Executive Office
Budget
EXECUTIVE DIVISION

FY16 Proposed Current Expense Budget

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGES &amp; SALARIES</td>
<td>$534,191</td>
<td>$540,944</td>
<td>$559,130</td>
<td>$578,479</td>
<td>$19,349 3.5%</td>
</tr>
<tr>
<td>OVERTIME</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>- 0.0%</td>
</tr>
<tr>
<td>ONGOING MAINTENANCE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>- 0.0%</td>
</tr>
<tr>
<td>TRAINING &amp; MEETINGS</td>
<td>-</td>
<td>612</td>
<td>900</td>
<td>900</td>
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</tr>
<tr>
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<td>3,183 1.9%</td>
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<td>500,236</td>
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</tr>
<tr>
<td>TOTAL</td>
<td>$1,139,983</td>
<td>$1,172,336</td>
<td>$1,228,620</td>
<td>$1,282,232</td>
<td>$53,612 4.4%</td>
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</tbody>
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EXECUTIVE DIVISION by Department

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXECUTIVE OFFICE</td>
<td>$467,861</td>
<td>$473,230</td>
<td>$490,602</td>
<td>$507,107</td>
<td>$16,505 3.4%</td>
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<td>BOARD OF DIRECTORS</td>
<td>74,939</td>
<td>74,125</td>
<td>77,853</td>
<td>79,964</td>
<td>2,111 2.7%</td>
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<tr>
<td>ADVISORY BOARD / OTHER COMMITTES</td>
<td>597,183</td>
<td>624,981</td>
<td>660,165</td>
<td>695,161</td>
<td>34,996 5.3%</td>
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<tr>
<td>TOTAL</td>
<td>$1,139,983</td>
<td>$1,172,336</td>
<td>$1,228,620</td>
<td>$1,282,232</td>
<td>$53,612 4.4%</td>
</tr>
</tbody>
</table>

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.

FY16 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, hold 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. The Executive Office budget accounts for less than 1% of the MWRA FY16 Proposed Direct Expense Budget.

Budget Highlights:

- The FY16 Proposed Budget is $1.3 million, an increase of $54,000 or 4.4%, from the FY15 Budget.

- $578,000 for Wages and Salaries, an increase of $19,000 or 3.5%, as compared to the FY15 Budget mainly due to cost of living adjustments. The proposed budget includes funding for five positions.

- $167,000 for Professional Services, an increase of $3,000 or 1.9%, as compared to the FY15 Budget mainly due to projected increases in the Advisory Committees operating expenses. This budget funds the Water Supply Citizens’ Advisory Committee (WSCAC) and the Wastewater Advisory Committee (WAC) budgets.

- $532,000 for Other Services, an increase of $32,000 or 6.3%, from the FY15 Budget mainly due to projected increases in the MWRA Advisory Board operating expenses which include wages and salaries, space rental, and general administrative office expenses.
OFFICE OF EMERGENCY PREPAREDNESS

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGES &amp; SALARIES</td>
<td>$390,132</td>
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<td>771</td>
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<tr>
<td>ONGOING MAINTENANCE</td>
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<td>90,151</td>
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<td>TRAINING &amp; MEETINGS</td>
<td>1,652</td>
<td>1,902</td>
<td>-</td>
<td>17,000</td>
<td>17,000</td>
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<td>PROFESSIONAL SERVICES</td>
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<td>(2,275)</td>
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<tr>
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<td>124,172</td>
<td>132</td>
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<tr>
<td>TOTAL</td>
<td>$2,420,703</td>
<td>$2,588,703</td>
<td>$2,681,758</td>
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<td>$443,622</td>
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</table>

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.

**FY16 Goals:**

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

**FY16 Initiatives:**

- Continue to enhance Emergency Response Plans for all water and wastewater facilities. Update Emergency Action Plans (EAPs) as needed, including Western Section 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.
- 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 monitoring system to the new standard.
- Establish a new security monitoring center in Chelsea and work towards establishing a backup monitoring center at Norumbega.
FY15 Mid-Year Accomplishments:

- Continued to update spill control Emergency Action Plans for water and wastewater facilities subject to spill regulations.
- Completed draft Dam Emergency Action Plans for Eastern Section dams with detailed inundation mapping.
- Completed a total of 33 training events or drills.
- 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 Security Equipment Maintenance and Repair Services contract.

