Executive Office
Budget
The Executive Office provides executive management and guides the implementation of MWRA policies established by the Board of Directors. It is responsible for developing and implementing specific goals and programs to achieve MWRA's primary mission of providing reliable and efficient water and sewer services, improving water quality, and for creating a framework within which all divisions can operate effectively. The Executive Office oversees a centralized MWRA-wide security program to preserve and protect MWRA facilities, systems and employees.

The Executive Office has direct oversight of the Office of Emergency Preparedness, Internal Audit, Public Affairs, and the Affirmative Action and Compliance Unit (AACU) Departments.

**FY15 Goals:**

- Ensure delivery of reliable and cost-effective water and sewer services to customer communities.
- Ensure that water supply and wastewater collection and treatment preserve public health and protect natural resources.
- Provide overall management of the agency and ensure adherence to all applicable policies and regulations.
- Continue to aggressively pursue renewable and sustainable energy resources to reduce the environmental impacts of daily operations, increase energy efficiencies, and reduce overall operating costs.
- Manage communication and garner support from key constituents for MWRA programs.
The Executive Office budget supports the Executive Director’s Office (which includes the Board of Directors’ cost center), the MWRA Advisory Board, and Advisory Committees’ cost centers. The Board of Directors formulates policies to guide MWRA actions and is responsible for major policy and fiscal decision-making. The MWRA Advisory Board was established by the Enabling Act to serve as “watchdog” for MWRA’s customer communities. The Advisory Board makes recommendations to MWRA on annual expense budgets and capital improvement programs. In addition, the Advisory Board reviews and comments on MWRA reports, holds hearings on related matters, and makes recommendations to the Governor and the Legislature. The other advisory committees supported by this budget are the Water Supply Citizens’ Advisory Committee and the Wastewater Advisory Committee.

Budget Highlights:

- The FY15 Final Budget is $1.2 million, an increase of $56,000 or 4.8% from the FY14 Actual spending.

- $559,000 for Wages and Salaries, an increase of $18,000 or 3.4% as compared to the FY14 Actual spending mainly due to cost of living adjustments. The final budget includes funding for five positions.

- $164,000 for Professional Services, an increase of $6,000 or 3.8% from the FY14 Actual spending, mainly due to salary increases for the WSCAC and WAC Executive Directors and Staff Assistant. This budget funds the Water Supply Citizens’ Advisory Committee (WSCAC) and the Wastewater Advisory Committee (WAC) operating budgets.

- $500,000 for Other Services, an increase of $30,000 or 6.3% from the FY14 Actual spending, mainly due to increases in the MWRA Advisory Board operating expenses which include wages and salaries, space rental, and general administrative office expenses.
The Office of Emergency Preparedness (OEP) was created in November 2005 to consolidate Authority-wide security and emergency response functions. It is responsible for oversight of the MWRA’s security and emergency response plans, policies, and procedures; implementation and training for the Emergency Response Plan; and management, training, and outfitting of the Emergency Service Unit (ESU), which will respond to any intentional or accidental contamination of the water supply. The Director of Emergency Planning and Preparedness reports directly to the Executive Director.

**FY15 Goals:**

- Develop and implement policies and programs to provide security, critical infrastructure protection, and emergency planning for the MWRA’s water and wastewater systems.
- Equip, train, and command the Emergency Service Unit (ESU).
- Develop and exercise emergency plans and procedures.
- Manage and direct contract security guard and security maintenance contracts.

**FY15 Initiatives:**

- Continue to enhance Emergency Response Plans for all water and wastewater facilities. Update Emergency Action Plans (EAPs) as needed, including Dam EAPs and spill control EAPs.

- Continue the process of ensuring that new construction and rehabilitation of facilities includes an integrated security and surveillance system improvement component. Continue task order security enhancement designs for selected water and wastewater critical sites, fencing installation, and other facility hardening initiatives. Continue planning for updating the security monitoring system to replace obsolete equipment.

- Implement notification drills, tabletop exercises, and field training exercises (including at least one major field drill). Continue the community emergency response training program and tabletop exercise series for critical service areas with community staff.

- Continue to transition security system communications technology to the new standard.
FY14 Accomplishments:

- Continued to update spill control Emergency Action Plans for water and wastewater facilities subject to spill regulations. Provided refresher training to all operations staff on spill control procedures.
- Completed Dam Emergency Action Plans for Western Section dams with detailed inundation mapping.
- Procured a consultant and began work on the Dam Emergency Action Plans for the Metropolitan dams.
- Completed a total of 84 training events or drills, including a significant Chelsea Hurricane drill.
- Completed deployment of new digital transmission vehicle, base, and handheld radios to support DCR’s planned transition from analog equipment to digital equipment.
- Received payment in full under a Department of Homeland Security (DHS) grant of $252,000 for implementation of hardening improvements from the 2010 DHS Regional Resiliency review and completed procurement of related items.
- Continued the process of ensuring that new construction and rehabilitation of facilities include an integrated security and surveillance system improvement component.
- Continued to provide an emergency response training program and a tabletop exercise series for critical service areas for MWRA community staff.
- Procured a new Guard Services contract.

Budget Highlights:

- The FY15 Final Budget is $2.7 million, an increase of $93,000 or 3.6% from the FY14 Actual spending.
- $439,000 for Wages and Salaries, a decrease of $50,000 or 10.2% from the FY14 Actual spending. The budget includes funding for five positions.
- $375,000 for Ongoing Maintenance, an increase of $45,000 or 13.8% from the FY14 Actual spending, mainly due to increases for the new Intrusion Alarm and Semi-Annual monitoring service contracts and additional sites to be covered. This final budget includes funding of $242,000 to cover the MWRA-wide security systems preventative maintenance and repair service, $105,000 for MWRA-wide Security systems maintenance materials and equipment, including cameras, intrusion detection, card readers, and $29,000 for the intrusion alarm annual and semi-annual monitoring services contracts.
- $1.7 million for Professional Services, a decrease of $19,000 or 1.1% from the FY14 Actual spending, primarily due to the elimination of FY14 one-time Dam EAP Updating Services cost. The final budget includes $607,000 for security services for the DITP facility, $567,000 for the Chelsea facility, $348,000 for the Carroll Water Treatment Plant, $40,000 for Charlestown Navy Yard (CNY) facility, $87,000 for the Account Manager, and $59,000 for the Roving guard.
- $36,000 for Other Materials, an increase of $14,000 or 63.4% from the FY14 Actual spending. This budget mainly funds purchase of Health and Safety materials for the ESU Team.
- $124,000 for Other Services, an increase of $105,000 from the FY14 Actual spending, due to an increase in annual licensing cost for two-way radios with Department of Conservation and Recreation (DCR). This budget also includes funding for mandatory monthly testing and inspection of the Self-Contained Breathing Apparatus (SCBA).
### AFFIRMATIVE ACTION and COMPLIANCE

#### FY15 Final Current Expense Budget

<table>
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<tr>
<th>LINE ITEM</th>
<th>FY12 Actual</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
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The **Affirmative Action and Compliance Unit (AACU)** develops, administers, and monitors compliance of Affirmative Action Plan programs and policies by ensuring equal opportunity and non-discrimination in employment and equitable access of Minority Business Enterprises (MBE), Women Business Enterprises (WBE), and Disadvantaged Business Enterprises (DBE) in Authority procurement activities.

**FY15 Goals:**

- Assist divisions and departments in the implementation of MWRA’s affirmative action program and promote MWRA’s policy of non-discrimination for all persons in or recruited into its work force.

- Maintain adequate internal audit and reporting systems to monitor MWRA’s accomplishments of goal attainment in identified underutilized job groups for female and minority representation.

- Communicate to managers and supervisors MWRA’s commitment to its equal opportunity policies and affirmative action programs.

- Assist the Human Resources department in the coordination and oversight of all external/internal recruitment and selection activities including interviewing, hiring, transfers, and promotions of protected class candidates.

- Provide for the equitable participation of minority/women and disadvantaged-owned businesses in procurement opportunities, ensure that minorities and women are represented in the labor force on construction contracts, and coordinate with other public entities regarding state and federal requirements.

- Assist divisions and departments in the understanding and implementation of MBE/WBE/DBE program policies and practices and monitor and report on contractor compliance and expenditures.

**FY15 Initiatives:**

- Conduct a comprehensive self-identification outreach program for applicants and employees who are covered veterans and individuals with disabilities.

- Conduct a special meeting with executive, management and supervisory personnel to explain the intent of the new federal regulations on affirmative action and equal employment opportunity and individual responsibility for effective implementation, making clear the Executive Director’s support for the program.

- Review and consider options toward updating current MBE/WBE/DBE subcontracting goals.
FY14 Accomplishments:

- Provided management guidance and participated in 72 position(s) selection committee interviews, sourced eighteen (18) outreach contacts, and referred 25 qualified candidates to Human Resources for underutilized positions.

- Conducted oversight of 65 construction and professional projects including 18 site visits and one compliance audit to ensure contractor compliance with the MWRA’s MBE/WBE/DBE Program. All MBE/WBE targets have been achieved except, WBE Professional Services.

Budget Highlights:

- The FY15 Final Budget is $579,000, an increase of $18,000 or 3.3% from the FY14 Actual spending.

- $574,000 for Wages and Salaries, an increase of $16,000 or 2.9% from the FY14 Actual spending, primarily due to projected cost of living adjustments. The final budget includes funding for seven positions.
The Internal Audit Department monitors the efficiency and integrity of MWRA operations by auditing financial and program operations; reviewing compliance with accounting and management control systems, laws, and regulations; and coordinates the formulation and revisions to MWRA policies and procedures. Internal Audit also monitors MWRA contracts through its contract audit program, including approval of provisional consultant indirect cost rates and subsequent audit of consultant billings; performs labor burden reviews, construction change orders and claim audits, and vendor and other contract audits.

FY15 Goals:

- Encourage more economical and efficient operations, adhere to sound management procedures, and use controls designed to safeguard MWRA assets.
- Assure that automated and supporting manual management information systems have secure data control environments and to provide accurate and useful management information.
- Assure that contractors and consultants doing business with MWRA have adequate accounting and billing systems to provide current, complete, and accurate cost and price information and project invoicing.

FY14 Accomplishments:

- Identified $1,633,000 in audit impact dollars related to: management advisory services, consultant audits, construction labor burden reviews, the early termination of two janitorial services contracts, a true-up of 2013 Boston Water and Sewer Company (BWSC) CSO financial assistance agreement activity, a true-up of 2013 Harbor Electric Energy Company (HEEC) billings for the harbor cable, a Charlestown Navy Yard lease operating cost adjustment, and a refund from an office supply vendor.
- Issued final audit reports on a follow-up review of Fleet Services activities, reviews of the Wastewater Advisory Committee (WAC) and Water Supply Citizens Advisory Committee (WSCAC), Bay State Fertilizer, and the MBE/WBE Program. Issued ten incurred cost audits, four preliminary consultant and seven preliminary construction reviews, and four other contract reviews.
- Provided management advisory and data analysis services for management initiatives dealing with the HEEC cross-harbor cable and the New England Fertilizer Company contract for operating the Pellet Plant.
Budget Highlights:

- The FY15 Final Budget is $701,000, an increase of $5,000 or 0.8% from the FY14 Actual spending.
- $691,000 for Wages and Salaries, an increase of $4,000 or 0.6% from the FY14 Actual spending, primarily due to projected cost of living adjustments. The final budget includes funding for eight positions.
The **Public Affairs Department** is the institutional link to all MWRA constituencies. The department works for passage of legislation necessary to carry out MWRA’s mission, monitors legislation, responds to inquiries by elected and appointed officials, and pursues funding from the state legislature for MWRA projects.

The **Community Relations Section** deals directly with cities and towns in the service area, responds to inquiries about MWRA, proactively incorporates community concerns into MWRA project work, coordinates outreach and education initiatives to highlight MWRA programs, and provides technical expertise for specific projects and initiatives. Community Relations staff also work in conjunction with Planning and Coordination Department staff to ensure compliance with state and local regulations and restrictions.

The **Environmental Review and Compliance Section** is responsible for directing Authority-wide Massachusetts Environmental Protection Agency (MEPA) environmental review to ensure that MWRA facilities are protected and private development projects do not negatively impact MWRA facilities. The section is the lead to implement the Public Access Aqueduct Program, a program approved by the Board in April 2012, that authorizes public access along MWRA emergency back-up Aqueducts located in 14 cities and towns in the MetroWest area.

The **Communications Section** manages media relations, issues press releases and responds to information requests, oversees the design and distribution of MWRA publications, manages the web site, and provides design, editorial, and graphics services for other sections of MWRA. In addition, the **Education Section** is responsible for curriculum development, teacher training workshops, as well as providing school education materials on water quality, water conservation, wastewater topics, and environmental issues. Both sections are lead by the Special Assistant to the Executive Director, located in the Executive Office.

**FY15 Goals:**

- Enhance overall public understanding of MWRA’s mission, goals, and benefits to the public through extensive outreach and effective communication.
- Monitor and analyze legislation and regulations that affect the Authority, formulating appropriate responses in concert with the Office of the Executive Director (OED).
- Continue to coordinate the review of projects filed with Massachusetts Environmental Protection Agency (MEPA), and submit timely MEPA responses to ensure that Authority owned infrastructure is protected.
• Provide technical support to 14 cities and towns that host MWRA’s emergency back-up aqueducts as part of the Public Access Aqueduct Program.

• Develop and implement proactive strategies for educating and informing key MWRA constituencies and the public at large about MWRA’s mission, projects and progress, and promote understanding for associated costs.

• Gain public support for MWRA programs and projects while responding to the needs and concerns of elected and appointed public officials.

• Provide support to MWRA staff to ensure that MWRA projects meet regulatory requirements, and provide input to regulatory agencies in order to ensure MWRA interests are recognized during the development of regulations.

• Maintain and update MWRA’s Community Contact Database. This Community Contacts tracking application is used to notify MWRA’s communities of any operational issues or emergencies affecting them or surrounding communities.

Communications Section:

• Respond promptly and accurately to media requests, ensuring coordination with appropriate internal and external parties.

• Continue to provide information to the public through the MWRA’s internal and external websites, including social media like Twitter, Flickr and YouTube. For FY2015, planned upgrades to the website include installation of a search engine, a calendar feature, and enhanced service area maps.

• Design and produce publications, such as the Annual Water Quality Report, Dwayne the Storm Drain, and new Planter Kits.

• Continue to catalogue photo archive of all MWRA projects in Cumulus database and produce photo books to maintain a hard copy record of MWRA’s improvements to the water and wastewater systems. In addition, the photo catalogue will be made available through MWRA’s website in FY2015.

• Continue to provide classroom visits to schools within the MWRA service area to create awareness for young people about the importance of water and wastewater infrastructure in their lives and for the environment.

FY15 Initiatives:

Ongoing Advocacy – Commonwealth Rate Relief

MWRA’s highest legislative priority continues to focus on the need for a more robust “Commonwealth Rate Relief Package” to help offset anticipated rate increases over the next several years.
FY14 Accomplishments:

*Commonwealth Rate Relief*

The FY15 Final Budget for the Commonwealth includes $1.1 million for Sewer Rate Relief.

The Massachusetts Legislature conducted its 188th Session from January 1, 2013 to July 31, 2014. The following bills of importance to MWRA passed during the legislative session:

**Chapter 259 of the Acts of 2014 – SB2021: An Act Improving Drinking Water and Wastewater Infrastructure.**

In January 2013, Senate President Therese Murray committed to address the ongoing critical need for financial assistance for drinking and wastewater infrastructure. SB2021 was the final result of deliberations by both branches, and was signed into law by the Governor on August 6, 2014. Provisions of the bill include:

- (subject to appropriation) a 1:1 match to help interested communities pay the MWRA entrance fee;
- (subject to appropriation) a reimbursement of up to $13.8 million of Inflow and Infiltration (I/I) interest free grants and loans provided by MWRA;
- additional financial assistance, including principal forgiveness, for projects connecting a local or regional governmental unit to an MWRA facility.

The Executive Director testified and wrote in support of the above provisions and more, and Public Affairs, in concert with the MWRA Advisory Board and Administration & Finance, actively participated in the broader advocacy effort undertaken by the Water Infrastructure Alliance.

**Chapter 268 of the Acts of 2014 – HB4375: An Act providing for the preservation and improvement of land, parks and clean energy in the Commonwealth.**

This $2.2 billion bond bill addressed a wide range of environmental and water quality issues and includes support for the MWRA’s aqueduct recreational trail program.

**Chapter 279 of the Acts of 2014 – SB2139: An Act authorizing the Massachusetts Water Resources Authority to dispose of certain real property in the City of Boston and to release an easement upon certain real property in the City of Boston.**

Following the MWRA Board of Directors’ declaration of it as surplus, this bill enabled the conveyance of the 37,150 square foot parcel containing the Fox Point CSO facility to the Local 103 I.B.E.W Educational Corporation for the sum of $372,000.

**Chapter 113 of the Acts of 2013 – SB1837: An Act authorizing the Division of Capital Asset Management and Maintenance to grant an easement upon land of the commonwealth located in the Town of Ware to the Massachusetts Water Resources Authority.**

Passage of this bill (Article 97) formalized MWRA easement rights granted by the Metropolitan District Commission decades ago for land associated with MWRA’s existing Ware Disinfection Facility that serves the Authority’s Chicopee Valley Aqueduct (CVA) communities of Chicopee, Wilbraham and portions of South Hadley.

**Chapter 52 of the Acts of 2013 – HB3570: An Act authorizing the Massachusetts Water Resources Authority to dispose of real property located in the City of Quincy and to grant an easement upon real property of the Massachusetts Water Resources Authority located in the City of Quincy.**
Passage of this bill approved a mutually agreed upon exchange of property and various easements in Quincy between MWRA and March Fourth LLC, enabling the more efficient operation of the Fore River Railroad by MWRA.

**Chapter 38 of the Acts of 2013 – An Act making appropriations for the fiscal year for the maintenance of the Departments, Boards, Commissions, Institutions, and certain activities of the Commonwealth for interest, sinking fund and serial bond requirements and for certain permanent improvements.**

Section 199 (a) authorized the Commissioner of Capital Asset Management and Maintenance, in consultation with MWRA, to convey to the Massachusetts Port Authority a parcel of land in East Boston for the Greenway Connector.

