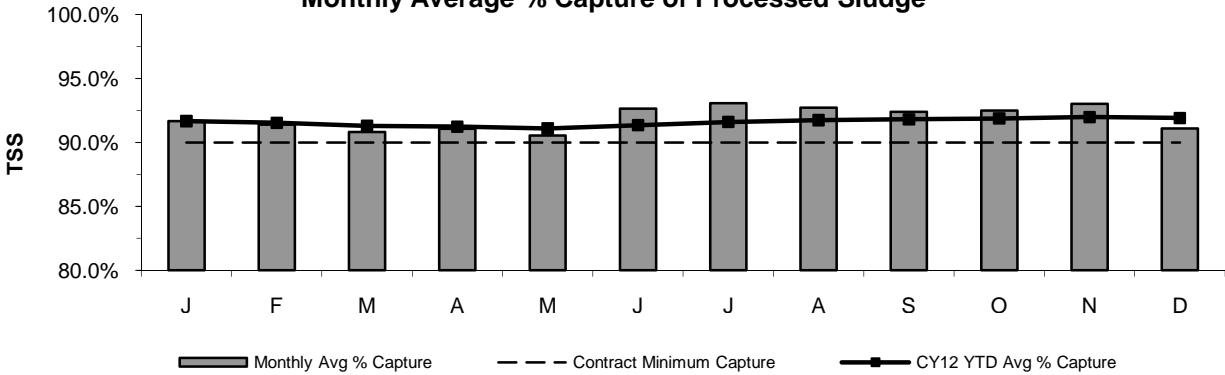
MWRA pays a fixed monthly amount for the calendar year to process up to 90 DTPD/TSS as an annual average. The monthly invoice is based on 90 DTPD/TSS (Dry Tons Per Day/Total Suspended Solids) times 365 days divided by 12 months. At the end of the year, the actual totals are calculated and additional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

Sludge Pumped From Deer Island



The average total quantity of sludge pumped in the 3rd Quarter was 90.4 DTPD - lower than FY13's budget of 105.7 DTPD. The lower amount is due to the transfer of sludge between digester modules on Deer Island to allow for maintenance, resulting in more inventory on island.

Monthly Average % Capture of Processed Sludge



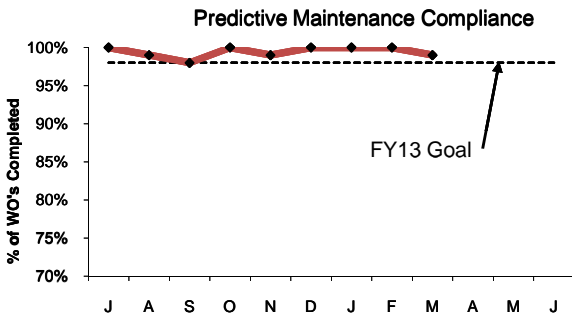
The contract requires NEFCo to capture at least 90% of the solids delivered to the Biosolids Processing Facility in Quincy; the solids capture rate for the 3rd Quarter was 90.8%.

Deer Island Maintenance

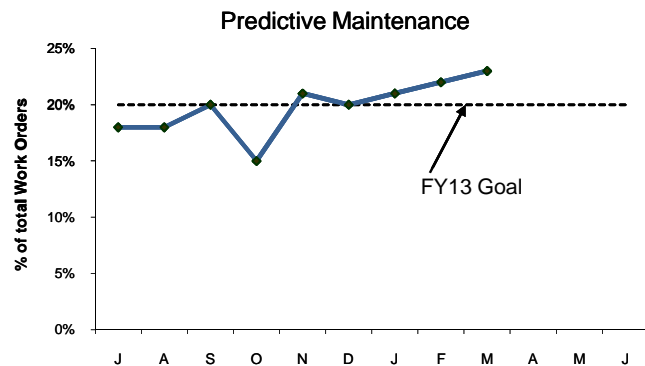
3rd Quarter - FY13

Productivity Initiatives

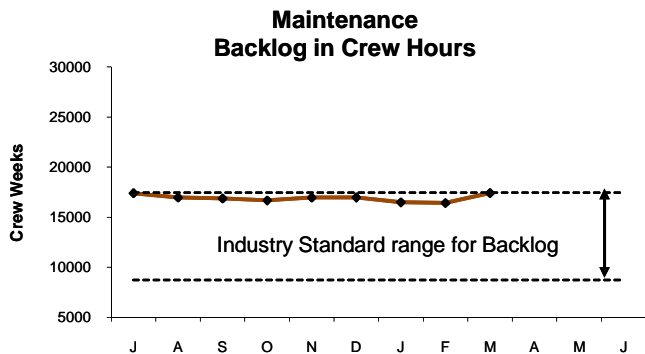
Productivity initiatives include increasing predictive maintenance compliance and increasing PdM work orders. Accomplishing these initiatives should result in a decrease in the overall maintenance backlog.



Deer Island's FY13 predictive maintenance goal is 98%. DITP completed 99.6% of all PdM work orders this quarter. DITP is continuing with an aggressive predictive maintenance program.



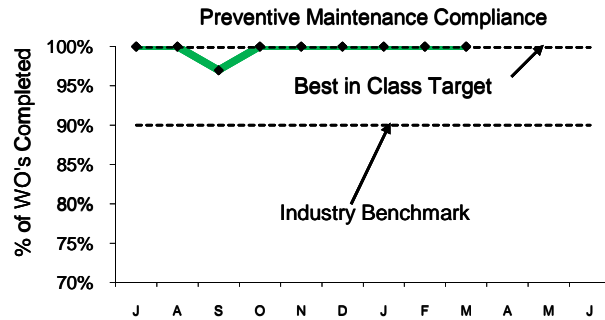
Deer Island's FY13 predictive maintenance goal is 20% of all work orders to be predictive maintenance. 22% of all work orders were predictive maintenance this quarter. The industry is moving toward increasing predictive maintenance work to reduce down time and better predict when repairs are needed.



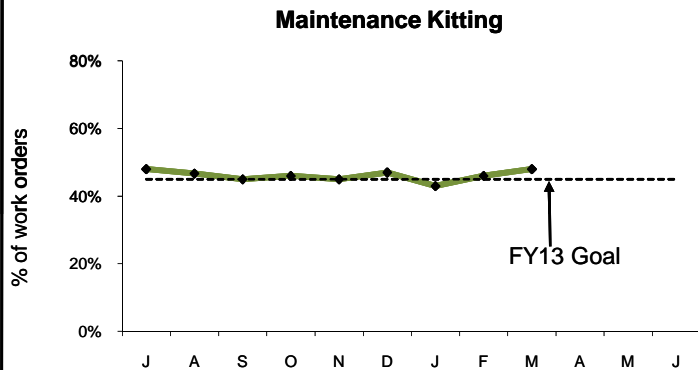
DITP's maintenance backlog at Deer Island is 16,767 hours. DITP is within, but at the upper end, of the industry average for backlog. The industry Standard for maintenance backlog with 97 staff (currently planned staffing levels) is between 8,730 hours and 17,460 hours. Backlog has been adversely effected due to seven staff members out on I/A and medical leave. Management continues to monitor backlog and to ensure all critical systems and equipment are available.

Proactive Initiatives

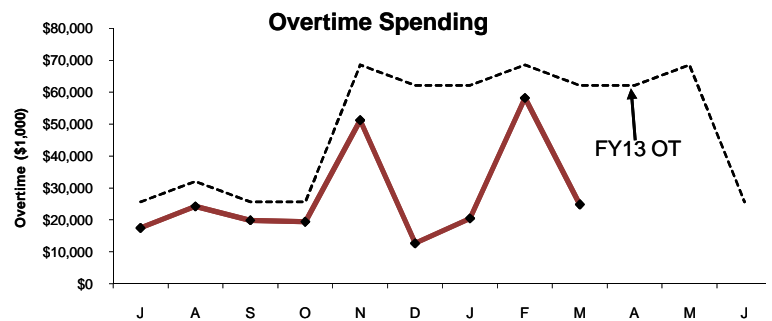
Proactive initiatives include completing 100% of all preventive maintenance tasks and increasing preventive maintenance kitting. These tasks should result in lower maintenance costs.



Deer Island's FY13 preventive maintenance goal is 100% completion of all PM work orders from Operations and Maintenance. DITP completed 100% of all PM work orders this quarter.



Deer Island's FY13 maintenance kitting goal is 45% of all work orders to be kitted. 45.6% of work orders were kitted this quarter. Kitting is staging of parts or material necessary to complete maintenance work. This has resulted in more wrench time and increased productivity.

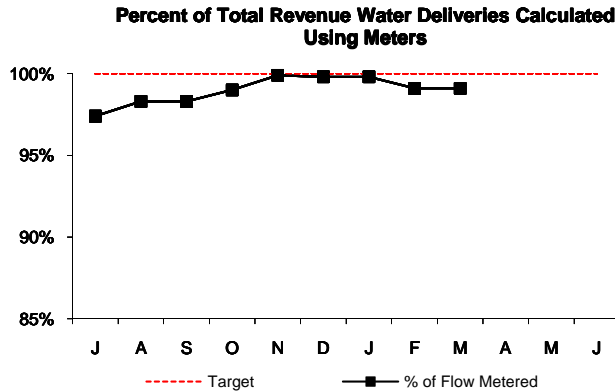


Maintenance overtime was under budget by \$122K this quarter. Management continues to monitor backlog and to ensure all critical systems and equipment are available. This quarters overtime was used for storm coverage including February's blizzard, replacing instrument air compressor in East Odor Control facility, balancing the heat loop, trouble-shooting wind turbine #2, and replacing pallet and mylar gasket on dystor pressure relief valve (PRV) which was not seating properly causing the PRV to blowing off when in the closed position.

Operations Division Metering

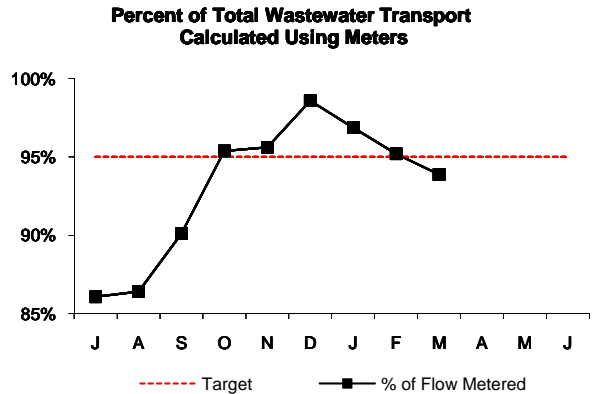
3rd Quarter - FY13

WATER METERS



The target for revenue water deliveries calculated using meters is 100%. Estimates are generated for meters that are out of service due to instrumentation problems or in-house and capital construction projects. During the 3rd Quarter of FY13, meter actuals accounted for 99.3% of flow; only 0.67% of total revenue water deliveries were estimated. The following is the breakdown of estimations:
 In-house and Capital Construction Projects - 0.2%
 Instrumentation Failure - 0.47%

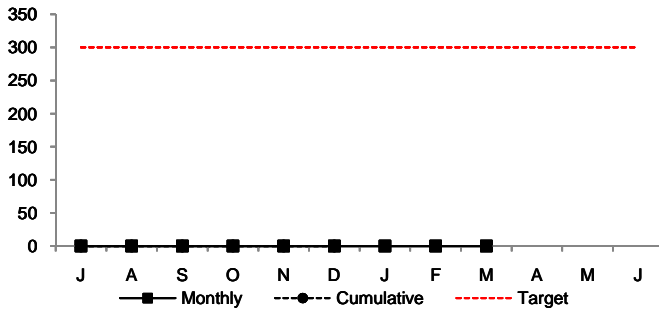
WASTEWATER METERS



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 of FY13, meter actuals accounted for 95.3% of flow; 4.7% of wastewater transport was estimated.

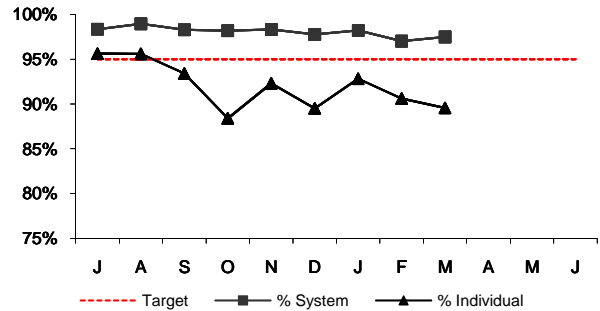
WATER DISTRIBUTION SYSTEM PIPELINES

Miles Surveyed for Leaks



No inspections occurred during the 3rd Quarter due to a staffing changes. New staff are being hired and a contract will be put in place.

% Wastewater Meter Uptime



During the 3rd Quarter of FY13, out of a possible 1,566,816 data points, only 40,087 points were missed resulting in a system-wide up time of 97.41%. Of the 181.3 revenue meters installed, on average 18.3 meters/mth. experienced down time greater than the 5% target resulting in a 89.9% individual meter uptime. For the 3rd Quarter of FY13, down time for an individual meter is defined by any individual meter having on average less than 2796.7 data points out of a potential 2,736 data points.

Water Distribution System

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

During the 3rd Quarter of FY13, five leaks were detected, three in January and two in February. All leaks were repaired within one to five days, with the exception of 1833 Revere Beach Blvd which took ten days. For the 3rd Quarter of FY13 all leaks have been repaired.

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.

(Note: there is a single leak on the Chicopee Valley Aqueduct which continues to be monitored and a detailed repair plan developed. Unless conditions change, it will not be repaired until low flow conditions return this fall.)

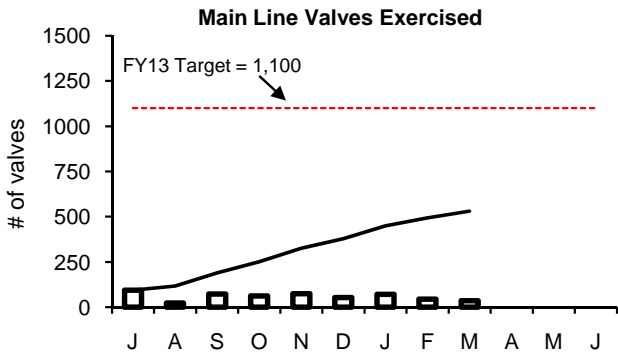
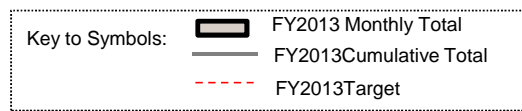
Water Distribution System Valves

3rd Quarter - FY 13

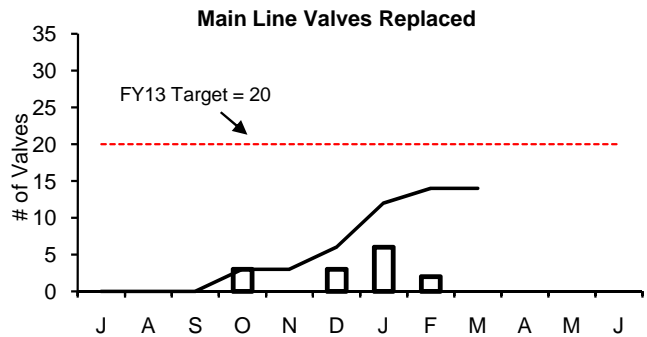
Background

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

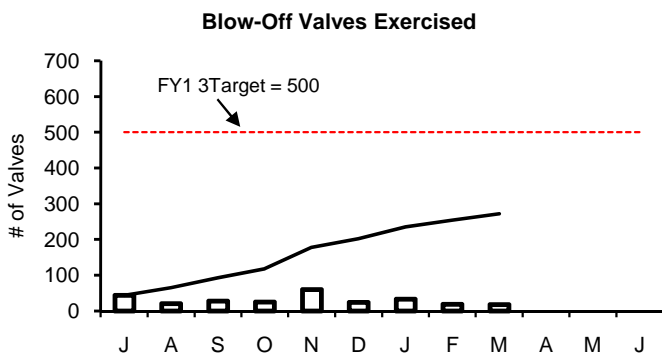
Type of Valve	Inventory #	Operable Percentage	
		FY13 to Date	FY13 Targets
Main Line Valves	2,092	97.5%	92%
Blow-Off Valves	1,206	95.4%	94%
Air Release Valves	1,335	93.5%	92%
Control Valves	48	100.0%	95%



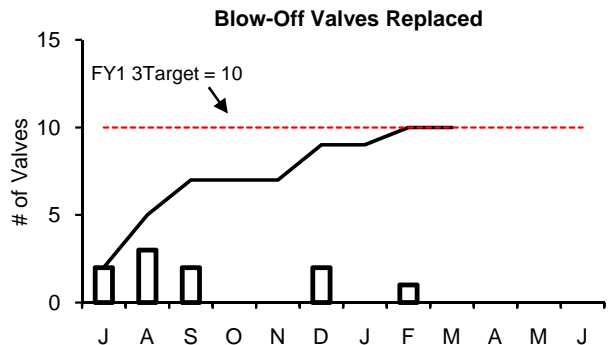
During Q3 of FY13, staff exercised 152 main line valves. The total exercised for the fiscal year to date is 530. Exercising was below targets this quarter primarily due to significant effort by valve crews related to support of construction contracts, inability to access valves during snow cover, and one foreman out on IA. It is anticipated that 80 to 85 % of the target will be reached by the end of the FY with the return of the foreman, better weather, and fewer competing demands.



During Q3 of FY13, eight main line valves were replaced. The total replaced for the fiscal year to date is 14.



During Q3 of FY13, staff exercised 70 blow-off valves. The total exercised for the fiscal year to date is 272.



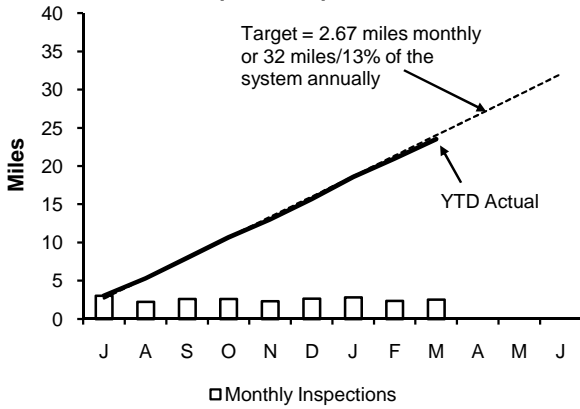
During Q3 of FY13, staff replaced one blow off valve. The total replaced for the fiscal year to date is ten.

Wastewater Pipeline and Structure Inspections and Maintenance

3rd Quarter - FY13

Inspections

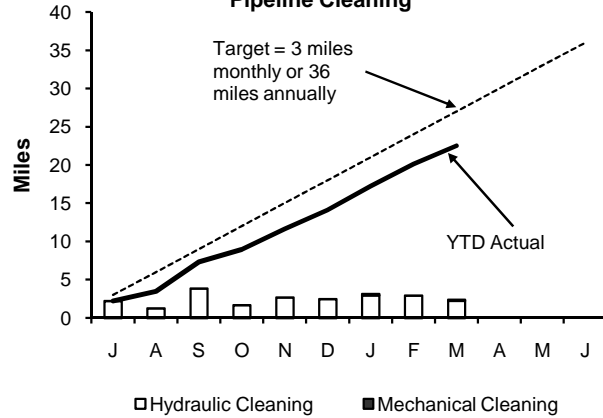
Pipeline Inspections



Staff internally inspected 7.80 miles of MWRA sewer pipeline during the third quarter. The year to date total is 23.51 miles. No Community Assistance was provided this quarter.

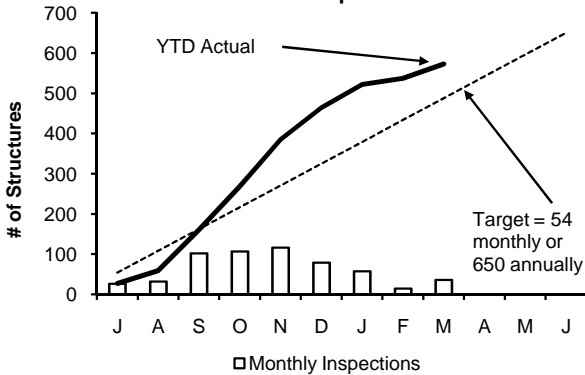
Maintenance

Pipeline Cleaning



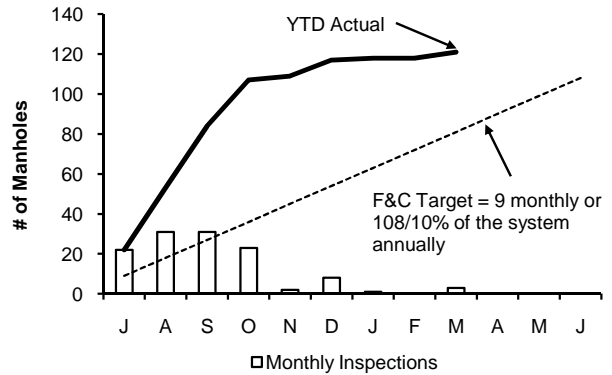
Staff cleaned 8.44 miles of MWRA's sewer system and removed 44 yards of grit and debris during the third quarter. The year to date total is 22.52 miles. No Community Assistance was provided this month.

Structure Inspections



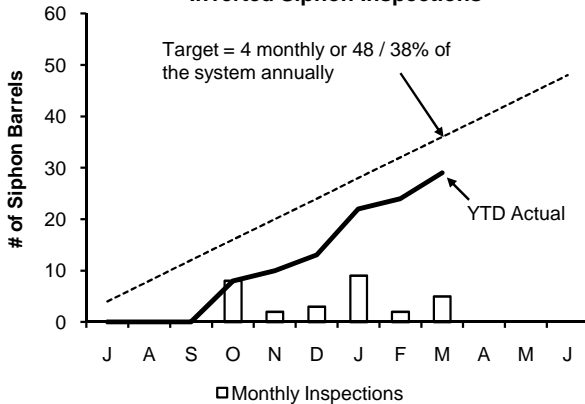
Staff inspected the 36 CSO structures and performed 73 additional manhole/structure inspections during the third quarter. The year to date total is 573 inspections.

Manhole Rehabilitation



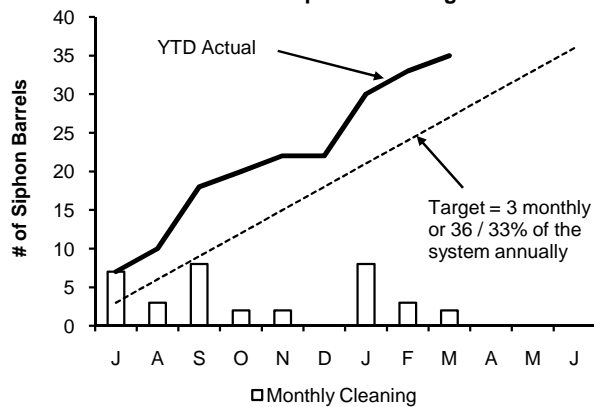
Staff replaced 4 frames & covers during the third quarter. The year to date total is 121.

Inverted Siphon Inspections



Staff inspected 16 siphon barrels during the third quarter. Year to date total is 29 inspections.