Budget Highlights:

- The FY16 Proposed Budget is $3.1 million, an increase of $444,000 or 16.5%, from the FY15 Budget.
- $591,000 for Wages and Salaries, an increase of $152,000 or 34.6%, from the FY15 Budget mainly due to the addition of one position and cost of living adjustments. The budget includes funding for six positions, one position more than included in the FY15 Budget.
- $465,000 for Ongoing Maintenance, an increase of $90,000 or 24.0%, from the FY15 Budget mainly due to projected increases in the intrusion alarm monitoring and security system maintenance service contracts. This budget includes funding of $306,000 to cover the MWRA-wide security systems preventative maintenance and repair service, $125,000 for MWRA-wide Security systems maintenance materials and equipment, including cameras, intrusion detection, card readers, and $35,000 for the intrusion alarm annual and semi-annual monitoring services contracts.
- $1.9 million for Professional Services, an increase of $187,000 or 10.9%, from the FY15 Budget primarily due to the increased cost of the new security guard contract. The proposed budget includes $636,000 for security services at the DITP facility, $591,000 for the Chelsea facility, $405,000 for the Carroll Water Treatment Plant, $22,000 for Charlestown Navy Yard (CNY) facility, $84,000 for the Account Manager, and $47,000 for the Training Officer. Also included is $55,000 for updating the Dam EAPs to match the pending regulatory change to FEMA’s PD-64 inundation modeling approach and annual updates.
- $33,000 for Other Materials, a decrease of $2,000 or 6.4%, from the FY15 Budget. This budget mainly funds purchase of Health and Safety materials for the ESU Team.
- $124,000 for Other Services is level funded from the FY15 Budget. This budget includes funding for licensing cost for two-way radios with Department of Conservation and Recreation (DCR) and for mandatory monthly testing and inspection of the Self-Contained Breathing Apparatus (SCBA).
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.

**FY16 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.

**FY16 Initiatives:**

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

**FY15 Mid-Year Accomplishments:**

- Provided management guidance and participated in 50 position(s) selection committee interviews, sourced eighteen (8) outreach contacts, and referred 16 qualified candidates to Human Resources for underutilized positions.
• Completed a comprehensive self-identification outreach program for employees who are covered veterans and individuals with disabilities.

• Conducted oversight of 114 construction and professional projects including 2 site visits monitoring the minority and women workforce as well as MBE/WBE/DBE compliance. With the exception of WBE Nonprofessional Services, the other procurement targets remain.

**Budget Highlights:**

• The FY16 Proposed Budget is $534,000, a decrease of $44,000 or 7.7%, from the FY15 Budget.

• $525,000 for **Wages and Salaries**, a decrease of $49,000 or 8.5%, from the FY15 Budget mainly due to the transfer of vacant position to Public Affairs department partially offset by cost of living adjustments. The proposed budget includes funding for six positions, one position more than in the FY15 Budget.
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.

**FY16 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.

**FY15 Mid-Year Accomplishments:**

- Identified $794,000 in savings related to: management advisory services, consultant audits, construction labor burden reviews, the determination of an operating cost base for the CNY lease, and on-going savings from the lease of the engine house by the Fore River Railroad Corporation.
- Issued final audit reports on the Laboratory Services’ Quality Assurance Program, Expanded Affirmative Action Requirements, Records Management, and the Town of Brookline CSO Financial Assistance Agreement. Issued four incurred cost audits, one preliminary consultant and four preliminary construction reviews, and a contract review.
- Provided management advisory and data analysis services dealing with the Cottage Farm PCB clean-up plan, and 8(m) Permit Fees.

**Budget Highlights:**

- The FY16 Proposed Budget is $756,000, an increase of $54,000 or 7.7%, from the FY15 Budget.
- $745,000 for **Wages and Salaries**, an increase of $54,000 or 7.8%, from the FY15 Budget primarily due to increased work hours for two part-time staff and cost of living adjustments. The proposed 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 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.

FY16 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.

- Continue to provide accurate and timely information to the public through the MWRA’s website and the media, including social media like Twitter and Flickr.

- Continue to circulate Annual Water Quality Report to every household within the MWRA service area.

FY16 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. The current FY15 House Budget includes $1M for Sewer Rate Relief. Staff will continue to monitor the budget process as it moves to the Senate and subsequent Conference Committee this spring and summer.