**Aqueduct Trail Progress.** To date, at the direction of the MWRA Board of Directors, staff have issued nine Section 8 (m) Permits as part of the Public Access Aqueducts Program (Staff Summary dated April 11, 2012) authorizing approximately **14.5 miles of public access.** Permits cover the following Aqueducts and Communities:

- Framingham - Weston Aqueduct – Pilot segment (1.1 mile)
- Framingham - Weston Aqueduct (.35 mile) section near Wayland Town Line
- Framingham - Weston Aqueduct (remaining western sections) (all areas along the Weston Aqueduct are now authorized in Framingham, excluding tunnel sections). (3.9 miles)
  - Total of over **5.5 miles along the Weston Aqueduct in Framingham.**
- Framingham - Bay Circuit Trail Connector (.35 mile)
- Framingham - Sudbury Aqueduct – first segment (1.5 miles)
- Northborough - Wachusett – first segment (2 miles)
- Wellesley - Sudbury Aqueduct – all of it except a small stretch in Wellesley (2.6 miles)
- Southborough - Bay Circuit Trail Connector (.5 mile)
- Natick - Sudbury Aqueduct (2 sections totaling 1.5 miles)
- Natick – Sudbury Aqueduct (2,500 feet totaling .5 mile)

The Town of Weston’s application is currently under review.

**Communications Section:**

In FY2014, MWRA hosted several media events to mark major milestones: Alewife Wetland Opening – October 15, 2013; Mass Water Forum – March 18, 2014; Aqueduct Trail Opening in Natick – April 24, 2014. Also, planning began for the Ultraviolet (UV) Event at Carroll Treatment Plant.

Graphics staff completed the Annual Water Quality Report completely in-house, as well as several brochures, labels and other artwork.

Communications staff continued to maintain and update both the external and internal websites, providing up-to-date information on MWRA’s projects and programs to both audiences. Highlights for FY2014 include the web version of the Annual Water Quality Report.

During FY2014, much progress was made on the Photo Archive Project. All historical photos – from both MWRA and DCR – have been digitized. In addition, photos from projects completed since the inception of MWRA have been recovered from Records Center boxes and photos scanned and catalogued into the Cumulus database. The first book – The Boston Harbor Project – was produced in FY2014, with several more in the queue to be completed in early FY2015.
During FY2014, the School Education Program made 445 classroom presentations in 30 communities reaching 12,625 students from pre-kindergarten to college level. In addition, there were more than 2,800 entries for the annual Poster, Essay and Video Contest. The topic for FY2014 was “It’s a Toilet, Not a Wastebasket.”

**Budget Highlights:**

- The FY15 Final Budget is $1.1 million, an increase of $46,000 or 4.3% from the FY14 Actual spending.

- $1.1 million for Wages and Salaries, an increase of $39,000 or 3.8% from the FY14 Actual spending, mainly due to the resignation of the Community Relations Manager during FY14. The final budget includes funding for 12 positions, one position less than funded in FY14.

- $22,000 for Other Materials, a decrease of $7,000 or 24.7% from the FY14 Actual spending, mainly due to payment for Planter Kits in FY14 that were ordered in FY13.

- $48,000 for Other Services, an increase of $20,000 or 67.5% from the FY14 Actual spending. Actual spending is below primarily due to delayed printing of Dwayne the Storm Drain booklets and less Planter Kit Boxes in FY14. This budget supports the printing needs of the department, as well as telephones, memberships and mailing house services. Printing also includes items such water bottles and stickers.
The **Operations Division** provides wastewater and water system services including operations, maintenance, and treatment; environmental monitoring and laboratory testing and analyses; and engineering, construction, planning, and administration. The Operations Division’s departments are described below:

The **Wastewater Treatment Department** is 41% of the division’s budget. The department operates and maintains the Deer Island Treatment Plant (DITP), Clinton Wastewater Treatment Plant, and Residuals Processing Facility (pelletization plant) at Fore River Staging Area (FRSA).

The **Field Operations Department (FOD)** is 44% of the division’s budget. The department manages the wastewater pretreatment, water treatment, and wastewater and water distribution functions, including the Carroll Water Treatment Plant (CWTP). This department is responsible for operating, maintaining, and metering both systems.

The **Planning and Coordination Department** provides planning, advocacy, and decision support services on policy, public health, regulatory, and operations matters regarding MWRA’s potable and wastewater systems.
The **Engineering and Construction Department** provides the following services to support the maintenance, repair, and rehabilitation of the wastewater and water systems: in-house engineering, consultant management, drafting, surveying, construction management, and other technical assistance. The department also oversees implementation of the Combined Sewer Overflow (CSO) plan.

The **Environmental Quality Department (EnQuad)** manages and reports on the monitoring of Boston Harbor and Massachusetts Bay water quality. The department also oversees MWRA’s compliance with its National Pollutant Discharge Elimination System (NPDES) permits.

The **Laboratory Services Department** supports various client groups in the Operations Division, the Department of Conservation and Recreation (DCR), and the MWRA member communities; providing field sampling, laboratory testing, and reporting services. Most of the testing is required to meet the strict guidelines of regulatory programs and permits including the Safe Drinking Water Act (SDWA) and MWRA’s NPDES permits.

The **Operations Administration Department** provides oversight and general management support in the areas of finance, contract administration, and personnel. The Operations Administration Department budget also includes funds for MWRA vehicle purchases and division-wide memberships.

**FY15 Goals:**

- Plan, develop, implement, and operate efficient, reliable, and economical water treatment/delivery and wastewater transport/treatment systems.

- Ensure compliance with state and federal drinking water quality and wastewater discharge regulations including the Safe Drinking Water Act (SDWA), the Clean Water Act, and National Pollutant Discharge Elimination System (NPDES) permits.

- Plan and implement rehabilitation of existing facilities and construction of new facilities including pipelines, pump stations, storage facilities, and treatment facilities on schedules that allow for sufficient system capacity and performance.

- Dispose of wastewater treatment by-products in a cost-effective and environmentally sound manner.

**FY15 Initiatives:**

**Operations, Energy, and New Facilities Start-ups:**

- Continue to identify, assess, and implement initiatives to reduce energy demand and increase energy self-generation in MWRA’s system, including the projects noted in MWRA’s Memorandum of Understanding with NSTAR. Pursue grant-funding and cost-sharing arrangements to defray costs of implementing these initiatives.

- Self-generate ~28% of the Deer Island Treatment Plant’s (DITP) required power through optimization of power generation assets, including the wind turbines and the Steam Turbine Generation (STG) back pressure system.

- Implement and evaluate pilot for commercial food waste co-digestion project at Deer Island Treatment Plant.

- Optimize new ultraviolet (UV) disinfection treatment process for MWRA’s potable water system at the Carroll Water Treatment Plant and commence UV treatment at the Quabbin Disinfection Facility.

- Start-up and operate the new Spot Pond covered storage facility in water system.

- Identify and implement strategies for workforce succession in preparation for expected retirement of many MWRA employees in the upcoming five to ten years.
## Engineering & Construction:

- Notice to Proceed for numerous contracts including the following major projects:
  - **Water System**
    - Wachusett Aqueduct Pump Station - Construction
    - Weston Aqueduct Supply Mains – Sect 36/W11/S9 – All Valve
    - NHS Revere & Malden Pipe – Sect 53 Connections Design CA/RI
    - CWTP Existing Facilities Modifications – CP7
  - **Wastewater System**
    - Facility Asset Protection Alewife Brook Pump Station Rehab – Construction
    - DITP Asset Protection Winthrop Terminal Facility VFD Replacement - Construction
    - Facility Asset Protection Chelsea Screenhouse Upgrades
    - Facility Asset Protection Caruso Pump Station Improvements – Construction
    - DITP Asset Protection Future Misc. VFD Replacements – Design

- Substantially complete numerous CIP design and construction phases including the following:
  - **Water System**
    - Spot Pond Storage Facility Design/ Build
    - Metro West Tunnel Hultman Interconnection – Final Design/CA/I
    - Metro West Tunnel Hultman Interconnection – RI Services
    - Quabbin Water Treatment Plant UVWTP - Construction
    - Carroll Water Treatment Plant CWTP Ultraviolet Disinfection – Des/ESDC/R
  - **Wastewater System**
    - DITP Asset Protection Digester Modules 1 & 2 Pipe Replacement Engineering Services During Construction/Resident Engineer Inspection
    - CSO Program Brookline Sewer Separation Design/CS/RI
    - Facility Asset Protection NI Electricity & Grit/Screens Conveyance - Construction
    - DITP Asset Protection Centrifuge Backdrive Replacement
    - DITP Asset Protection Digester Sludge Pump Replacement Construction

## Maintenance:

- Optimize staff resources, overtime, service contracts, and as-needed design contracts to complete routine and major maintenance projects.

- Continue work on numerous major projects at Deer Island including facility repainting and coating repairs; Zurn boiler maintenance and repairs; electrical system maintenance; motor overhauls; HVAC units replacement; gas compressor actuator valve rebuilds; and critical equipment maintenance.

- Work on numerous projects in Field Operations including meter inspection and repairs; facility repainting and coating repairs; manhole rehabilitation; heating system conversion at Framingham Pump Station; invasives control in the water reservoirs; dam inspections and tree clearing; and water tank inspections.
Environmental:

- Plan for implementation of requirements of the new National Pollutant Discharge Elimination System (NPDES) Permits for DITP (assume new permit is issued in the fourth quarter of FY2015) and Clinton Wastewater Treatment Plant (assume new permit in effect for all of FY15).
- Continue work on other harbor and outfall monitoring initiatives including: calculating revised thresholds, working with the Department of Conservation and Recreation to implement appropriate beach management practices in South Boston, and improving instrumentation on National Oceanic and Atmospheric Administration’s (NOAA’s) weather buoy.
- Review and revise the TRAC permit fee structure.
- Plan for the new round of NPDES-required Local Limit testing in TRAC to reassess industrial discharge limits and commence the work after the Environmental Protection Agency (EPA) issues the new NPDES permits.
- Conduct invasive species removal and monitoring at water reservoirs.
- Implement and optimize changes in fluoride dosing in the water system to comply with revised regulations.

FY14 Accomplishments:

**Operations, Energy, and New Facilities Start-ups:**

- Processed 99.2 average tons per day of sludge at the Pelletization Plant and disposed of 6,031 tons of grit and screenings through a contracted vendor.
- Assisted the Procurement Department with the procurement of contracts to supply and deliver chemicals for the water and wastewater system facilities. Chemicals procured included sodium hypochlorite, hydrofluosilicic acid, liquid oxygen, sodium hydroxide, sodium bisulfite, hydrogen peroxide, soda ash, and polymer.
- Procured multi-year electricity supply contracts with two vendors for MWRA facilities.
- Developed and commenced a Memorandum of Understanding with NSTAR for energy efficiency undertakings. The agreement allows MWRA to achieve higher rebates from the utility for implementing energy efficiency projects and also supports the identification and implementation of energy efficiency opportunities throughout MWRA’s day-to-day operations and construction programs.
- Received revenue for energy generated at numerous facilities including the following: hydroelectric $766,000 from Oakdale Station, $214,000 from Cosgrove Station, and $36,000 from the Loring Road Pump Station; wind of $347,000 from Charlestown Pump Station; and solar of $95,000 from Carroll Water Treatment Plant.
- Continue to leverage MWRA’s self-generation assets and participation in the competitive energy market to offset operating costs. The combined impact of participation in the Independent System Operators of New England (ISO-NE) load response program and the non-rate revenue from the sale of Renewable Portfolio Standards Program (RPS) credits resulted in $2.9 million in revenue for FY14. Deer Island also self-generated ~25% of the plant’s total required power during that period.
- Successfully commenced the new ultraviolet (UV) disinfection treatment process for MWRA’s potable water system at the Carroll Water Treatment Plant.
Maintenance:

- The Operations Division spent $24.2 million on maintenance in FY14 of which $11.9 million was for materials and $12.3 million was for services.

- Procured and implemented numerous contracts for maintenance services, including: DITP thermal and hydropower plant, DITP wind turbine, DITP oxygen facility, grounds-keeping, janitorial services, electrical system monitoring, instrumentation monitoring and repair, boiler and water heating services, fire protection sprinkler system maintenance, continuous emission monitoring system equipment, dam safety compliance, and elevator inspection and repair.

- Procured and implemented numerous contracts for maintenance projects including: manhole frames and covers replacement, emergency repair of metropolitan sewer section 155 siphon, installation of energy efficient LED extension lighting at the Southborough facility, digester mixer assembly repair at DITP, invasive species removal in the reservoirs, and installation of insulation on water pipes at several water pump stations.

- Completed numerous maintenance projects including excavation and repair of several water pipeline leaks; modifications to pumps at the Squantum Pump Station and other facilities; repair of the sewer line at the Gillis Pump Station; carbon media change-outs for odor control in several facilities; and repair of the radiator in Nut Island’s generator.

- In the water system, exercised and replaced 745 and 20 mainline valves and 458 and 11 blow-off valves.

- In the wastewater system, inspected 32.62 miles and cleaned 17.75 miles of MWRA pipeline. Also inspected 723 structures and rehabilitated 112 manholes.

Engineering, Construction, and Planning:

- Notice to Proceed for numerous contracts including the following major projects:
  - Water System
    - Weston Aqueduct Supply Mains WASM3 – MEPA/ Design/ CA/ RI
    - Southern Extra High (SEH) Redundancy/Storage Phase 1 – Final Design
  - Wastewater System
    - DITP Asset Protection – Scum Skimmer Replacement
    - DITP North Main Pump Station and Winthrop Terminal Facility Butterfly Valve Replacements
    - Facility Asset Protection Prison Point/Cottage Farm Engine Pump and Gearbox Rebuilds
    - Nut Island Electrical and Grit/Screenings Conveyance – Construction
    - DITP Clarifier Rehabilitation Phase 2 – Design
    - DITP Cryogenics Chillers Replacement

- Substantially completed numerous projects including the following:
  - Water System
    - CWTP Ultraviolet Disinfection - Construction
    - Weston Aqueduct Supply Mains Watertown Sect Rehab
    - Quabbin Transmission System – Oakdale Phase 1A Electrical – Construction
  - Wastewater System
    - DITP Asset Protection – Expansion Joint Repair – Construction 2
    - DITP Asset Protection – Primary & Secondary Clarifier Rehab - Design
    - DITP Asset Protection – Clarifier W3H Flush System
    - CSO Program Brookline Sewer Separation Construction
Environmental:

- The TRAC Department completed the following Environmental Protection Agency (EPA)-required work for significant industrial users: 277 inspections, 185 monitoring events, and 373 sampling of connections. This department also issued or renewed 411 permits to Significant Industrial Users (SIUs) and non-SIUs.

- The TRAC Department submitted the Industrial Pretreatment Program Annual Report to the EPA for FY13 in October 2013.

- The TRAC Department continued work on the review of local limits at the Clinton Wastewater Treatment Plant as required under the NPDES permit renewal process.

- At DITP, treated 99.5% of flow through secondary and met secondary permit limits at all times. Operated DITP without any NPDES Permit violations during FY14.

- EnQuad carried out permit-required environmental monitoring of Boston Harbor and Massachusetts Bay water column, sediments, fish and shellfish and CSO receiving water quality. The department finalized 17 technical reports, made monitoring results available on its website, and sent reports to government regulators, the Outfall Monitoring Science Advisory Panel and interested members of the public.

- Met all water quality and treatment standards for giardia in the drinking water system during FY14. Also, maximum turbidity results at Quabbin and Wachusett were within DEP standards.

- During FY14, the Department of Laboratory Services performed 256,884 tests including the annual Lead and Copper Rule testing and Massachusetts Bay water column testing for the Harbor and Outfall Monitoring program.

Budget Highlights:

- The FY15 Final Budget is $162.9 million, which is $5.5 million or 3.5%, more than FY14 Actual Spending.

- Line items that increased from FY14 Actual Spending include:
  
  - The FY15 Final Budget of $75.5 million for Wages and Salaries is an increase of $4.1 million or 5.8% from FY14 Actual Spending, primarily due to projected cost of living adjustments increases; more filled positions in FY15 than in FY14 due to retirement backfills; more temporary employees in FY15 for planned projects; and an increase in stand-by pay to reflect historical averages for wet weather use. The FY15 Final Budget funds 936 filled positions on average during the year versus 929 filled on average in FY14. The budget also includes $803,000 for Stand-by Pay to ensure staffing availability and response during emergencies, $250,000 for Interns to assist with peak workload and special initiatives, and $192,000 for Temporary Employees.
  
  - The FY15 Final Budget for Professional Services is $2.8 million, including $1.5 million for lab and testing services; $682,000 for engineering services and $459,000 for other services. Major items in the budget include $1.5 million for Harbor and Outfall Monitoring; $375,000 for as-needed engineering services to support CEB-funded projects; $155,000 for outsourced testing by the Central Laboratory; $150,000 for MWRA’s FY15 contribution to the Mystic River Modeling project; $125,000 for the FY15 portion of the DI Local Limits study as required by the new NPDES permit; and $107,000 for analysis and inspection of MWRA’s dams. The FY15 Final Budget is $833,000 or 42.9% more than FY14 Actual Spending primarily due to the addition of funds for the Local Limits and Mystic River Modeling projects plus budget increases for harbor and outfall monitoring, dam safety, as-needed engineering, and water leak detection based on planned workload.
The FY15 Final Budget for **Other Services** is $18.7 million, including $13.9 million for sludge pelletization; $1.9 million for space leases and rentals, including the Chelsea office facility; $852,000 for grit and screenings removal and disposal; $639,000 for telephones; $416,000 for police details; and $321,000 for memberships, dues, and subscriptions. The FY15 Final Budget is $528,000 or 2.9% more than FY14 Actual Spending primarily due to increases for contractual inflation and quantities for sludge pelletization services; base rent and property tax increases for the Chelsea facility lease; and dues for numerous membership organizations. Sludge quantities were significantly lower than expected in FY14 whereas FY15 is based on a multi-year average.

The FY15 Final Budget of $3.6 million for **Overtime** is an increase of $226,000 or 6.8% from FY14 Actual Spending primarily due to more wet weather overtime budgeted in FY15 than required in FY14, and the addition of NPDES-related sampling at the Carroll Water Treatment Plant. The FY15 Final Budget is sized based on multi-year spending patterns for all areas including wet weather use. FY14 had significantly less wet weather than expected whereas FY15 assumes a more typical year for weather patterns. The components of the budget include $1.8 million for emergencies and wet weather staffing; $959,000 for operational coverage; and $790,000 for planned maintenance and other initiatives that must be completed at night or on weekends. The budget continues to incorporate reductions in overtime for coverage due to changes in staffing requirements and it also reflects managements’ successful efforts to date to control spending for non-emergency overtime.

The FY15 Final Budget of $23.4 million for **Utilities** includes $16.9 million for electricity, $3.7 million for diesel fuel, $2.1 million for water, and $516,000 for natural gas. The increase of $61,000 or 0.3% from FY14 Actual Spending is primarily due to additional diesel fuel purchases and increases in DITP water wholesale rates and use; offset by decreases for electricity and natural gas. Diesel fuel quantities and water use budgets are based on multi-year averages whereas FY14 actual use was lower than expected due to relatively mild weather and the resulting impact on operations. The decrease in electricity is primarily due to lower projected prices based on market forecasts. The utility budget by department is $13.7 million for Deer Island Treatment Plant, $5.1 million for Wastewater Operations, $3.8 million for Water Operations, $549,000 for the Chelsea Office facilities, and $229,000 for the Clinton Wastewater Treatment Plant.