Inverted Siphon Cleaning

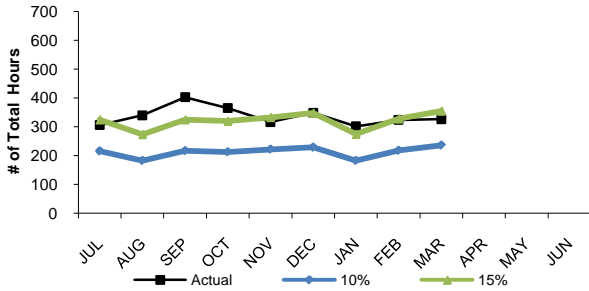


Staff cleaned 13 siphon barrels were cleaned during the third quarter. The year to date total remains at 35 barrels.

Field Operations' Metropolitan Equipment & Facility Maintenance 3rd Quarter, FY13

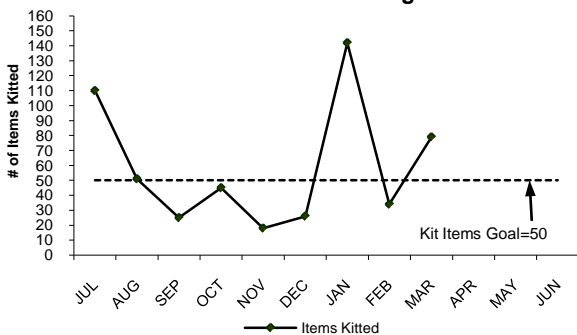
Several maintenance and productivity initiatives are in progress. The goal for the Overall PM completion and the Operator PM completion was raised to 100% for Fiscal Year 2010. The Operator PM and kitting initiatives frees up maintenance staff to perform corrective maintenance and project work, thus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

Operations Light Maintenance PM Hours



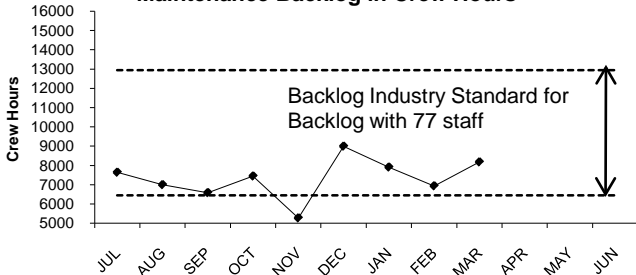
Operations staff averaged 318 hours of preventive maintenance during the 3rd Quarter, an average of 15% of the total PM hours for the 3rd Quarter, which is at the industry benchmark of 10% to 15%.

Items Kitted Utilizing Maximo



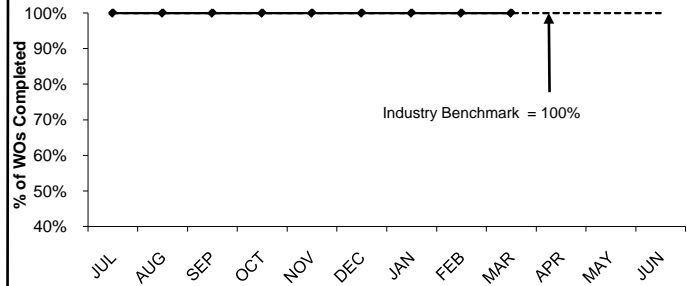
In an effort to more efficiently complete work, maintenance staff and work coordination staff have utilized the Lawson/Maximo interface to better kit stock and non stock material. The goal for FY13 is to "kit" 50 stock and non stock items total per month. An average of 85 items were kitted during the 3rd Quarter.

Maintenance Backlog in Crew Hours



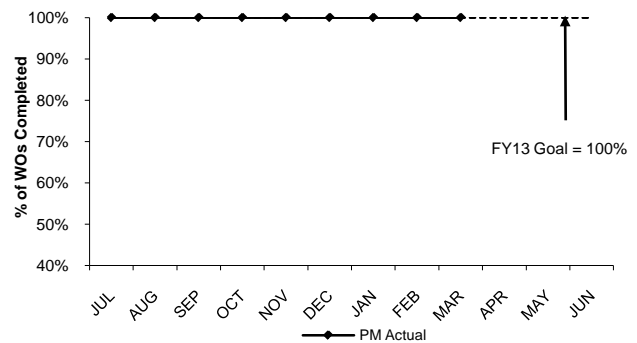
The 3rd Quarter backlog average is 7677 hours. Management's goal is to continue to control overtime and still stay within the industry benchmark of 6450 to 12,940 hours. There are currently 2 vacant positions: a facility specialist and an electrician.

Overall Preventive Maintenance



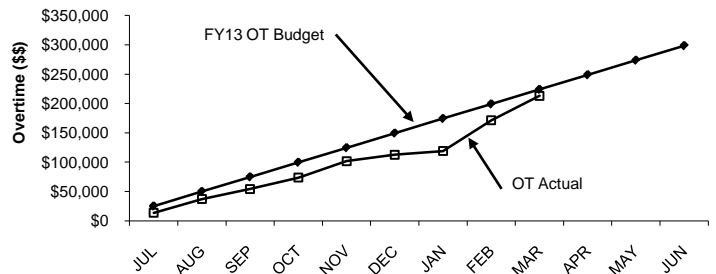
The Field Operations Department (FOD) preventive maintenance goal for FY13 is 100% of all PM work orders. Staff completed an average of 100% of all PM work orders in the 3rd Quarter.

Operations Light Maintenance % PM Completion



Wastewater Operators complete light maintenance PM's which frees up maintenance staff to perform corrective maintenance. Operations' FY13 PM goal is completion of

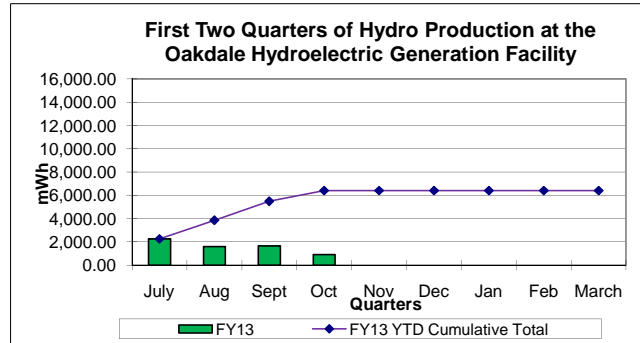
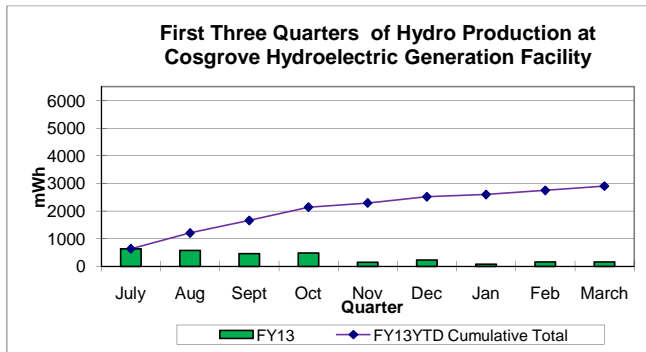
Overtime Spending



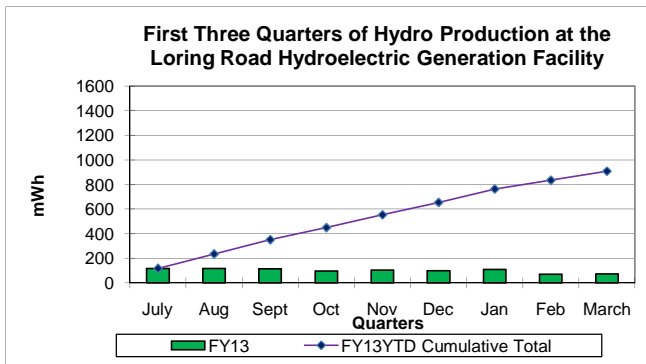
Maintenance overtime was \$11k under budget for the 3rd Quarter. Overtime was used for the Blizzard of 2013, facility issues at Braintree Weymouth Pump Station, emergency repairs and wet weather coverage.

Field Operations Hydroelectric Generation Quarterly Report

3rd Quarter - FY13



In the 3rd Quarter, the **Cosgrove Hydroelectric Station** generated a net of 383 MWh; approximately 67% more power than was generated during the same quarter in FY12. The revenue generated at Cosgrove in the third quarter was \$27,710 exclusive of Renewable Energy Certificates.



In the 3rd Quarter, the **Oakdale Hydroelectric Station** generated no energy due to planned electrical upgrades that shut down production during the work. The Oakdale Hydroelectric Station is expected to start up again in May. (Power is generated when water is transferred from Quabbin to Wachusett.)

In the 3rd Quarter, the **Loring Road** hydroelectric 200 kW station generated 303 MWh; approximately 12% less power than was generated during the same quarter in FY12. Power is generated as water conveyed from Norumbega to the Loring Road storage tanks is reduced in pressure and the energy available in this pressure reduction is captured by the new turbine. The facility operates continuously. Some power is consumed on site, with the bulk exported to the grid.

Southborough: The energy management system being installed at the Southborough Facility, under the Green Communities Act, was completed during the 3rd quarter of FY13. MWRA will be receiving a \$30,000 incentive for this project based on the projected energy savings.

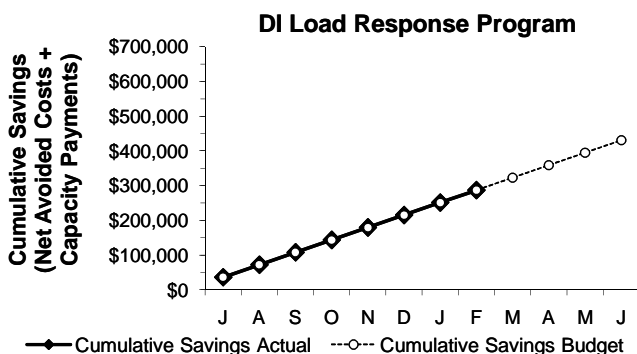
Energy Audits and Implementation of Audit Recommendations at FOD Facilities: Audits of 24 facilities were performed in two phases from FY10 through the first quarter of FY12. The focus of these energy audits were lighting, HVAC, pumps, and motors. Implementation of the audit recommendations began at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

-- Installation of energy efficient interior lighting at Cottage Farm, expected to save approximately 30,016 kWh and \$4,200 annually. This work began at the end of the second quarter and was completed during the third quarter of FY13.

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

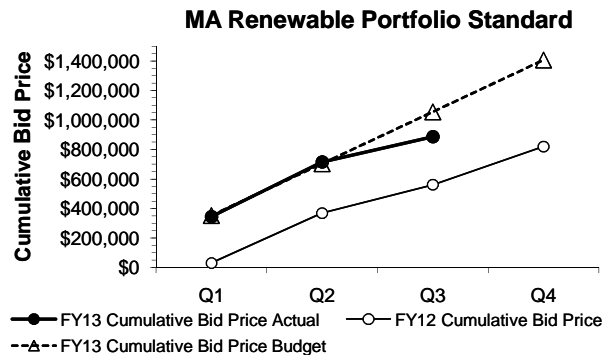
-Demonstration of the Burner Booster technology began during the 3rd Qrt. on one of the boilers at Columbus Park Headworks. The technology is designed to atomize the oil spray into the boiler resulting in a more complete burn, reducing oil usage and emissions. The demonstration will continue into FY14.

Demand Response Payments: The John Carroll Water Treatment Plant, Loring Road Hydro, and Chelsea Creek, Columbus Park, and Ward Street Headworks are all enrolled in the ISO's Demand Response Program. The total net capacity payments for the first three quarters of FY13 was \$35,155.



Deer Island participates in the ISO-New England Load Response Programs. By agreeing to have its Combustion Turbine Generators available to run and thus relieve the New England energy grid of Deer Island's load during times of high energy demand, MWRA receives monthly Capacity Payments from ISO-NE. "Net Avoided Cost" is the avoided NSTAR payments offset by the cost of running the CTGs. Cumulative savings are the sum of Net Avoided Costs and monthly Capacity Payments - totaling \$286,829 through February.

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

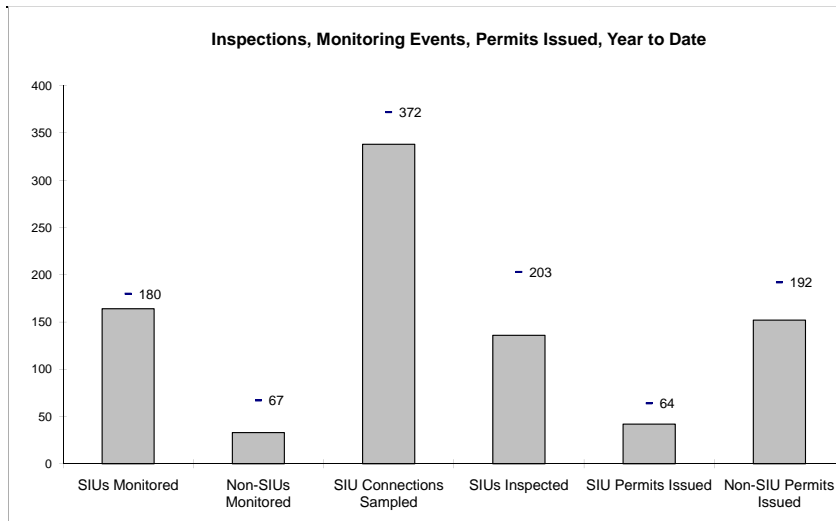


Bids were awarded during this quarter in January for the sale of 3,791 Class I Renewable Energy Certificates (RECs) for a total value of \$171,034.

REC prices reflect the bid prices on the date that bids are accepted. Cumulative bid price reflects the total value of bids received to date. The FY13 budgeted cumulative bid estimate through the 3rd Quarter is \$1,055,291 while the actual bid total is \$885,986.

Toxic Reduction and Control

3rd Quarter - FY 2013



EPA Required SIU Monitoring Events for FY13: 180
YTD: **164**

Required Non-SIU Monitoring Events for FY13: 67
YTD: **33**

SIU Connections to be Sampled For FY13: 372
YTD: **338**

EPA Required SIU Inspections for FY13: 203
YTD: **136**

SIU Permits due to Expire In FY13: 64
YTD: **42**

Non-SIU Permits due to Expire for FY13: 192
YTD: **152**

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

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

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.

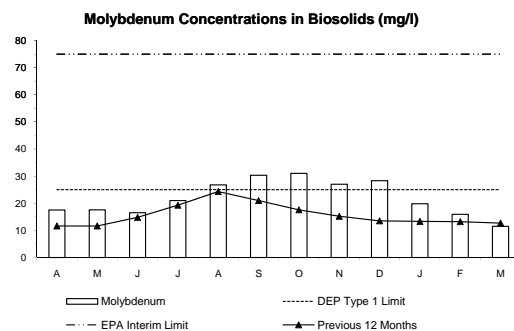
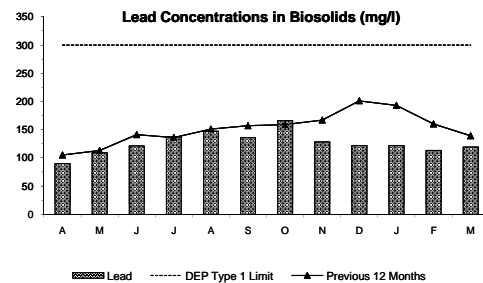
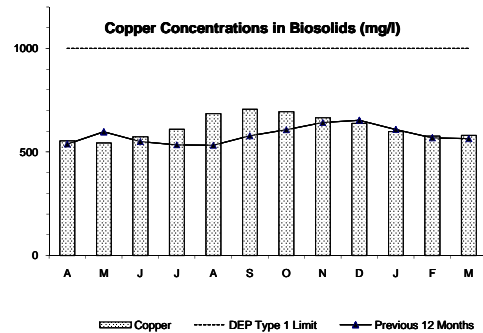
	Number of Days to Issue a Permit						Total Permits Issued	
	0 to 120		121 to 180		181 or more		SIU	Non-SIU
	SIU	Non-SIU	SIU	Non-SIU	SIU	Non-SIU		
Jul	2	8	0	0	0	0	2	8
Aug*	1	9	1	0	0	0	2	9
Sep	1	8	0	1	0	1	1	10
Oct	4	25	0	2	0	1	4	28
Nov	6	13	0	1	0	1	6	15
Dec	4	9	1	0	0	2	5	11
Jan	7	44	0	1	0	1	7	46
Feb	9	13	0	2	1	1	10	16
Mar	5	9	0	0	0	0	5	9
Apr							0	0
May							0	0
Jun							0	0
% YTD	93%	91%	5%	5%	2%	5%	42	152

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 Q3 of FY13, one SIU permit was issued more than 180 days after receipt of its application while staff reviewed issues related to its compliance status. Five non-SIU permits were issued more than 120 days after receipt of their applications: three were issued in less than 180 days and two were delayed for more than 180 days. Delays were attributable to issues related to i) the determination of their permit categories ii) the payment of permit charges and iii) other processing considerations.

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

In Q3 of FY13, levels of molybdenum stayed below the DEP type 1 Limit. MWRA and its contractor (NEFCO) do not distribute product in Massachusetts between July and January under its approval of suitability.



Western Water Operations and Maintenance

- CWTP: The Carroll Water Treatment Plant started the 3rd quarter in half plant operation with Treatment Train “A” and the upper portion of the Hultman Aqueduct isolated. Winter maintenance was completed in February. The upper portion of the Hultman Aqueduct remained isolated from the CWTP’s storage tanks to Valve Chamber E-3 to support the contractor’s work inside the Shaft 4 Facility.
- Cosgrove Intake and Power Station: A collaboration of Engineering, SCADA, Contractor and Western O & M Staff completed the Hydro Turbine Governor Controls Improvement Project, including upgrading hydraulic control devices and proportioning valves, reprogramming the PLCs, and improving the efficiency of the switch gear controls which allowed the removal of obsolete wire and controllers. The on-site work was completed in less than three weeks. The hydro turbines are now synchronized and come online in less than two minutes. Also during the third quarter, the Automatic Transfer Switch failed to transfer during a power outage. The failure resulted in a false CWTP shutdown signal being sent to SCADA. SCADA Staff overrode the false signal allowing the plant to be restarted. Staff found and repaired a broken pin connector and bracket in the ATS.
- CVA: Operations Staff found that the screens at the Chicopee Valley Aqueduct Intake Building would not travel. Vegetation due to a lower reservoir level and high winds had blinded the screens and as a result, a pin in the drive had sheared. Staff made repairs and cleared the screen.
- Sudbury Aqueduct: The stairs leading from Ellis Street up to Echo Bridge were in disrepair to a point where their use was no longer safe. Staff made temporary repairs by installing wood threads which were lagged into the cast iron stringers. The stringers themselves were repaired in some areas and repairs were also made to the intermediate platforms. The stairs are now available for use until a longer term solution is identified.

Metro Water Operations & Maintenance

- Incidents/Leak Repairs: In January, leaks occurred on a 6” W2 Main on Deer Island, and on an existing transitional coupling on Section 57 on Revere Beach Parkway in Everett. Both leaks were isolated and repaired without any service issues. In February, leaks occurred on Section 55 on Bennington Street in Revere and on Washington Street in Newton. Both were isolated without any service impact. The leak on Section 55 has been repaired and the Washington Street leak was on an automatic air valve that will be replaced during the fourth quarter. On March 12, utility power was lost at the Gillis Pump Station in Stoneham due to failed cutouts on an overhead pole. The station’s emergency generator activated normally and powered the station until repairs were completed and utility power restored. Service remained normal throughout the incident.
- Reactivation of WASM and Hultman Seven-Foot Branch Mains: On March 27, WASM 3, WASM 4, the Hultman Seven-Foot Branch Line and the 84” line at Loring Road were all returned to service. Staff spent the month working with the Hultman contractor and Valve Operations which included flushing, disinfection, water quality sampling, and reactivation. This returns all high service piping to its normal configuration. Staff reactivated Meter 206 to Waltham, which allowed the city’s Cedarwood Pump Station to be returned to service. All five of the Pressure Reducing Valves (PRVs) within the Waltham system were isolated, and all meters to the city isolated for the construction work were returned to service.
- Water Pipeline Program: Work was completed on the following projects: Section 70 valve installation, blow-off retrofit, and Meter 141 reconstruction; test pit excavation at St Paul Street in Brookline on the Beacon Street Line (BSL) to acquire pipeline field data; surge control valve installation at the Commonwealth Avenue Pump Station; replacement of an existing 36” butterfly valve with a new 36” gate valve on Section 89, north of Route 128. Also, work was performed in Woburn which included: preparatory work to replace the existing 24” globe valve and 36” butterfly valve on Section 89 on the south side of Route 128 (replacement work to occur in the 4th quarter); installation of a 12” gate valve at Meter 93 in Revere; site work for S:CAN Buildings at the Arlington Covered Reservoir and Bellevue Tank; site work at the MWRA Chelsea Facility to install electrical conduit and repair a collapsed drain line; and snow removal operations to deal with several significant snow storms.
- Valve Program: Section 70 was returned to service after completion of the valve and blow-off work described above. Valve Operation support was provided to the Hultman rehabilitation contractor with the testing of valves, filling, flushing, disinfection, water quality sampling, and activation of WASM 3 and WASM 4, the Seven-Foot Branch of the Hultman, and 84” line to Loring Road as noted above. The Stoneham-Reading emergency connection was flushed for the Section 89 valve worked noted above. Section 10 was isolated, and returned to service to support the Mass Dot Larz Anderson Bridge Project. Staff isolated and activated several meters to Quincy at the request of city water staff for the installation of new water main within the Quincy system. Assistance was provided to Waltham in dealing with isolation of a leak on a 20” city main, and to Swampscott in dealing with a valve survey to determine the source of a discolored water issue in the town. The PRV at Meter 93 was rebuilt to return the valve to normal operation. Preventative maintenance through main line valve exercising, fire flow bypass valve maintenance and PRV maintenance were all preformed at many locations during the quarter. Metropolitan reservoirs were monitored as normal and drain valves operated to keep the reservoirs in their normal operating ranges. Water was drained from Chestnut Hill, Fells and Spot Pond to keep them within their normal operating bands.

Wastewater Operations & Maintenance

- Emergency Planning and Response Facility Handbook: Operations and Security Staff continued to update and review Integrated Contingency Plans for all wastewater facilities. These plans include, but are not limited to, emergency notification procedures and emergency action plans.
- Cottage Farm Fuel Oil System Staff Training: Operations Staff, with the contractor on site, conducted training for both Operations and Maintenance Staff on operation of the new upgraded fuel oil system. E&C and a contractor continue to address necessary changes to the fuel oil system this system. These modifications will be completed prior to having the equipment turned over to the Operations Department.
- Cottage Farm Fuel Oil System Upgrade: This project will install new fuel oil day tanks for the diesel engines, generator and main facility boilers, fuel transfer pumps, an overflow tank, chemical building fuel storage tanks, and underground storage tank selector valves to meet current code requirements and improve fuel handling and monitoring capabilities within the facility. The construction contract was awarded to MECO with a NTP issued on June 20, 2012. Staff have been assisting Dewberry in submittal reviews and project coordination with Operations. Construction began in October 2012 and was projected to be completed in January 2013.

Wastewater Operations & Maintenance (cont.)