FY 15 Mid-Year Accomplishments:

The Massachusetts Legislature began its two-year session in January 2013. The second annual session began in January 2014. The following bills of importance to MWRA passed during the first half of the legislative session:

**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 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)

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

The School Education staff conducts weekly classroom visits within the MWRA service area to educate elementary school children on the importance of water and sewer infrastructure on their daily lives. The annual poster, essay and video contest raised awareness of this program and provide a unique opportunity for the students, teachers and parents to learn together about MWRA’s mission.

Budget Highlights:

- The FY16 Proposed Budget is $1.2 million, an increase of $87,000 or 7.8%, from the FY15 Budget.
- $1.1 million for Wages and Salaries, an increase of $88,000 or 8.4%, from the FY15 Budget mainly due to the addition one position and cost of living adjustments. The proposed budget includes funding for 13 positions, one position more than the FY15 Budget.
- $26,000 for Other Materials, an increase of $4,000 or 18.5%, from the FY15 Budget mainly due to a projected increases based on historical spending trends.
- $44,000 for Other Services, a decrease of $5,000 or 9.7%, from the FY15 Budget based on historical spending. This budget supports the printing needs of the department, including State of the Harbor Report and the Annual Report.
Operations Division
Budget
## OPERATIONS DIVISION

### FY16 Proposed Current Expense Budget

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGES &amp; SALARIES</td>
<td>$70,614,647</td>
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<td>$75,524,218</td>
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<td>FRINGE BENEFITS</td>
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<td>56,561</td>
<td>61,270</td>
<td>62,618</td>
<td>1,348</td>
</tr>
<tr>
<td>CHEMICALS</td>
<td>10,139,258</td>
<td>10,226,459</td>
<td>10,219,580</td>
<td>10,149,911</td>
<td>(69,669)</td>
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<tr>
<td>UTILITIES</td>
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<td><strong>TOTAL</strong></td>
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<td>$157,368,999</td>
<td>$162,854,682</td>
<td>$167,406,779</td>
<td>$4,552,097</td>
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</table>

### FY16 Proposed Current Expense Budget by Department

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
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<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
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<tbody>
<tr>
<td>OPERATIONS ADMINISTRATION</td>
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<td>FIELD OPERATIONS</td>
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<td>LABORATORY SERVICES</td>
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<td>ENQUAL</td>
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<tr>
<td>ENGINEERING &amp; CONSTRUCTION</td>
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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 43% 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** is 2% of the division’s budget. The 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** is 5% of the division’s budget. This 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 (EnQual) is 3% of the division’s budget. This department 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 is 4% of the division’s budget. This 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 is 3% of the division’s budget. This 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.

FY16 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.

FY16 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.

- Commence pilot, commercial food waste co-digestion project at Deer Island Treatment Plant.

- Self-generate ~30% 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.

- Continue to optimize new ultraviolet disinfection treatment process for MWRA’s potable water system at the Carroll Water Treatment Plant and Brutsch Disinfection Facility.

- Start-up Spot Pond covered storage facility in FY16.

- Continue to 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
    - NIH Redundancy & Storage: Section 89/29 Redundancy – Construction Phase 1B
    - Carroll Water Treatment Plant: Existing Facilities Modification – CP7
    - Central Monitoring System: Quabbin Power Communication & Security
    - Winsor Station Pipeline: Hatchery Pipeline – Construction
    - NHS – Revere & Malden Pipeline Improve: Section 53 Connections – Design/CA/RI
    - Spot Pond Supply Mains Rehab: Section 4 Webster Ave Bridge Pipe Rehab - Construction
  
  - Wastewater System
    - Facility Asset Protection: Chelsea Creek Upgrades – Construction
    - Clinton Wastewater Treatment Plant: Phosphorous Removal - Construction
    - DITP Asset Protection: HVAC Equip. Replacement – Construction
    - DITP Asset Protection: Sodium Bisulfite & Hypochlorite Tank Rehab
    - DITP Combined Heat and Power - Design
    - DITP Asset Protection: Ancillary Modifications – Final Design 4
    - Facility Asset Protection: Prison Point/ Cottage Farm Abatement – Design/ CA / RI
    - Facility Asset Protection: Chelsea Creek Upgrades – REI
    - Residuals Asset Protection: Residuals Facility Upgrade - Design
    - DITP Asset Protection: Expansion Joint Repair – Construction 3
    - DITP Asset Protection: Switchgear Replacement – Design