The FY15 Final Budget of $140,000 for **Training and Meetings** covers specialized training, attendance at industry conferences, and site visits to other plants. The budget funds training for topics such as spill response and boom deployment; Ultraviolet treatment; spill prevention and control; belt laser alignment; and cyber security. The FY15 Final Budget is $4,500 or 3.3% more than FY14 Actual Spending primarily due to the inclusion of training funds for topics such as spill response, prevention, and control.

Line items that decrease from FY14 Actual Spending include:

The FY15 Final Budget for **Maintenance** is $24.0 million, a decrease of $249,000 or 1.0% from FY14 Actual Spending primarily due to changes in project priorities from year to year. The FY15 Final Budget includes $12.4 million for services and $11.6 million for materials. By maintenance area, the largest categories of spending for materials and services include $10.9 million for plant and machinery; $4.8 million for building and grounds; $2.7 million for electrical; $2.6 million for specialized equipment, $1.6 million for pipeline; and $1.1 million for HVAC systems. The budget also funds special initiatives such as energy conservation projects in the Field Operations Department facilities; invasive plant control in the water reservoirs; and easement clearing on MWRA’s aqueducts.

The FY15 Final Budget of $4.6 million for **Other Materials** includes $1.7 million for Vehicle Replacements; $803,000 for Lab and Testing Supplies; $500,000 for Vehicle Expenses (gas, tolls); $393,000 for Equipment and Furniture; $388,000 for Health and Safety Supplies; and $321,000 for Work
Clothes. The decrease of $32,000 or 0.7% from FY14 Actual Spending is primarily due to less funding in FY15 for numerous items based on projected needs; offset by increases in planned spending for equipment and furniture primarily for work planned at the Chelsea office facility.

- The FY15 Final Budget of $10.2 million for **Chemicals** includes $6.3 million for disinfection and treatment in the water system and $3.9 million for disinfection, treatment, and odor control in the wastewater system. The budget includes $3.7 million for soda ash; $2.2 million for sodium hypochlorite; $859,000 for ferric chloride; $612,000 for liquid oxygen; $541,000 for hydrofluosilicic acid; and $523,000 for sodium bisulfite. The FY15 Final Budget is $7,000 or 0.1% less than FY14 Actual Spending due to the net effect of price and usage decreases based on recent trends, contracts, and market projections; offset by an increase of approximately $300,000 for chemicals at DITP for enterococcus treatment as expected to be required by the new NPDES permit.
The Operations Administration Department is comprised of the Office of the Chief Operating Officer; the Office of the Deputy Chief Operating Officer of Program, Policy and Planning; and division-level support staff. The department’s primary goal is to oversee, manage, and implement MWRA policies and procedures pertaining to the following functions: administration, labor relations, finance, contract administration, and general management.

Budget Highlights:

- The FY15 Final Budget is $4.0 million, a decrease of $164,000 or 4.0% from FY14 Actual Spending.

- $1.8 million for Wages and Salaries, a decrease of $323,000 or 15.2% from FY14 Actual Spending primarily due to more filled positions in FY14 than budgeted in FY15 as the result of recent organizational changes. The Operations Division will absorb any overspending for positions in this department within the overall division’s budget in FY15 Final Budget.

- $4,700 for Training & Meetings, a decrease of $11,000 or 69.8% from FY14 Actual Spending. The change is primarily due to American Water Works Association annual conference charges in FY14 that will not continue at the same level in FY15 as the conference will not be held in Boston.

- $200,000 for Professional Services, an increase of $201,000 from FY14 Actual Spending. The increase is primarily associated with an emerging agreement to contribute to the Mystic River Modeling Project. Funding also continues to cover energy consulting services to support procurements and evaluation of projects. Actual expenses for FY14 reflect a credit for the reclassification of a prior period expense.

- $1.7 million for Other Materials, which is $54,000 or 3.1% less than FY14 Actual Spending primarily due to additional spending in FY14 for vehicle replacements that were delayed from FY13. Funding in this line item is mostly for the replacement of older vehicles in MWRA’s fleet. At an average cost of $30k - $35k per vehicle, the budget supports replacement of 48-56 vehicles per year which is approximately 10%-11% of the active fleet.

- $252,000 for Other Services, an increase of $23,000 or 9.9%, from FY14 Actual Spending. The budget funds Authority-wide memberships including the Water Research Foundation (WRF), National Association of Clean Water Agencies (NACWA), Association of Metropolitan Water Agencies (AMWA), American Water works Association (AWWA), and the Boston Harbor Association (BHA) marine debris program. The funding change is due to increases for several memberships and the addition of funding for a membership with the Mystic River Watershed Association.
The Deer Island Treatment Plant, the Residuals Management Program, and the Clinton Treatment Plant comprise the Wastewater Treatment Department. Together, the budgets for these programs represent 41% of the Operations Division’s FY15 Final Budget and 31% of MWRA’s FY15 Final Direct Expense Budget.

Incoming wastewater from MWRA customer communities is piped to several headworks facilities where large objects are screened out before the influent is transmitted to Deer Island Treatment Plant through underground tunnels. At Deer Island, wastewater from the north system is pumped through chambers that remove grit and detritus for disposal in an off-island landfill. South system flows undergo preliminary treatment at the Nut Island headworks and are then pumped directly into the primary treatment facility, bypassing the grit removal chambers. The primary treatment facility consists of stacked clarifiers where scum rises to the top and the sludge settles to the bottom. Secondary reactors and clarifiers remove organic matter through biological and gravity treatment. Primary and secondary sludge and scum are thickened, anaerobically digested, and further thickened to reduce the volume of sludge before it is pumped through the Braintree-Weymouth tunnel to MWRA’s Residuals Processing Facility at Fore River Staging Area (FRSA). Methane, a byproduct of anaerobic digestion, is used to fuel the plant's boilers, which produce steam to provide heat and generate electricity.
## Program Description and Goals:

The **Deer Island Treatment Plant** budget accounts for 30% of the Operations Division’s FY15 Final Budget. DITP has a peak primary treatment capacity of 1.27 billion gallons per day (bgd) and peak secondary treatment capacity of 700 million gallons per day (mgd).

Wastewater "influent" from MWRA customer communities arrives at the plant through four underground tunnels. Pumps then lift the influent 80 to 150 feet, depending on the tunnel, to the head of the plant.

North system flows pass through grit channels and bar screens at the headworks that remove grit and screenings for disposal in an off-island landfill. South system flows are pre-treated for grit at Nut Island and the Braintree-Weymouth Intermediate Pump Station. Flow is routed to primary treatment clarifiers, which remove about half of the pollutants brought to the plant in typical wastewater (removes 50-60% of total suspended solids and up to 50% of pathogens and toxic contaminants). In the clarifiers, gravity separates sludge and scum from the wastewater.

In secondary treatment, reactors and clarifiers remove non-settleable solids through biological and gravity treatment. The biological process is a pure oxygen-activated sludge system, using microorganisms to consume organic matter that remain in the wastewater flow. Secondary treatment raises the level of pollution removal to over 85%. Approximately 130 tons of pure oxygen is manufactured each day at Deer Island's cryogenic facility to support the biological treatment process.

Sludge from primary and scum from both primary and secondary treatment are thickened in gravity thickeners. Sludge from secondary treatment is thickened in centrifuges. Polymer is used in the secondary sludge thickening process to increase its efficiency. Digestion occurs in the egg-shaped anaerobic digesters at the Deer Island Treatment Plant. There are a total of 12 digesters, each 90 feet in diameter and approximately 140 feet tall (128 ft liquid level). Microorganisms naturally present in the sludge work to break sludge and scum down into methane gas, carbon dioxide, solid organic byproducts, and water. Digestion significantly reduces sludge quantity. The methane gas produced in the digesters is used in the plant's on-site power generating facility to save operating costs by reducing consumption of fuel oil for heating and purchased energy. Digested sludge is pumped through the Nut Island inter-island tunnel and Braintree-Weymouth extension tunnel directly to the MWRA’s Pelletizing Facility at Fore River, where it is further processed into a fertilizer product.

### FY15 Final Current Expense Budget

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<tr>
<th>LINE ITEM</th>
<th>FY12 Actual</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>Change FY14 to FY15</th>
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<td>WAGES &amp; SALARIES</td>
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<td>CHEMICALS</td>
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</table>

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Organizational Structure:

The Deer Island Plant has six major functional areas: Operations, Thermal Power Plant, Process Control, Maintenance, Capital Engineering, and Operations and Maintenance (O&M) Support.

- Operations staff manages the day-to-day operation of plant processing units, performs minor preventative maintenance activities, and oversees plant functions 24 hours per day, seven days per week.

- Thermal Power Plant staff manages and operates the Deer Island generation and thermal systems. Power Plant personnel provide 24 hour operation of the high-pressure, high temperature steam power plant. This facility is capable of producing up to 70 megawatts of emergency electrical power.

- Process Control manages and maintains the following programs in support of plant operations; real-time process instrumentation and control system (PICS), operational data system (OMS), plant performance monitoring and reporting programs, and regulatory compliance programs including all plant permits, water quality, and air quality. The Process Control Unit provides the technical expertise for plant unit operations and routinely performs process optimization studies to help increase performance and reduce operating costs.

- Maintenance performs preventive and predictive maintenance and corrective repairs on all equipment, utilizing a computerized maintenance management system (CMMS) to coordinate scheduling with Operations. Staff has developed the Reliability Centered Maintenance (RCM) program, which has improved plant performance by applying maintenance resources where they are most effective. RCM analyzes the operating systems with the objective of ensuring critical functions operate as required. Implementation of a preventive maintenance program using RCM helps reduce the cost of maintaining the plant and improves the efficiency by anticipating when maintenance will be required. An on-island warehouse, managed by Procurement Department staff, ensures there is adequate stock for maintenance repairs and plant operations.

- Capital Engineering provides technical support services for both the Operations and Maintenance Units. Staff is responsible for all aspects of plant engineering including developing, procuring, and implementing all service contracts, consultant designs, and capital improvement projects at Deer Island. This group also manages the on-island Technical Information Center, which provides services to the Deer Island Treatment Plant (DITP) community and external constituents, and ensures quick access to plant drawings and technical information for operational and maintenance needs.

- O&M Support Section is responsible for supporting the business needs of the plant. The Administration and Finance Unit provides financial and administrative support to meet daily operational needs of the plant. The Safety/Security Unit is responsible for ensuring a safe and healthful work environment for employees and minimizing MWRA’s exposure to liability and property loss or damage.

The Deer Island Director’s Office provides overall policy direction and support in the areas of public access and community agreements.

Operating Assumptions

Deer Island’s FY15 Final Budget assumes treatment of an average flow of 359 mgd based on multi-year historical data. The projected quantity of digested sludge to be pumped to FRSA (TSS basis) is 103 TPD. This is based on multi-year data since the discontinuation of the DSL centrifuges and the start-up of the Braintree-Weymouth tunnel. It also accounts for recent improvements to digestion rates as a result of equipment modifications.
Deer Island’s FY15 Final Budget accounts for the impact of self-generation of electricity from the steam turbine generators, combustion turbine generators, hydroelectric generators, wind turbine generators, and photovoltaic panels. In total, these assets will provide approximately 28% of the total energy requirements.

Deer Island continues to comply with the conditions of the current National Pollutant Discharge Elimination System (NPDES) Permit which expired in FY06. Given the uncertainty regarding the timing of the permit renewal from the Environmental Protection Agency (EPA), Deer Island’s FY15 Final Budget only assumes a new permit will be in effect for the last three months of FY15. When the new permit is issued, it is anticipated that Deer Island’s treatment process will be required to kill enterococcus in addition to fecal coliform to comply with the new regulations.

**Budget Highlights:**

- The FY15 Final Budget is $49.4 million, an increase of $979,000 or 2.0%, from FY14 Actual Spending.
- $18.1 million for **Wages and Salaries**, an increase of $724,000 or 4.2% from FY14 Actual Spending primarily due to projected cost of living adjustments, funding for a temporary project engineer position in FY15, and increases in stand-by pay estimates based on multi-year history. The FY15 Final Budget includes $194,000 for stand-by pay to support operational and maintenance needs primarily during storms and emergencies; $56,000 for one contract employee; and $14,000 for interns. The FY15 Final Budget funds 230 permanent positions, one temporary project engineer to assist with PICS, and part-time facility interns to assist with data collection and contract monitoring.
- $1.0 million for **Overtime**, which is $134,000 or 15.2% more than FY14 Actual Spending primarily due to below-average need for wet weather overtime in FY14 whereas the FY15 Final Budget is based on multi-year historical trends. Deer Island’s budget supports overtime required for operational coverage, critical maintenance projects, and regulatory requirements (i.e. inspections).
- $3.2 million for **Chemicals**, a decrease of $86,000 or 2.6%, from FY14 Actual Spending. The decrease is due to projected lower pricing for chemicals offset by the inclusion of three months impact of a NPDES Permit. The FY15 Final Budget reflects management’s expectation that a new NPDES permit will only be in effect for the last three months of FY15. The budget includes $1.1 million for sodium hypochlorite, $783,000 for ferric chloride, $314,000 for activated carbon, $302,000 for polymer, and $296,000 for sodium bisulfite.
- $13.7 million for **Utilities**, an increase of $480,000 or 3.6% more than FY14 Actual Spending, mainly due to additional diesel fuel purchases and increases in water wholesale rates and estimated use. Diesel fuel quantities and water use budgets are based on multi-year averages whereas FY14 actual use was lower than expected due to relatively mild weather and the resulting impact on operations. The FY15 Final Budget includes $10.3 million for electricity, $1.8 million for diesel fuel, and $1.6 million for water. The FY15 Final Budget reflects the average of three years of actual data for power usage and self-generation, plus revised self-generation estimates for the new back pressure steam turbine generator (BP STG).
- $12.7 million for **Maintenance**, a decrease of $135,000 or 1.1% from FY14 Actual Spending. The FY15 Final Budget includes $5.8 million for materials and $6.9 million for services. The combined totals for materials and services by category includes $7.7 million or 61% is for plant and machinery, $2.0 million for electrical systems, $1.7 million is for building and grounds, and $848,000 for HVAC systems.
- $121,000 for **Professional Services**, a decrease of $108,000 or 47.2%, from FY14 Actual Spending. The budget includes $55,000 for as-needed engineering services to support priority maintenance projects in FY15, $50,000 for emissions consulting, and $16,000 for lab and testing and analysis. The decrease from FY14 to FY15 reflects more use of as-needed engineering services in FY14 versus as budgeted in FY15 based on project needs.
$371,000 for **Other Materials**, a decrease of $58,000 or 13.5%, from FY14 Actual Spending mainly due to higher spending in FY14 than that planned in FY15. The FY15 Final Budget includes $126,000 for health and safety materials, $98,000 for work clothes, and $68,000 for vehicles expenses (tolls, mileage, and gas).

$248,000 for **Other Services**, an increase of $30,000 or 13.6% from FY14 Actual Spending. The FY15 Final Budget includes $74,000 for permit fees, $62,000 for health and safety services, $36,000 for telephones, $34,000 for membership dues and subscriptions, $16,000 for printing, and $15,000 for freight charges.
Residuals Management Program Description and Goals:

The Residuals Management Program manages the processing and disposal of approximately 99-106 dry tons per day (on average per year) total suspended solids (TSS) of sludge from the anaerobic digestion process at Deer Island Treatment Plant, as well as the disposal of grit and screenings from all MWRA facilities. MWRA seeks to dispose of all sludge and grit and screenings in a reliable, economical, and environmentally sensitive manner.

- MWRA contracts with the New England Fertilizer Company (NEFCo) to operate the sludge processing facility, and to market and distribute sludge products. A 15-year contract with NEFCo became effective March 1, 2001 and will expire on December 31, 2015. Liquid sludge from Deer Island is pumped through the Braintree-Weymouth cross-harbor tunnel to the Fore River processing facility where it is dewatered, dried, and shipped by either rail or truck for use as fertilizer or to other appropriate disposal. MWRA is committed to the beneficial reuse of biosolids to the greatest extent practicable.

A third-party independent condition assessment of the NEFCo facility noted that the facility was in excellent condition and recommended only minor modifications to several control system devices.

- The final budget is based on 103 tons per day (TPD based on TSS), consistent with historical actual annual tonnage since the start-up of the Braintree-Weymouth tunnel through FY14, discounted to reflect recent improvements in digestion as a result of equipment modifications.

- Grit and screenings (minor residuals) from MWRA's headworks and certain pump stations are collected and disposed of in landfills. MWRA contracts with a third party operator for this service. Minor residuals are by-products of wastewater pre-treatment and primary/secondary treatment processes and include grit, screenings, and scum screenings.

Budget Highlights:

- The FY15 Final Budget is $15.6 million, an increase of $582,000 or 3.9%, from FY14 Actual Spending.

- $120,000 for Wages and Salaries, an increase of $4,000 or 3.7%, as compared with FY14 Actual Spending mainly due to projected cost of living adjustments. This line item funds one position. This department also receives on-going management oversight and staff support from other departments of the MWRA including Deer Island, Treasury, and Operations Administration.
- $696,000 for Maintenance, an increase of $21,000 or 3.1%, from FY14 Actual Spending. The funding supports the capital repair, replacement, and improvement component of the NEFCo contract, which includes a specific level per year adjusted to account for inflation. The change from FY14 to FY15 is due to differences in the base amount in each calendar year as included in the approved, contractual maintenance schedule established at the time of the contract award. The FY15 Final Budget also reflects adjustments for current inflation indices.

- $36,000 for Professional Services, an increase of $24,000 or 197.9% from FY14 Actual Spending. Funding supports the cost of bi-annual, permit-required, stack testing.

- $14.7 million for Other Services, an increase of $536,000 or 3.8%, from FY14 Actual Spending. The FY15 Final Budget primarily funds the Sludge Pelletization portion of the NEFCo contract. The FY15 Budget includes $14.0 million for sludge, a $517,000 increase as compared to FY14 Actual Spending due an increase in the projected inflation rates for natural gas, labor, and materials offset by a decrease to the inflation estimate for electricity based on current indices. The projected tonnage also increases from an average of 99.2 tons per day in FY14 to 103 tons per day in FY15, which is based on multi-year averages. In addition, this line item also covers Grit and Screenings disposal of $852,000, which is a $44,000 increase from FY14 Actual Spending of $808,000. FY14 Actual Spending was less than expected primarily due to relatively drier weather patterns.
Program Description and Goals:

The Clinton Wastewater Treatment Program provides advanced sewage treatment services to the Town of Clinton and the Lancaster Sewer District. MWRA assumed formal operational responsibility for the Clinton plant in 1987. Since then MWRA has designed and constructed new primary, secondary, and advanced treatment facilities which incorporated rehabilitated portions of the existing plant with new construction. The new facilities, designed to meet all current and projected National Pollutant Discharge Elimination System (NPDES) discharge standards, were completed in 1992.