- Section C Head House Rehabilitation: This project will rehabilitate the top of the Section C downstream head house in Medford, located on DCR property. Technical Support assisted Process Control in the development of design documents. Staff coordinated with the Medford Conservation Commission and DCR to address all permitting related issues. Bids opened October 31, 2012, and work completed in January 2013.
- Phase 3 Manhole Rehabilitation: This project will include the rehabilitation of 36 manholes at locations with Somerville, Malden, Medford and Boston. Requirements for Traffic Management issues were resolved and the contract was modified to permit epoxy lining in addition to lining the manholes with cement. The Notice to Proceed was issued in December 2012, work began in March and is expected to be complete by mid May.
- Nut Island PH/ORP Meter Replacement: This project will purchase and install new PH/ORP Probes and Transmitters on the four wet scrubbers at Nut Island. A purchase order was cut to Rosemount Instrumentation for the replacement parts. Staff designed and built housings for the new probes. PH/ORP Probes and Controllers have been installed on all four wet scrubbers and have been tested and are working correctly. Process Control Staff coordinated and directed the efforts of Operations and Maintenance, the instrumentation service contractor and support staff to complete this project successfully.

TRAC

- Enforcement-Penalty Assessment Notice (PAN) Issued to Brigham and Women's Hospital (BWH): On January 11, 2013, TRAC issued a Penalty Assessment Notice (PAN) to BWH in response to BWH's discharge of wastewater containing excessive levels of mercury to the sanitary sewer, in violation of 360 C.M.R. § 10.024, after the issuance of a Notice of Noncompliance and Order. The amount of the penalty was \$126,200.00. TRAC also issued a Supplemental Order to Comply to BWH.
- Braintree-Weymouth Pumping Station Investigation: On February 28, TRAC Staff began a series of inspections in areas tributary to the Braintree-Weymouth Replacement Pumping Station to try to identify the source(s) of rags that caused the station's grinders to clog and its pumps to operate at diminished capacity. During March TRAC Staff continued to investigate the source of rags that caused blockages at the Braintree Weymouth Pump Station in late February. In March staff inspected 197 industrial, commercial and municipal facilities in Braintree, Hingham, Holbrook, Quincy, Randolph and Weymouth to try to determine the source of the rags. Staff concluded, on the basis of visual inspections, that the Randolph Septage Receiving Site was the source of similar rags. TRAC issued an Enforcement Order to the Town of Randolph requiring the town to cease discharge from its septage receiving site until it is cleaned and procedures for operation and maintenance of the site are developed and approved by MWRA. The town was very cooperative and shut down its site immediately. Staff submitted six samples of rags collected from the blockages at the pump station and rags found at the Randolph septage receiving site to a contract lab for forensic analysis. Analysis determined that the rags are made up of a non-woven polyester material consistent with commercial and household wipes, and were contaminated with similar petroleum hydrocarbons. TRAC has increased the frequency of inspections at septage receiving sites and septage haulers, and has continued to investigate potential sources. If any sources are identified, staff will evaluate enforcement options.
- Monitoring: TRAC Staff completed the sampling of the John J. Carroll Water Treatment Plant's annual winter maintenance in accordance with the Draft NPDES Permit. The sampling protocols were tested and fine tuned to ensure that sampling pursuant to the permit will be conducted without foreseeable logistical problems

Metro Equipment and Facility Maintenance

- Braintree/Weymouth Pump Station: During a rain event, flow overtopped the station grinders with rags entering the pump wet well and reducing pump capacity. Both wet wells were cleaned out by Equipment Maintenance and Wastewater Pipeline Maintenance and pump capacity was restored. Two temporary bar screens were fabricated and installed upstream of the station grinders to provide additional screening protection during high flows. An A-frame was installed over the influent channels to allow removal and cleaning of the new bar screens. Long electrical cords were installed on the motors to the grinders to ease removal of the grinders for cleaning or replacement.

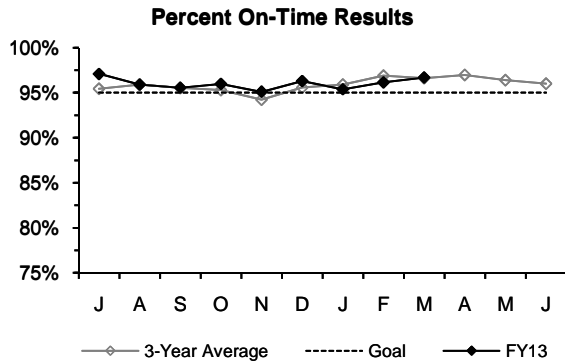
Operations Engineering

- Development of ERP Training Programs: Staff are continuing implementation of the community emergency response training program as required by DEP. This training is being provided by MWRA expert staff and is being delivered to local staff from the MWRA water communities and MWRA Staff. Through the end of March, the two-day 10-hour modular course has now been repeated twice and will be repeated again 2 more times in the spring of 2013 to accommodate the expected community participation. This is expected to be heavily attended in part due to licensing deadlines in 2013 and may be repeated in the fall if there is demand. An additional series of community training meetings is underway targeting service areas with particular redundancy issues (NIH and SEH were completed in 2012). The IH/NEH Workshop is being planned for late spring 2013.
- Review of Wastewater Metering: Staff have begun reviewing where updating may be necessary for community flow formulas to reflect changed local system conditions. The issue is now in a series of Operations Committee Meetings and was discussed again with Advisory Board Staff in March. Staff have begun working on more detailed program proposals for the community flow formulas as well as the next round of updating sewer meters.

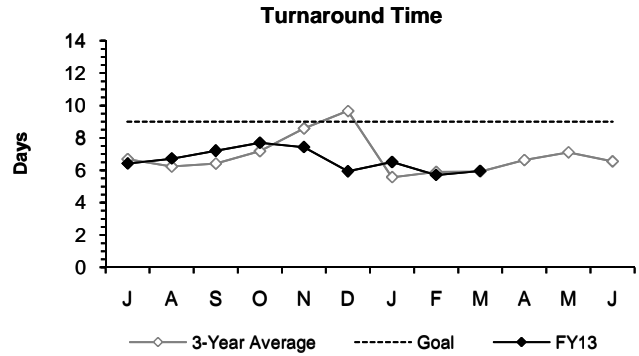
Water Quality Assurance

- Online Water Quality Monitoring: Staff continued working on updating the distribution water quality monitoring analyzer system. Through the end of the 3rd Quarter, fifteen units of the planned eighteen units have been installed and made operational via SCADA and two more are in progress. Central data collection equipment and its associated server installation are operational. Staff continued implementing the associated data collection network with Verizon connections now being available for 13 of the sites. Draft response SOPs have been developed for alarm response. The remaining steps include training of some categories of response staff to finalize preparations for enabling alarms.
- Seasonal Coliform Bacteria Issues: In March, seasonal bacteria and nitrification issues in the communities are minimal with colder water temperatures. The community emergency training program includes a module on nitrification issues and has provided an opportunity to share MWRA's experience across all communities

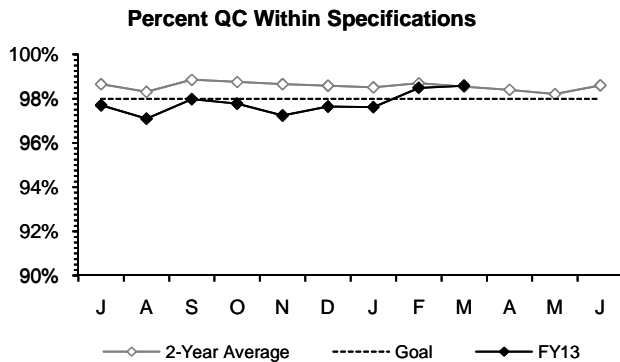
Laboratory Services 3rd Quarter - FY13



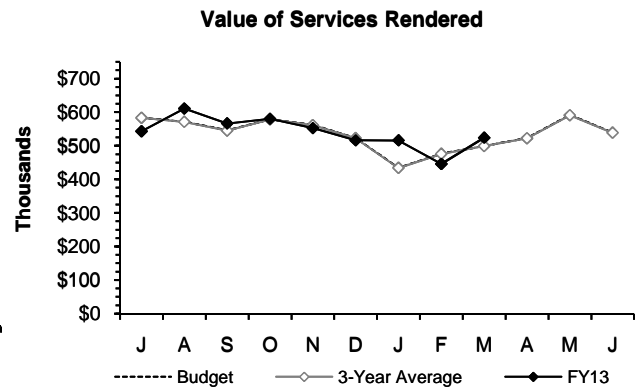
The Percent On-Time measurement exceeded the 95% goal each month of the quarter.



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



Percent of QC tests meeting specifications was above the 98% in-house goal two out of three months of the quarter.



Value of Services Rendered was above the seasonally adjusted budget projection two out of three months of the quarter, and was above the fiscal year to date projection.

Highlights:

Lab Ethics:

An MWRA presentation on lab ethics was part of an on-going series at the quarterly meeting of the Independent Testing Laboratory Association (ITLA). The focus was on how our LIMS, bolstered by statistics, can be used to expediently meet DEP lab certification requirements on detection and reporting limit verifications.

Quality Assurance:

The Q3 in-house quarterly compliance audit on records management at each of the 5 lab locations found compliance with requirements. DEP audited the Chelsea and Southboro Labs and found no deficiencies. These audits are conducted every other year as a requirement of DEP lab certification.

ENQUAD:

Completed Harbor and Outfall Monitoring lobster samples. These biological tissue samples are tested every three years. Received proficiency test sample results from the Chesapeake Bay Program Blind Audit Study for FY2011 and FY2012. These are unknown, low level dissolved and particulate nutrient samples that mimic Harbor and Outfall Monitoring samples. The Central Lab received acceptable results on all 62 parameters.

Water Quality Assurance:

Completed testing associated with annual half plant operation at Carroll Water Treatment Plant. Began receiving samples from the new BWSC/Harvard School of Public Health Lead in Boston Schools project.

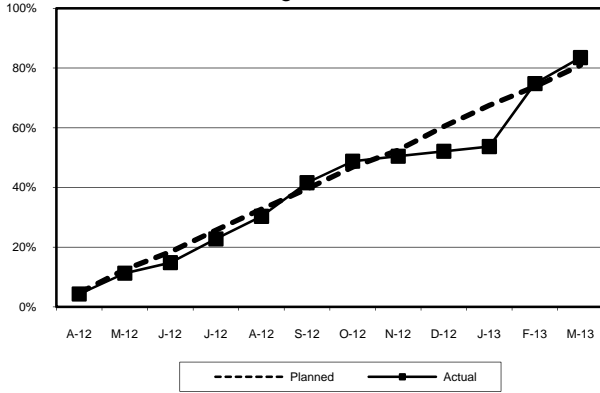
CONSTRUCTION PROGRAMS

Projects In Construction

3rd Quarter- FY13

(Progress Percentages based on Construction Expenditures)

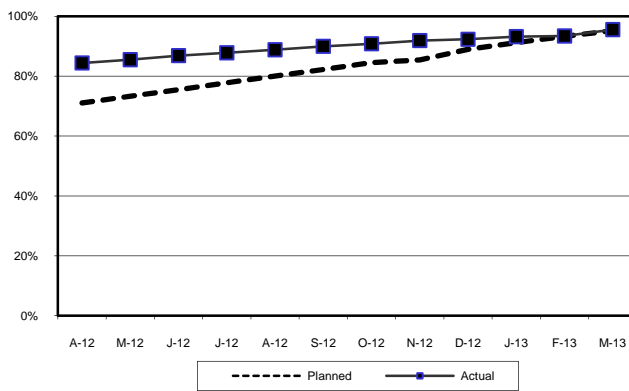
**Hultman Aqueduct Interconnection
CP-6B Progress – March 2013**



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

Status and Issues: As of March, the Contractor completed the installation of couplings between valves V-7, V-8, V-9 and V-10 in the Weston Aqueduct Transfer Chamber. They also completed the installation of couplings on valves V-1 through V-4 in the Shaft 4 building. They completed welding steel spacers on existing "tee" to correct a discrepancy in pipe diameters. R. Hunt completed Proof of Design Testing on Valve 2 and are rebuilding the valve for factory testing.

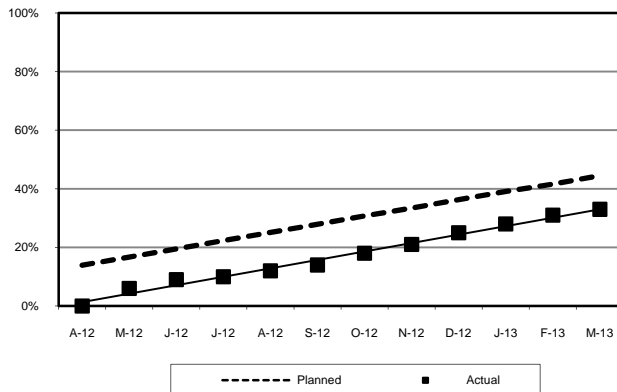
**Hultman Aqueduct Interconnections Project
Progress - March 2013**



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

Status and Issues: Through March, the Contractor completed the leakage testing of the River Road and Branch Line TED valves, as well as the disinfection and flushing of the WASM 3&4 and 84" Branch Lines. They successfully completed water quality testing of WASM 3&4 and Branch Lines, which were then returned to service on 3/27/13.

**Spot Pond Water Storage Facility
Progress – March 2013**



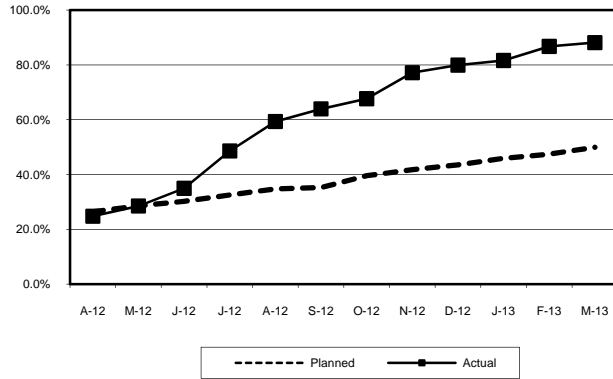
Project Summary: This is a design/build project for the construction of two, 10 million-gallon covered concrete storage tanks and a buried pump station, which will provide back-up redundancy for the Northern High and Northern Intermediate High distribution service areas.

Status and Issues: Through March, the Contractor continued with the placement of the concrete base slab cells in Tank #2, which is approximately 74% complete. They continued with the placement of concrete wall sections in Tank #2 which is approximately 30% complete.

Projects In Construction 3rd Quarter- FY13

(Progress Percentages based on Construction Expenditures)

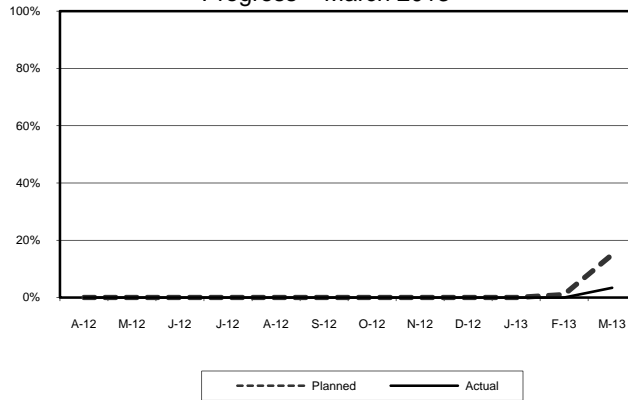
**UV Disinfection Facilities CWTP
Progress – March 2013**



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

Status and Issues: As of March, the Contractor built temporary staging and walls for dust containment during the scheduled roof demolition work for the modification of the 120" stainless steel pipes at both the A&B sides of the UV rooms. In addition, they began installing concrete masonry units (CMU) at both head-house no's 1&4 and completed architectural CMU coping cornice and the placement of brick work units at the electrical building and head-house no. 3; also placed grout for bond beams at head-house no's 1&4.

**Quabbin UV Disinfection
Progress – March 2013**



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

Status and Issues: Through March, the Contractor began general site preparation which included: setting up of construction trailers, excavating and prepping for temporary power, outfitting trailers for internet and meeting on Title V for the septic tank. In addition, the Building Permit was applied for and has been received.

CSO CONTROL PROGRAM

3rd Quarter - FY13

As reported last quarter, 29 of the 35 projects in MWRA's Long-Term CSO Control Plan are complete and 4 CSO projects are in construction. MWRA recently completed the preliminary design and 100% design, respectively, of the remaining two projects - the Outfall MWR003 Gate/Floatables Control and Rindge Ave. Siphon Relief project and the Outfall SOM01A Interceptor Connection Relief and Floatables Control project - both related to Alewife Brook. Progress of work to complete the CSO plan is described below.

Project	Court Milestones in Schedule Seven (Shaded milestones are complete.)			Status as of March 31, 2013																												
	Commence Design	Commence Construction	Complete Construction																													
Brookline Sewer Separation	Nov 06	Nov 08	Jul 13	<p>The \$26.0 million Brookline sewer separation project comprises two Brookline construction contracts and one MWRA construction contract.</p> <p><u>Town of Brookline Sewer Separation Phase 1</u> Brookline attained substantial completion of its \$1.4 million first construction contract in January 2010. The contract involved the installation of 5,658 linear feet of new storm drain.</p> <p><u>Town of Brookline Sewer Separation Phase 2</u> Brookline's \$16.6 million second construction contract is approximately 95% complete. Brookline has completed all of the pipe work, including 3,790 linear feet of storm drain and 1,290 linear feet of sanitary sewer by open trench method and 4,550 linear feet of sanitary sewer by micro-tunneling. Brookline has brought into service several new sanitary connections to MWRA interceptors and is presently closing its old connection to the MWRA system and modifying Outfall MWR010 to remove all of the separated stormwater from MWRA's system and drain the stormwater flows to the Charles River. Brookline expects to attain substantial completion in May 2013, ahead of the July 2013 milestone in Schedule Seven. Surface restoration activities will continue into the summer of 2013.</p> <p><u>MWRA Outfall MWR010 Cleaning Contract</u> MWRA issued the Certificate of Substantial Completion effective August 31, 2012.</p>																												
Reserved Channel Sewer Separation	Jul 06	May 09	Dec 15	<p>BWSC continues to make construction progress with five of nine planned contracts for the \$64.3 million Reserved Channel Sewer Separation project.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Contract 1</td> <td>CSO outfall rehab</td> <td>\$ 4.0 M</td> <td>Complete</td> </tr> <tr> <td>Contract 2</td> <td>Sewer separation</td> <td>\$ 6.9 M</td> <td>Complete</td> </tr> <tr> <td>Contract 3A</td> <td>Sewer separation</td> <td>\$ 9.9 M</td> <td>Complete</td> </tr> <tr> <td>Contract 3B</td> <td>Sewer separation</td> <td>\$10.9 M</td> <td>50% complete</td> </tr> <tr> <td>Contract 4</td> <td>Sewer separation</td> <td>\$ 9.1 M</td> <td>25% complete</td> </tr> <tr> <td>Contract 7</td> <td>Pavement restoration</td> <td>\$ 1.2 M</td> <td>Complete</td> </tr> <tr> <td>Contract 8</td> <td>Pavement restoration</td> <td>\$ 6.8 M</td> <td>30% complete</td> </tr> </table> <p>BWSC received bids on March 21, 2013 for Contract 6 (downspout disconnections), but rejected all bids in order to adjust scope and reduce cost and expects to re-advertise Contract 6 soon. BWSC continues to design the last contract - Contract 5 (cleaning and relining existing sewers) and plans to award this contract later in 2013. BWSC expects to complete all work for the Reserved Channel sewer separation project by December 2015, in compliance with Schedule Seven.</p>	Contract 1	CSO outfall rehab	\$ 4.0 M	Complete	Contract 2	Sewer separation	\$ 6.9 M	Complete	Contract 3A	Sewer separation	\$ 9.9 M	Complete	Contract 3B	Sewer separation	\$10.9 M	50% complete	Contract 4	Sewer separation	\$ 9.1 M	25% complete	Contract 7	Pavement restoration	\$ 1.2 M	Complete	Contract 8	Pavement restoration	\$ 6.8 M	30% complete
Contract 1	CSO outfall rehab	\$ 4.0 M	Complete																													
Contract 2	Sewer separation	\$ 6.9 M	Complete																													
Contract 3A	Sewer separation	\$ 9.9 M	Complete																													
Contract 3B	Sewer separation	\$10.9 M	50% complete																													
Contract 4	Sewer separation	\$ 9.1 M	25% complete																													
Contract 7	Pavement restoration	\$ 1.2 M	Complete																													
Contract 8	Pavement restoration	\$ 6.8 M	30% complete																													

Project		Court Milestones in Schedule Seven (Shaded milestones are complete.)			Status as of March 31, 2013
		Commence Design	Commence Construction	Complete Construction	
Cambridge/ Alewife Brook Sewer Separation	CAM004 Outfall and Wetland Basin		Apr 11	Apr 13	Cambridge continues to make progress with construction of the \$17.8 million CAM004 stormwater outfall and wetland basin (\$3.9 million MWRA share). Cambridge was able to work in conjunction with Verizon to complete utility relocation work to allow the installation of the last sections of the stormwater outfall conduit, along Wheeler Street. Cambridge has since completed the installation of the conduit and has begun to relocate Wheeler Street catch basin connections to it. Work also continues on the bending weir stormwater diversion structure that will direct flows to the wetland basin. Cambridge is also completing the installation of wetland plantings, as well as the construction of various boardwalks and other recreational features through and around the basin. Cambridge is on schedule to substantially complete the wetland basin and stormwater outfall by the end of April, in compliance with Schedule Seven. Work related to the recreational and educational amenities required by the DCR construction permit (not eligible for MWRA funding) will continue through September 2013.
	CAM004 Sewer Separation	Jan 97	Jul 98	Dec 15	Cambridge completed four initial construction contracts for this project several years ago and has planned three additional contracts (contracts 8A, 8B and 9) to complete the project. Contract 8A Construction commenced September 2012 Contract 8B Design is 90% complete Contract 9 Design commenced January 2013
			Sep 12		Cambridge has informed MWRA that its capital cost estimate for this project, together with updated costs for the other Alewife related CSO projects, has increased to \$87 million (the current MOU/FAA total award amount for the Cambridge projects is \$77 million). Cambridge plans to continue to take steps during design and construction of Contracts 8A, 8B, and 9 to complete all work by December 2015, while acknowledging significant design and construction challenges it continues to address.
	MWR003 Gate and Rindge Ave. Siphon	Apr 12	Aug 14	Oct 15	MWRA has received the draft preliminary design report for the MWR003/Rindge Ave. Siphon project. The report recommends replacing the existing static weir at Outfall MWR003 with automated gate, installing an underflow baffle for floatables control and replacing the existing 30-inch Rindge Ave. overflow siphon with a 48-inch siphon. MWRA plans to commence construction of this project in August 2014, in compliance with Schedule Seven.
SOM01A Connection Relief and Floatables Control	Sep 13		Jun 14	MWRA has completed its first procurement review of the 100% design plans and specifications for the SOM01A project and has received the related construction permit from DCR. Cambridge Conservation Commission review is also complete. MWRA plans to advertise the contract in June 2013 and issue the notice to proceed in September 2013, in compliance with Schedule Seven.	