- Substantially complete numerous CIP design and construction phases including the following:
  
  - Water
    - Spot Pond Storage Facility: Owners’ Representative
    - Carroll Water Treatment Plant Technical Assistance 7
  
  - Wastewater System
    - CSO Program: Cambridge Sewer Separation – Design and Construction
    - CSO Program: Reserved Channel Sewer Separation – Design and Construction
    - DITP Asset Protection: NMPS VFD Replacement - Construction
    - DITP Asset Protection: Electrical Equipment Upgrade – Construction 4
    - Facility Asset Protection: Prison Pt/Cottage Farm Engine Pump and Gearbox Rebuilds
    - Facility Asset Protection: Chelsea Screenhouse Upgrades
    - DITP Asset Protection: Miscellaneous VFD Replacements
    - CSO Program: MWR003 Gate and Siphon – Construction 2
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 unit replacement; PLC replacements; and critical equipment maintenance.
- Work on numerous projects in Field Operations including meter inspection and repairs; manhole rehabilitation; pipeline repair and replacement; invasives control in the water reservoirs; dam inspections and tree clearing; and water tank inspections and cleaning.
- Commence and complete periodic facility painting and coating project.

Environmental:

- Plan for implementation of requirements of the new National Pollutant Discharge Elimination System (NPDES) Permits for DITP (assume new permit is issued after FY16) and Clinton Wastewater Treatment Plant (assume new permit in effect for all of FY16).
- Continue work on other harbor and outfall monitoring initiatives including: calculating revised thresholds, continuing to work with Department of Conservation and Recreation implementation of appropriate beach management practices in South Boston, and improving instrumentation on National Oceanic and Atmospheric Administration’s (NOAA’s) weather buoy.
- 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.
- Prepare for implementation of reduced fluoride dosing in the water system per upcoming regulatory changes.

FY15 Mid-Year Accomplishments:

Operations, Energy, and New Facilities Start-ups:

- Secured delegated authority to procured multi-year electricity supply contract for MWRA’s smaller facilities.
- 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, hydrofluorosilicic acid, ferric chloride, sodium bisulfate, aqua ammonia, hydrogen sulfide, and copolymer.
- Received revenue for energy generated at numerous facilities including the following: hydroelectric $313,000 from Oakdale Station, $103,000 from Cosgrove Station, and $8,900 (net) from the Loring Road Pump Station; wind of $182,000 from Charlestown Pump Station; and solar of $50,000 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 $894,000 in revenue for the first six months of FY15. Deer Island also self-generated ~30% of the plant’s total required power during that period.
• Processed 101.5 average tons per day of sludge at the Pelletization Plant and disposed of 3,251 of grit and screenings through a contracted vendor.

**Maintenance:**

• The Operations Division spent $12.6 million through December on maintenance of which $6.5 million was for materials and $6.1 million was for services.

• Procured and implemented numerous contracts for maintenance services, including the following:
  - Temporary flow monitoring and data collection at MWRA wastewater sites
  - Sudbury Aqueduct tree removal
  - Grounds keeping at numerous facilities
  - Instrumentation services at numerous facilities
  - Union Park O&M contract
  - Locksmith services
  - DITP oxygen generation facilities services

• Procured maintenance-related materials including DITP PVDF fittings and piping; water system gate valves; DITP evaporator coils; five trailer-mounted wastewater pumps; and electrical hardware and supplies.

• Procured and implemented numerous contracts for maintenance projects including:
  - installation of energy efficient lighting at numerous facilities
  - Shea Avenue CVA system leak repair
  - installation of three energy efficient gas-fired unit heaters at Brattle Court Pump Station
  - easement clearing for section 83 and 89 pipeline in water system
  - furnish and install pump, gear box, diesel engine upgrades at Prison Point and Cottage Farm CSO Facilities

• Completed numerous maintenance projects including the following:
  - replacement of two ammonia pumps at CWTP
  - replacement of sump pump system in Hultman Shaft 4 building
  - repaired leads in water system section 62 pipeline
  - replaced berm at the IPS and locksets and doors at numerous wastewater facilities
  - installed new VFDs at Caruso Pump Station.

• In water system, exercised 414 and replaced 10 mainline valves; exercised 202 and replaced 6 blow-off valves.