The plant provides secondary treatment using an activated sludge process in combination with advanced nutrient removal and dechlorination. The major facilities include a headworks, primary settling tanks, digesters, sludge processes, trickling filters, aeration tanks, secondary tanks, and a chemical addition building. The plant discharges its effluent into the South Nashua River in accordance with the discharge limits of the facility's NPDES permit which limits effluent flow to 3.01 mgd. The plant has a potential peak flow rate of 12 mgd and a 6 mgd peak 24 hour rate. Residual materials are pressed and transported to an MWRA-owned landfill for disposal. Staff also performs regular monitoring of the landfill site.

The FY15 Final Budget continues to reflect savings from the operation of the Clinton aeration system efficiency improvements and redundant pumping at the influent and intermediate lift stations. These improvements were completed in calendar year 2013. Staff commenced the projects based on a consultant study that recommended installing fine bubble diffusers in three of the six secondary aeration tanks and removing the existing mechanical mixers to obtain a better oxygen transfer rate while reducing electricity consumption. In FY12, the project scope was expanded to include the installation of four permanent submersible auxiliary pumps to increase pumping capacity during high flow conditions in the plant and also the installation of SCADA to control the system, collect and store data, and visually monitor the processes. These improvements have saved approximately $35,000 per year in electricity costs since installation. MWRA received a total of $198,000 in grant funds from National Grid for both projects.

The FY15 Final Budget also assumes a full year of the new NPDES permit which affects chemical usage. Chemical usage has also changed due to better mixing and oxygen transfers as a result of the improvements in aeration tanks. This requires a significant increase in Soda Ash, for higher alkalinity, to counteract the biological activity caused by the oxygen.
Budget Highlights:

- The FY15 Final Budget is $1.7 million, an increase of $79,000 or 5.0% from FY14 Actual Spending.

- $625,000 for **Wages and Salaries**, an increase of $17,000, or 2.9% from FY14 Actual Spending. The FY15 Final Budget funds seven positions and one part-time contract clerical position. The increase from FY14 Actual Spending is mainly due to projected cost of living adjustments. Wages and Salaries represent 37% of the FY15 Final Budget.

- $58,000 for **Overtime**, an increase of $4,000 or 8.2% from FY14 Actual Spending. Overtime is used for critical maintenance work and to meet the 24 hour, 7 day per week emergency coverage requirement. The FY15 Final Budget also includes incremental OT to cover the operational impacts of planned construction projects.

- $382,000 for **Chemicals**, an increase of $92,000 or 31.6% from FY14 Actual Spending. Chemicals are used for sludge processing, disposal, and wastewater treatment. The FY15 Final Budget assumes the new NPDES permit will be in effect for the full year. The chemical budget increase is due to expected higher use of Ferric Chloride and Soda Ash. Chemical usage estimates are based on trends through FY14, adjusted to account for improvements in the aeration system which causes better mixing and oxygen transfer, resulting in higher alkalinity and thus more treatment. Chemicals represent 23% of the FY15 Final Budget.

- $229,000 for **Utilities**, a decrease of $19,000 or 7.8% from FY14 Actual Spending. The FY15 Final Budget includes $155,000 for electricity, $58,000 for #2 Fuel Oil, and $17,000 for water. The change from FY14 is primarily due to lower usage for electricity based on recent trends and operational improvements. Utilities represent 14% of the FY15 Final Budget.

- $207,000 for **Maintenance**, a decrease of $30,000 or 12.7% from FY14 Actual Spending due to the planned mix of projects for FY15 versus those that were completed in FY14. The FY15 Final Budget includes $72,000 for major projects based on the most current rolling priority list. The remainder of the budget is for routine materials and services such as grounds keeping and snow removal; electrical repairs; and plumbing. Maintenance represents 12% of the FY15 Final Budget.

- $148,000 for **Other Materials**, essentially level funded with FY14 Actual Spending. The FY15 Final Budget for Other Materials includes $136,000 for clean fill for the landfill operations and $12,000 for office supplies, health and safety materials, work clothing, and vehicle expenses.

- $26,000 for **Other Services** which funds permit fees, telephones, railroad easements, and rental of a construction trailer.
The primary goal of the Field Operations Department (FOD) is to provide high quality, uninterrupted water delivery and wastewater collection services to MWRA communities. The department is responsible for the treatment, transmission, and distribution of water from the Quabbin and Wachusett reservoirs to community water systems. It also manages the collection, transport, and screening of wastewater flow from MWRA communities to the Deer Island Treatment Plant as well as MWRA’s industrial pretreatment, permitting, and monitoring program. FOD consists of six operating units: Toxic Reduction and Control, Wastewater Operations, Metropolitan Maintenance, Water Operations and Maintenance, Operations Support, and Administration.

The Toxic Reduction and Control (TRAC) Department operates a multi-faceted program to minimize and control the inflow of hazardous or toxic materials into the MWRA sewer system. TRAC operates MWRA’s Environmental Protection Agency (EPA) approved Industrial Pretreatment Program and is responsible for all associated activities which include conducting inspections (approximately 700 annually), issuing permits (300 annually), conducting sampling (more than 2,000 events annually), and carrying out enforcement activities (approximately 400 annually). The program tracks more than 1,400 permitted facilities and 4,000 gas/oil separators. TRAC uses a software application to manage an extensive amount of industrial data on analytical test results, compliance status, and facility sampling and permitting requirements.

Wastewater Operations operates MWRA’s wastewater transport facilities, including four continuously staffed Headworks facilities; 12 fully automated pumping stations; and seven Combined Sewer Overflow (CSO) facilities which are similarly unstaffed. The wastewater system is monitored and controlled from the operations control center (OCC) in MWRA’s Chelsea facility.
Water Operations and Maintenance is responsible for the treatment and delivery of approximately 199 million gallons per day (three year average mgd) of water from the Quabbin and Wachusett reservoirs to the community water systems. The water system encompasses a service area from Chicopee in the western part of the state to Lynnfield, Wakefield, Marblehead, Norwood and Canton in the metropolitan area. This unit operates and maintains MWRA’s western waterworks facilities, including the Carroll Water Treatment Plant, the MetroWest Tunnel, the Ware Water Treatment Plant, the Cosgrove Intake Facility, the Norumbega Reservoir, and the covered storage facilities. There are two operations centers that provide for monitoring and control of the water system on a 24-hour per day basis. The Metropolitan Operations and Control Center (OCC) is located at MWRA’s Chelsea facility and the Western Operations Center is located at the Carroll Water Treatment Plant.

Metropolitan Maintenance is responsible for the maintenance of MWRA’s wastewater and water systems and facilities within the Route 128 area. Staff maintains pipelines, valves, interceptors, pumps, facility equipment, buildings, and grounds. Metropolitan Maintenance staff maintains a waterworks network of approximately 300 miles of water mains, 4,955 valves, 18 miles of deep rock tunnels, twelve pump stations, eight tunnel shafts, twelve distribution storage tanks, and a wastewater network of 240 miles of wastewater interceptors and appurtenances, twelve pump stations, four headworks, and six CSO facilities. In addition, this unit performs TV inspections of the wastewater interceptor system and leak detection.

Operations Support provides technical support to the Field Operations Department (FOD) in the areas of engineering, quality assurance, data management, metering, and monitoring. Engineering staff coordinate all engineering issues related to the operation of the water and wastewater systems. The Quality Assurance Unit monitors water treatment effectiveness, identifies treatment issues, and develops recommendations for water treatment improvements. Data management activities include performance reporting on water quality, development and maintenance of water quality treatment and optimization models, and tracking and analyzing chemical and hydraulic flow data. The Metering and Monitoring unit maintains 179 revenue water meters, 26 master water meters, 187 revenue wastewater meters, and 35 other wastewater monitoring sites. This unit collects meter data for operational and revenue generating purposes from the water and wastewater systems. It is also responsible for the maintenance of the water and wastewater Supervisory Control and Data Acquisition (SCADA) systems.

FOD Administration provides financial, administrative, planning, and policy oversight functions for the entire Field Operations Department.

Budget Highlights:

- The FY15 Final Budget is $72.7 million, an increase of $2.2 million or 3.1% from FY14 Actual Spending.

- $38.9 million for Wages and Salaries, an increase of $2.3 million or 6.4% from FY14 Actual Spending mainly due to projected cost of living increases, an expanded intern program, more stand-by pay to reflect multi-year wet weather usage, and more filled positions in FY15. The Wages and Salaries line item accounts for 54% of the FY15 Final Budget and funds 503 positions. Of the remaining budget, $550,000 is for stand-by pay to ensure support for operational and maintenance needs during wet weather and emergencies. The budget also includes $120,000 for interns to provide support in several areas including Operations Engineering, Western Operations, and TRAC.

- $2.4 million for Overtime, an increase of $71,000 or 3.1% from FY14 Actual Spending mainly due to lower than expected wet weather events in FY14. The FY15 budget includes increases in funding for emergency overtime in the western water system operations and SCADA during wet weather events based on systematic needs and multi-year weather patterns. It also includes more NPDES-monitoring overtime in TRAC during wet weather. The budget includes $1.2 million for emergency related overtime; $609,000 for operational coverage needs; and $584,000 for planned overtime covering scheduled maintenance and training.
• $6.6 million for **Chemicals**, of which $6.3 million is for water treatment and $361,000 is for wastewater treatment. The FY15 Final Budget is $12,000 or 0.2% less than FY14 Actual Spending primarily due to less than projected use of Hydrofluosilicic Acid due to a proposed regulatory change which would lower the dosing requirement offset by increases for liquid oxygen and nitrazyme based on multi-year estimates of actual use.

• $9.4 million for **Utilities**, a decrease of $396,000 or 4.0%, from FY14 Actual Spending mainly due to lower projected electricity prices in FY15 based on market forecasts offset by slightly higher usage based on multi-year historical operating patterns. The net decrease in electricity is offset by increases in diesel fuel primarily due to projected price increases. The FY15 Budget includes $6.4 million for electricity, $2.0 million for diesel fuel, $516,000 for natural gas, and $486,000 for water.

• $10.1 million for **Maintenance**, a decrease of $132,000 or 1.3% from FY14 Actual Spending. The FY15 Budget includes $4.2 million in day-to-day needs, $3.5 million for services, $1.8 million in major projects, and $557,000 for energy initiatives. Some of the major projects planned for FY15 include:

  - Manhole Rehabilitation Contract $360,000
  - Invasives Control - Stillwater Basin - DASH $210,000
  - Lightening Protection at the Chelsea Office Facility $160,000
  - Tree Clearing at Dams - South Dike clearing at the Toe $100,000
  - Spare Rotating Assembly for DeLauri $80,000
  - Invasives Control - Chestnut Hill $79,000
  - Tree Clearing at Dams - Foss Dam $70,000

• $94,000 for **Training and Meetings**, an increase of $4,000 or 3.9% from FY14 Actual Spending. The training budget covers cost of professional development required for work duties, health and safety compliance, and job-related licensures and certifications.

• $781,000 for **Professional Services**, an increase of $531,000 or 213.2% from FY14 Actual Spending mainly due to the inclusion of partial funding in FY15 for the Local Limit Study and lower than budgeted FY14 spending for as-needed engineering services and dam initiatives. The FY15 Final Budget includes $622,000 for engineering services, which is made up of $325,000 for as-needed engineering services to support CEB-funded maintenance projects; $125,000 for the local limits study; $107,000 for dam safety services; $50,000 for a leak detection survey of the water system; and $15,000 for evaluation of spill prevention, control, and countermeasure plans. The Professional Services budget also includes $60,000 for an annual macrophyte survey at the reservoirs; $54k for quality assurance services for macrophyte harvesting; and $40,000 for energy audits at various facilities.

• $1.1 million for **Other Materials**, a decrease of $92,000 or 7.5% from FY14 Actual Spending mainly due to delays in purchasing equipment/furniture in FY14. The FY15 Final Budget includes $390,000 for vehicle expenses for gas, mileage reimbursements, and tolls; $240,000 for health and safety supplies; $214,000 for work clothes; $145,000 for lab and testing supplies; and $85,000 for equipment and furniture.

• $3.2 million for **Other Services**, a decrease of $97,000 or 3.0% from FY14 Actual Spending mainly due to lower budget estimates for police details in FY15 based on planned projects and also FY14 unbudgeted expenses for the Constitution Beach CSO demolition and other work that will not carry forward to FY15. These decreases are partially offset by an expected increases in the Chelsea office building due to higher lease payments per contractual agreements and higher tax assessments. The FY15 Final Budget includes $1.9 million for annual lease payments for the Chelsea office building; $583,000 for telephones; $405,000 for police details; and $85,000 for telecommunications equipment and services for the contaminant monitoring system.
The goal of the **Department of Laboratory Services (DLS)** is to provide high quality and responsive laboratory services to MWRA’s water and wastewater treatment programs, including the Department of Conservation and Recreation (DCR) and the MWRA member water and wastewater communities. This includes timely and cost-effective laboratory tests to meet the strict testing guidelines required by all regulatory programs and permits, including the Safe Drinking Water Act, Clean Water Act, and National Pollutant Discharge Elimination System (NPDES) permits. The Department supports these functions at five locations: Chelsea, Southboro, Quabbin, the Central Laboratory at the Deer Island Treatment Plant, and the Clinton Wastewater Treatment Plant. Testing supports drinking water transmission and treatment processes, wastewater operations and process control at Deer Island and Clinton, NPDES compliance, Massachusetts Bay outfall monitoring, Toxic Reduction and Control (TRAC), and wastewater residuals. DLS also conducts the Boston Harbor monitoring program that involves regular sampling for nutrients, bacteria, and water quality parameters throughout Boston Harbor. Laboratory staff track and analyze results for submission to the Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (Mass DEP).

Most MWRA laboratory testing is done in-house. Certain highly specialized or low volume tests are outsourced, such as tests for cryptosporidium, viruses, and radioactivity.

**Budget Highlights:**

- The FY15 Final Budget is $6.2 million, an increase of $546,000 or 9.7% from FY14 Actual Spending.

- $4.6 million for **Wages and Salaries**, an increase of $363,000 or 8.6%, from FY14 Actual Spending. The FY15 Budget funds 55 positions, the same as funded in FY14. The increase from FY14 is mainly due to projected cost of living adjustments and lower than budgeted headcount in FY14. The FY15 Final Budget also includes $124,000 for up to three temporary employee positions to cover peak workload and to assist with testing for Harbor and Outfall Monitoring, Carroll Water Treatment Plant special projects and an intern for summer beach monitoring.

- $24,000 for **Utilities**, a decrease of $3,000 or 12.4%, as compared with FY14 Actual Spending. This funding covers the purchase of gases and cryogenic liquids used for various laboratory instruments.

- $286,000 for **Maintenance**, an increase of $37,000 or 15.0% from FY14 Actual Spending primarily due to expected contract costs in FY15. The FY15 Final Budget includes $204,000 for equipment service contracts, $36,000 for harbor monitoring field equipment replacements, $30,000 for Heating Ventilation Air Conditioning (HVAC) services to annually maintain and certify the fume hoods, and $15,000 for laboratory modifications.

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY12 Actual</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>Change FY14 to FY15</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGES &amp; SALARIES</td>
<td>$ 3,983,943</td>
<td>$ 4,113,753</td>
<td>$ 4,200,693</td>
<td>$ 4,563,513</td>
<td>$ 362,820 8.6%</td>
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<tr>
<td>OVERTIME</td>
<td>67,731</td>
<td>71,746</td>
<td>61,699</td>
<td>56,706</td>
<td>(4,993) -8.1%</td>
</tr>
<tr>
<td>FRINGE BENEFITS</td>
<td>445</td>
<td>512</td>
<td>505</td>
<td>1,200</td>
<td>695 137.6%</td>
</tr>
<tr>
<td>UTILITIES</td>
<td>16,464</td>
<td>23,032</td>
<td>27,689</td>
<td>24,265</td>
<td>(3,424) -12.4%</td>
</tr>
<tr>
<td>ONGOING MAINTENANCE</td>
<td>186,431</td>
<td>252,330</td>
<td>248,489</td>
<td>285,652</td>
<td>37,163 15.0%</td>
</tr>
<tr>
<td>TRAINING &amp; MEETINGS</td>
<td>773</td>
<td>141</td>
<td>5,176</td>
<td>2,000</td>
<td>(3,176) -61.4%</td>
</tr>
<tr>
<td>PROFESSIONAL SERVICES</td>
<td>68,265</td>
<td>130,607</td>
<td>156,185</td>
<td>155,395</td>
<td>(790) -0.5%</td>
</tr>
<tr>
<td>OTHER MATERIALS</td>
<td>921,303</td>
<td>889,095</td>
<td>827,126</td>
<td>985,556</td>
<td>158,430 19.2%</td>
</tr>
<tr>
<td>OTHER SERVICES</td>
<td>67,445</td>
<td>82,390</td>
<td>93,753</td>
<td>92,985</td>
<td>(768) -0.8%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$ 5,312,800</td>
<td>$ 5,563,606</td>
<td>$ 5,621,315</td>
<td>$ 6,167,272</td>
<td>$ 545,957 9.7%</td>
</tr>
</tbody>
</table>
• $155,000 for Professional Services, which is level funded with FY14 Actual Spending. Funding in this line item supports laboratory and testing analysis services the department uses to contract out a variety of complex and/or low volume tests. Outside laboratories are used for emergencies, second opinions, capacity constraints, and unavailability of specialized equipment or economic justification. This budget also funds outside testing for the EPA-mandated unregulated contaminant monitoring rule 3 program (UCMR3) which is required for three years (FY14 to FY16).

• $986,000 for Other Materials, an increase of $158,000 or 19.2%, from FY14 Actual Spending primarily due to delays and reevaluations of instrument purchases in FY14. The FY15 Final Budget includes $649,000 for laboratory and testing supplies and $295,000 for replacement of obsolete or older equipment.

• $93,000 for Other Services, which is level funded with FY14 Actual Spending. The FY15 Final Budget primarily covers boat rental service on an as-needed basis, boat dockage for two boats, removal of hazardous waste, and courier service for shipping samples between laboratories.
The Environmental Quality Department (EnQuad) manages and reports on environmental findings that may be linked to MWRA operations and projects. EnQuad monitors sewage influent and effluent quality; monitors the water quality of Boston Harbor, its tributary rivers, and Massachusetts Bay; manages and enters data; and complies with the reporting requirements of MWRA’s National Pollutant Discharge Elimination System permits. MWRA submits permit reports to state and federal regulators, the Outfall Monitoring Science Advisory Panel and its subcommittees, and several libraries; and, as required by the permits, EnQuad posts many of these reports on MWRA’s website, as well as a list of technical reports and other water quality information.