Other CSO Related Work-Status as of March 31, 2013

South Dorchester Bay Sewer Separation Post-Construction Inflow Removal

BWSC continues to investigate alternatives for removing additional stormwater inflow from its Dorchester Interceptor or otherwise relieving hydraulic conditions in the interceptor during extreme storms following the closing of its CSO regulators with completion of the South Dorchester Bay sewer separation project in 2007. BWSC recently completed an interim report on the results of the studies and plans to present the results to MWRA in April. BWSC expects to issue a final report with recommendations later this spring. Through flow monitoring and field investigations, BWSC has found numerous locations of stormwater inflow into sanitary sewers. The majority of these sources involve catch basin laterals. BWSC crews are currently sealing the locations that can be eliminated by trenchless methods. BWSC also recently received bids (low bid \$562,261) for the reconnection of seventeen catch basins from the sanitary sewer system to existing storm drains. MWRA's FY13 CIP includes a total of \$5.6 million for the inflow removal effort.

CIP Expenditures 3rd Quarter - FY13

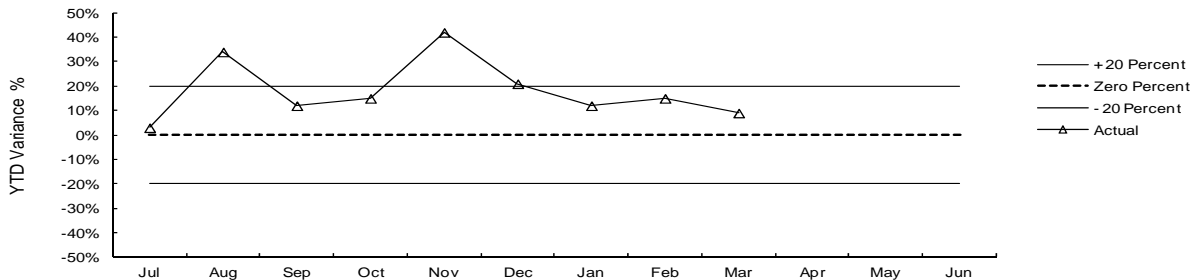
The Year-To-Date variances are highlighted below:

FY13 Capital Improvement Program Expenditure Variances through March by Program - (\$000)				
Program	FY13 Budget Through March	FY13 Actual Through March	Variance Amount	Variance Percent
Wastewater	46,246	59,632	13,386	29%
Waterworks	51,639	51,403	(236)	-0%
Business and Operations Support	6,605	2,702	(3,902)	-59%
Total	\$104,489	\$113,737	\$9,248	9%

Overspending within Wastewater is primarily due to greater than anticipated requests for community grants and loans for the I/I program, award greater than anticipated and progress for the Cambridge Sewer Separation, greater than anticipated progress for the Reserved Channel Sewer Separation, and Clinton Aeration Efficiency projects. This was partially offset by delays of the Digester Modules 1 & 2 Pipe Replacement construction and delays in Electrical Equipment Upgrade Construction 4 and Clarifier Tip Tubes contracts. Overspending in Waterworks is due to greater than anticipated community requests for loans and repayments for Local Water Pipeline Assistance Program, greater than anticipated contractor progress for the Upper Hultman Rehabilitation (CP-6B), Carroll Plant Ultraviolet Disinfection construction, and Oakdale Phase 1A Electrical contracts. This was partially offset by delay in start of concrete work for the Spot Pond Storage Facility Design/Build contract, timing of work for the Lower Hultman Rehabilitation CP-6A contract, lower award and delay for the Sudbury Aqueduct Massachusetts Environmental Policy Act Review and Quabbin Ultraviolet Construction contracts, delay in Gillis Pump Station Improvements and Carroll Water Treatment Plant Existing Facility Modifications CP-7 contracts.

CIP Expenditure Variance

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



Construction Fund Management

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

Cash Balance 03/30/2013	\$127 million
Unused capacity under the debt cap:	\$559 million
Estimated date for exhausting construction fund without new borrowing:	May-14
Estimated date for debt cap increase to support new borrowing:	Not anticipated at this time
Commercial paper outstanding:	\$144 million
Commercial paper capacity:	\$350 million
Budgeted FY13 capital spending*:	\$135 million

* Cash based spending is discounted for construction retainage.

DRINKING WATER QUALITY AND SUPPLY

Source Water – Microbial Results and UV Absorbance

3rd Quarter – FY13

Source Water – Microbial Results

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

Sample Site: Quabbin Reservoir

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

One sample collected during the 3rd Quarter was above 20 cfu/100mL. On January 31, dense fog, storms and high winds prevented effective bird harassment on the reservoir. **For the current six-month period, 1.6% of the samples have exceeded a count of 20 cfu/100mL.**

Sample Site: Wachusett Reservoir

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

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

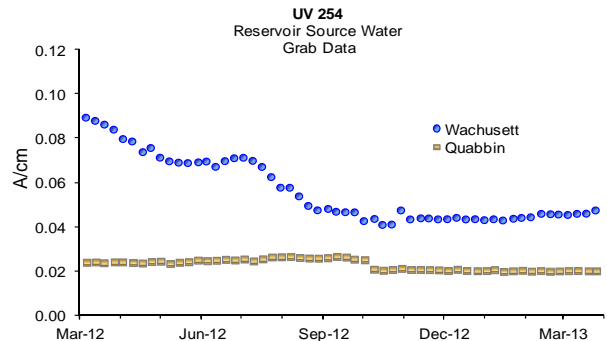
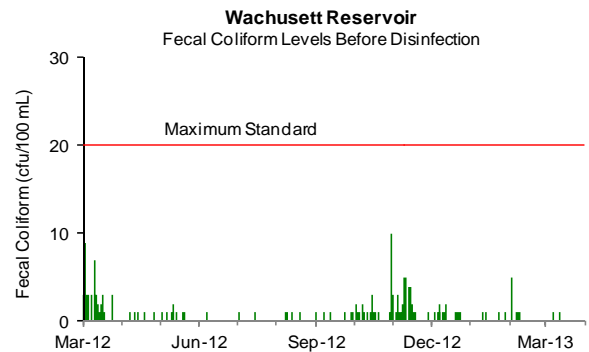
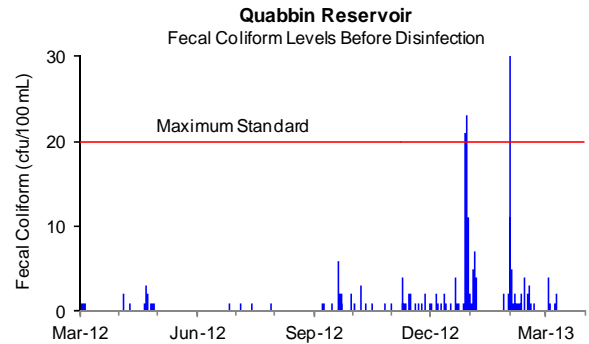
All samples collected during the 3rd Quarter were below 20 cfu/100mL. **For the current six-month period, 0% of the samples exceeded a count of 20 cfu/100mL.**

Source Water – UV Absorbance

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

Quabbin Reservoir UV-254 levels are currently around 0.05 A/cm.

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



Source Water – Turbidity

3rd Quarter – FY13

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

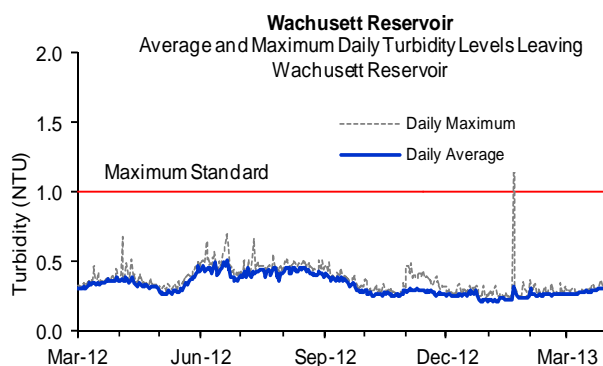
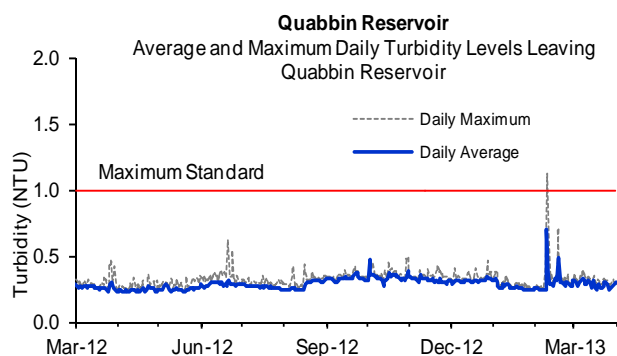
There are two standards for turbidity: all water must be below 5 NTU (Nephelometric Turbidity Units), and water only can be above 1 NTU if it does not interfere with effective disinfection.

Turbidity of Quabbin Reservoir water is monitored continuously at the Ware Disinfection Facility (WDF) before chlorination. Turbidity of Wachusett Reservoir is monitored continuously at the Carroll Water Treatment Plant before ozonation.

- On January 20, Wachusett Reservoir experienced high winds which resulted in a short term turbidity spike up to a maximum of 1.2 NTU (turbidity was over 1 NTU for 1 hour, from 7:30 pm – 8:30 pm).

- On February 9, Quabbin Reservoir experienced high winds caused by Storm Nemo which resulted in a short term turbidity spike up to a maximum of 1.1 NTU (turbidity was over 1 NTU for 40 minutes, from 5:50 pm – 6:30 pm).

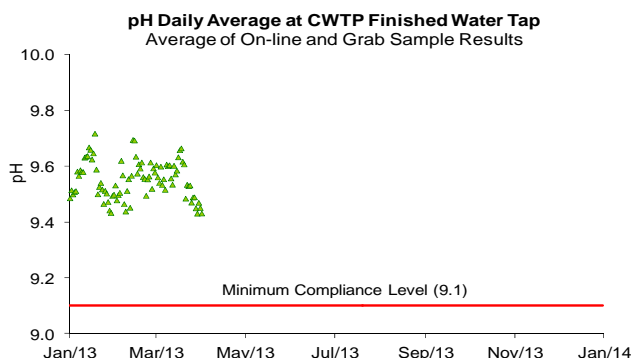
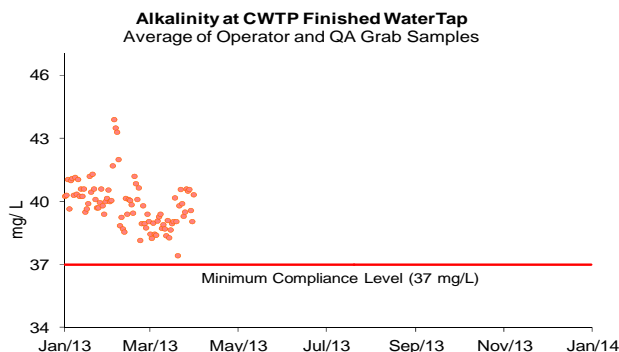
- Disinfection effectiveness was not affected for either event; CT was maintained at all times, downstream disinfectant residuals were maintained, and no coliform were detected in downstream samples. No regulatory violation occurred.



Treated Water – pH and Alkalinity Compliance

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

Distribution system samples were collected on March 11, 2013. Distribution system sample pH ranged from 9.4 to 9.6 and alkalinity ranged from 39 to 40 mg/L. No sample results were below DEP limits for this quarter.



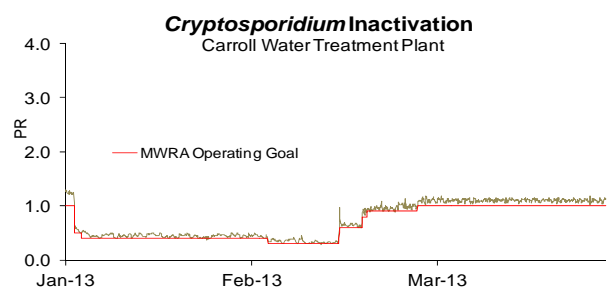
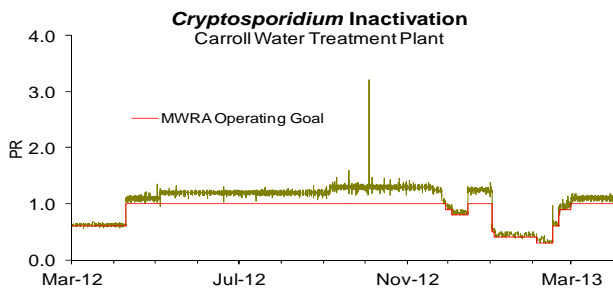
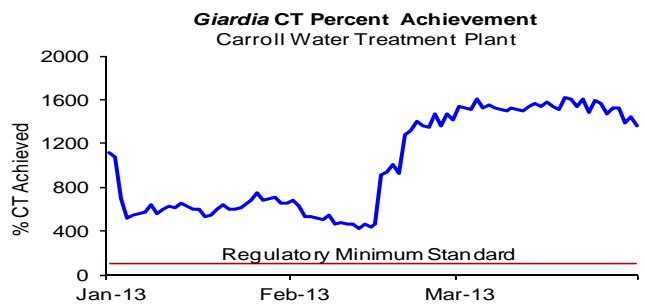
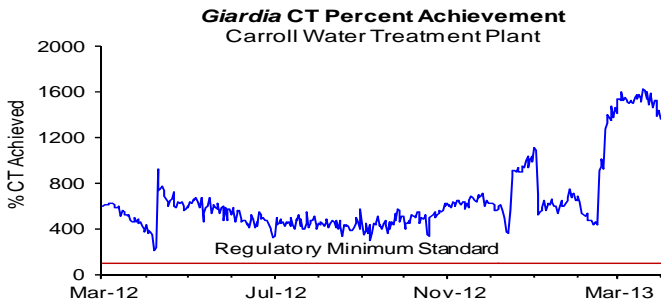
Treated Water – Disinfection Effectiveness

3rd Quarter – FY13

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

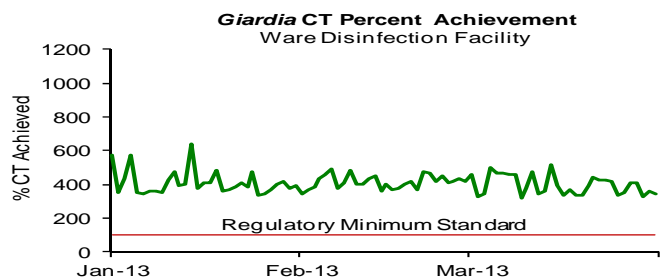
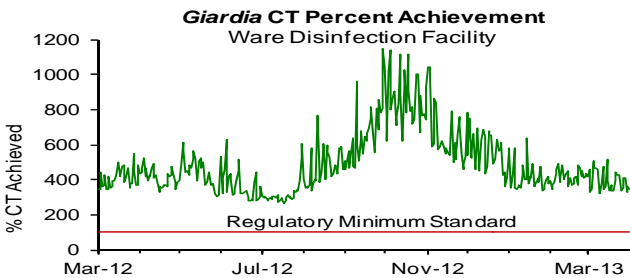
Wachusett Reservoir – MetroWest/Metro Boston Supply:

- Ozone dose at the CWTP varied between 1.9 to 3.5 mg/L for the quarter.
- CT was maintained above 100% at all times the plant was providing water into the distribution system this quarter, as well as every day for the last fiscal year, indicating at least 99.9% inactivation for *Giardia*.
- MWRA will not be able to fully meet the voluntary *Cryptosporidium* inactivation target at all times during the UV construction project. This change in treatment was reviewed and approved by the Massachusetts Department of Environmental Protection as part of its permitting for this project.
- In January, the minimum *Cryptosporidium* inactivation was 82.6%.
- For the period from February 1 to February 15 (half plant operation), the minimum *Cryptosporidium* inactivation achieved was 75%. From February 16 to February 19 and February 20 to February 28 (after resumption of full plant operation), the minimum *Cryptosporidium* inactivation achievement was 93.7% and 98.4%, respectively.
- In March, MWRA met the voluntary *Cryptosporidium* PR of 1 for every hour of the month.



Quabbin Reservoir at Ware Disinfection Facility (CVA Supply):

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



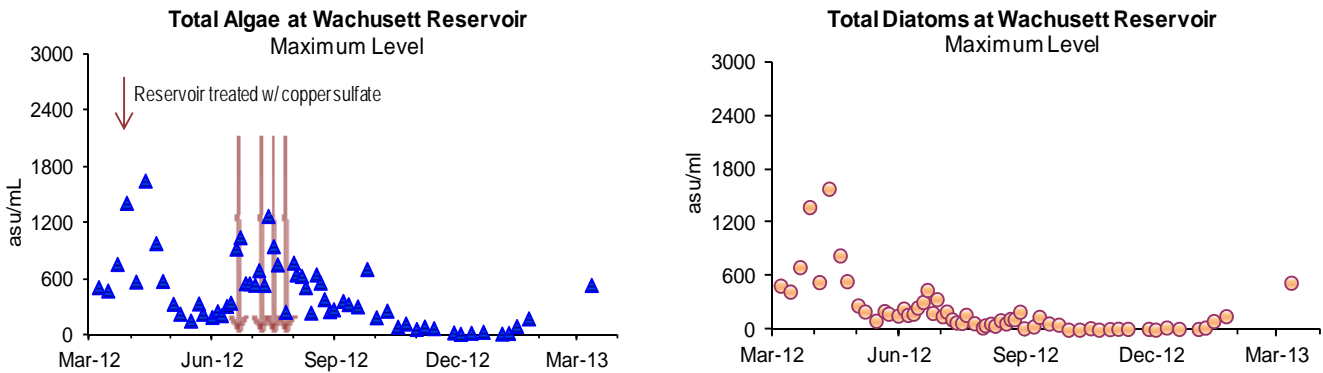
Algae in the Source Water

3rd Quarter – FY13

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

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

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

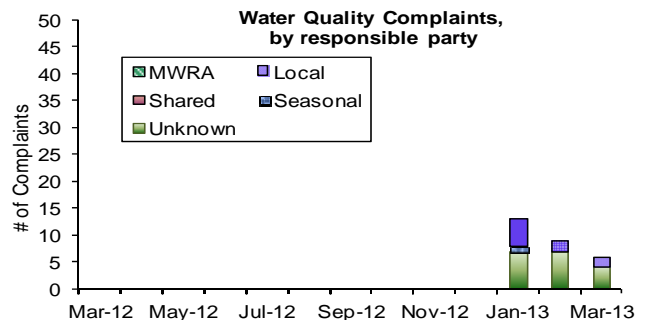
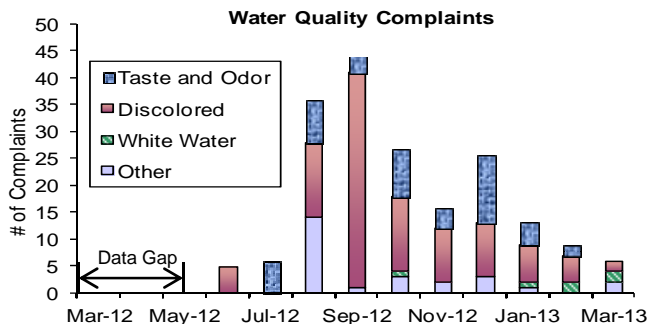


Drinking Water Quality Customer Complaints: Taste, Odor, or Appearance

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

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

Communities reported 28 complaints during the quarter. A comparison cannot be made to the 3rd Quarter of FY12 due to the data gap. Of these complaints, 14 were for “discolored water”, 6 were for “taste and odor”, 5 were for “white water”, and 3 were for “other”. Of these complaints, 9 were local community issues, 1 was seasonal in nature, and 18 were unknown.



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

* *Reporting by Responsible Party trending initiated January 2013.

Bacteria & Chlorine Residual Results for Communities in MWRA Testing Program

3rd Quarter – FY13

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

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

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

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

Highlights

In the 3rd Quarter, none of the 5,761 community samples (0.0% system-wide) submitted to MWRA labs for analysis tested positive for coliform. Of the 1,880 (0.0%) MWRA samples taken, none tested positive for total coliform. No sample tested positive for *E.coli*. Only 3.2% of samples had any chlorine residuals lower than 0.2 mg/L for the quarter.