• In the wastewater system, inspected 16.41 miles and cleaned 14.31 miles of MWRA pipeline. Also inspected 768 structures and rehabilitated 21 manholes.

**Engineering, Construction, and Planning:**

• Notice to Proceed for numerous contracts including the following major projects:
  o Water System
    - Weston Aqueduct Supply Mains: Section 36/C/S9 – A11 Valve
    - Quabbin Power: Design
    - Waterworks Facility Asset Protection: Beacon St. Line Repair – Design CA/RI
  o Wastewater System
- DITP Asset Protection: Cryogenics Chillers Replacement
- CSO Program: MWR003 Gate & Siphon construction 2
- DITP Asset Protection: NMPS Winthrop Terminal Facility – ESDC/REI
- DITP Asset Protection: Clarifier Rehab Phase 2 – Design
- DITP Asset Protection: Thermal Power Plant Boiler Control Replacement

- Substantially completed numerous projects including the following:
  
  o Water System
    - Quabbin Water Treatment Plant: Quabbin UVWTP - Construction
    - Metro West Tunnel: Hultman Interconnect – Final Design/ CA/RI
    - NIH Redundancy & Storage: Gillis Pump Station Improvements
    - NIH Redundancy & Storage: West Street Pipeline Reading – Construction Phase 1A
  
  o Wastewater System
    - DITP Asset Protection: Digester Modules 1 & 2 Pipe Replacement ESDC/REI
    - Facility Asset Protection: NI Electrical &Grit/Screens Conveyance - Construction
    - Brookline Sewer Separation: Design/CS/RI
    - DITP Asset Protection: Digester Sludge Pump Replacement – Construction
    - DITP Asset Protection: Roof Replacement Phase 3

Environmental:

- The TRAC Department completed the following Environmental Protection Agency (EPA)-required work for significant industrial users: 128 inspections, 151 monitoring events, and 289 sampling of connections. This department also issued or renewed 94 permits to Significant Industrial Users (SIUs) and non-SIUs.

- The TRAC Department submitted the Industrial Pretreatment Program Annual Report to the EPA for FY14 in October 2014.

- 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 98.2% of flow through secondary and met secondary permit limits at all times. Operated DITP without any NPDES Permit violations during the first six months of FY15.

- EnQual 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 eight 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 the first six months of FY15. Also, maximum turbidity results at Quabbin and Wachusett were within DEP standards.

- During the first six months of FY15, the Department of Laboratory Services performed 136,259 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 FY16 Proposed Budget is $167.4 million, which is $4.6 million or 2.8%, more than the FY15 Budget.

- Line items that increase from the FY15 Budget include:
  
  o The FY16 Proposed Budget of $77.3 million for Wages and Salaries is an increase of $1.8 million or 2.4% from the FY15 Budget, primarily due to wage increases associated with collective bargaining agreements. The FY16 Proposed Budget funds 934 filled positions on average during the year versus 936 budgeted in FY15. The budget also includes $753,000 for Stand-by Pay to ensure staffing availability and response during emergencies, $258,000 for Interns, and $177,000 for Temporary Employees to assist with peak workloads and special initiatives.
  
  o The FY16 Proposed Budget of $24.8 million for Utilities includes $18.0 million for electricity, $3.8 million for diesel fuel, $2.2 million for water, and $486,000 for natural gas. The increase of $1.4 million or 5.9% from the FY15 Budget is primarily due to projected price changes for electricity based on market trends; price increases for wholesale water rates for DITP; and more diesel fuel purchases at DITP based on projected use and inventory levels. The utility budget by department is $14.2 million for Deer Island Treatment Plant, $5.4 million for Wastewater Operations, $4.4 million for Water Operations, $533,000 for the Chelsea office and maintenance facilities, and $249,000 for the Clinton Wastewater Treatment Plant.
  
  o The FY16 Proposed Budget for Other Services is $19.4 million, including $14.3 million for sludge pelletization; $2.0 million for space leases and rentals, including the Chelsea office facility; $889,000 for grit and screenings removal and disposal; $678,000 for telephones; $450,000 for police details; and $366,000 for memberships, dues, and subscriptions. The FY16 Proposed Budget is $685,000 or 3.7% more than the FY15 Budget primarily due to increases for contractual inflation for sludge pelletization services; base rent and property tax increases for the Chelsea facility lease; and dues for numerous membership organizations.
  