### Budget Highlights:

- **The FY15 Final Budget is $3 million, an increase of $251,000 or 9.2%, from FY14 Actual Spending.**
- **$1.5 million for Wages & Salaries, an increase of $76,000 or 5.4% from FY14 Actual Spending mainly due to projected cost of living adjustments and contractual step increases. The budget funds 15 positions, which is consistent with the average number of filled positions in FY14.**
- **$1.4 million for Professional Services, an increase of $160,000 or 12.4% from FY14 Actual Spending primarily due to additional funding for data from the University of Maine Buoy in Cape Ann, MA. and increases in the expected workload in FY15 for existing Harbor and Outfall Monitoring (HOM) contracts. Of the total budget, $1.1 million is for laboratory testing and analysis in support of MWRA’s HOM Program and $300,000 covers the following contracts which, except for biotoxicity testing, are co-funded through cost-sharing arrangements:**
  - Biototoxicity testing for Deer Island and Clinton treatment plants, and Combined Sewer Overflow facilities;
  - University of Maine’s buoy off Cape Ann, with instruments measuring algae and other water quality indicators;
  - Cape Cod Bay water quality monitoring; and
  - Bays Eutrophication Model.
- **$5,000 for Other Materials, an increase of $3,000 or 192.3%, above FY14 Actual Spending. Funding supports office supplies, miscellaneous equipment, work clothes, and vehicle expenses.**

### FY15 Final Current Expense Budget

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY12 Actual</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>Change FY14 to FY15</th>
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<tbody>
<tr>
<td>WAGES &amp; SALARIES</td>
<td>$1,465,986</td>
<td>$1,422,607</td>
<td>$1,410,573</td>
<td>$1,486,964</td>
<td>$76,391 5.4%</td>
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<tr>
<td>OVERTIME</td>
<td>985</td>
<td>1,922</td>
<td>1,151</td>
<td>2,000</td>
<td>849 73.8%</td>
</tr>
<tr>
<td>FRINGE BENEFITS</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ONGOING MAINTENANCE</td>
<td>(905)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>TRAINING &amp; MEETINGS</td>
<td>1,405</td>
<td>2,925</td>
<td>3,406</td>
<td>12,000</td>
<td>8,594 252.3%</td>
</tr>
<tr>
<td>PROFESSIONAL SERVICES</td>
<td>1,369,550</td>
<td>1,221,137</td>
<td>1,292,785</td>
<td>1,452,840</td>
<td>160,055 12.4%</td>
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<tr>
<td>OTHER MATERIALS</td>
<td>18,157</td>
<td>6,012</td>
<td>1,567</td>
<td>4,580</td>
<td>3,013 192.3%</td>
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<td>OTHER SERVICES</td>
<td>4,983</td>
<td>6,231</td>
<td>13,035</td>
<td>15,454</td>
<td>2,419 18.6%</td>
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<tr>
<td>TOTAL</td>
<td>$2,860,161</td>
<td>$2,660,834</td>
<td>$2,722,517</td>
<td>$2,973,838</td>
<td>$251,321 9.2%</td>
</tr>
</tbody>
</table>

The FY15 Final Budget continues to reflect the reduction in scope of HOM monitoring that began in CY2011 based on the favorable findings of nine years of monitoring data and regulatory approval. MWRA is saving approximately $800,000 per year in monitoring costs due to these changes. In addition, in FY13 MWRA was successful in achieving regulatory approval to discontinue the ambient monitoring plan requirement to measure floatables, for estimated savings of $40,000 per year.
$15,000 for **Other Services**, an increase of $2,000 or 18.6%, from FY14 Actual Spending. Funding on this line item supports $10,000 expense for a membership in NERACOOS to support the management of Buoy A in the Gulf of Maine as well as other memberships, telephones, and printing.
ENGINEERING AND CONSTRUCTION

The Engineering and Construction Department (ECD) manages and coordinates the planning, design, and construction of system improvements that ensure a safe and adequate water supply and a reliable wastewater collection and treatment. Staff is organized into three units including Wastewater Engineering, Water Engineering, and Construction.

The department provides in-house engineering, consultant management (during the facilities planning, environmental review, design, and engineering services during construction stages of capital projects), drafting, surveying, construction management, and other technical assistance required for the maintenance, repair, and rehabilitation of wastewater and waterworks systems. The Wastewater Engineering Unit manages all wastewater design and engineering projects including Combined Sewer Overflow (CSO) engineering activities. The unit also maintains the Design Information Services Center (DISC), which provides computer-aided design and drafting (CADD) services. The Water Engineering Unit manages all water design and engineering projects as well as specialized technical services in electrical, structural, mechanical, and civil engineering disciplines. The Construction Unit provides contract management and resident inspection on all MWRA water and wastewater construction and rehabilitation projects, with the exception of Deer Island Treatment Plant.

Budget Highlights:

- The FY15 Final Budget is $8.1 million, an increase of $895,000 or 12.5%, from FY14 Actual Spending.
- $7.9 million for Wages and Salaries, an increase of $836,000 or 11.8%, from FY14 Actual Spending mainly for contractual increases and lower than budgeted headcount in FY14. Wages and Salaries represent 98% of the FY15 Final Budget and includes funding for 81 positions.
- $65,000 for Overtime, an increase of $21,000 or 49.6%, from FY14 Actual Spending based on planned projects for FY15. Overtime covers resident inspection at construction sites after regular work hours to ensure monitoring of construction projects. Overtime is also used for unplanned design or survey needs, attendance at evening public meetings, and meeting deadlines.
- The Maintenance budget for specialized engineering copier services of $9,000 was moved from Maintenance to Other Services to ensure consistency of account classification for this service within MWRA.
- $6,000 for Training & Meetings, an increase of $1,000 or 23.9%, from FY14 Actual Spending. Training funds cover attendance at conferences and technical seminars.

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY12 Actual</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>Change FY14 to FY15</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGES &amp; SALARIES</td>
<td>$7,290,274</td>
<td>$7,120,388</td>
<td>$7,068,191</td>
<td>$7,903,885</td>
<td>$835,694</td>
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<td>OVERTIME</td>
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<td>72,736</td>
<td>43,123</td>
<td>64,500</td>
<td>21,377</td>
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<td>FRINGE BENEFITS</td>
<td>569</td>
<td>341</td>
<td>126</td>
<td>500</td>
<td>374</td>
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<td>ONGOING MAINTENANCE</td>
<td>7,647</td>
<td>6,825</td>
<td>9,603</td>
<td>-</td>
<td>(9,603)</td>
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<tr>
<td>TRAINING &amp; MEETINGS</td>
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<td>4,677</td>
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<td>6,400</td>
<td>1,234</td>
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<tr>
<td>PROFESSIONAL SERVICES</td>
<td>65,112</td>
<td>7,503</td>
<td>-</td>
<td>25,000</td>
<td>25,000</td>
</tr>
<tr>
<td>OTHER MATERIALS</td>
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<td>$7,175,077</td>
<td>$8,069,580</td>
<td>$894,503</td>
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FY15 Final Current Expense Budget

The Engineering and Construction Department (ECD) manages and coordinates the planning, design, and construction of system improvements that ensure a safe and adequate water supply and a reliable wastewater collection and treatment. Staff is organized into three units including Wastewater Engineering, Water Engineering, and Construction.
• The FY15 Final Budget for Professional Services includes $25,000 to cover as-needed utility borings/test pit services to support CEB projects. This contract will help avoid situations where contractors have utility conflicts while working on MWRA construction projects.

• $41,000 for Other Materials, an increase of $12,000 or 40.1% from FY14 Actual Spending primarily due to vehicle expenses and office supplies funding based on multi-year historical actuals. The budget covers vehicle expenses, office supplies, health and safety supplies, and survey equipment.

• $29,000 for Other Services, an increase of $9,000 or 44.3% from FY14 Actual Spending primarily due to the move of specialized engineering copier services from Maintenance to Other Services to ensure consistency of account classification for this service within MWRA. Funding in this line items supports printing/duplicating, telephone expenses, specialized copier services, memberships and dues, and police details.
The Planning Department provides regulatory, public policy and public health advocacy for MWRA’s drinking water and wastewater programs. It provides decision support on planning, policy and operations matters, using a range of technical and analytical tools. Staff administers financial assistance programs to improve the infrastructure of member communities and to promote water conservation, and manages the wholesale meter data necessary for water and sewer billing. The Department integrates staff efforts and coordinates MWRA activities related to system and capital planning, infrastructure renewal, and watershed management (in conjunction with the Commonwealth’s Department of Conservation and Recreation; DCR); strategic business planning; agency-wide performance measurement; and industry research. The following functions comprise the Department’s primary responsibilities:

Mapping, Modeling, and Data Analysis - Technical staff develops and maintains the Geographic Information Systems (GIS) for the water and wastewater systems, including integration of field and engineering records into GIS for access by planning, engineering, and operations staff. The group also provides demand analysis and forecasting of water and wastewater flows for master planning and system operations; models reservoir operations and performs drought forecasting and planning; evaluates system expansion requests; and develops and maintains water and wastewater system models in support of master planning, system operations, and optimization. Staff assists in developing agency wide summaries of energy and greenhouse gas emission efficiency improvements.

System Planning and Renewal - Staff with expertise in engineering and planning is responsible for water and wastewater system master planning, infrastructure needs assessment, and capital project development. This work is done in coordination with staff across MWRA. Planning and Coordination staff reviews water and wastewater system expansion requests, water supply agreements, and emergency withdrawal requests. Staff also assists the Operations Division on project siting decisions; environmental reviews; and permitting, including assessing impacts on MWRA facilities from other agency projects. Staff also assists in the development of strategies for long-term emergency risk reduction and preparation for MWRA facilities and systems, for a range of hazards including climate change and sea level rise.

Regulatory and Policy Matters - Staff work with various regulatory entities to advocate for cost-effective rule setting that protects the environment and promotes public health. Senior staff members actively work with industry associations and other groups with interests and agendas consistent with MWRA’s to advance water and wastewater regulations that make environmental and economic sense. Senior staff conducts strategic policy research on a broad range of topics. Staff also conducts public health research and reports on potable water quality through production of the annual Consumer Confidence Report (CCR). Staff also coordinates with DCR on watershed protection initiatives.
Community Support Program - Staff are responsible for the development, implementation, and reporting on inflow/infiltration (I/I) reduction policy; oversight of and reporting on MWRA leak detection and demand management programs; and reporting on the portions of MWRA's NPDES permit related to demand management and flow limitation activities. Staff administers community assistance programs including sewer inflow/infiltration financial and technical assistance, water pipeline rehabilitation financial assistance, water distribution systems technical assistance, water leak detection technical assistance, and water conservation programs.

Budget Highlights:

- The FY15 Final CEB is $2.3 million, an increase of $112,000 or 5.2%, from FY14 Actual Spending.

- $2.0 million for Wages and Salaries, an increase of $92,000 or 4.8%, from FY14 Actual Spending primarily due to projected cost of living adjustments. The FY15 Final Budget includes funding for 21 positions plus a year-round GIS intern position.

- $6,000 for Training and Meetings, an increase of $2,000 or 65.8%, from FY14 Actual Spending. Funding in this line item covers participation in training and conferences primarily focused on water quality regulations and geographic information systems (GIS).

- $3,000 for Professional Services, which is level funded with FY14 Actual Spending. Funding covers costs associated with the translation of the Consumer Confidence Report and also programming of the GIS user interface.

- $168,000 for Other Materials, an increase of $4,000 or 2.6%, from FY14 Actual Spending. This line item supports funding of $135,000 for postage and mailing of the Consumer Confidence Report (CCR); $15,000 for water conservation kits; $15,000 for mapping supplies; $2,000 for office supplies; and $1,000 for vehicle expenses.

- $77,000 for Other Services, an increase of $14,000 or 21.4%, as compared with FY14 Actual Spending due to projected increases for printing costs. The funding in this line item includes $58,000 for printing the Consumer Confidence Report and $18,000 for printing water conservation and other informational brochures.
The Law Division provides legal counsel to the Board of Directors, the Executive Director, and staff on compliance with federal and state laws, regulations, court cases, and administrative orders. Staff also handle and provide assistance with respect to litigation matters, real estate matters, labor/employment issues, procurement, and construction issues. The General Counsel interprets the MWRA Enabling Act and provides advice on conflict of interest and Code of Conduct issues. Division attorneys monitor the work of outside counsel when it is necessary to retain such services.

Law Division staff, though usually representing MWRA in a defensive posture, also work with Operations Division staff to effectuate cost recovery claims for design errors and omissions. In addition, the Law Division assists in the early resolution of contractor and vendor claims prior to litigation so as to resolve them as favorably and early as possible thereby reducing or eliminating litigation costs and interest payable upon such claims were they to be litigated.

**FY15 Goals:**

- Timely and cost effective resolution of legal disputes involving MWRA, through litigation or alternative means of dispute resolution.
- High quality legal services to support the business and operational needs of MWRA in the areas of real estate, labor and employment, regulatory compliance, litigation, construction, and business law.
- Advocacy of MWRA interests in new and developing regulatory issues.
- Continue to exhaust all opportunities to shift cost of legal representation to insurers and indemnitors and to litigate insurance coverage disputes as they arise, all in the interest of cost savings.

**Budget Highlights:**

- The FY15 Final Budget is $1.7 million, an increase of $56,000 or 3.4% as compared with FY14 Actual Spending.
- $1.6 million for **Wages and Salaries**, an increase of $23,000 or 1.5% as compared with FY14 Actual Spending mainly due to projected cost of living adjustments. The budget funds 16 positions.
- $121,000 for **Professional Services**, an increase of $30,000 or 33.6% as compared with FY14 Actual Spending. Funding in the line item supports projected need for outside legal services during FY15.
$28,000 for **Other Services**, an increase of $5,000 or 19.1% as compared with FY14 Actual Spending. Funding in this line item supports legal database administrative fees and professional membership and dues for the legal staff.
The Administration and Finance Division is responsible for managing the finance and support service functions of the Authority.

The Administration and Finance (A&F) Division is comprised of eleven departments: Director’s Office; Rates and Budget; Treasury; Controller; Risk Management; Human Resources; Management Information Systems (MIS); Facilities Management; Fleet Services; Procurement; and Real Property and Environmental Management.

The Administration and Finance Division performs a multitude of functions that support the daily operations and ensure the implementation of the Authority’s long term goals and strategies.

The Administration and Finance Division ensures that a variety of fiscal management systems are in place to monitor and control the Current Expense Budget (CEB) and Capital Improvement Program (CIP).
FY15 Goals:

- Manage and coordinate the Authority’s finance and support service functions.
- Develop and implement long-term strategies to ensure reasonable rate increases to MWRA’s communities.
- Manage MWRA’s debt portfolio to contribute to the achievement of sustainable and predictable rate increases.
- Minimize MWRA’s exposure to financial loss stemming from contractor and vendor activities by reviewing risk exposure and establishing contract insurance requirements and monitoring contractors for compliance.
- Maintain effective relationships with the unions representing the MWRA workforce while protecting and enhancing management flexibility. Ensure that collective bargaining objectives are met, support MWRA initiatives by designing and implementing appropriate labor relations strategies, create an environment that fosters safety consciousness and productive work, maximize the number of early returns to work by employees who have incurred on-the-job injuries or illnesses, and aggressively manage the Workers’ Compensation Program to reduce costs.
- Acquire the real property needed to complete MWRA’s major capital projects in a timely and cost-effective manner; manage the disposition of surplus real property in an efficient manner; and provide staff and others with current information regarding MWRA’s real property rights.
- Improve the quality and presentation of budget documents and regularly required reports while working to develop new reports that will aid the Authority’s Board of Directors, Management, and the MWRA Advisory Board.

FY15 Initiatives

- Continue assessment and evaluation of sustainable cost savings opportunities throughout the organization.
- Develop options and recommendations to ensure predictable, sustainable, and reasonable assessments and charges to our communities.
- Manage the process for negotiating successor collective bargaining agreement with all five collective bargaining unions of the MWRA.
- Continue the implementation of the Strategic IT Study.

FY14 Accomplishments:

- Developed the FY15 Budget consistent with the FY14 planning estimates, for both the Current Expense Budget and the Capital Improvement Program.
- Maintained MWRA’s strong credit ratings, Aa1, AA+, AA+ from Moody’s, Standard & Poor’s and Fitch respectively. MWRA’s credit ratings from all three major agencies are only one ratings step below the highest rating of AAA. These high credit ratings enable MWRA to borrow at very advantageous interest rates helping to minimize debt service expenses.
- Together with the Human Resources and Procurement departments, Treasury implemented a Prepaid Visa Card program for our employees to purchase required work pants and boots. The card works like a debit/charge card.
making the purchases easy for the employees and provides documentation for management. The Treasury procedures have been established, tested and documented.

- Continued to work with the landlord to implement facility improvements as provided in our lease agreements for CNY headquarters.

- Developed specifications for 56 new replacement vehicles or pieces of equipment of which the majority of these units will utilize alternative fuel, consistent with the Authority’s goal of purchasing environmentally friendly products.

- Assisted the MWRA in being rated as one of the largest bio-fuel users by the Massachusetts Alternative Fuel Coalition (MAFC). The Authority continues to fuel diesel powered vehicles/equipment with bio-diesel.

- Continued implementation of Automated Vehicle Locator (AVL) Tracking System in MWRA vehicles.

- Successfully negotiated changes to the clothing allowance program and implemented a clothing allowance debit card program coordinated and administered by Human Resources.

- Completed a variety of technical training to MWRA employees including Confined Space Entry, Wind Turbine Tower Climbing Safety, Spill Containment, Practical Project Management, Signal Person Training and OSHA 8-Hour Annual Refresher training.

- Completed and collected the required acknowledgement of the State Ethics Commission’s Summary of the Conflict of Interest Law from all employees.

- Developed a pilot program and RFP, working with Operations, Finance and Law, for co-digestion of organic waste at DITP.

- Competitively bid CY13 Renewable Energy Portfolio Standard certificates which resulted in FY14 revenues of $398,198 (Class II). In addition, received FY14 revenues of $1,988,636 from forward marketing of CY13 (Class I and Solar) Renewable Portfolio Standards (RPS) certificates.

- Awarded the following major contracts in FY14: Hatchery Pipeline and Hydroelectric Design; Harbor and Outfall Monitoring; DITP Pipe Supports for Sludge Pipelines; DITP Roofing Replacement; Clinton WTP Phosphorus Reduction Design; DITP Replacement of Scum Skimmers; Storm Pump Gear Box and Diesel Engine Upgrade; Webster Avenue Pipe Replacement Design; Pilot Program for Organic Digestion at DITP; Security Guard Services, Dam Safety Consulting Services; Rehabilitation of Anaerobic digesters at Clinton Treatment Plant; Section 111 Southern Extra High Redundancy Pipeline Design; DITP HVAC Replacement Design; Financial Advisor Services; Dam EAP Planning; DITP Valve and Piping Replacement; DITP Electrical Equipment Upgrade Construction 4 Resident Engineer Inspection; and NIH West Street Transmission Main.