	# Coliform Samples (a)	Total Coliform # (%) Positive	E.coli # Positive	Public Notification Required?	Minimum Chlorine Residual (mg/L)	Average Chlorine Residual (mg/L)
MWRA Sampling Locations (d)	1880	0 (0%)	0		0.02	1.87
Fully Served	ARLINGTON	166	0 (0%)	0	0.01	1.41
	BELMONT	104	0 (0%)	0	1.20	1.93
	BOSTON	766	0 (0%)	0	0.97	1.90
	BROOKLINE	221	0 (0%)	0	0.05	1.98
	CHELSEA	156	0 (0%)	0	1.20	1.92
	DEER ISLAND	48	0 (0%)	0	1.76	2.01
	EVERETT	120	0 (0%)	0	0.93	1.14
	FRAMINGHAM	216	0 (0%)	0	0.21	1.98
	LEXINGTON	117	0 (0%)	0	0.45	2.09
	LYNNFIELD	18	0 (0%)	0	0.29	1.19
	MALDEN	234	0 (0%)	0	0.21	1.56
	MARBLEHEAD	72	0 (0%)	0	0.15	1.69
	MEDFORD	221	0 (0%)	0	0.98	1.80
	MELROSE	108	0 (0%)	0	0.02	1.08
	MILTON	95	0 (0%)	0	1.21	1.76
	NAHANT	30	0 (0%)	0	0.09	1.39
	NEWTON	276	0 (0%)	0	0.10	1.82
	NORWOOD	108	0 (0%)	0	0.02	1.54
	QUINCY	299	0 (0%)	0	0.09	1.77
	READING	130	0 (0%)	0	0.26	1.62
	REVERE	195	0 (0%)	0	1.01	1.92
	SAUGUS	104	0 (0%)	0	1.37	1.82
	SOMERVILLE	273	0 (0%)	0	1.09	1.83
	SOUTHBOROUGH	30	0 (0%)	0	0.35	1.92
	STONEHAM	91	0 (0%)	0	0.78	1.87
	SWAMPSCOTT	54	0 (0%)	0	0.14	1.59
WALTHAM	215	0 (0%)	0	0.28	1.98	
WATERTOWN	130	0 (0%)	0	0.86	1.78	
WESTBORO HOSPITAL	15	0 (0%)	0	0.02	0.05	
WESTON	48	0 (0%)	0	1.70	2.09	
WINTHROP	72	0 (0%)	0	0.05	1.25	
Total: Fully Served	4732	0 (0%)				
CVA & Partially Served (b)	BEDFORD	59	0 (0%)	0	0.05	0.95
	HANSCOM AFB	27	0 (0%)	0	0.40	1.20
	MARLBORO	126	0 (0%)	0	0.62	2.12
	NEEDHAM	123	0 (0%)	0	0.05	0.65
	NORTHBORO	48	0 (0%)	0	0.21	1.67
	WAKEFIELD	143	0 (0%)	0	0.41	1.35
	WELLESLEY	108	0 (0%)	0	0.02	0.68
	WILMINGTON	87	0 (0%)	0	1.18	1.87
	WINCHESTER	65	0 (0%)	0	0.17	0.79
	WOBURN	195	0 (0%)	0	0.02	1.00
	SOUTH HADLEY FD1 (c)	48	0 (0%)	0	0.07	0.55
Total: CVA & Partially Served	1029					
Total: Community Samples	5761	0 (0%)				

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

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

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

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

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

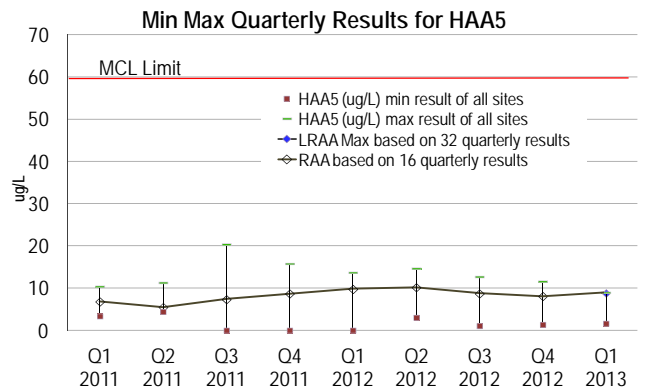
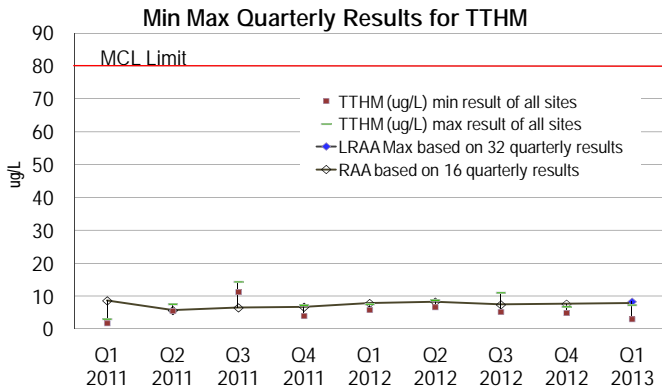
3rd Quarter – FY13

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

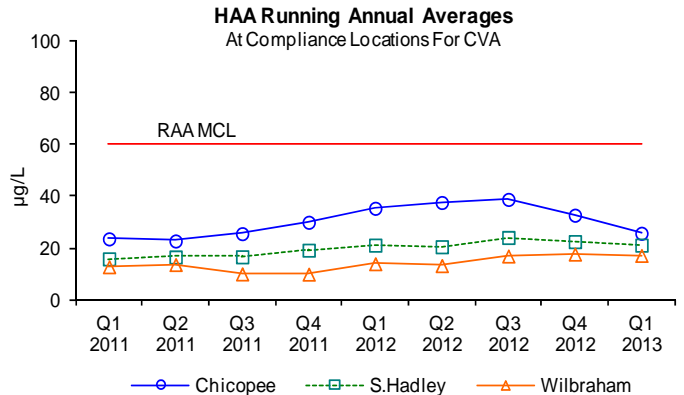
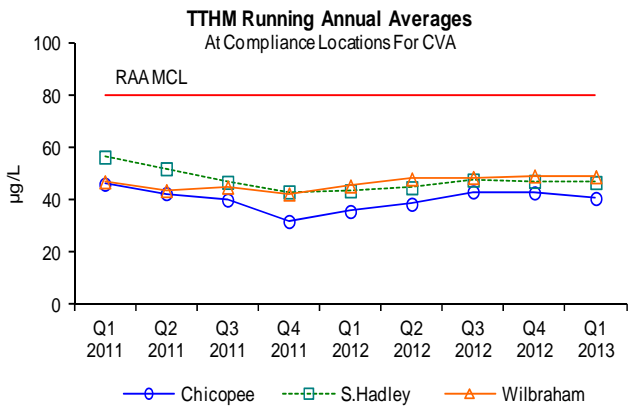
Bromate is tested monthly per DEP requirements for water systems that treat with ozone. Bromide in the raw water may be converted into bromate following ozonation. EPA's RAA MCL standard for bromate is 10 ug/L.

The RAA for TTHMs and HAA5s for MWRA's Compliance Program (represented as the line in the top two graphs below) remain below current standards. The LRAA for TTHMs = 8.3 ug/L; HAA5s = 8.8 ug/L. The current RAA for Bromate = 0.0 ug/L. CVA's DBP levels continue to be below current standards.

MetroBoston Disinfection By-Products



CVA Disinfection By-Products



Water Supply and Source Water Management

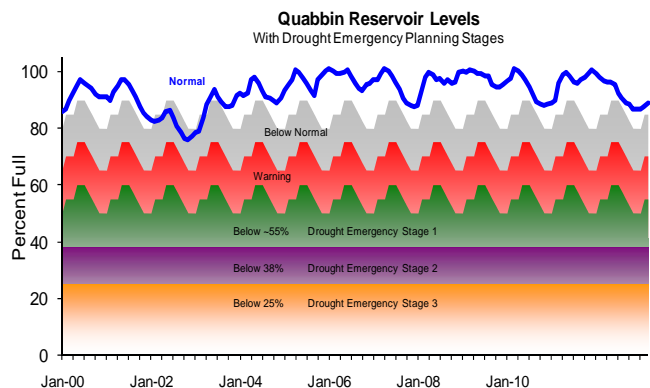
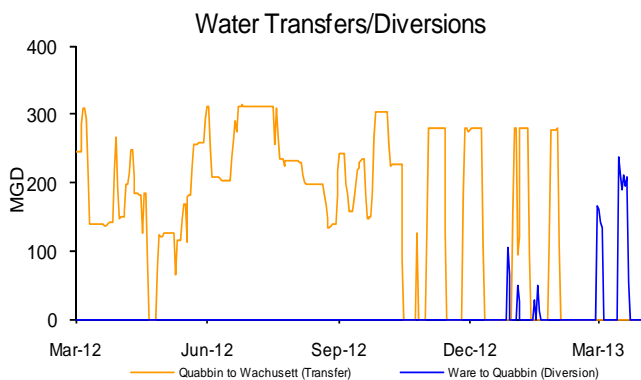
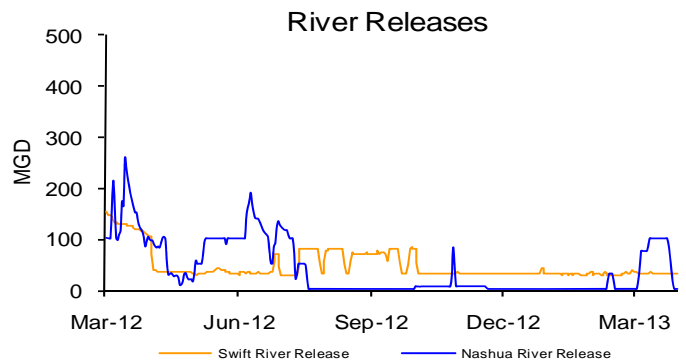
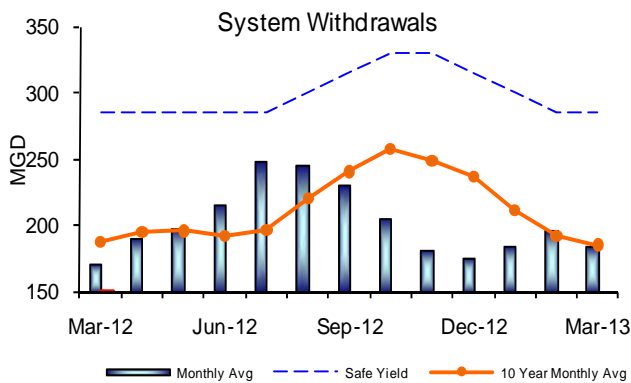
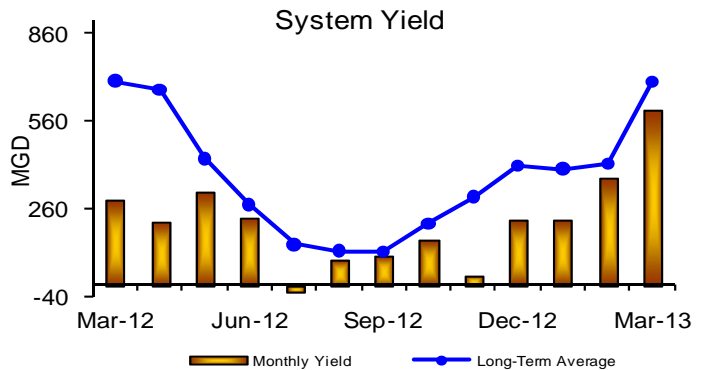
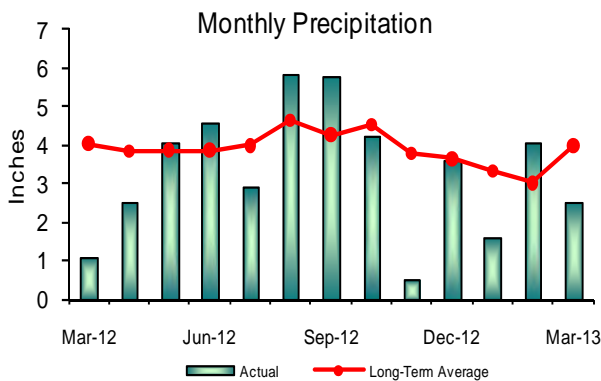
3rd Quarter – FY13

Background

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

Outcome

Quabbin Reservoir level remains above the normal operating range for this period of the year. The reservoir was at 90.2% of capacity as of March 31, 2013; a 3.2% increase for the quarter, which represents an increase of 13.4 billion gallons of storage. Yield and precipitation for the quarter were below their respective long term averages. Monthly withdrawals continue to be below its long-term average.



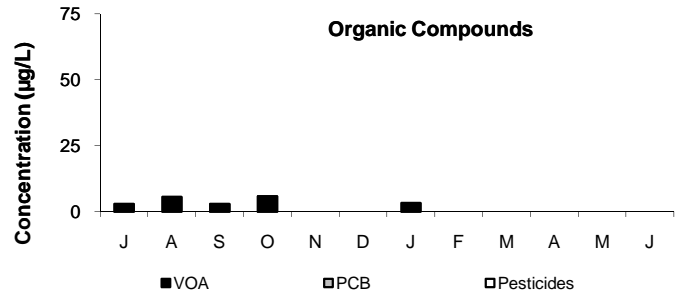
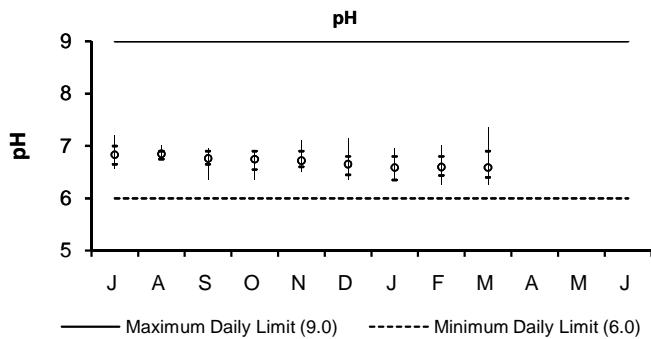
WASTEWATER QUALITY

NPDES Permit Compliance: Deer Island Treatment Plant
3rd Quarter - FY13

NPDES Permit Limits

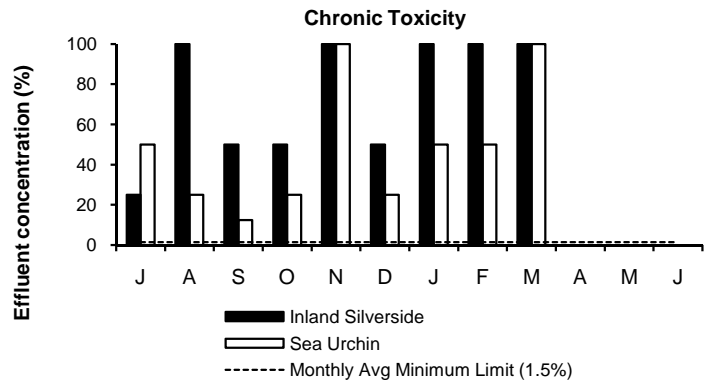
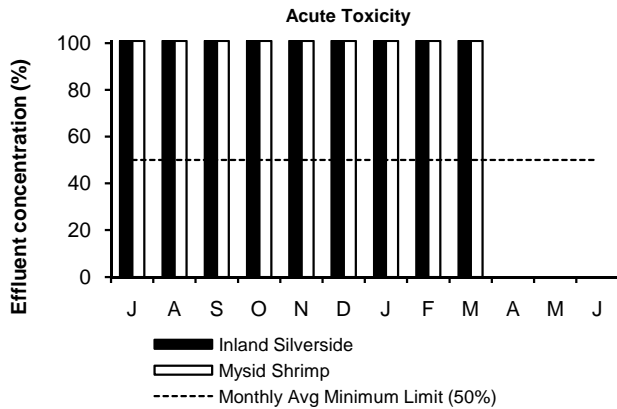
Effluent Characteristics	Units	Limits	January	February	March	3rd Quarter Violations	FY13 YTD Violations	
Dry Day Flow:	mgd	436	267.9	265.8	264.4	0	0	
cBOD:	Monthly Average	mg/L	25	5.2	7.4	7.9	0	0
	Weekly Average	mg/L	40	6.2	7.8	11.4	0	0
TSS:	Monthly Average	mg/L	30	7.1	12.8	16.0	0	0
	Weekly Average	mg/L	45	8.9	13.2	20.2	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	9	63	79	0	0
	Weekly Geometric Mean	col/100mL	14000	7	8	22	0	0
	% of Samples >14000	%	10	0	0	0	0	0
	Consecutive Samples >14000	#	3	0	0	0	0	0
pH:	SU	6.0-9.0	6.4-7.0	6.3-7.0	6.3-7.4	0	0	
PCB, Aroclors:	Monthly Average	ug/L	0.000045	UNDETECTED			0	0
Acute Toxicity:	Mysid Shrimp	%	≥50	>100	>100	>100	0	0
	Inland Silverside	%	≥50	>100	>100	>100	0	0
Chronic Toxicity:	Sea Urchin	%	≥1.5	50	50	100	0	0
	Inland Silverside	%	≥1.5	100	100	100	0	0

There have been no permit violations in FY13 at the Deer Island Treatment Plant.



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

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



The acute toxicity test simulates the short-term toxic effects of chemicals in wastewater effluent on marine animals. The test measures the concentration (percent) of effluent that kills half the test organisms within four days. The higher the concentration of effluent required, the less toxic the effluent. For permit compliance, the effluent concentration that causes mortality to mysid shrimp and inland silverside must be at least 50%. Acute toxicity permit limits were met for the 3rd Quarter for both the inland silverside and mysid shrimp.

Typically, effects of chronic exposures differ from those of acute exposures. Because of this, chronic toxicity responses are not necessarily related to acute toxicity. The chronic toxicity test simulates the long-term toxic effects of chemicals in wastewater effluent on marine animals. To meet permit limits, a solution of 1.5% effluent and 98.5% dilution water must show no observed effect on the growth and reproduction of the test species. Chronic toxicity permit limits were met for the 3rd Quarter for both the inland silverside and sea urchin.

NPDES Permit Compliance: Clinton Wastewater Treatment Plant 3rd Quarter - FY13

NPDES Permit Limits

Effluent Characteristics	Units	Limits	January	February	March	3rd Quarter Violations	FY13 YTD Violations
Flow:	mgd	3.01	2.38	2.32	2.38	0	2
BOD: Monthly Average:	mg/L	20	5.4	4.9	4.4	0	0
Weekly Average:	mg/L	20	6.0	6.0	5.1	0	0
TSS: Monthly Average:	mg/L	20	7.7	6.6	4.6	0	0
Weekly Average:	mg/L	20	8.4	8.0	5.7	0	0
pH:	SU	6.5-8.3	7.2-7.6	7.2-7.5	7.2-7.5	0	0
Dissolved Oxygen: Daily Minimum:	mg/L	6	9.4	9.7	9.8	0	0
Fecal Coliform: Daily Geometric Mean:	col/100mL	400	9	12	6	0	0
Monthly Geometric Mean:	col/100mL	200	5	4	3	0	0
TCR: Monthly Average:	ug/L	50	0	0.0	0.0	0	0
Daily Maximum:	ug/L	50	0	0.0	0.0	0	0
Total Ammonia Nitrogen: May 1 - May 31							
Monthly Average:	mg/L	10.0	0.00	0.00	0.02	0	0
Daily Maximum:	mg/L	35.2	0.00	0.00	0.06	0	0
Copper: Monthly Average:	ug/L	20	9.0	9.9	6.1	0	0
Phosphorus: May 1 - Oct 31							
Monthly Average:	mg/L	1.0	--	--	--	0	0
Acute Toxicity: Daily Minimum:	%	≥100	*N/A	*N/A	> 100	0	0
Chronic Toxicity: Daily Minimum:	%	≥62.5	*N/A	*N/A	100	0	0

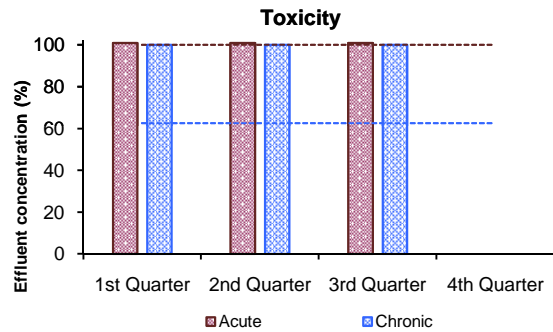
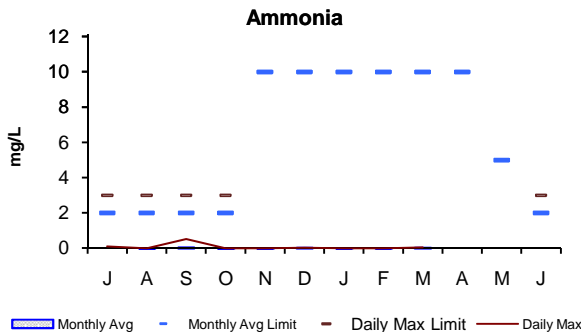
There have been two permit violations in FY13 at the Clinton Treatment Plant.

1st Quarter: There were two permit violations in the 1st Quarter of FY13. In July and August 2012 the running average flow was 3.22 and 3.16 MGD respectively, above the permit limit of 3.01 MGD. The actual measured plant flow for July and August was 2.13 and 1.82 MGD.

2nd Quarter: There were no permit violations in the 2nd Quarter of FY13.

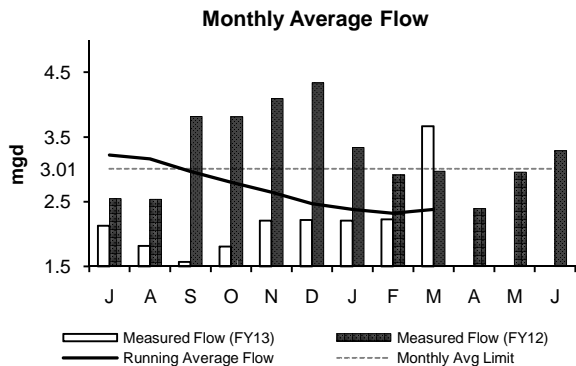
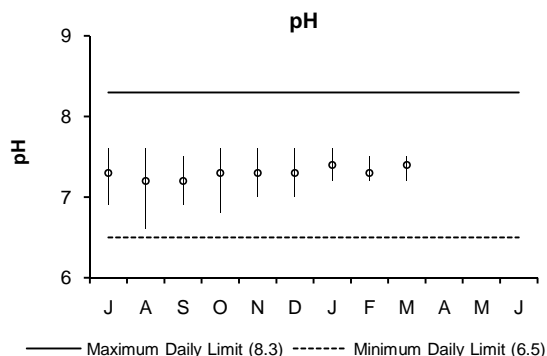
3rd Quarter: There were no permit violations in the 3rd Quarter of FY13.

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



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

Acute and chronic toxicity testing simulates the short- and long-term toxic effects of chemicals in wastewater effluent on aquatic animals. For permit compliance, the effluent concentration that causes mortality to the daphnid in acute and chronic testing must be at least >100% and 62.5%, respectively. Toxicity limits were met during the 3rd Quarter.



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

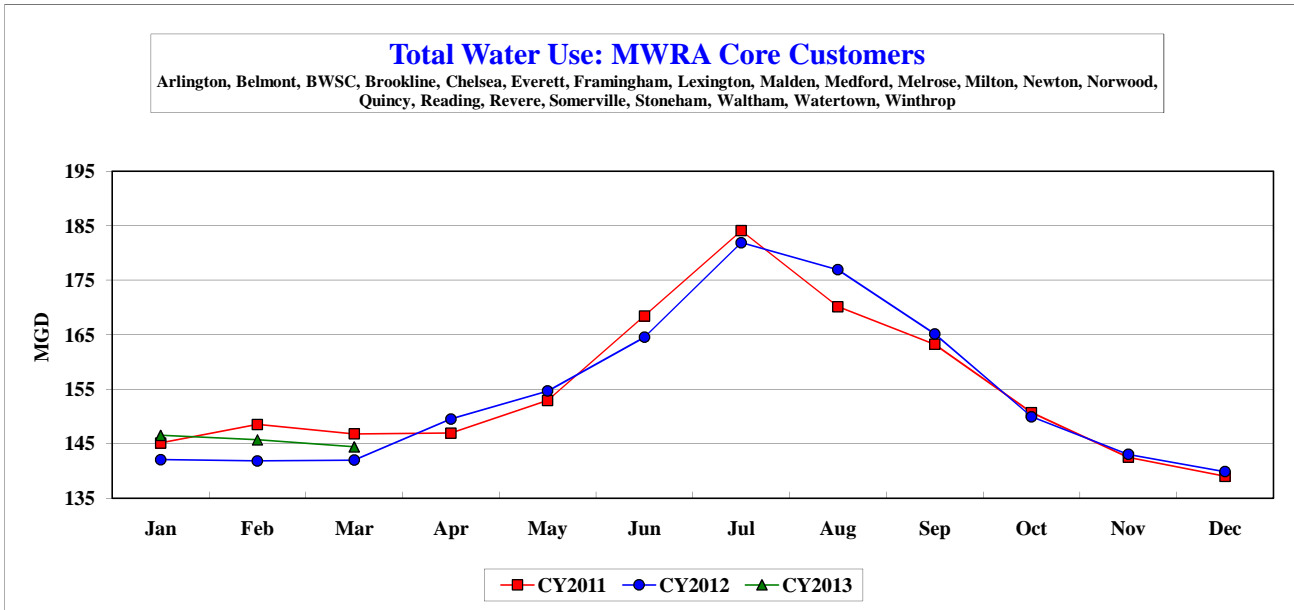
The graph depicts the running annual average monthly flow, measured in million gallons per day, exiting the plant. The average monthly flows during the 3rd Quarter were below the NPDES permit

COMMUNITY FLOWS AND PROGRAMS

Water Supplied: Total Water Use Third Quarter- FY13

MGD	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
CY2011	145.115	148.527	146.797	146.931	152.931	168.416	184.085	170.122	163.231	150.683	142.515	139.004	154.911
CY2012	142.065	141.834	141.967	149.527	154.647	164.532	181.880	176.915	165.145	149.918	143.021	139.864	154.330
CY2013	146.520	145.712	144.403	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	145.539

MG	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
CY2011	4,498.571	4,158.744	4,550.712	4,407.920	4,740.857	5,052.494	5,706.639	5,273.797	4,896.915	4,671.177	4,275.458	4,309.129	56,542.412
CY2012	4,404.020	4,113.193	4,400.982	4,485.812	4,794.071	4,935.954	5,638.293	5,484.376	4,954.363	4,647.468	4,290.636	4,335.778	56,484.947
CY2013	4,542.106	4,079.927	4,476.499	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	13,098.532



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

March 2013 water supplied of 168.8 mgd (for revenue generating users) is up 1.9 mgd or 1.2% compared to March 2012. Annual system-wide water consumption for CY13 is also higher than CY12 with 172.3 mgd being supplied to MWRA customers through March. This is almost 5.5 mgd higher than CY12, and is an increase of 3.3%.