  o The FY16 Proposed Budget of $4.2 million for Overtime is a net increase of $600,000 or 16.9% from the FY15 Budget primarily due to the inclusion of overtime for valve shutdowns required to complete the DITP North Main Pump Station (NMPS) and Winthrop Terminal Facility Butterfly Valve Replacement CIP project. The FY16 Proposed Budget is sized based on multi-year spending patterns. The components of the budget include $1.8 million for emergencies and wet weather staffing; $1.3 million for planned maintenance and other initiatives (i.e. DITP NMPS valve shutdowns) that must be completed at night or on weekends; and $968,000 for operational coverage. The budget continues to incorporate reductions in overtime for coverage due to changes in staffing requirements and also reflects management’s successful efforts to date to control spending for non-emergency overtime.
  
  o The FY16 Proposed Budget for Maintenance is $24.4 million, a net increase of $451,000 or 1.9% from the FY15 Budget primarily due to changes in project priorities from year to year. The FY16 Proposed Budget includes $12.6 million for services and $11.8 million for materials. By maintenance area, the largest categories of spending for materials and services include $11.9 million for plant and machinery; $4.3 million for building and grounds; 2.7 million for specialized equipment; $2.6 million for electrical; $1.6 million for pipeline; and $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; painting and coating upkeep at the Clinton Wastewater Treatment Plant; and easement clearing on MWRA’s aqueducts.
  
  o The FY16 Proposed Budget of $4.6 million for Other Materials includes $1.7 million for Vehicle Replacements; $840,000 for Lab and Testing Supplies; $516,000 for Vehicle Expenses (gas, tolls);
$401,000 for Health and Safety Supplies; $362,000 for Work Clothes; and $359,000 for Equipment and Furniture. The increase of $85,000 or 1.9% from the FY15 Budget is primarily due to increased funding for lab and testing supplies and work clothes based on assessed needs.

- The FY16 Proposed Budget of $172,000 for **Training and Meetings** which covers specialized training, attendance at industry conferences, and site visits as required to vendors and other plants. The FY16 Proposed Budget funds training for topics such as spill response and boom deployment; spill prevention and control; belt laser alignment; cyber security; and electrical voltage. The FY16 Proposed Budget is $32,000 or 23.1% more than the FY15 Budget primarily due to increased need for workforce development associated with succession planning and the impacts of expected retirements.

- Line items that decrease from FY15 Budget include:
  - The FY16 Proposed Budget of $10.1 million for **Chemicals** includes $6.4 million for disinfection and treatment in the water system and $3.7 million for disinfection, treatment, and odor control in the wastewater system. The budget includes $3.8 million for soda ash; $2.0 million for sodium hypochlorite; $934,000 for ferric chloride; $606,000 for liquid oxygen; $596,000 for hydrofluosilicic acid; and $324,000 for sodium bisulfite. The FY16 Proposed Budget is $70,000 or 0.7% less than the FY15 Budget due to the net effect of price and usage decreases based on recent trends, contracts, and market projections. The decrease is also due to the reduction in FY16 of approximately $330,000 for chemicals included in the FY15 CEB for three months of enterococcus treatment at DITP. The FY15 CEB assumed start-up of the new permit in the April 2015 whereas more recent information indicates the permit will be issued after FY16 so the FY16 budget does not include funding for additional chemicals.
  - The FY16 Proposed Budget for **Professional Services** is $2.3 million, including $1.5 million for lab and testing services; $424,000 for other services; and $323,000 for engineering services. Major items in the budget include $1.5 million for Harbor and Outfall Monitoring; $233,000 for as-needed engineering services to support CEB-funded projects; $151,000 for outsourced testing by the Central Laboratory; $150,000 for MWRA’s FY16 contribution to the Mystic River Modeling project; $65,000 for a comprehensive reservoir wide plant survey in the water system; $65,000 for dam safety services; and $55,000 for invasive species control services in the reservoirs. The FY16 Proposed Budget is $439,000 or 15.8% less than the FY15 Budget primarily due to the deletion of funds for the Local Limits study resulting from the delay in the issuance of the new DITP NPDES Permit; resizing of numerous services based on an assessment of need in FY16; and exclusion of funds for periodic services that are not required on an annual basis such as air emissions stack testing at the Sludge Pelletization Plant and a leak detection survey of the water system.
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 FY16 Proposed Budget is $4.6 million, an increase of $667,000 or 16.8%, from the FY15 Budget.