- Advertised or received bids/proposals/statements for the following: Security Equipment Installation at Various Facilities; CVS Shea Ave. Leak Repair; DITP Cryogenics Chillers Replacement; NIH West Street Transmission Main; Quabbin Power, Communication and Security Hardening Design; DITP Clarifier Rehab Phase II Design; Construction WASM 36; Gate, Siphon and Floatables Controls 003; Boston Low Service Beacon Street Line Design; and DITP Thermal Power Plant BMS System Upgrade.

- Recycled 33.75 tons of paper, 374.27 tons of scrap metal (includes stainless steel and aluminum), 4,260 pounds of brass and copper, and 1,490 batteries in addition to scrapping 6 vehicles, generating $94,768 in revenues.
The Administration and Finance (A&F) Division Director's Office oversees a multitude of functions that support the daily operations and ensure the implementation of the Authority’s long-term goals and strategies. The Director’s Office is responsible for the centralized financial functions of rates development, revenue collection, budgeting, capital financing, debt and investment management, accounting, payroll processing, and risk management as well as the support functions of procurement, human resources, management information systems, fleet services, facilities management, and real property and environmental management. Additionally, the Director’s Office ensures that transactions comply with all rules, regulations, Authority policies and procedures, and contract terms. The Director’s Office manages the development and implementation of policies to uphold the efficient utilization of resources and control of all monies. The Director's Office provides advice and analysis to the Executive Director and the Board of Directors on all administrative and financial issues.

The division’s continuing challenge in FY14 will be maintaining an agency-wide focus on balancing the competing needs to minimize rate increases while ensuring the provision of critical MWRA services.

FY15 Goals:

- Manage and coordinate the Authority’s finance and support service functions.
- Guide and coordinate division activities to support MWRA’s goals and objectives.
- Continuously improve processes and performance for greater efficiency.
- Develop and implement long-term strategies to ensure reasonable rate increases to MWRA’s communities.

Budget Highlights:

- The FY15 Final Budget is $413,000, an increase of $67,000 or 19.3% as compared to FY14 Actual Spending.
- $403,000 for Wages and Salaries, an increase of $66,000 or 19.6% as compared to FY14 Actual Spending mainly due to projected contractual increases, increased funding for interns, and a lower than budgeted headcount in FY14. The FY15 Final Budget funds three positions.
The Rates & Budget Department provides the financial analysis that allows MWRA to translate its goals, and legal and financial commitments into cost-effective annual and multi-year programs and budgets. Department staff works closely with divisional staff to coordinate development of the long-term Capital Improvement Program (CIP) and monitor the progress of capital projects compared to projected schedules and budgeted spending. Staff also coordinates the development of MWRA’s annual Current Expense Budget (CEB) and monitors spending compared to the budget throughout the year. The Budget Department also manages the annual process of establishing water and sewer assessments to be paid by MWRA’s member communities and develops planning estimates of future rate projections.

**FY15 Goals:**

- Continually enhance processes and the management of resources to deliver the final CIP and CEB timely and accurately.

- Adhere to all MWRA policies, procedures, and administrative practices as well as all relevant statutory and regulatory authority, accounting, and budgeting principles.

- Improve the quality and presentation of budget documents and regularly required reports while working to develop new reports that will aid the Authority’s Board of Directors, Management, and the MWRA Advisory Board.

**FY15 Initiatives:**

- Continue assessment and evaluation of sustainable cost savings opportunities throughout the organization.

- Develop options and recommendations to ensure predictable, sustainable, and reasonable assessments and charges to our communities.

- Coordinate with MIS on the migration of the Hyperion application for the CIP and CEB to a new software application.

**FY14 Accomplishments:**

- Developed the FY15 Budget consistent with the FY14 planning estimates, for both the Current Expense Budget and the Capital Improvement Program.

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY12 Actual</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>Change FY14 to FY15</th>
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<td>$773,302</td>
<td>$797,963</td>
<td>$814,128</td>
<td>$16,165</td>
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Budget Highlights:

- The FY15 Final Budget is $814,000, an increase of $16,000 or 2.0% as compared to FY14 Actual Spending.

- $814,000 for Wages and Salaries, an increase of $17,000 or 2.1% as compared to FY14 Actual Spending mainly due to projected contractual increases. The FY15 Final Budget funds eight positions.
The Treasury Department secures funds for ongoing operations and capital programs in addition to processing cash disbursements. Department staff collects revenue, disburse funds, and manage grant and loan programs in addition to debt issuance and investments.

**FY15 Goals:**

- Manage MWRA’s debt portfolio to contribute to the achievement of sustainable and predictable rate increases.
- Maximize investment return while maintaining compliance with the General Revenue Bond Resolution requirements regarding security and liquidity.

**FY14 Accomplishments:**

- Maintained MWRA’s strong credit ratings, Aa1, AA+, AA+ from Moody’s, Standard & Poor’s and Fitch respectively. MWRA’s credit ratings from all three major agencies are only one ratings step below the highest rating of AAA. These high credit ratings enable MWRA to borrow at very advantageous interest rates helping to minimize debt service expenses.
- Defeased $27.2 of outstanding debt on June 19, 2014 for budgetary relief in fiscal years 2015, 2016, 2017, and 2018 thereby reducing the rate of increase to the Rate Revenue Requirement in those years. The source of funding for this defeasance was primarily the Fiscal Year 2014 current expense budget surplus.
- Completed the 2014A&B transaction on May 20, 2014. This refunding was necessitated by the expiration of the Bank of Nova Scotia liquidity facility on the variable rate Series 2008F. Through a competitive procurement, MWRA awarded portions of the 2008F series to Bank of America in the form of Direct Purchase Bonds and to the Bank of New York Mellon in the form of a Standby Bond Purchase Agreement reducing the cost of these bonds and further diversifying the variable rate debt program across banks.

**Budget Highlights:**

- The FY15 Final Budget is $1.0 million, an increase of $49,000 or 5.1% as compared to FY14 Actual Spending.
- $750,000 for Wages and Salaries, an increase of $16,000 or 2.2% as compared to FY14 Actual Spending mainly due to projected contractual increases. The final budget funds nine positions.
- $260,000 for Professional Services, an increase of $36,000 or 15.9% as compared to FY14 Actual Spending mainly due to projected increased need.
The **Controller Department** consists of the Accounting, Accounts Payable, and Payroll units. The department has the responsibility for ensuring integrity within the financial accounting system and integration among the three functions. The department is also responsible for the appropriate treatment, classification and reporting of the MWRA’s assets, liabilities, revenues and expenditures in accordance with accounting principles generally accepted in the United States of America.

**FY15 Goals:**
- Implement process efficiencies in all department units.
- Enhance controls to safeguard Authority assets and ensure accurate and timely reporting.

**FY15 Initiatives:**
- Integrate new contract accounting software module with existing accounting software.
- Complete automation of multiple Payroll Department documents.

**FY14 Accomplishments:**
- Rolled out electronic time sheet approval to Deer Island Maintenance departments.
- Collaborated with Procurement and MIS Departments to substantially complete testing Contract Management for FY15 implementation.

**Budget Highlights:**
- The FY15 Final Budget is $1.6 million, an increase of $105,000 or 7.0% as compared to FY14 Actual Spending.
- $1.4 million for **Wages and Salaries**, an increase of $104,000 or 7.8% as compared with FY14 Actual Spending mainly due to projected contractual increases and lower headcount in FY14. The FY15 Final Budget funds 18 positions.
- $160,000 for **Professional Services**, which is level funded with FY14 Actual Spending. The FY15 Final Budget reflects anticipated costs associated with the annual financial statement audit, the A-133 Single Audit related to the receipt of federal funds, and the actuarial services related to GASB 45 Other Post Employment Benefits.

### FY15 Final Current Expense Budget

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY12 Actual</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>Change FY14 to FY15</th>
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<td>WAGES &amp; SALARIES</td>
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The Risk Management Department is responsible for all MWRA insurance and risk management functions. Department staff manage all administrative functions relating to the initial reporting, processing, and resolution of construction contract claims and self-insured auto, general liability, and property damage claims. Department staff members are responsible for the annual procurement, renewals, and maintenance of all Authority-wide insurance policies and programs and for managing all aspects of MWRA’s Contractor Insurance Certificate program. Department staff serve as liaisons to insurance industry participants including brokers, insurers, insurance consultants, and attorneys as well as providing support to all MWRA departments.

FY15 Goals:

- Process self-insured automobile, general liability, property damage and construction contract claims in an efficient and timely manner.
- Secure the timely, cost effective renewal of Authority-wide insurance policies and contracts.
- Minimize MWRA’s exposure to financial loss stemming from contractor and vendor activities by reviewing risk exposure and establishing contract insurance requirements and monitoring contractors for compliance.

Budget Highlights:

- The FY15 Final Budget is $432,000, a decrease of $23,000 or 5.1% from FY14 Actual Spending.
- $402,000 for Wages & Salaries, an increase of $4,500 or 1.1% as compared to FY14 Actual Spending mainly due to projected contractual increases. The proposed budget funds four positions.
- $30,000 for Professional Services, a decrease of $28,000 or 48.1% as compared to FY14 Actual Spending. FY14 included costs relating to the review and preparation of MWRA’s Triennial Insurance Reserve Fund review.
The **Facilities Management Department** provides a range of support services to MWRA staff located at the Charlestown Navy Yard (CNY).

Facilities Management is responsible for coordinating site management activities at CNY. Staff institute maintenance procedures, respond to facilities' requests from building occupants, coordinate workspace planning, provide office furnishings, and develop and implement appropriate measures to ensure the safety of MWRA staff and protect and preserve MWRA assets.

In addition, staff provides administrative and office support services that facilitate the efficient use of MWRA resources. These responsibilities include providing and managing the motor pools at Chelsea and CNY, general office equipment repairs, transportation, mail, and courier services. Staff coordinates MWRA parking programs and corporate Massachusetts Bay Transportation Authority (MBTA) pass programs.

**FY15 Goals:**

- Provide a safe and well-maintained working environment for all MWRA staff at CNY and provide appropriate space for staff by coordinating workspace planning, design, and furniture acquisitions.

- Maintain the CNY facility to prevent loss or deterioration of MWRA assets.

- Implement facility programs in conjunction with MWRA recycling and resource conservation efforts.

- Support efforts to limit the fleet size while meeting operational needs by providing reliable motor pool and transportation services.

**FY14 Accomplishments:**

- Continued to work with the landlord to implement facility improvements as provided in our lease agreements for CNY headquarters. One major initiative was to install a new, energy efficient heating and cooling system.

- In conjunction with MIS, continued implementation of multi-function technology for copiers and printers. By utilizing this technology it was possible to replace up to four individual units (printer, copier, scanner and fax) with one piece of equipment that performs all of these functions providing savings in floor space, power, equipment maintenance, and production costs (cost per page).
Budget Highlights:

- The FY15 Final Budget is $2.3 million, a decrease of $114,000 or 4.8%, as compared with FY14 Actual Spending.

- $424,000 for Wages and Salaries, an increase of $2,000 or 0.5%, as compared to FY14 Actual Spending mainly due to increased contractual agreements offset by elimination of FY14 one-time funding for temporary employees and interns. The budget supports seven positions.

- $24,000 for Overtime, a decrease of $4,600 or 15.9%, as compared with FY14 Actual Spending.

- $99,000 for Utilities, an increase of $14,000 or 15.9%, as compared to FY14 Actual Spending mainly due to increased electricity pricing.

- $31,000 for Ongoing Maintenance, a decrease of $118,000 or 79.2%, as compared with FY14 Actual Spending mainly due to lower than projected need for maintenance services in FY15 than those incurred in FY14 for building ventilation balancing initiatives. This line item includes funding for facility and equipment maintenance and services including heating, ventilation and air conditioning (HVAC), plumbing and electrical services for the CNY headquarters and the Marlboro Records Center and Warehouse.

- $106,000 for Other Materials, an increase of $49,000 or 86.8%, as compared with FY14 Actual Spending mainly due to increased funding for equipment and furniture. This line item includes funding for postage, supplies, furniture, and equipment.

- $1.6 million for Other Services, a decrease of $48,000 or 3.0%, as compared with FY14 Actual Spending mainly due to FY14 leased facility upgrades offset by contractual increases associated with the lease for the Charlestown Navy Yard and increased property taxes. This item includes funding for rental and operating costs for CNY headquarters facility and the Marlboro Records Center and Warehouse space.
The Fleet Services Department manages and maintains MWRA’s motor vehicle and equipment fleet. The goal of the Fleet Services Department is to maintain MWRA’s vehicle and equipment fleet to minimize downtime and extend the life of the assets. Fleet Services also manages the Chelsea fuel facility, the gas card program and the development and processing of specifications for new vehicles and equipment.

FY15 Goals:

- Continue to cost effectively maintain the Authority’s fleet of vehicles and pieces of equipment.
- Continue Authority wide In-house Fleet Maintenance training.
- Continue with next phase of Automatic Vehicle Locators (AVL) devices in all Authority vehicles.

FY14 Accomplishments:

- Developed specifications for 56 new replacement vehicles or pieces of equipment of which the majority of these units will utilize alternative fuel, consistent with the Authority’s goal of purchasing environmentally friendly products.
- Assisted the MWRA in being rated as one of the largest bio-fuel users by the Massachusetts Alternative Fuel Coalition (MAFC). The Authority continues to fuel diesel powered vehicles/equipment with bio-diesel.
- Prepared documentation for the surplus sale of 28 vehicles and pieces of equipment and worked with the Procurement Department for the auction and disposal of the vehicles/equipment.
- Continued to work with MIS & Operations staff on the Maximo system upgrade which includes a transportation module specifically designed for a fleet environment.
- Developed and continued implementing the Federal Communications Commission (FCC) mandated frequency re-banding project for Motorola and Nextel.
**Budget Highlights:**

- The FY15 Final Budget is $2.1 million, an increase of $126,000 or 6.5% as compared to FY14 Actual Spending.

- $756,000 for **Wages & Salaries**, an increase of $22,000 or 3.0% as compared to FY14 Actual Spending mainly due to projected contractual increases. The final budget supports 11 positions.

- $684,000 for **Ongoing Maintenance**, an increase of $55,000 or 8.7% as compared with FY14 Actual Spending mainly due to lower than projected need in FY14. The budget includes funds for automotive materials and services to maintain MWRA’s vehicle fleet.

- $570,000 for **Other Materials**, an increase of $38,000 or 7.1% as compared with FY14 Actual Spending due to lower vehicle fuel prices in FY14 than budgeted. The FY15 Final Budget includes funds for vehicle/equipment fueling which is based on historical fuel usage and current pricing. Fleet Services procures bulk fuels from state contracts while continuing to meet all governmental alternative fuel directives. It should be noted that the volatility of fuel pricing could impact this line item.
HUMAN RESOURCES

The Human Resources Department is comprised of three units:

The Employment, Compensation, Benefits and HRIS Unit coordinates and oversees all external recruitment and selection activities including hiring, lateral transfers, and promotions to meet the business needs of MWRA; develops and coordinates MWRA compensation and benefits strategies and programs; and ensures the proper processing and recording of personnel actions. The compensation function also ensures that all MWRA employees possess the necessary licenses and certifications required for their positions. The Labor Relations Unit is responsible for fulfilling MWRA's collective bargaining and contract administration obligations under Massachusetts' public sector collective bargaining law, its workers' compensation responsibilities, and its responsibilities for employee occupational safety and health. The Training Unit develops, coordinates, delivers, and evaluates MWRA technical and professional development training programs and other programs designed to improve employee knowledge, skills, productivity, and the quality of workplace interaction. It is responsible for the oversight and tracking of MWRA performance evaluation programs, Employee Assistance, and Tuition Reimbursement programs. In addition, the Human Resources Department includes the Centralized Fringe Benefits cost center, which includes the budget for fringe benefits for all MWRA employees as well as for mandatory payments for unemployment expenses and Medicare.

FY15 Goals:

- Attract and retain a qualified high-performance workforce, hire and promote qualified minority and female employees, and offer a competitive total compensation package (salary and benefits) to all employees.

- Maintain effective relationships with the unions representing the MWRA workforce while protecting and
enhancing management flexibility. Ensure that collective bargaining objectives are met, support MWRA initiatives by designing and implementing appropriate labor relations strategies, create an environment that fosters safety consciousness and productive work, maximize the number of early returns to work by employees who have incurred on-the-job injuries or illnesses, and aggressively manage the Workers’ Compensation Program to reduce costs.

**FY15 Initiatives:**

- Manage the process for negotiating successor collective bargaining agreements with the remaining three collective bargaining unions of the MWRA.
- Support the collective bargaining negotiation process with data analysis, costing analysis, and wage and benefit survey data collection and analysis.
- Provide training and guidance to MWRA managers in the areas of leave management, sick time use, time and attendance issues, and matters of employee conduct issues.
- Investigate complaints of violations of MWRA policies and Code of Conduct as necessary.
- Provide Authority-wide Harassment Prevention Training for all employees.
- Provide additional training for Administrative Certificate Program (ACP) and Productivity Improvement Program (PIP) as needed.
- Develop and communicate policies associated with harassment prevention and non-discrimination.
- Continue to Support the agency’s efforts in developing and implementing succession plan activities in anticipation of an increase in retirements over the next several years.
- Work closely with the Affirmative Action Compliance Unit in implementing procedural changes resulting from new regulations from the Office of Federal Contract Compliance Program (OFCCP).
- Provide regular reporting on agency headcount and use of overtime/compensatory time.
- Procure and select a provider for drug and alcohol testing and implement and communicate procedures associated with testing.
- Work with Emergency Preparedness and Planning on emergency preparedness training initiatives and active shooter video training.

**FY14 Accomplishments:**

- Successfully negotiated successor collective bargaining agreements with two collective bargaining unions.
- Successfully negotiated and implemented an agreement with all five collective bargaining units regarding the use of an Automated Vehicle Locator Tracking System at MWRA.
- Successfully negotiated changes to the clothing allowance program and implemented a clothing allowance debit card program coordinated and administered by Human Resources.
• Prepared the organization for collective bargaining negotiations with all five collective bargaining units.

• Procured and selected a new dental insurance provider (Delta Dental). Managed the enrollment process for all dental participants to move from the former provider to Delta Dental.

• Successfully delivered Administrative Certification Program (ACP) training, Supervisory Development, Productivity Improvement Program (PIP) and Performance Management training.

• Completed a variety of technical training to MWRA employees including Confined Space Entry, Wind Turbine Tower Climbing Safety, Spill Containment, Practical Project Management, Signal Person Training and OSHA 8-Hour Annual Refresher training.