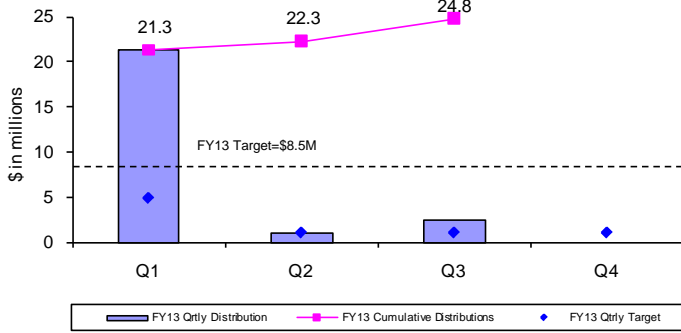
Community Support Programs

3rd Quarter – FY13

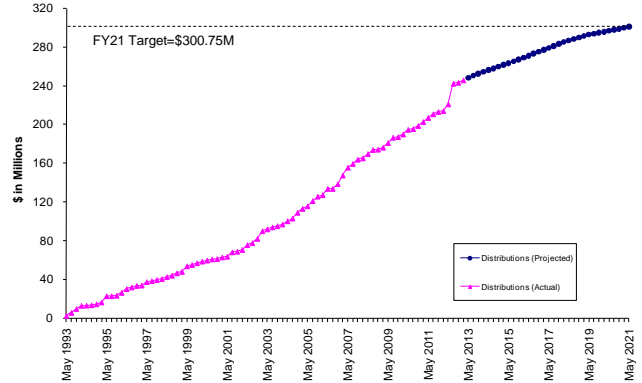
Infiltration/Inflow Local Financial Assistance Program

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

FY13 Quarterly Distributions of Sewer Grant/Loans



I/I Local Financial Assistance Program Distribution FY93-FY21

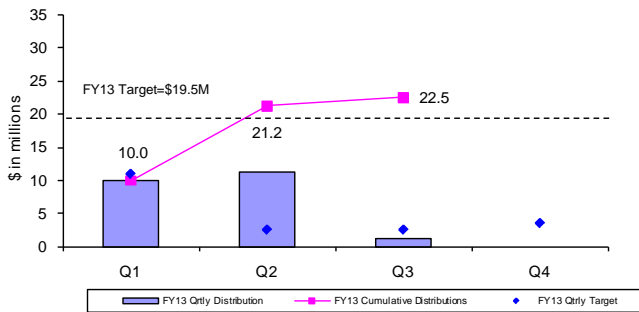


During the 3rd Quarter of FY13, \$2.5 million in financial assistance (45% grants and 55% interest-free loans) was distributed to fund local sewer rehabilitation projects in Arlington, Burlington and Cambridge. Total grant/loan distribution for FY13 is \$24.8 million. From FY93 through the 3rd Quarter of FY13, all 43 member sewer communities have participated in the program and more than \$245 million has been distributed to fund 439 local I/I reduction and sewer system rehabilitation projects. Distribution of the remaining funds has been approved through FY21 and community loan repayments will be made through FY26. All scheduled community loan repayments have been made.

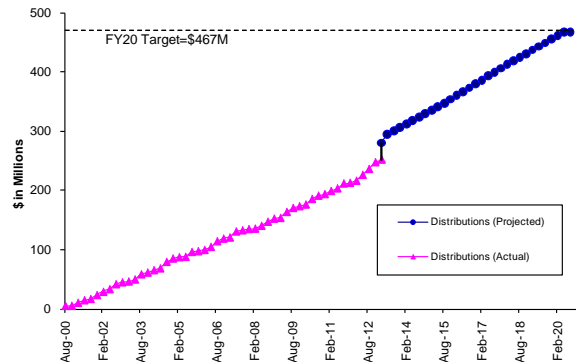
Water Local Pipeline and Water System Assistance Programs

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

FY13 Quarterly Distributions of Water Loans



Local Pipeline and Water System Assistance Programs Distribution FY01-FY20

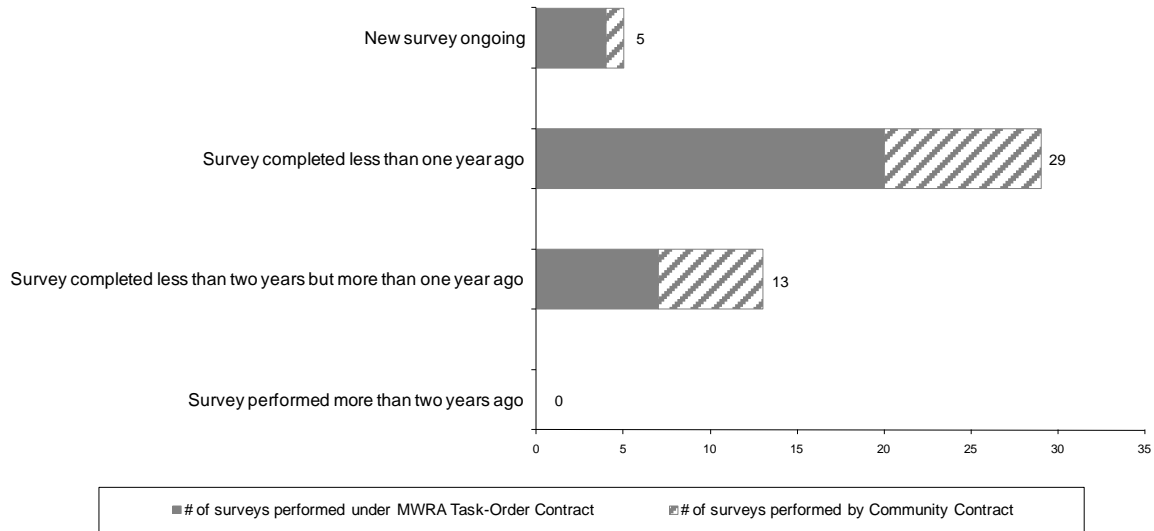


During the 3rd Quarter of FY13, \$1.3 million in interest-free loans was distributed to fund local water projects in Belmont and Winthrop. Total loan distribution for FY13 is \$22.5 million. From FY01 through the 3rd Quarter of FY13, more than \$247 million has been distributed to fund 288 local water system rehabilitation projects in 38 MWRA member water communities. Distribution of the remaining funds has been approved through FY20 and community loan repayments will be made through FY30. All scheduled community loan repayments have been made. FY13 is the last year of community loans under the Phase 1 Local Pipeline Assistance Program (Phase 2 Local Water System Assistance loans began in FY11 and will be distributed through FY20).

Community Support Programs 3rd Quarter – FY13

Community Water System Leak Detection

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



Community Water Conservation Outreach

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

FY13 DISTRIBUTION	Annual Target	Q1	Q2	Q3	Q4	Annual Total
Educational Brochures	100,000	45,178	16,370	15,646		77,194
Low-Flow Fixtures (showerheads and faucet aerators)	10,000	1,566	3,178	4,222		8,966
Toilet Leak Detection Dye Tablets	-----	1,196	3,477	6,855		11,528

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

BUSINESS SERVICES

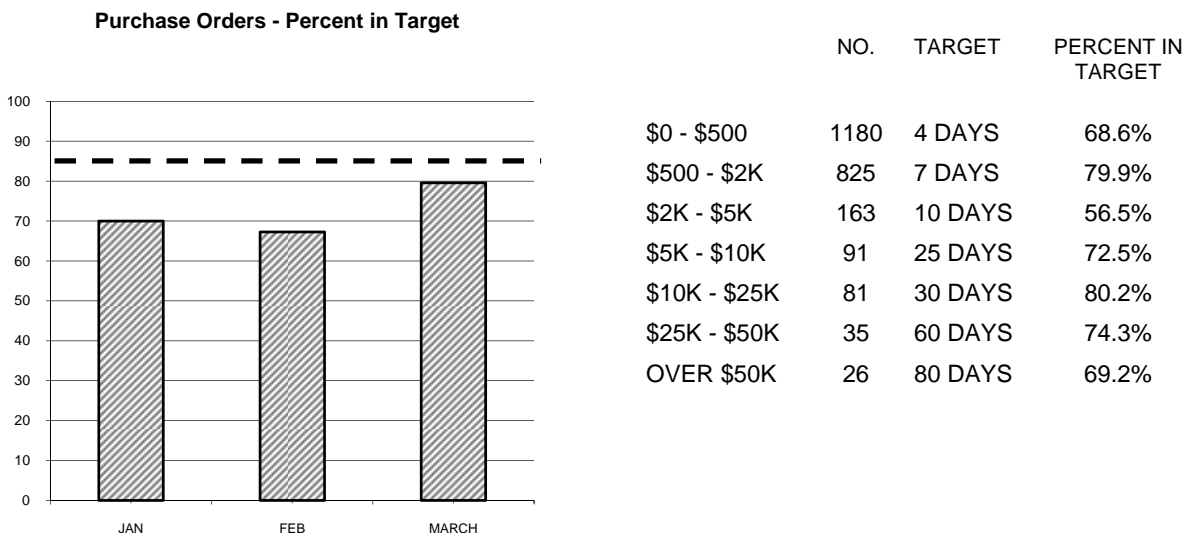
Procurement: Purchasing and Contracts

Third Quarter FY13

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

Outcome: Processed 72% of purchase orders within target; Avg. Processing Time was 8.81 days vs. 6.81 days in Qtr 3 of FY12. Processed 60% (9 of 15) contracts within target timeframes; Avg. Processing Time was 161 days vs. 118 days in Qtr 3 of FY12.

Purchasing



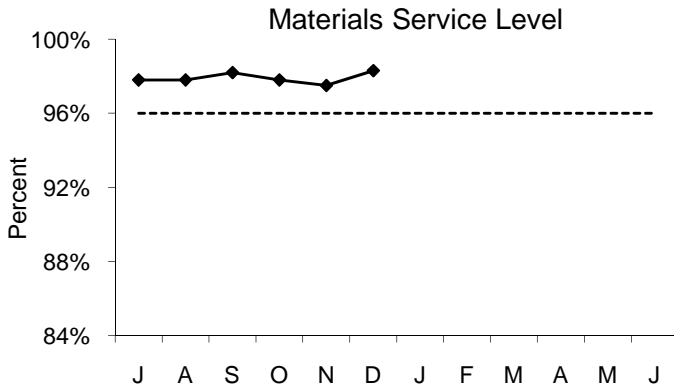
- Purchasing Unit processed 2401 purchase orders, 158 fewer than the 2559 processed in Qtr 3 of FY12, for a total value of \$12,177,665 vs. a dollar value of \$8,866,584 in Qtr 3 of FY12.
- The target was not achieved for the \$0 - \$500 category due to price and end user confirmation, the \$2k - \$5k category vendor sourcing and timing of the need for the item and specification issues, the \$5k - \$10k category because of vendor sourcing and extended quote evaluation, the \$25k - \$50k category due to timing and re-bids and the over \$50k category due to specification clarification and insurance delays and extended review of bids and end user review of requirements.

Contracts, Change Orders and Amendments

- Six contracts were not processed within target timeframes for the following reasons; delay due to several addenda and an extended bid review, changes to project scope and compensation, extended bid review concerning responsiveness, timing of the need for the service, and a delay in receipt of contract documents from the vendor.
- Procurement processed fifteen contracts with a value of \$7,570,360 and three amendments with a value of \$13,500.
- Forty change orders were executed during the period, but some were credit change orders and are recorded as negative numbers. The dollar value of all non-credit change orders during the 3rd quarter FY13 was \$1,231,841 and the value of credit change orders was (\$999,514).
- In addition, staff reviewed 70 proposed change orders and 34 draft change orders.

Materials Management

3rd Quarter, FY13



The service level is the percentage of stock requests filled. The goal is to maintain a service level of 96%. Staff issued 8,105 (97.8%) of the 8,292 items requested in Q3 from the inventory locations for a total dollar value of \$869,012.

Inventory Value - All Sites

Inventory goals focus on:

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

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

Items added to inventory this quarter include:

- Deer Island – shielded par cables for RSL VFD drives, relays for RSL pumps, connectors and Rosemount pressure transmitters for Core; wind turbine materials and Verdeflex pump parts for Power and Pump; magmeter converter for Liquid Train.
- Chelsea –isolator battery, pulley belt, ignition coil, intake gasket, chain roller and oil filters for VMM; torch kit, probe, gaskets, oil sampling pump, struts, spring nuts, drive unit, rotork actuator and nipples for Work Order Coordination Group.
- Southboro – oxygen sensors for Carroll Water Treatment Plant; bungee cords for Building and Grounds; ball valves and filters for Maintenance.

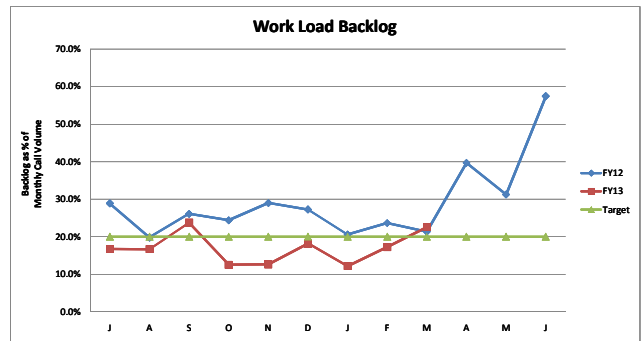
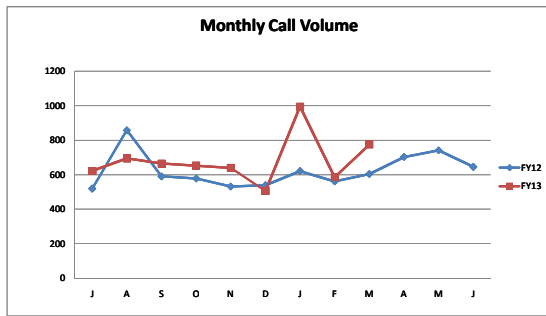
Property Pass Program:

- Audits were conducted at Chelsea Mechanics, Chelsea TRAC, Chelsea Masons, Chelsea Facilities, Chelsea Plumbing and Leak Inspection during Q3.
- Numerous obsolete computers, monitors, printers, keyboards, scanners, projectors, mice, fax machines and cameras have been received into property pass as surplus. Disposition is being handled as part of our ongoing recycling efforts.
- Scrap revenue received to date for the quarter amounted to \$7,909.
- Revenue received from online vehicle auction held during Q3 amounted to \$64,767. Year to date revenue received amounts to \$180,105.

Items	Base Value July-12	Current Value w/o Cumulative New Adds	Reduction / Increase To Base
Consumable Inventory Value	7,755,777	6,562,996	-1,192,781
Spare Parts Inventory Value	7,368,162	7,216,779	-151,383
Total Inventory Value	15,123,939	13,779,775	-1,344,164

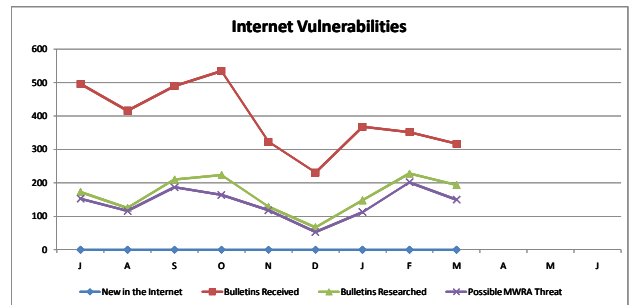
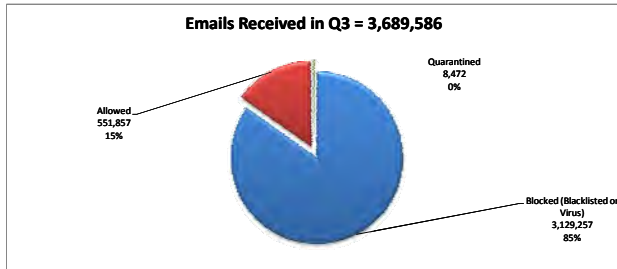
Note: New adds are items added at an inventory location for the first time for the purpose of servicing a group/department to meet their business needs/objectives.

MIS Program
3rd Quarter FY13



Performance:

Call Volume: Peaked in January and increased by 31% from Q3 last year. **Call Backlog:** Peaked in March and is above the targeted benchmark of 20%.



Information Security:

During Q3, staff pushed security fixes and updates to desktops and servers throughout the quarter in order to protect against 86 vulnerabilities.

LANDesk Antivirus quarantined 35 distinct viruses from 35 MWRA computers. MWRA's systems are current with anti-virus providers' signatures for all known malware.

Infrastructure:

Email Domain: Completed system review for the change an implementation of @mwra.com as primary email domain suffix. This eliminates the use of @mwra.state.ma.us. (The original address will remain a functioning one, and e-mails will be delivered to both addresses.) Change went into effect as expected without any impact to mail functionality.

Sonet Project: MIS is working with Verizon on building a high speed network , redundant fiber optic ring connecting several MWRA facilities. Completed site surveys of Clinton Wastewater Treatment Plant , John Carroll Water Treatment Plant, and Southborough Facilities. Obtained requested data, as well as appropriate NDA prior to release to Verizon.

Telog and IIS Server Support: Staff completed a project plan to upgrade the Telog server. Additionally, staff completed the following: (1) Installation and configuration of anti-virus, new software, service pack and Windows security patches on two virtual machines. (2) Set up of the required databases and login accounts on the SQL server. (3) Configuration of IIS web server. (4) Daily tape backup on SQL databases from Monday through Friday. (5) New SQL maintenance plans to perform database backup during the weekends.

LIMS Chain of Custody Printers: Resolved the issues with the configuration of the LIMS Chain of Custody Printers on 64-bit environment All LIMS print queues are now configured to go through Chelsea 2.

Applications/Training/Records Center:

Strategic Sourcing and Contract Management: Finalized the Suppliers Registration and Bidding job aid and created first draft of the Portal Hotline job aid that designated Procurement staff will need when responding to questions from suppliers. Two announcements were emailed to suppliers/vendors. The first announcement described the new enhancements that would be coming soon and the second announcement informed suppliers/vendors that we were live and encouraged them register for email alerts for commodity specific bidding opportunities. Presentations were given to the Utility Contractors of New England (UCANE) and the Construction Industries of Massachusetts. Work began and on the user requests to restrict event attachment access to only those suppliers on the plan holder list and on a request to make the Bid Tabulation Report available prior to the award but after the Bid Opening (Infor/Lawson standard functionality only allows their report to be run after the award). Technical support staff worked with a Lawson Technical Consultant to complete the final configuration of the public facing Supplier Portal and the Supplier Portal security was set up. MWRA went live with vendor registration on March 18th. As of Friday, March 22nd, the system had 188 registered suppliers.

Asset Management Systems Consolidation: MIS prepared and presented a business solution proposal at the Inventory Control Task Committee meeting. Staff met with IBM (Maximo vendor) development and support teams who recommended using MAXIMO 7.5, which offers new functionality that will suit our needs as the consolidated database. Staff also met with Procurement, Deer Island, and FOD staff to review a proposal for data migration of their asset tracking applications. Users accepted the proposal and provided feedback and comments. Data scrubbing on employee records began. Staff completed the data analysis on the custom-built database that tracks IT assets. Staff is looking into the Smart Cloud Control Desk (SCCD), an add-on to MAXIMO 7.5, which will let MIS utilize the ITIL processes provided in SCCD for IT asset management. Data scrubbing began and a resource to scope and plan new Maximo 7.5 reports was identified. Staff worked with the Maximo consultant who began a data mapping test with exported legacy records into the new MAXIMO 7.5 application.

TISCOR Products: MIS received a request from Operations to help support their TISCOR facility inspection software and to review and evaluate the InspectNTrack product, which is a web based application with a SQL back-end, for viability to consolidate multiple stand alone departmental TISCOR databases. MIS received a quote for the new software the Statement of Work for implementation. MIS has received exports files of the all the existing stand alone databases from each Inspection Manager group of users for consolidation and continues to work on reviewing and scrubbing old data records. In addition, MIS received a list of the final inspection questions from the Operations users for each facility's required inspections and 6 of the 15 inspection routes were compiled.

Veeder Root: Completed upgrade of the Veeder Root underground gas tank monitoring system in Southboro and Barre sites. The upgrade provides the ability to monitor the tanks' status via the Internet. The upgrade will also provides the ability to generate email alerts under certain conditions and events.

Guard One Plus: The Guard One facility tour management system was upgraded from a PC based system to client server. The facilities that are using the new system are CNY, DITP, Chelsea and CWTP. The new Guard One Plus provides better upload capability, more robust reporting and has been centralized in the MIS Chelsea Data Center.

Library & Records Center: The Library completed 60 research requests (98 YTD), added 6 books, distributed 45 periodicals and 1,954 electronically (5,744 YTD) linked articles to staff. The Records Center added 86 boxes (225 YTD) and attended 2 Record Conservation Board Meetings.

IT Training: For the quarter, 130 staff attended 15 classes and 13 workshops. 14% of the workforce has attended at least one class year-to-date. Introduction to Outlook Calendar 2007 pilot class presented. SMART Board job aid completed and placed in the EOC. Employee Availability Tracking workshops were offered to prepare a possible flu epidemic.

Legal Matters

3rd Quarter FY 2013

PROJECT ASSISTANCE

COURT AND ADMINISTRATIVE ORDER

- **Boston Harbor Litigation and CSO:** Drafted and filed March compliance and progress report with federal court and filed CSO annual progress report with federal court.
- **NPDES:** Reviewed Court Order, NPDES permit and CWA to determine if there are any requirements that affect the proposed co-digestion at DITP.

REAL ESTATE, CONTRACT AND OTHER SUPPORT

- **FRRC:** Filed change in board of directors form with Secretary of the Commonwealth.
- **Co-Digestion:** Drafted the terms and conditions for a Co-Digestion Pilot Program.
- **Ware Facility:** Drafted and provided to staff a synopsis of the Ware License granted by DCR.
- **Wireless Carrier Permits:** Reviewed and commented on permits for AT&T for space at Walnut Hill in Lexington and Turkey Hill in Arlington.
- **City of Chelsea - 285 Central Avenue:** Conveyed MWRA's property located at 285 Central Avenue to the City of Chelsea for a purchase price of \$712,000.
- **Wetlands Protection Land Acquisition:** Reviewed and provided comments as to acceptability for the following parcels: W-1068 (WPR) and W-1069/1070 in Wendell/New Salem; W-1062 and W-1063 in Petersham; W-1088 in Sterling; and W-1054 in Petersham.
- **Rate Methodology:** Provided staff with responses to questions concerning the restrictions on water rate methodology under the enabling act, changing contract communities' rates before the contract is up and the legality of using a different water rate methodology for contract communities than that which is used for non-contract communities.
- **West Boylston Electric Lighting Plant:** Agreed in principle to settle a rate dispute with West Boylston Electric Lighting Plant.
- **Weston Water Main:** Met with representatives of the defendants who proposed settlement offers to MWRA.
- **Miscellaneous:** Reviewed and approved twenty-two (22) Section 8(m) Permits.

ENVIRONMENTAL

- **Chapter 21E/MA. Contingency Plan:** Provided guidance on the potential liability per c.21E (MA. "superfund act") and its regulations of a current property owner for contamination on its property which that owner had not caused or contributed to, and whether past owners of said property could be held liable for the contamination.
- **TRAC Regulations:** Provided staff with a written explanation on the new procedures for promulgating/amending regulations.

LABOR, EMPLOYMENT AND ADMINISTRATIVE

New Matters	Seven demands for arbitration were filed. One charge of prohibited practice was filed at the Division of Labor Relations.
Matters Concluded	Received an arbitrator's decision in favor of MWRA finding that the MWRA did not violate Article 15 of a collective bargaining agreement when it did not compensate grievant at a higher rate of pay.

LITIGATION/TRAC

New Matters During the Third Quarter of FY 2013 seven new lawsuits were received and one lawsuit was initiated by MWRA.

Western Surety Company v. MWRA (U.S. District Court): Plaintiff alleges that it is a surety and an assignee and subrogee of Interstate Engineering Corp. On or about April 6, 2010, Interstate entered into Contract No. 6966, Gravity Thickener Improvements - Phase 1 Deer Island Treatment Plant with MWRA. Plaintiff issued performance and payment bonds on the Contract on behalf of Interstate. Plaintiff further alleges that Interstate executed an Indemnification Agreement in favor of the plaintiff with all proceeds from the Contract being assigned to plaintiff as surety. Plaintiff alleges that Interstate achieved substantial completion of the project on May 18, 2012, and that the remaining contract balance due is \$456,385.00, to which plaintiff is entitled.

MWRA v. Thomas Mercer: Thomas Mercer is a former MWRA employee who resigned on April 11, 2012 after termination proceedings found that on March 29, 2012, he physically assaulted his supervisor. During his employment he had a history of insubordination and disciplinary problems. On January 11, 2013 Mercer came into contact with MWRA employees at a Seven Eleven in Chelsea, MA and he accosted another former MWRA Supervisor, Stephen Quevillon, in an aggressive and threatening manner. MWRA filed a Complaint and Motion for a Temporary Restraining Order in Suffolk Superior Court on January 14, 2013. The Court entered a TRO enjoining plaintiff from approaching Quevillon or his home. On January 22, 2013, the Court entered a preliminary injunction extending the order against plaintiff.

Salvador Tejada v. Gregory C. Patnod, d/b/a Patnod Trucking, Gregory Clayton Patnod, Individually, Patnod Trucking, LLC, The Barletta Co., Inc., Barletta Heavy Division, Inc. and Massachusetts Water Resources Authority: Plaintiff seeks to recover damages for injuries allegedly suffered on November 13, 2009, while he was employed as a dump truck operator for subcontractor to Barletta on the Hultman Aqueduct Interconnections Contract in Framingham. The complaint asserts a single count of negligence against MWRA for allegedly failing to provide a safe area for dumping gravel. The complaint alleges that unsafe site conditions allowed the dump truck plaintiff was operating to roll over resulting in serious, permanent injuries.

K&R Construction Company, LLC v. MWRA: Plaintiff alleges that it was the general contractor on MWRA Contract No. OP-170, Section 22 Pipeline Easement Clearing. Plaintiff seeks to recover the value of its labor, material and equipment it provided which plaintiff alleges were extras under the Contract. Plaintiff alleges that MWRA substantially underestimated the amount of material required to loam and seed the work area, as contained in the bid package. Nevertheless, plaintiff alleges, MWRA instructed plaintiff to clear, loam and seed a work area more than 25 times the size contemplated by the bid documents. Plaintiff seeks to recover damages in the sum of \$46,295.00.

West Boylston Municipal Lighting Plant v. MWRA: Plaintiff West Boylston Municipal Lighting Plant ("WBMLP") seeks an injunction requiring MWRA to submit to arbitration on WBMLP's claim that during the period May 2010 through February 2011, WBMLP was overcharged by MWRA in the amount of \$249,495.63 for electricity generated by the Oakdale Hydroelectric Facility and sold to WBMLP.

David Stewart as Personal Representative of the Estate of Marie Carmela Stewart, and James Stewart as Personal Representative of the Estate of Neil Norman Stewart v. John Mitchell and MWRA: This is an action seeking damages for personal injuries and wrongful death arising out of an accident on May 23, 2012, in which an MWRA vehicle operated by MWRA employee John Mitchell struck plaintiffs' decedent, Marie Stewart, at or about the intersection of Ferry Street and Cherry Street in Everett, MA. Plaintiffs allege that Marie Stewart was working as a crossing guard at the time and standing in a marked crosswalk on Ferry Street. Plaintiffs allege that Marie Stewart was pronounced dead at Massachusetts General Hospital later that same day, May 23, 2012. Plaintiffs are the personal representatives of the Estate of Marie Stewart and the Estate of her late husband Neil Stewart.

Western Surety Company, as Assignee and Subrogee of Interstate Engineering Corp. v. MWRA; (Suffolk Superior Court): This is an action by Western Surety Company, as Assignee and Subrogee of Interstate Engineering Corp. seeking to recover the remaining contract balance allegedly due to Interstate on MWRA Contract Number 7063, Heat Loop Construction 3 Deer Island Treatment. Western Surety, as Surety to Interstate, alleges that it is entitled to the remaining contract balance based on a certain indemnification agreement executed by Interstate in favor of Western.

MWRA v. Federal Metal Finishing, Inc.: MWRA brought this suit to obtain payment of an unpaid TRAC permit fee. Federal Metal Finishing did not pay its permit fee of \$11,610 for FY 2012, on which \$181.89 in interest had accrued when MWRA filed suit. The company ceased discharging at the end of December, 2011, and filed corporate dissolution papers, which became effective at the end of January, 2012. Massachusetts law preserves the company's existence for the purpose of paying and defending claims. The owners live in New Hampshire and attempted to evade service of MWRA's action, but the Law Division obtained an order from the Superior Court approving service by regular mail and ordering the defendants to answer the Complaint. The defendants then offered to settle for a payment of \$5,000 which MWRA accepted. Defendants have now paid the \$5,000, and MWRA will file a notice of dismissal of the action.

Significant Developments

West Boylston Municipal Lighting Plant v. MWRA: All claims have been settled in principle both in the Superior Court suit and in the companion arbitration. In the Superior Court case, WBMLP sought to compel MWRA to arbitrate the alleged overcharges of \$250,000 that WBMLP paid MWRA for Oakdale electricity.

Salvador Tejada v. Gregory C. Patnod, d/b/a Patnod Trucking, Gregory Clayton Patnod, Individually, Patnod Trucking, LLC, The Barletta Co., Inc., Barletta Heavy Division, Inc. and Massachusetts Water Resources Authority: Plaintiff seeks to recover damages for injuries allegedly suffered on November 13, 2009, while he was employed as a dump truck operator for subcontractor to Barletta on the Hultman Aqueduct Interconnections, at Riverpath Drive, Framingham. On February 1, 2013, Barletta and its insurer, Charter Oak Indemnity, assumed the defense and indemnification of this suit. MWRA's defense counsel has filed an Answer on MWRA's behalf, and has begun working with the law division on discovery responses.

Matters Concluded

Lehman Brothers Holding, Inc.; United States Bankruptcy Court/NY: MWRA and the representatives of the Lehman Brothers creditors committee, having specific authority from the Bankruptcy Court to settle outstanding claims, resolved two matters both involving the amount of payments alleged to be due to two Lehman Brothers subsidiaries that were counterparties to the MWRA in interest rate swap derivative transactions associated with bonds issued by the Authority in March 2000. The settlement required MWRA to pay a portion of the excess proceeds retained when the Authority terminated the Lehman transactions and entered into replacement swaps with new counterparties in November 2008. MWRA retained sufficient funds from the November 2008 transactions that were well in excess of all legal expenses associated with the engagement of outside bankruptcy counsel and financial advisors. The Authority experienced no loss as a result of the Lehman Brothers bankruptcy.

Donald Giaquinto Personal Injury Claim: On September 1, 2009, Donald Giaquinto sustained injuries in a motor vehicle accident that involved an MWRA van. The accident occurred at the intersection of Eastern Avenue and Griffin Way. MWRA's driver was attempting to make a left turn onto Griffin Way, with traffic at a standstill. There was a large UPS truck, also stopped in traffic, blocking MWRA's view of oncoming traffic. The UPS driver gave MWRA's driver the signal that it was okay to make the left turn. As MWRA's driver was in the process of turning, an oncoming car traveling at a high rate of speed struck MWRA's van on the rear passenger side. The force of the crash pushed MWRA's van into the vehicle operated by Donald Giaquinto, who was stopped at the stop sign on Griffin Way, waiting to make a right turn onto Eastern Avenue. Mr. Giaquinto was not at fault in the accident. MWRA reached a monetary settlement of Mr. Giaquinto's personal injury claim (\$24,000.00), and settled Travelers claim for property damage and PIP payments. However, MWRA declined to accede to Geico's demand for its damages, which did not account for the role of Geico's insured in the occurrence of the accident. Prior to that date, the option of MWRA asserting a claim against Hopkins was discussed internally. A decision was made not to proceed with that claim as it would certainly have produced a counterclaim. Had Hopkins himself decided to bring a claim against MWRA for his personal injury and property damage, MWRA could still have timely counter-claimed against him. No litigation has been brought by Hopkins

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

Public Records During the Third Quarter of FY 2013 ten new public records requests were received and six remained pending at the end of the Third Quarter FY 2013.

SUMMARY OF PENDING LITIGATION MATTERS

TYPE OF CASE/MATTER	As of Mar 2013	As of Dec 2012	As of Sept 2012
Construction/Contract/Bid Protest (other than BHP)	7	3	2
Tort/Labor/Employment	4	6	7
Environmental/Regulatory/Other	1	1	1
Eminent Domain/Real Estate	0	0	1
total – all defensive cases	12	10	11
Affirmative Cases: <u>MWRA v. J. F. Shea Co., Inc., et al.</u>	1	1	1
Other Litigation matters (restraining orders, etc.) <u>MWRA v. Thomas Mercer</u>	1	0	0
total – all pending lawsuits	14	11	12
Significant claims not in suit: <u>Oscar Malera personal injury claim</u> <u>Trooper Walker Injury Claim</u>	2	3	3
Bankruptcy	1	2	1
Wage Garnishment	14	14	14
TRAC/Adjudicatory Appeals	2	0	2
Subpoenas	3	6	3
TOTAL – ALL LITIGATION MATTERS	36	36	35

TRAC/MISC.

New Appeals Two new appeals were received in the 3rd Quarter FY 2013.

Brigham & Women's Hospital; MWRA Docket No. 13-01
Lucky Star Transportation Corp.; MWRA Docket No. 13-02

Settlement by Agreement of Parties No cases were settled by Agreement of Parties in the 3rd Quarter FY 2013.

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

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

Tentative Decisions No Tentative Decisions were issued in the 3rd Quarter FY 2013.

Final Decisions No Final Decisions were issued during the 3rd Quarter FY 2013.

INTERNAL & CONTRACT AUDIT PROGRAM

3rd Quarter FY13

Highlights

DITP and Chelsea Janitorial Services

The DITP janitorial services contract required the contractor to meet minimum staffing levels. An audit of time records found that staffing levels were below the minimum required. In addition, staff was not satisfied with the level of service at the Chelsea facility. As a result, both contracts were terminated. The contractor agreed to an adjustment for past understaffing resulting in a \$204,534 savings for the MWRA.

Consultant Incurred Cost Audit

An audit of \$1.8 million in billings by a consultant from January 2006 through December 2011 found that provisional indirect cost rates billed had not been adjusted to actual. As a result, a refund of \$146,719 is due the MWRA.

Status of Open Audit Recommendations (11 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
Warehouse Practices (9/30/10)	2	8
Facility Card Access Controls (2/22/11)	3	17
DITP Data Center Access Controls (10/14/11)	4	18
Chelsea Facility Physical Security (12/31/12)	<u>9</u>	<u>22</u>
Total Recommendations	18	65

Audit Savings

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

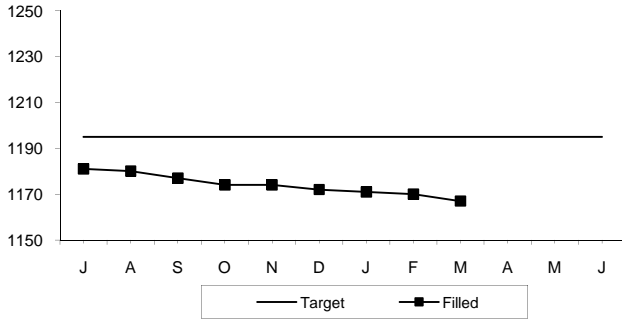
Savings	FY09	FY10	FY11	FY12	FY13 (3Q)	TOTAL
Consultants	\$316,633	\$194,238	\$520,176	\$259,245	\$232,255	\$1,522,547
Contractors & Vendors	\$1,262,088	\$599,835	\$3,129,538	\$435,760	\$391,944	\$5,819,165
Internal Audits	\$438,027	\$206,282	\$152,478	\$407,350	\$178,773	\$1,382,910
Total	\$2,016,748	\$1,000,355	\$3,802,192	\$1,102,355	\$802,972	\$8,724,622

OTHER MANAGEMENT

Workforce Management

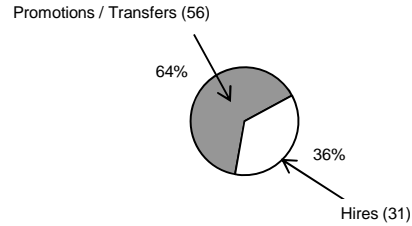
3rd Quarter FY13

Filled Position Tracking



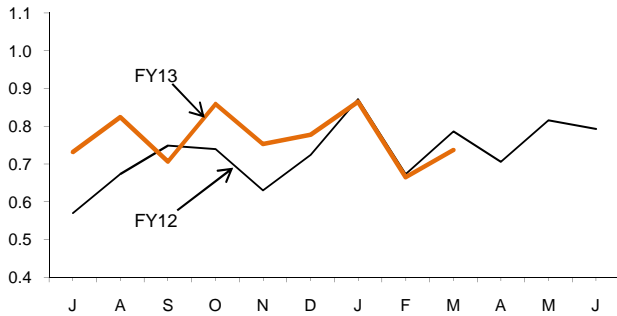
FY13 Target for Filled Positions = 1195
 Filled Positions as of March 2013 = 1167

**Positions Filled by Hires/Promotions
 FY13-YTD**



	Pr/Trns	Hires	Total
FY11	48 (62%)	30 (38%)	78
FY12	42 (61%)	27 (39%)	69
FY13	56 (64%)	31 (36%)	87

**Average Monthly Sick Leave Usage
 Per Employee**



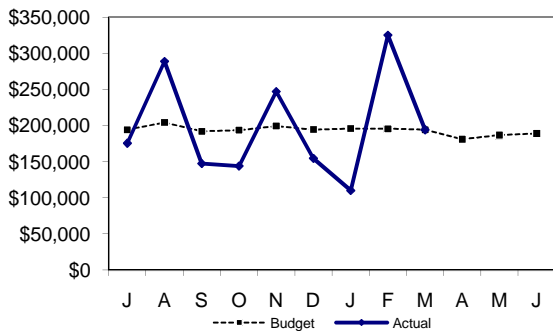
Average monthly sick usage dropped in the third quarter compared to the first half of FY13 (from 9.31 to 9.23 days). YTD sick leave is slightly higher than FY12.

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

	Number of Employees	YTD	Annualized Total	Annual FMLA %	FY12
A&F	189	9.25	12.33	22.1%	8.18
Aff. Action	6	11.26	15.01	53.7%	13.14
Executive	5	2.67	3.56	0.0%	6.53
Int. Audit	8	5.97	7.97	24.5%	5.94
Law	16	8.85	11.79	36.2%	11.25
OEP	3	6.18	8.24	0.0%	5.21
Operations	917	7.09	9.45	24.8%	8.81
Planning	21	5.30	7.07	40.2%	6.58
Pub. Affs.	13	6.50	8.67	3.2%	7.81
MWRA Avg	1178	6.92	9.23	24.7%	8.69

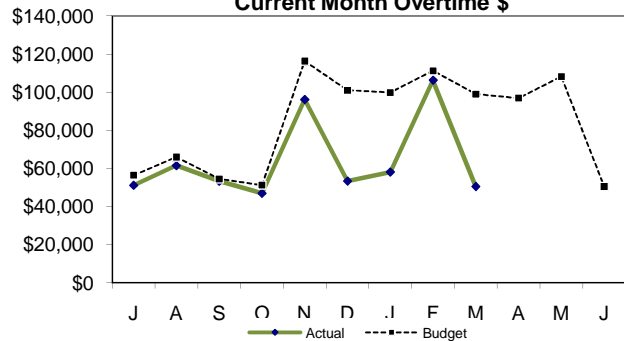
Percent of sick leave usage attributable to Family and Medical Leave Act (FMLA) leave is 24.7% ending March 29, 2013.

**Field Operations
 Current Month Overtime \$**



Total Overtime for Field Operations in the third quarter of FY13 was \$629k, which was \$44k, or 7.5% over budget. The majority of this, \$419k, was for emergency operations which includes rain events, Storm Nemo, and snow removal.

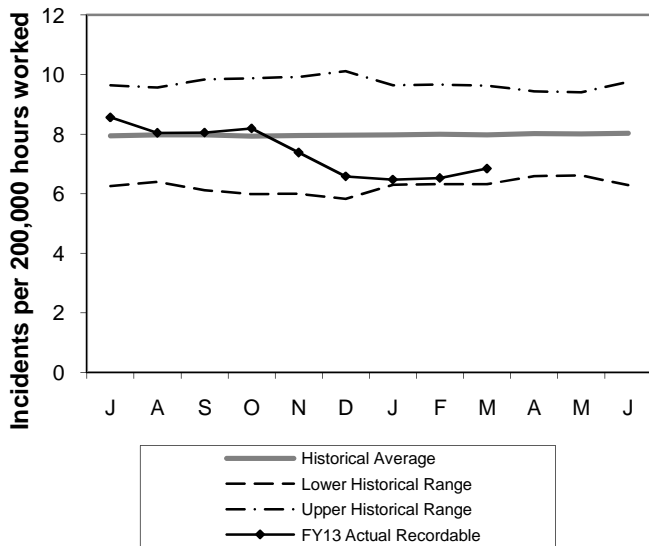
**Deer Island Treatment Plant
 Current Month Overtime \$**



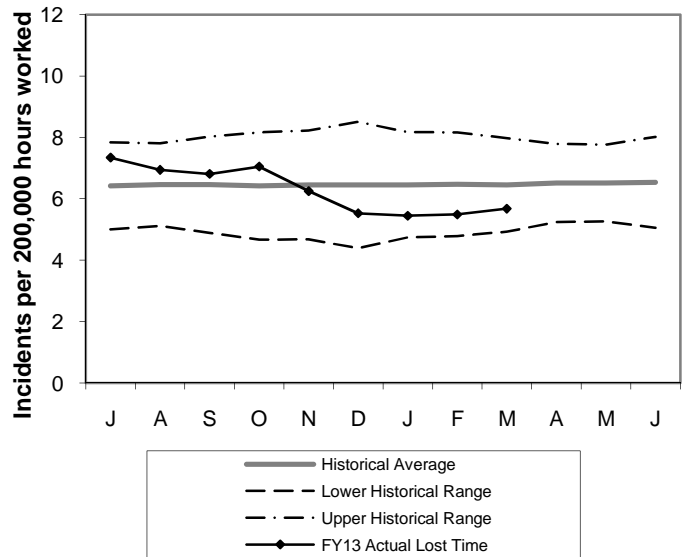
Deer Island's total overtime expenditure for the 3rd quarter of FY13 was \$215k, which was (\$95k) or (30.6%) under budget. The variance is primarily attributable to lower than anticipated storm coverage requirements, (\$71k) or (1,394 hours). In addition, Management's continued efforts to control overtime spending, by allowing overtime for maintenance or repair of critical equipment, added to the under spending, (\$38k). These savings are offset in part by slightly higher than budgeted shift coverage requirements, \$14k.

Workplace Safety Third Quarter FY 13

Recordable Injury & Illness Rates



Lost Time Injury & Illness Rates



- 1 "Recordable" incidents are all work-related injuries and illnesses which result in death, loss of consciousness, restriction of work or motion, transfer to another job, or require medical treatment beyond first aid.
- 2 "Lost-time" incidents, a subset of the recordable incidents, are only those incidents resulting in any days away from work, days of restricted work activity or both - beyond the first day of injury or onset of illness.
- 3 The "Historical Average" is computed using the actual MWRA monthly incident rates for FY99 through FY12. The "Upper" and "Lower Historical Ranges" are computed using these same data – adding and subtracting two standard deviations respectively. FY13 actual incident rates can be expected to fall within this historical range.

Workers Compensation Claims Highlights - Third Quarter FY13

	New	Closed	Open Claims
Lost Time	7	6	51
Medical Only	49	58	41
	New	YTD Light Duty Returns	
Light Duty Returns	4		12

Highlights/Comments:

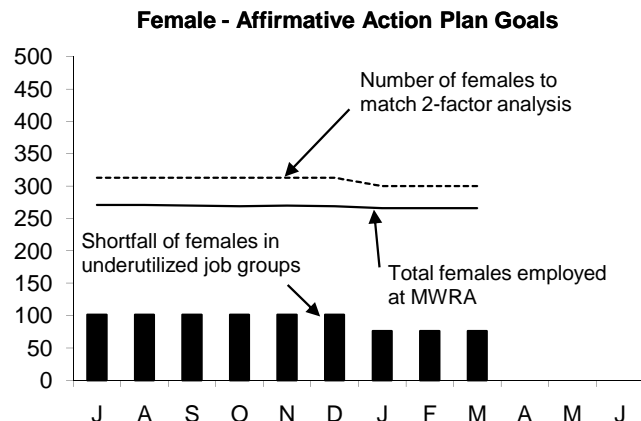
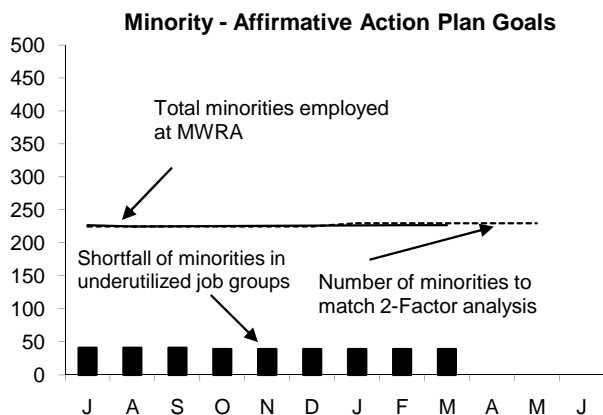
Light Duty Returns

- Jan** 1 employee returned to light duty from IA
1 employee, while on light duty, had several days during the month of IA
- Feb** 2 employees returned to light duty from IA
1 employee, while on light duty, had several days during the month of IA
- Mar** 1 employee returned to light duty from IA, then went to full duty after two weeks
2 employees, while on light duty, had several days during the month of IA

Regular Duty Returns

- Jan** 2 employees returned to work full duty from IA
- Feb** 2 employees returned to work full duty from IA
- Mar** 2 employees returned to work full duty from IA
2 employees returned to work full duty from LD

MWRA Job Group Representation 3rd Quarter, FY13



Highlights:

At the end of Q3 FY13, 10 job groups or a total of 39 positions are underutilized by minorities as compared to 7 job groups or a total of 38 positions at the end of Q3 FY12; for females 14 job groups or a total of 76 positions are underutilized by females as compared to 14 job groups or a total of 101 positions at the end of Q3 FY12. During Q3, 1 minorities and 0 females were hired. During this same period, 0 minorities and 2 females terminated.