• Completed and collected the required acknowledgement of the State Ethics Commission’s Summary of the Conflict of Interest Law from all employees.

Budget Highlights:

• The FY15 Final Budget is $22.7 million, an increase of $208,000 or 0.9% as compared to FY14 Actual Spending.

• $1.8 million for Wages and Salaries, a decrease of $3,000 or 0.2% as compared to FY14 Actual Spending mainly due to one less funded position offset by projected contractual increases. The budget includes funding for 21 positions.

• $18.2 million for Fringe Benefits, an increase of $220,000 or 1.2% as compared to FY14 Actual Spending. The budget includes $15.8 million for health insurance, $1.2 million for Medicare, $1.1 million for dental insurance, $141,000 for unemployment insurance, and $31,000 for tuition reimbursement.

• $2.2 million for Workers’ Compensation, a decrease of $111,000 or 4.8% as compared to FY14 Actual Spending. The Human Resources Department is responsible for the management of this program and the coordination with the third-party administrator and legal counsel.

• $413,000 for Professional Services, an increase of $101,000 or 32.5% as compared with FY14 Actual Spending. The FY15 Budget includes $155,000 for Professional Development and Technical Training, $122,000 for Workers’ Compensation Claims Administration and Legal Services, $56,000 for Arbitrators and Arbitration Expenses, $45,000 for Medical Evaluation Services, $21,000 for the Employee Assistance Program, and $13,000 for Specialized Investigation Services.
MANAGEMENT INFORMATION SYSTEMS (MIS)

The MIS Department provides MWRA with the information processing services necessary to carry out its mission. Applications in use range from financial to operational, and enhance MWRA’s ability to access data and improve internal controls, reporting, and management performance. In addition to computing systems, the department also provides library and records management services.

FY15 Goals:

The goal of the MIS department is to support more than 1,000 MWRA users, including those at the Charlestown Navy Yard (CNY), Chelsea, Deer Island, Southboro, Carroll Water Treatment Plant and other remote sites, by ensuring that:

- The automated business services delivered increase the efficiency of MWRA’s business processes and improve the effectiveness of the staff while maintaining system security and integrity;
- Existing applications, operating systems, hardware, and network resources are cost-effectively maintained, supported, upgraded, and replaced;
- Future changes for Information System reflect management priorities and are consistent with the MWRA Master Plan and the five-year IT Strategic Plan; and
- Information Technology Service Management is implemented to improve customer satisfaction and improved efficiencies in delivering services.

FY15 Initiatives:

**Information Technology Management Program Initiatives**

This program is intended to improve the organization of Information Technology (IT) and the oversight processes for selecting, implementing and operating IT solutions throughout the MWRA. The FY15 initiatives are as follows:

- Continue efforts to establish an Information Technology Task Force (ITTF) to recommend and prioritize projects, policies and standards.

### FY15 Final Current Expense Budget

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY12 Actual</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>Change FY14 to FY15</th>
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<tr>
<td>WAGES &amp; SALARIES</td>
<td>$5,148,842</td>
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<td>$4,943,896</td>
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<td>OVERTIME</td>
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<td>20,617</td>
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<td>FRINGE BENEFITS</td>
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<td>37</td>
<td>378</td>
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<td>(378)</td>
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• Establishment of a MWRA Software Development Life Cycle (SDLC) with the appropriate policies, procedures, standards, tools and techniques to efficiently deliver development efforts on time and within budget.

• Implement a set of policies, procedures, standards, tools, and techniques which employs the best practices for Information Technology Service Management (ITSM). This will be managed through the use of the MAXIMO Smart Cloud Control Desk Module following the MAXIMO 7.5 upgrade effort.

• In parallel with the ITSM effort, MIS will be re-organizing to better deliver services. This will include updating Job Descriptions to reflect the changing technologies and the methods of delivery, re-aligning the organization to match the ITSM and SDLC best practices, and focusing on how technology can be used to increase efficiency of staff and improve the effectiveness of the Authority’s business processes.

• ITIL Training will continue and classes will be scheduled in Q1 and Q2 and others will be scheduled as needed.

**Application Improvement Program Initiatives**

This program along with associated projects continue MWRA’s efforts to update and enhance a wide range of applications to improve efficiencies of business processes and effectiveness of the staff while ensuring the availability, and integrity of the MWRA’s data resources. This program relates to 123 applications with 227 modules that support various business functions across the Authority. Seventy-seven, or 63%, of these applications are commercially available off the shelf packages.

Major FY2015 initiatives (contingent on the new Information Technology Task Force (ITTF) priority rankings) are as follows:

• **Administration and Finance Application Initiatives**

  • **Enterprise Content Management Implementation:** The objective of this project is to identify and define the requirements as they relate to the management of all electronic content at the MWRA and to initiate solicitation and procurement of technical solution(s) in preparation of a department-by-department implementation set of projects including eDiscover, Archive and Purge which will provide the MWRA with the following:
    • Rigorous and efficient electronic archiving
    • Purge and discovery processes to comply with the records retention requirements of the Commonwealth of Massachusetts
    • The ability to meet the requirements associated with public records requests and litigation document/e-discovery production
    • Improvements in the accessibility of documents throughout the Authority.

  • **e-Procurement Implementation:** This project is focused on the implementation of the Contract Management module from Infor Global Solutions.

  • **Enterprise Resource Planning (ERP) System Upgrades:** During FY15 upgrades will occur to the e-procurement applications and Mobile Supply Chain Management (MSCM) infrastructure, and BSI Tax Factory application.
Compliance Management Application Initiatives

- **e-Lab**: The MWRA Department of Laboratory Services (DLS) is initiating a large scale two phase Laboratory Information Management System (LIMS) project that will improve productivity of staff and significantly reduce the amount of paper being generated. The first phase of this project will be based on a new module of LIMS called Electronic Laboratory Notebook (ELN). ELN is an electronic version of the paper notebooks being used by the laboratories. Additional ease of use functionality provided by ELN will streamline processes. The second phase of this project involves a re-design of the hardware architecture for capturing data from test equipment. The improvement in productivity will be realized by eliminating the printing of hard copy reports generated by automated test equipment, especially the gas chromatography reports. Instead all automated test equipment results will be digitally captured and stored in the LIMS database.

- **Pretreatment Information Management System (PIMS) Business Cycle Enhancements**: The objective of this project is to update the existing application and deliver new functionality in PIMS well in advance of the next TRAC business cycle for the MWRA’s Pretreatment Program.

- **SSO Monitoring and Reporting**: MIS has been assigned to provide a business solution to streamline and automate the field data collections of Sanitary Sewer Overflow (SSO) spills, data compilation and reporting by using the latest mobile technology on field data collection, electronic reporting to required Agencies and parties, and providing a public web portal for sharing information on SSO spills on a 24X7 basis.

System Integration and Data Warehousing Application Initiatives

- **Geographic Information System (GIS) Integration**: The purpose of the GIS Integration projects are to integrate the GIS spatial technology into business and operational applications and to determine an overall strategy of delivering a special real-time dashboard for managing the MWRA.
  - The GIS upgrade to 10.x and the database moved onto the ODA.
  - **GIS TRAC Integration** - The software is used by the TRAC department and has been upgraded as part of that upgrade linkage to stand-alone GIS mapping tools for query and tracing. This GIS application is in need of an upgrade as the GIS environment is evolving. The users have also identified issues with the current versions and will be addressed during the upgrade.
  - **GIS Permit Integration** - Permits to dig near our infrastructure and/or to connect to our sewer system are generated and tracked by different departments with stand-alone MS Access applications. These applications are antiquated and are not designed for enterprise environments. Integrating and redesigning these applications are critical to increase communication and effective management across departments.

- **Management Dashboards & Reporting**: These projects consolidate administrative management dashboards and reporting tools to assist in management of the day-to-day operations and to provide data to assist in Authority-wide decision making.
- Benefit Time Reporting
  - The Management Dashboard web application objective is to display the following data graphically in charts:
    - Compensation time
    - Overtime
    - Sick Time
    - Standby Shifts
  - Data and charts are grouped under the following categories:
    - By rates
    - Totals
    - Trend
    - MWRA/Division/Department/Sub cost center
    - Location
    - Employee

- Operations Management Application Initiatives
  - **Computerized Maintenance Management System (CMMS) Enhancements**: The MWRA is running Maximo version 5.2 which is no longer supported by IBM. Maximo must be upgraded to 7.5 in order to become supported by IBM. This effort includes:
    - Upgrade to Maximo 7.5.0.6 and Re-Implementation of Maximo Asset Management for DITP and FOD into a single multi site system
    - New implementation of the following modules:
      - Calibration
      - Cloud Control Desk
      - Anywhere
      - Spatial
      - Linear
      - Advanced Planning and Optimization
    - Consolidation of nine miscellaneous asset systems
  - **PI**: The MWRA uses PI to monitor important operating parameters of assets in the field and also facility assets at DITP. The current system is a three tier configuration with servers for the database, application, and Processbook. The PI 2012 upgrade will monitor the same assets as the old system with much improved functionality and performance. The new system is a three tier configuration with servers for the database, application, and Processbook. The new system will be upgraded to a 64 bit OS and provide high availability features.
**Information Security Program Initiatives**

This program focuses on the resiliency and sustainability of the MWRA’s data security practices and computing-related assets. It also monitors for penetrations, intrusions, and malicious actions from external threats. The projects associated with this program continue to assess, implement, and improve the MWRA’s information security protections, including recommendations to improve each IT system’s security profile. The following are the FY2015 projects under this program:

- **Security Infrastructure Review, Upgrade, and Monitoring**: This project will engage a third party to review holistically MWRA’s current information security infrastructure and configuration and make recommendations for improvement to carry MWRA forward for the next 3 years. Separately, the recommended improvements will go out for bid to complete the upgrades and supply monitoring services until FY2018.

- **Authority Mobile Application Delivery Implementation**: This project continues into FY15, delivering 30 applications to the appropriate mobile devices over the new Mobile Infrastructure.

- **Secure File Delivery Implementation**: This project evaluates and implements the proper software solution to allow MWRA employees to deliver files securely with non-MWRA entities (and vice versa).

- **Secure Media Destruction Program Improvements**: This annual project continues the standing practice of having a contractor come on-site to Chelsea and physically destroy (a.k.a. shred) MWRA’s hard drives and other electronic components which might contain sensitive and confidential information.

**Technology Infrastructure Improvement Program Initiatives**

The MWRA currently owns and operates 1,238 desktops, 160 laptops, 108 servers, 20 Wide Area Network Circuits and associated equipment. It also manages in excess of 18 Terabytes (TB) of data of which 7 TBs are stored in 148 database schemes and an additional 11 Terabytes of unstructured data are stored on file shares. This program will assess and implement consolidated and optimized versions of these core IT infrastructure elements as utility-like services and commodities. Furthermore, it will look to improve and optimize data management practices including: storage, backup, and achieve and purge processes and technologies. The following FY2015 projects are currently under way:

- **Server Consolidation and Virtualization**: Continuation of “Green Data Center” initiatives, including virtualizing more physical servers and reducing the variety of application infrastructure component versions and manufacturers (like web servers, application servers, and database servers).

- **Network Convergence**: Explore new technologies for future implementation considerations including new networking technologies for upcoming network upgrade, web and mobile platforms for business and information services, and Voice-Over-IP (VOIP) for communications.

- **Network Storage Improvements**: Plan for the migration and implementation for consolidation of new storage requirements for archiving, and implement e-discovery services.

- **Office Automation Refresh Program**: Upgrade existing PC platform from Windows XP to Windows 7. Mobile devices will transition from carrier Sprint/Nextel on Blackberry platform, to Verizon with Apple iPhones. The three year lease program for MFD’s will replace 12 devices as well.
Communications: An additional request to install Bi-Directional Amplifiers in 5 buildings at Deer Island will improve cell phone coverage to increase productivity, and safety for staff. Page Party systems have been repaired, replacing old equipment at several Headworks. Complete replacement and installations will be required at Prison Point, DeLauri, and Caruso Pump Stations.

FY14 Accomplishments:

Information Technology Management Program Accomplishments

- Standards and procedures were developed for assessing and prioritizing IT Projects by Information Technology Task Force (ITTF) members.
- The majority of job descriptions were revised and standardized to better align with the Information Technology Infrastructure Library (ITIL) IT services best practices.

Application Improvement Program Accomplishments

- Administration and Finance Application Accomplishments

  - **Enterprise Document/Records Management Implementation:** This initiative includes a number of related projects.
    - **Cumulus Upgrade:** Cumulus application upgrade from version 8.6 to the current 9.1 version to maintain vendor support. Cumulus is the application used by the MWRA to manage and publish the MWRA’s collection of photos and images. Staff created two new virtual servers (internal and external) for the Cumulus application and data storage, created shares with appropriate permissions, set up the public facing environment so that Cumulus catalogs can be made available on mwra.com. All data (approximately 2TB) was copied over to the internal server.
    - **Document Content Survey:** An assessment survey of agency wide active electronic documents was conducted to assist in the sizing of an enterprise solution for all electronic documents. Discussions involving a pilot project with Engineering and Construction have begun.
    - **Historic Photo Digitization Project:** The Library and Records Center unit supported a Public Affairs/Executive Office initiative to digitally capture historical images of the MWRA and MDC construction projects. Phase 1 of this project was completed in FY 14 Q3 with the delivery of more than 8,800 digital images from the Digital Commonwealth (DigiCom) Team. Images delivered to Public Affairs for digital asset management catalog development are expected to be published internally in the Fall of 2014 (FY 15 Q2) in conjunction with the DigiCom’s efforts to publish the images. Library staff provided metadata to Public Affairs staff to add to the Cumulus digital asset management database and is working on generating the metadata for the future batches. Additional phases will continue following the Fall 2014 rollout and will be ongoing for several years until all the images are scanned, cataloged and published.
    - **Enterprise Resource Planning (ERP) System Enhancements: Lawson 9.0.1 Upgrade:** Staff assisted Procurement and HR/Payroll staff with user tests and completed roll-out of 9.0.1 application to the production server over the weekend of Sept 22nd/23rd. Go Live was successful.
- **BottomLine Upgrade:** BottomLine is a specialized application used for printing checks, AP invoices, as well as for reformatting ACH (Automated Clearing House) files used by banks for transactions such as direct deposit, child support, AP EFT vendors. The MWRA installed BottomLine version was on extended support which is due to expire in September of 2014. The application was successfully upgraded on both production system and the Disaster Recovery system after staff and users conducted numerous tests and parallel processes.

- **E-Procurement - Contract Management:** Extensive effort was undertaken to learn, configure and test a Contract Management application that is highly integrated with the Strategic Sourcing application. Strategic Sourcing is the Infor/Lawson application used for electronic bidding. Information about the awarded bid will be passed into the new Infor/Lawson Contract Management module. A significant data migration effort is under way to help allow all past and active contracts, change orders, amendments, and payments from the custom application to be available in the new system. IT Systems and application support staff worked with the vendor to upgrade the development system’s Landmark Application Environment from 10.0.4.5 to 10.1.0.23 and the Landmark Application from version 9.0.1.10 to 9.1.1.1. Following testing of the upgraded development system, the production system will be upgraded in July. The upgrades allow us to stay current with the vendor’s release and take advantage of recently added functionality. Staff and users continued working on new contract language, developing contract template types, new business processes, data migration from legacy systems, and reports.

- **Compliance Application Accomplishments**

- **Water Quality Reporting System:** The Southborough Water Quality group procured a data analysis tool that is capable of correlating water quality testing results with other relevant data residing in spreadsheets, MS Access databases, comma delimited files, and other databases. This new data analysis tool has been configured to produce regulatory compliance reports on free chlorine, ozone contact and ultraviolet intensity at the Carroll Plant and Ware Disinfection Facility.

- **LIMS Upgrade:** DLS and MIS staff upgraded the Labware Information Management System to version 6 to take advantage of new functionality and ensure continued vendor support.

- **System Integration and Data Warehousing Accomplishments**

- **Management Dashboards & Reporting - Open Checkbook Updates:** Staff revised the vendor data download from Lawson and updated the application to reflect the new content and Quasi Government pages on the Commonwealths Open Checkbook site. The revised web interface was put into production on the MWRA Internet.

- **Operations Application Accomplishments**

- **ISO New England Spot Price:** Created a new interface that updates PI with ISO New England spot electricity price with five minute averages for both the Boston and Western Mass. markets. This replaces an existing interface which did not have the capability to update more than one market. The interface includes Top View alarming every time the rates exceed $650 per mega watt hour for 30 minutes or more.

- **Telog Upgrade:** The MWRA metering group has completed a project with Telog to upgrade their software and Hardware. The hardware upgrade included locating the servers in the MIS data center.
- **Tiscor Inspection System**: InspectNTrack product, a web based application with a SQL back-end, which consolidated multiple standalone departmental databases. Staff worked with the vendor on data mapping and migration of the existing four standalone databases into a new centralized database. Standardized facility names exported from GIS being used and new or revised inspection routes were established. Data scrubbing and production server installation is complete.

**Information Security Program Accomplishments**

- **Information Security Plan Design and Implementation (Phase 1)**: Completed Phase I of the design and development of the Information Security Plan. This included the development of policies, standards, procedures and an Information Security Awareness Computer Based Training program.

- **FireEye Implementation**: MWRA added another layer of protection against advanced threats and malware to MWRA networks during the last quarter of FY14. This protection covers both email-based and web-based methods of intrusion.

- **DeLauri Pump Station Wind Turbine System Support**: MIS provided ongoing review and support for the security of the computer system that is collecting and disseminating operational data about the turbine during FY14.

**Technology Infrastructure Improvement Program Accomplishments**

**Office Automation Improvement and Refresh Efforts Accomplishments**

- **Laptop Print, Fax, Scan and Copy**: Replaced 70 laptops 5 years old and older. Installed new multi-function devices (MFDs) throughout MWRA facilities consolidating services (Print, FAX, Scan, Copier) onto one platform. The rollout has replaced 47 pieces of aged equipment for better than a 2:1 equipment reduction.

- **SmartBoards**: Nine SmartBoards were procured and installed at CNY, DITP, Southborough, CWTP, E&C, Chelsea EOC and Chelsea Muster Room.

- **Contaminate Warning System (CWS)**: Continued to support efforts to execute the Contaminate Warning System (CWS) with the implementation of a private wireless network at 18 locations that allow the sampling devices to communicate with the application server located in the Chelsea Data Center.

- **Symantec Encryption Management Software**: This software enables the MWRA to further protect data. The software was installed onto the VMware production cluster with help from Symantec Tech Support.

- **Data Network Wireless Access Points**: These access points were installed in the Chelsea Vehicle Maintenance and TV Inspection bays. These access points enable the download of software upgrades from the manufacturer for vehicle maintenance onsite and the transfer of videos from the TV inspection vehicle to a MIS server on a regular basis for storage and to ensure data integrity.

- **Backup Technology**: Began a major undertaking to implement a new Backup Technology that meets the MWRA’s ever increasing data requirements. In the month of January, implementation of Data Domain was introduced at CNY as part of this onsite backup solution and testing began. Other sites will include Chelsea, Southborough, Deer Island and CWTP. Data Domain provides local site back up for Chelsea, Deer Island, Southboro, and Charlestown.
- **Net2020 Infrastructure Upgrade Program:** Successfully completed an upgrade of the Core Network Switch in Chelsea Data Center. This core switch connects all the Authority's users to all the MIS services including Email, Internet, Intranet, and applications. With this implementation, the Chelsea’s Network backbone speed has increased from 1GB to 10GB and provides speed of 1GB to every Desktop in Chelsea.

- **Data Network Connectivity:** Western Operations has completed installation of approximately 1000 feet of conduit from the street to the Southborough facility. An order was placed with Verizon to run fiber optic cable through the conduit allowing Verizon to provide a high speed data network connection and redundancy to the Southborough facility in case of an MIS data network failure.

- **Data Network circuit upgrades** from 1.5MB to 10MB for Deer Island, Marlboro (CWTP), and Southboro. The Chelsea Internet circuit upgrade from 10MB to 50MB.

- **Environmental Control System:** Worked with the vendor and connected the new Environmental Control System to the MIS network. Worked with the vendor, on site, to ensure system was accessible on the network.

- **Email Upgrade:** Successfully completed migration of all MWRA email users to the new Exchange 2010 email system. The mailbox size for all users has been increased.

- **Distributed Antenna Systems (DAS):** Installations were completed at Deer Island Administration, Warehouse, Reception Training buildings, and sub-terrain galleries and tunnels. The remaining buildings at Deer Island, CWTP, Chelsea, Clinton, Weston, and Charlestown will be completed in September. The DAS was implemented to improve indoor cellular signal coverage and to provide the latest high speed (4G LTE) network connectivity. Verizon was the first service provider to join MWRA's DAS infrastructure.

**Budget Highlights:**

- The FY15 Final Budget is $10.3 million, an increase of $10,000 or 0.1% as compared to FY14 Actual Spending.

- $5.3 million for **Wages and Salaries**, an increase of $315,000 or 6.4%, as compared to the FY14 Actual Spending due to projected cost of living adjustments and lower than budgeted headcount in FY14. The budget includes funding for 56 positions, one position less than in FY14.

- $2.9 million for **Ongoing Maintenance**, a decrease of $385,000 or 11.7%, as compared to FY14 Actual Spending mainly due to timing and cost of computer licenses in FY14. Maintenance spending is for license and maintenance fees to support administrative, operations, and database applications used by MWRA staff.

- $147,000 for **Training and Meetings**, an increase of $25,000 or 20.3%, as compared with FY14 Actual Spending. Funding will support staff training in various computer applications as part of the MIS IT Strategic Plan.

- $325,000 for **Professional Services**, an increase of $112,000 or 52.8%, as compared to FY14 Actual Spending mainly due to the timing of MAXIMO professional support initiative. Funding will support the continued development of an MIS Strategic Plan and implementation services.
- $528,000 for **Other Materials**, a decrease of $71,000 or -11.9%, as compared to FY14 Actual Spending mainly due to the timing of specialized hardware requests, some of which occurred in FY14.

- $1.2 million for **Other Services**, an increase of $33,000 or 2.9%, as compared to FY14 actual Spending mainly due to increased telecommunications costs.
The **Procurement Department** includes three units. The **Purchasing Unit** operates a competitive purchasing system for the procurement of materials, goods, and non-professional services in accordance with MWRA policies and procedures. The **Contract Management Unit** reviews, drafts, and negotiates contracts, amendments, and change orders for all professional, non-professional, and construction services contracts. Staff directs the bid, review, and selection process, and maintains a contracts database. The **Materials Management Unit** manages an Authority-wide inventory control and management system for better control, storage, distribution, and accounting of MWRA’s inventory. The unit manages three regional warehouses/distribution centers that support all MWRA activities.

**FY15 Goals:**

- Procure materials, equipment, supplies, construction, professional, and non-professional services in a timely, efficient, and openly competitive process in accordance with MWRA policies and procedures, including those related to meeting affirmative action goals.

- Maintain centralized, efficient, and cost-effective management of spare parts and operating supplies inventory.

- Provide timely and high quality services to initiating divisions to enable MWRA programs to meet their public, production, and schedule responsibilities.

- Maintain a recycling program in order to contain MWRA operating costs by removing recyclable materials from the waste stream.

- Implement electronic procurement for contract bids, which will significantly reduce the amount of paper processing.

- Initiate the review of Procurement Policies and Procedures (ADM20).

- Transfer current Purchasing Card (PCard) program from US Bank to Bank of America.

- Continue staff procurement training and conduct specification training sessions.
FY14 accomplishments:

- Competitively bid CY13 Renewable Energy Portfolio Standard certificates which resulted in FY14 revenues of $398,198 (Class II). In addition, received FY14 revenues of $1,988,636 from forward marketing of CY13 (Class I and Solar) Renewable Portfolio Standards (RPS) certificates.

- Awarded the following major contracts in FY14: Hatchery Pipeline and Hydroelectric Design; Harbor and Outfall Monitoring; DITP Pipe Supports for Sludge Pipelines; DITP Roofing Replacement; Clinton WTP Phosphorus Reduction Design; DITP Replacement of Scum Skimmers; Storm Pump Gear Box and Diesel Engine Upgrade; Webster Avenue Pipe Replacement Design; Pilot Program for Organic Digestion at DITP; Security Guard Services, Dam Safety Consulting Services; Rehabilitation of Anaerobic digesters at Clinton Treatment Plant; Section 111 Southern Extra High Redundancy Pipeline Design; DITP HVAC Replacement Design; Financial Advisor Services; Dam EAP Planning; DITP Valve and Piping Replacement; DITP Electrical Equipment Upgrade Construction 4 Resident Engineer Inspection; and NIH West Street Transmission Main.

- Advertised or received bids/proposals/statements for the following: Security Equipment Installation at Various Facilities; CVS Shea Ave. Leak Repair; DITP Cryogenics Chillers Replacement; NIH West Street Transmission Main; Quabbin Power, Communication and Security Hardening Design; DITP Clarifier Rehab Phase II Design; Construction WASM 36; Gate, Siphon and Floatables Controls 003; Boston Low Service Beacon Street Line Design; and DITP Thermal Power Plant BMS System Upgrade.

- Continued to work with DITP, Field Operations, and utility companies to establish energy conservation programs at DITP and FOD facilities, using the Green Communities Act, the utilities’ municipal programs, and other programs.

- Received proposals and supported DITP in award of pilot program contract for co-digestion of organic waste.

- Continued development of an electronic procurement bidding process for construction and professional service contracting based upon Lawson Strategic Sourcing, by developing the terms of use and the contract templates.

- Worked with Operations, Law, DEP and Wentworth Institute concerning wastewater energy recovery grant and pilot program at the Ward Street facility.

- Analyzed, along with DITP, Internal Audit, and Budget staff options for continued contracted operations of the Fore River pellet plant.

- Processed 10,185 purchase orders in FY14 for a total of $46,422,766.

- Processed 256 procurements (with a value of over $25,000) in FY14, including competitive bids, State blanket contracts, critical need, and sole source requests.

- Developed and implemented a Debit Card program for the purchase of non-logo employee clothing and footwear.

- Moved employee clothing procurement to an automated employee clothing purchase program through the use of a multi-state co-operative contract.

- Procured the Authority’s vehicle purchases at the beginning of Fiscal Year 2014; including 40 vehicles procured through the use of a “Reverse Auction” format which resulted in savings to the Authority.
• Processed nine competitive bids in a compressed time frame for materials to be used in the Co-Digestion pilot project for an approximate total of $450,000.

• Purchased 467,000 gallons of ultra-low-sulfur, #2 diesel fuel for the Deer Island Thermal/Power Plant at an average cost of $3.08/gallon, lower than the FY14 budget price of $3.50/gallon.

• Processed and awarded three year janitorial contracts each for the Deer Island, Chelsea, and Southboro facilities.

• Explored use of national cooperative contracts by joining the following cooperatives: MA Higher Education Consortium (MHEC), US Communities, National Inter-Government Procurement Alliance (IPA), National Joint Powers Alliance (NJPA), in order to leverage better item pricing.

• Initiated regular meetings with Deer Island, Chelsea, and MIS staff to foster better communication between MWRA departments and the Purchasing Unit.

• Continued to seek out environmentally friendly products, among them recycled toners, batteries, copy paper, hybrid vehicles, and bio-fuels.

• Continued work with Operations on a Quality of Materials Sub-Committee. The subcommittee’s goal is to examine a number of similar inventory items to determine if what is currently being stocked in inventory is the appropriate quality to adequately perform the intended function. The sub-committee is comprised of Purchasing, Materials Management and Operations staff.

• Set up an online vehicle and equipment auction process and brought in $183,531 in revenue for FY14.

• Recycled 33.75 tons of paper, 374.27 tons of scrap metal (includes stainless steel and aluminum), 4,260 pounds of brass and copper, and 1,490 batteries in addition to scrapping 6 vehicles, generating $94,768 in revenues.

Budget Highlights:

• The FY15 Final Budget is $3.8 million, a decrease of $736,000 or 16.2% as compared with FY14 Actual Spending. FY14 Actual Spending includes $829,000 under Maintenance (“Warehouse Inventory”) which represents the value of inventory which has been received in the warehouse but has yet to be distributed to the using division. If this funding were eliminated, Procurement would be showing an increase of $93,000 or 2.5% from FY14 Actual Spending.

• $3.6 million for Wages and Salaries, an increase of $91,000 or 2.6% as compared with FY14 Actual Spending mainly due to projected cost of living adjustment increases. The funding supports 45 positions.

• $99,000 for Other Materials, a decrease of $24,000 or -19.3% as compared with FY14 Actual Spending mainly due to higher than budgeted needs in FY14. This line item mainly supports centralized office supply purchases.

• $57,000 for Other Services, an increase of $15,000 or 36.2% as compared with FY14 Actual Spending. This funding supports Advertising and Printing/Duplicating for contract documents and specifications. Advertising was below historical trends because a number of projects were rescheduled for FY15.
The Real Property and Environmental Management Department negotiates the purchase or lease of real estate and land necessary to support MWRA's capital projects and operations and manages the disposition of surplus real property. Staff participates in site selection and negotiates acquisitions or easements. In addition, staff has developed and is maintaining the Real Property database, the compilation of more than 100 years of easements and land rights for the water and sewer systems. Department staff manages environmental regulatory compliance at MWRA facilities and also provides special expertise and assistance to MWRA staff regarding air quality and hazardous material issues. Assistance includes management of oil and hazardous materials site assessment and remediation, air emission permit negotiations, and preparation and submittal of quarterly/annual monitoring reports.

FY15 Goals:

- Acquire the real property needed to complete MWRA's major capital projects in a timely and cost-effective manner; manage the disposition of surplus real property in an efficient manner; and provide staff and others with current information regarding MWRA’s real property rights.

- Manage the centralized environmental management program, providing technical assistance regarding hazardous waste management, air quality compliance, and related issues during all phases of MWRA projects as well as monitor and provide assistance in maintaining environmental regulatory compliance at MWRA facilities.

FY15 Initiatives:

- Monitor progress of upcoming underground storage tank regulation amendments and Stage I Vapor Recovery regulations.

- Coordinate implementation of boiler and emergency generator air emissions regulation amendments including monitoring, maintenance, pollution control retrofits, and recordkeeping requirements.

FY14 Accomplishments:

- Provided ongoing real estate services, including appraisal and negotiation, on projects such as the, Charlestown Navy Yard lease, Chelsea lease, and NStar Lease.

- Provided real estate services as needed (appraisal, negotiation, survey review, title review, local zoning submittals, and legislation review) on Fore River Railroad track relocation land swaps with Quirk and Cashman, sale of Fox Point (Dorchester), sale of land adjacent to Chelsea Headworks to City of Chelsea and

<table>
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<tr>
<th>LINE ITEM</th>
<th>FY12 Actual</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
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<td>$651,020</td>
<td>$766,219</td>
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acquisition of easement from City in private way, and the acquisition of easement from Department of Capital Asset Management (DCAM) for Ware Disinfection Facility.

- Managed nine (9) permit agreements (six at Turkey Hill and three at Walnut Hill). Coordinated with Operations for approval of the equipment changes and improving the invoicing system for maintenance reimbursements. Total revenue for the nine agreements approximates $500,000 of which MWRA and the host community each receive half. Renegotiated three of nine permit agreements which were due for renewal.

- Managed fee assessment for long-term 8M permits on MWRA fee controlled land. 8M fees for these agreements total approximately $50,000 per year. Also provided assistance to Operations on short-term 8M permit agreements in which fees are assessed.

- Staff are currently in the process of acquiring easements and negotiating licenses to support projects including: easements from 65+ property owners for Section 36, New W11C, and Shaft 9A in Arlington and Medford; easement swaps for Carroll Water Treatment Plant (CWTP) security entrance renovations in Marlboro; easement to support Alewife Brook Conduit renovations, easements for Section 4 Webster Ave Pipe Replacement (Somerville); and landrights from DCAM for Sudbury distribution mains in conjunction with surplus of Reservoirs 1 & 2.

- Provided real estate support services including deed research and coordination with Planning’s Geographic Information System (GIS) group and Law to develop/improve comprehensive property maps for the Cochituate, Sudbury, Weston, and Wachusett Aqueducts, to support projects such as the aqueduct trail initiative. Provided real estate research for a comprehensive facility database in conjunction with GIS. Provided daily assistance in concert with Law and GIS to ongoing inquiries regarding MWRA real estate rights and ownership.

- Continued with remediation and assessment of oil contamination at the Fore River Staging Area (FRSA) facility.

- Completed the five-year evaluation of the temporary solution under the Massachusetts Contingency Plan for the historical waste oil release to Spot Pond Brook from the Gillis Pump Station. As part of this evaluation, sediment samples from the brook outfall and nearby vernal pool were collected and analyzed.

- Continued with the assessment of the oil contamination resulting from the February 2010 spill at the Cottage Farm Combined Sewer Overflow (CSO) facility. Installed an oil recovery well that will be used to evaluate whether the remaining oil in the ground is recoverable and if so, recovery will be implemented in FY15.

- Provided technical support for the assessment and abatement design for PCBs at the Cottage Farm CSO Facility and Remote Headworks facilities in conjunction with on-going design of facility upgrades. Completed Risk-Based PCB Abatement Plans for both facilities and submitted them to Environmental Protection Agency (EPA). Received approval from EPA for the plan submitted for Chelsea Creek Headworks. Continued pilot testing to evaluate the effectiveness of various abatement and encapsulation techniques for PCB contamination at Chelsea Creek Headworks.

- Coordinated with design consultant for the assessment and demolition design for PCBs, lead paint, and asbestos at the abandoned Westborough State Hospital Pump Station located on the grounds of the Carroll Water Treatment Plant.

- Continued to provide technical and regulatory coordination of the fuel tank maintenance contract. Completed fuel tank piping system upgrades at one facility, upgrade of gasoline vapor recovery systems to meet new DEP.
requirements at four facilities, and general monitoring system repair and upgrades at other facilities. Coordinated with Supervisory Control and Data Acquisition (SCADA) support staff to provide real-time fuel tank system monitoring at six water pump stations for the Water Operations Control Center (OCC). Continued with the new Massachusetts Department of Environmental Protection (MassDEP)-required monthly inspection requirement for all underground fuel storage tank systems.

- Coordinated with TRAC and Western Water Operations for periodic sampling and monthly reporting to the EPA and the MassDEP for the individual NPDES Permit at the Carroll Water Treatment Plant.

- In response to the installation of a new electrical transformer completed a new draft Spill Prevention, Control, and Countermeasure (SPCC) Plan for the Intermediate Pump Station in Weymouth. Completed an update to the SPCC Plan for the MWRA Cottage Farm CSO Facility in response to the recently completed fuel system upgrade project. Completed the five-year review and update to the SPCC Plan for the MWRA Braintree-Weymouth Pump Station.

- Continued with MassDEP required periodic groundwater monitoring around the former wastewater holding tank at Clinton.

- Continued to coordinate the periodic sampling requirements and quarterly reporting to the EPA and the MassDEP for Hydroelectric General permits at the Cosgrove Intake Facility and Oakdale Power Station.

- Provided technical and environmental regulatory support regarding contaminated soil and groundwater as well as geotechnical issues on various design and construction projects, including:
  - Stoneham Low Service Covered Storage,
  - Remote Headworks Rehabilitation,
  - Northern Intermediate Redundancy project,
  - Section 36 Watertown-Waltham Connection,
  - Cottage Farm Oil fuel system upgrade project,
  - Alewife Brook Pump Station facility upgrades,
  - MWR003 Gate, Siphon and Floatables Control project
  - Belchertown Hatchery Pipeline
  - Southern Extra High Pipeline
  - Sudbury Aqueduct Connection Alternatives
  - WASM3 Rehabilitation
  - Nut Island Electrical Duct Bank
  - Delauri Security Upgrades

- Continued to work with EPA and Operations staff on implementing diesel engine emission controls for Cottage Farm, Prison Point, and CWTP. Completed emissions testing of the Cottage Farm engines. Coordinated installation of retrofit emissions controls for the new Loring Road emergency generator. Continued to work with Operations staff to implement new maintenance and recordkeeping requirements for emergency generators. Completed air emissions testing at the Deer Island East Odor Control Facility.

- Provided technical and environmental regulatory support for upgrades at the Ware Disinfection Facility including a new potable water supply for the facility, a new on-site septic system, a new industrial wastewater holding tank, a new wastewater dry well, and a new emergency power generator. Submitted self-certification documentation to DEP for the new industrial wastewater holding tank. Submitted application and received DEP approval, and completed construction of the new onsite septic system.
• Submitted application for Certificate of Compliance to the Cambridge Conservation Commission for completion of site restoration work following the February 2010 oil spill at Cottage Farm CSO facility.

• Represented MWRA in the Massachusetts Geological Survey annual meeting of the State Map Advisory Committee to assist the State Geologist with prioritize geological mapping activities in the next calendar year.

**Budget Highlights:**

• The FY15 Final Budget is $766,000, an increase of $115,000 or 17.7%, as compared to FY14 Actual Spending.

• $436,000 for **Wages and Salaries**, an increase of $2,000 or 0.6%, as compared to FY14 Actual Spending mainly for projected contractual increases. The budget supports four positions.

• $3,000 for **Training and Meetings**, an increase of $3,000 as compared to FY14 Actual Spending.

• $326,000 for **Other Services**, an increase of $111,000 or 51.8%, as compared to FY14 Actual Spending. The increase is due to the increased costs for the underground storage tank project based on projected usage and FY15 identified projects.