Underutilized Job Groups - Workforce Representation

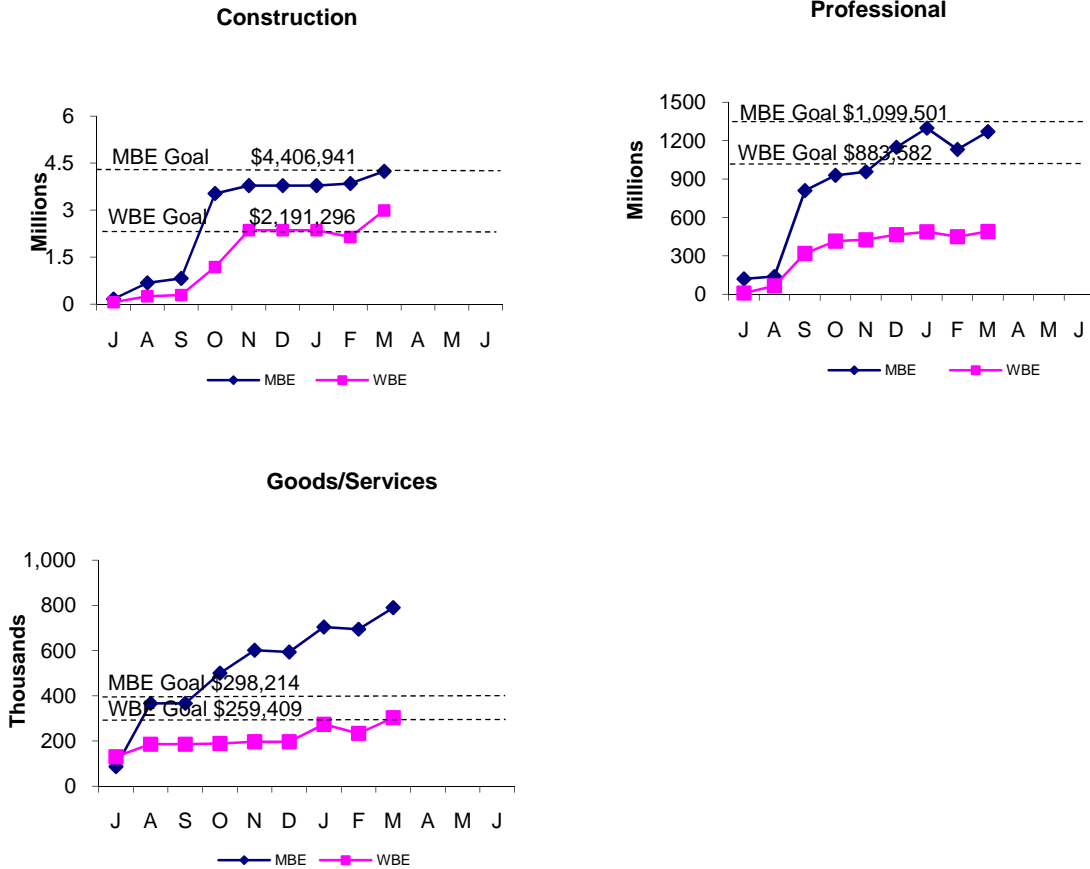
Job Group	Employees as of 3/31/2012	Minorities as of 3/31/2012	Achievement Level	Minority Over or Under Under utilized	Females As of 3/31/2012	Achievement Level	Female Over or Under Under utilized
Administrator A	18	3	2	1	3	5	-2
Administrator B	20	0	3	-3	4	5	-1
Clerical A	47	21	12	9	41	21	20
Clerical B	34	8	9	-1	15	1	14
Engineer A	83	15	20	-5	12	18	-6
Engineer B	47	13	9	4	4	12	-8
Craft A	115	14	21	-7	0	4	-4
Craft B	150	27	23	4	3	6	-3
Laborer	66	19	10	9	2	4	-2
Management A	108	17	22	-5	34	49	-15
Management B	50	9	12	-3	14	21	-7
Operator A	66	4	7	-3	2	4	-2
Operator B	67	7	14	-7	4	2	2
Para Professional	54	12	12	0	24	34	-10
Professional A	37	3	7	-4	23	17	6
Professional B	159	38	39	-1	75	86	-11
Technical A	49	16	7	9	5	8	-3
Technical B	7	1	1	0	1	3	-2
Total	1177	227	230	36/-39	266	300	42/-76

AACU Candidate Referrals for Underutilized Positions

Job Group	Title	# of Vac	Requisition Int. / Ext.	Promotions/ Transfers	AACU Ref. External	Position Status
Craft A	Unit Supervisor, Electrical	1	Int	1	0	Promo/WM
Craft A	Med. Voltage Elec. Spcl.	1	Int	1	0	Promo/WM
Craft B	Equip. Repair Specialist	1	ext	1	0	Promo/WM
Craft B	Instrumentation Specialist	2	int/ext	2	0	Pending
Craft B	Metal Fabricator Welder	1	ext	0	0	New Hire WM
Operator A	Sr. Trans & Treat Oper.	1	Int	1	0	Promo/BM
Engineer B	Staff Engineer	1	ext	0	0	Pending
Engineer B	Proj. Manager, PIMS	1	int	0	0	Pending
Para Professional	Planning & Scheduling Coord	2	int	0	0	Pending
Professional B	Workforce Development Coord	1	int/ext	0	0	Pending
Technical A	Sr. Field Ser. Tech	2	ext	0	0	Pending

MBE/WBE Expenditures Third Quarter FY 2013

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.



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

	MBE				WBE			
	FY13 Year-to-Date		FY12		FY13 Year-to-Date		FY12	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Construction	4,235,829	96.1%	3,771,155	112.8%	2,987,474	136.3%	6,992,984	305.0%
Professional Svc.	1,269,574	115.5%	1,216,840	97.2%	489,477	55.4%	524,130	52.1%
<u>Goods & Svcs.</u>	<u>789,961</u>	<u>265%</u>	<u>879,467</u>	<u>303.3%</u>	<u>302,807</u>	<u>116.7%</u>	<u>737,776</u>	<u>292.5%</u>
Total	\$6,295,364	108.5%	\$5,867,462	120.1%	\$3,779,758	113.4%	\$8,184,890	232.0%

MWRA FY13 CEB Expenses through
3rd Quarter - FY13 (Preliminary)

	March 2013 Year-to-Date (\$000)					
	Budget	Actual	Variance	%	FY13 Budjet	%
EXPENSES						
WAGES AND SALARIES	\$ 68,984	\$ 66,484	\$ (2,499)	-3.6%	\$ 94,059	70.7%
OVERTIME	2,699	2,568	(132)	-4.9%	3,573	71.8%
FRINGE BENEFITS	13,591	13,071	(521)	-3.8%	18,242	71.7%
WORKERS' COMPENSATION	1,575	1,313	(262)	-16.7%	2,100	62.5%
CHEMICALS	7,460	7,582	122	1.6%	9,963	76.1%
ENERGY AND UTILITIES	17,183	16,607	(576)	-3.4%	23,127	71.8%
MAINTENANCE	18,901	18,463	(438)	-2.3%	28,229	65.4%
TRAINING AND MEETINGS	285	182	(103)	-36.0%	386	47.3%
PROFESSIONAL SERVICES	4,149	3,790	(359)	-8.7%	5,901	64.2%
OTHER MATERIALS	2,589	3,093	504	19.5%	5,591	55.3%
OTHER SERVICES	17,665	16,309	(1,356)	-7.7%	23,744	68.7%
TOTAL DIRECT EXPENSES	\$ 155,082	\$ 149,461	\$ (5,620)	-3.6%	\$ 214,916	69.5%
INSURANCE	\$ 1,573	\$ 1,375	\$ (198)	-12.6%	\$ 2,098	65.6%
WATERSHED/PILOT	19,810	19,593	(217)	-1.1%	26,413	74.2%
BEC _o PAYMENT	2,693	2,579	(114)	-4.2%	3,742	68.9%
MITIGATION	1,175	1,134	(41)	-3.5%	1,567	72.4%
ADDITIONS TO RESERVES	1,049	1,049	-	0.0%	1,398	75.0%
RETIREMENT FUND	10,474	10,490	16	0.2%	10,474	100.2%
TOTAL INDIRECT EXPENSES	\$ 36,774	\$ 36,220	\$ (554)	-1.5%	\$ 45,693	79.3%
STATE REVOLVING FUND	\$ 52,567	\$ 52,567	\$ -	0.0%	\$ 73,805	71.2%
SENIOR DEBT	143,699	143,669	(30)	0.0%	193,432	74.3%
DEBT SERVICE ASSISTANCE	(263)	-	263	-100.0%	(350)	0.0%
CURRENT REVENUE/CAPITAL	6,150	6,150	-	0.0%	8,200	75.0%
SUBORDINATE MWRA DEBT	69,864	69,864	-	0.0%	93,304	74.9%
LOCAL WATER PIPELINE CP	2,730	2,730	-	0.0%	3,641	75.0%
CAPITAL LEASE	2,413	2,413	-	0.0%	3,217	75.0%
VARIABLE DEBT	-	(9,490)	(9,490)	---	-	0.0%
DEFEASANCE ACCOUNT	-	9,520	9,520	---	-	0.0%
TOTAL DEBT SERVICE	\$ 277,159	\$ 277,423	\$ 264	0.1%	\$ 375,248	73.9%
TOTAL EXPENSES	\$ 469,016	\$ 463,104	\$ (5,913)	-1.3%	\$ 635,857	72.8%
REVENUE & INCOME						
RATE REVENUE	\$ 455,634	\$ 455,634	\$ -	0.0%	\$ 607,512	75.0%
OTHER USER CHARGES	5,427	5,405	(23)	-0.4%	7,767	69.6%
OTHER REVENUE	4,810	6,566	1,756	36.5%	6,117	107.3%
INVESTMENT INCOME	11,108	10,394	(714)	-6.4%	14,461	71.9%
TOTAL REVENUE & INCOME	\$ 476,979	\$ 477,999	\$ 1,019	0.2%	\$ 635,857	75.2%

As of March 2013, total revenue was \$478.0 million, \$1.0 million or 0.2% higher than budget. Total expenses were \$463.1 million, \$5.9 million or 1.3% less than budget after the transfer of \$1.0 million to the defeasance account which brought the year-to-date defeasance account balance to \$9.5 million. Revenues were \$1.0 million higher than budget for a net variance of \$6.9 million.

Expenses –

- **Direct Expenses** are \$149.5 million, \$5.6 million or 3.6% less than budget.
- **Wages and Salaries** are underspent by \$2.5 million or 3.6% due to lower headcount and mix of salaries.
- **Other Services** are \$1.4 million or 7.7% under budget mainly for lower Sludge Pelletization of \$768,000 and Other Services of \$446,000.
- **Utilities** are under budget by \$576,000 or 3.4% due to lower Diesel Fuel of \$981,000 mainly at Deer Island due to timing and Natural Gas of \$49,000 offset by higher Electricity of \$412,000 due to higher commodity pricing during the winter months at Deer Island.
- **Fringe Benefits** are under budget by \$521,000 or 3.8% due to lower Health Insurance costs of \$386,000 due to lower headcount and higher new employee contributions.
- **Other Materials** are over budget by \$504,000 or 19.5% due to the timing of Vehicle Purchases of \$608,000 offset by lower spending for Other Materials of \$104,000 mainly for gravel purchases at Clinton.
- **Maintenance** is underspent by \$438,000 or 2.3% year-to-date. Services are lower than budget by \$938,000 while materials are overspent by \$500,000 mainly due to the timing of purchases.
- **Professional Services** are under budget by \$359,000 or 8.7% mainly due to timing of IT Strategic Plan initiatives of \$162,000, lower legal services of \$77,000, and lower services for the Harbor Monitoring program of \$44,000.
- **Workers' Compensation** expenses are lower than budget by \$262,000 or 16.7%. The reserves are below budget by \$382,000 while actual indemnity payments are higher than budget by \$120,000.
- **Overtime** is underspent by \$132,000 or 4.9% mainly at Deer Island.
- **Chemicals** are overspent by \$122,000 or 1.6% due to higher spending for Soda Ash of \$149,000 for price increases offset by lower spending for Nitrzyme of \$125,000 for corrosion control.
- **Indirect Expenses** are \$36.2 million, \$554,000 or 1.5% under budget mainly due to an FY12 overaccrual for Watershed Reimbursement of \$217,000 and lower Insurance expense of \$198,000 mainly for lower claims.
- **Debt Service Expenses** total \$277.4 million which is higher than budget by \$263,000 after the transfer of \$9.5 million of favorable year-to-date variance to the Defeasance Account and recognition of loss of Debt Service Assistance (DSA) per the Governor's 9C budget cuts.

Revenue and Income –

- **Total Revenue / Income** for March is \$478.0 million, \$1.0 million or 0.2% higher than budget due to higher Non-Rate Revenue of \$1.7 million for Equipment Disposal of \$660,000 mainly for gain realized from surplus land, Miscellaneous revenue of \$637,000, and for the Federal Emergency Management Agency (FEMA) reimbursement for last year's storm costs of \$433,000, offset by lower investment income of \$714,000 due to lower than budgeted short-term rates.

Cost of Debt 3rd Quarter - FY13

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

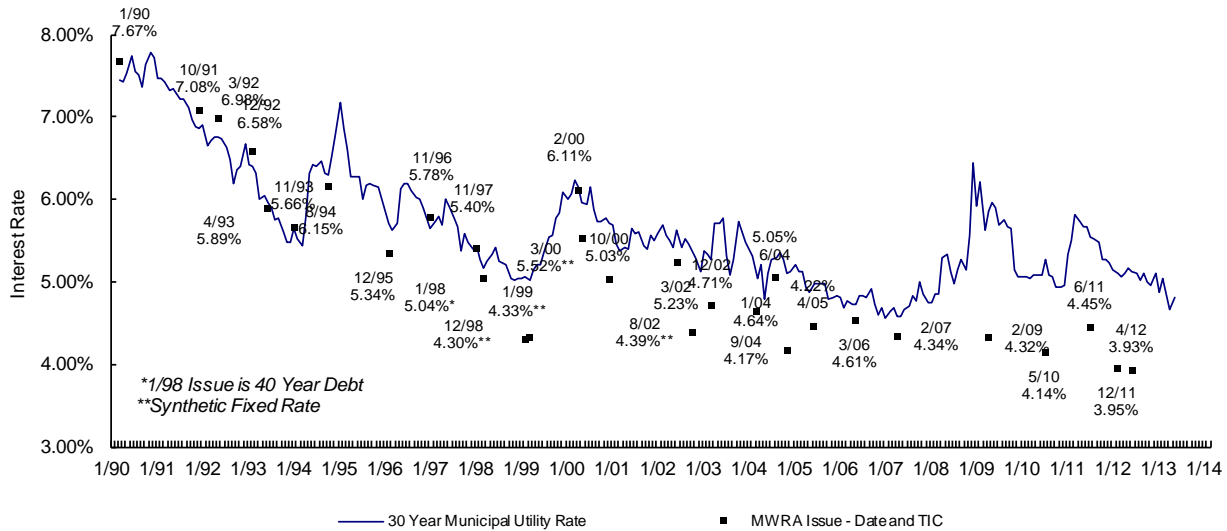
Average Cost of MWRA Debt

Fixed Debt (\$4,069)	4.33%
Variable Debt (\$551)	0.82%
SRF Debt (\$1,037)	1.17%
 Weighted Average Debt Cost (\$5,834)	 3.41%

Most Recent Senior Fixed Debt Issue March 2013

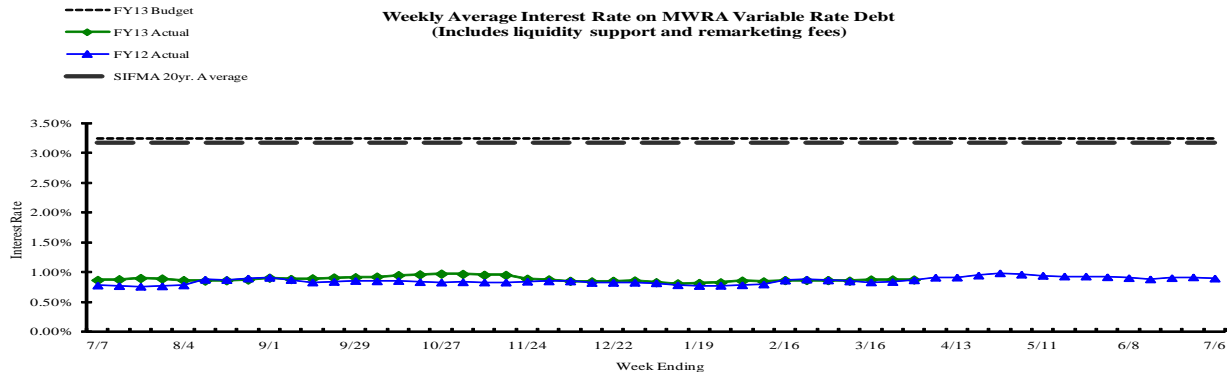
2013 Series A (\$170.6) 2.45%

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



Weekly Average variable Interest Rates vs. Budget

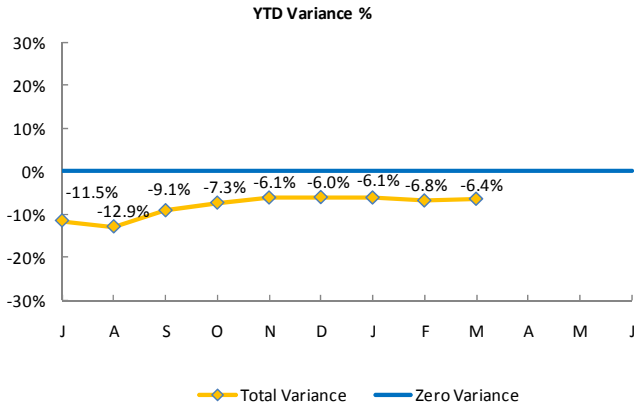
MWRA currently has ten variable rate debt issues with \$1.1 billion outstanding, excluding commercial paper. Of the ten outstanding series, five have portions which have been swapped to fixed rate. Variable rate debt has been less expensive than fixed rate debt in recent years as short-term rates have remained lower than long-term rates on MWRA debt issues. In March, SIFMA rates fluctuated with a high of 0.12% and a low of 0.10%. 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 - FY13

Year To Date



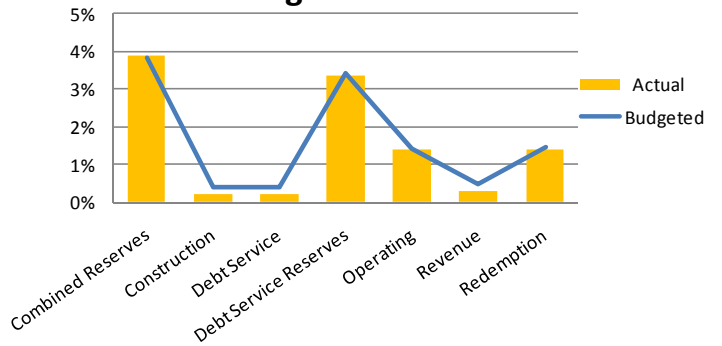
	YTD BUDGET VARIANCE			
	(\$'000)			
	BALANCES IMPACT	RATES IMPACT	TOTAL	%
Combined Reserves	\$49	\$15	64	2.6%
Construction	(\$42)	(\$267)	(309)	-50.0%
Debt Service	(\$11)	(\$150)	(162)	-47.1%
Debt Service Reserves	\$17	(\$152)	(135)	-2.1%
Operating	(\$23)	(\$5)	(28)	-4.9%
Revenue	\$2	(\$131)	(129)	-35.3%
Redemption	\$0	(\$16)	(16)	-4.4%
Total Variance	(\$7)	(\$706)	(\$714)	-6.4%

➤ The negative balance is attributed to the lower than budgeted interest rates.

YTD Average Balances Budgeted vs. Actual

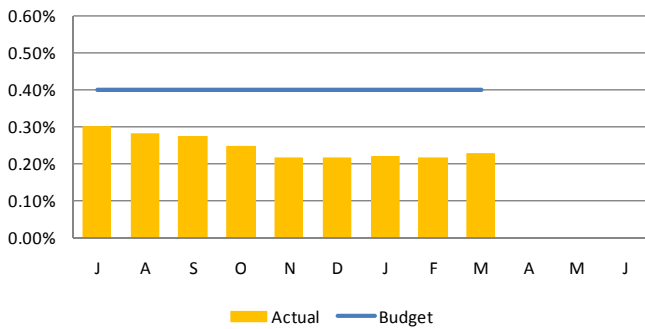


YTD Average Interest Rate Budgeted vs. Actual

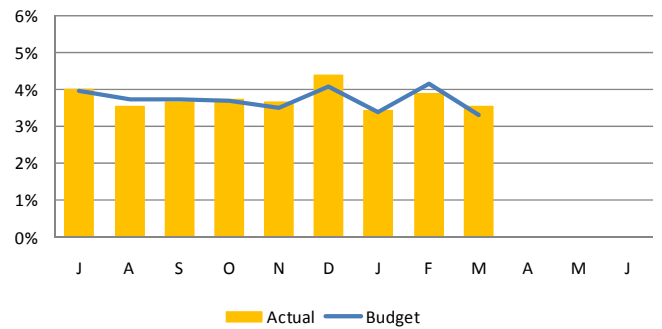


Monthly

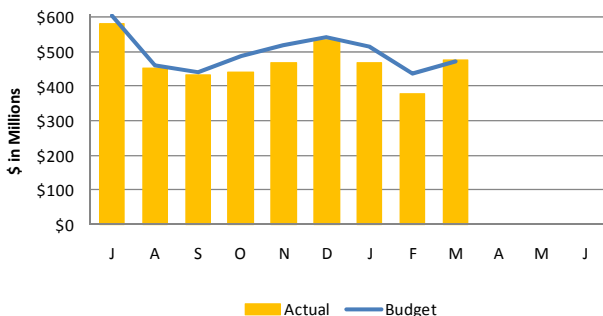
Short-Term Interest Rates



Long-Term Interest Rates



Short-Term Average Balances



Long-Term Average Balances