- $2.4 million for **Wages and Salaries**, an increase of $631,000 or 35.0%, from the FY15 Budget due to wage increases primarily associated with collective bargaining agreements and also more funded positions than in FY15 due to the shift of several positions between departments.

- $4,700 for **Training & Meetings**, which is level funded with the FY15 Budget.

- $200,000 for **Professional Services**, which is level funded with the FY15 Budget. The budget funds an emerging agreement to contribute $150,000 to the Mystic River Modeling Project. MWRA expects to contribute up to a total of $400,000 for this project over several years. The budget also includes $50,000 for energy consulting services to support procurements and evaluation of projects.

- $1.7 million for **Other Materials**, which is primarily level funded with the FY15 Budget. Funding in this line item is mostly for the replacement of older vehicles in MWRA’s fleet. At an average cost of $30,000 - $35,000 per vehicle, the budget supports replacement of 48-56 vehicles which is approximately 10%-11% of the active fleet.

- $289,000 for **Other Services**, an increase of $36,000 or 14.4%, from the FY15 Budget. The budget contains Authority-wide memberships including the Water Research Foundation (WRF; formerly AWWARF), 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 a $40,000 increase to MWRA’s partial contribution for membership in WRF, bringing the total contribution to $160,000.
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 FY16 Proposed Budget and 31% of MWRA’s FY16 Proposed 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.
### DEER ISLAND TREATMENT PLANT

#### FY16 Proposed Current Expense Budget

<table>
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<th>LINE ITEM</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
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<td>$17,105,459</td>
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Program Description and Goals:

The Deer Island Treatment Plant budget accounts for 30% of the Operations Division’s FY16 Proposed 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% 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%. More than 100 tons of pure oxygen are 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.
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 perform 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 management for the plant plus policy direction and support in the areas of public access and community agreements.

Operating Assumptions

Deer Island’s FY16 Proposed Budget assumes treatment of an average flow of 354 mgd based on ten years of historical data. The projected quantity of digested sludge to be pumped to FRSA (TSS basis) is 102.1 TPD. This is based on tonnage trends from recent years which reflect the increased digestion from the operation of an eighth digester. It also includes the incremental impact to tonnage from the nine-month phase in of the pilot food waste co-digestion project.
Deer Island’s FY16 Proposed 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 30% 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 FY16 Proposed Budget does not assume a new permit will be in effect during FY16. 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 FY16 Proposed Budget is $50.9 million, an increase of $1.5 million or 3.0%, from the FY15 Budget.
- $18.8 million for Wages and Salaries, an increase of $653,000 or 3.6%, over the FY15 Budget primarily due to wage increases associated with collective bargaining agreements. The FY16 Proposed Budget funds on average 232 filled permanent positions, two more funded positions than the FY15 Budget. The FY16 Proposed Budget also includes $194,000 for stand-by pay to support operational and maintenance needs primarily during storms and emergencies, $65,000 for one contract employee to assist with facility management, and $16,000 for interns.
- $1.1 million for Overtime, an increase of $64,000 or 6.3%, over the FY15 Budget. The FY16 Proposed Budget is based on historical trends and supports overtime required for operational coverage, critical maintenance projects, regulatory requirements (i.e. inspections), and also the North Main Pump Station and Winthrop Terminal Facility Butterfly Replacement CIP project.
- $3.1 million for Chemicals, a decrease of $100,000 or 3.1%, from the FY15 Budget. The FY16 Proposed Budget reflects management’s expectation that a new NPDES permit will not be in effect during FY16. The budget includes $1.0 million for sodium hypochlorite, $898,000 for ferric chloride, $303,000 for activated carbon, $293,000 for polymer, and $115,000 for sodium bisulfite.
- $14.2 million for Utilities, which includes $10.1 million for electricity, $1.9 million for diesel fuel, and $1.7 million for water. The FY16 Proposed Budget reflects the average of three years of actual data for power usage and self-generation. The increase of $493,000 or 3.6%, from the FY15 Budget is mainly due to projected increases in electricity pricing based on market assessments; water rate increases based on growth in MWRA’s wholesale rate; and higher budgeted quantity of diesel fuel purchases to replenish inventory.
- $12.9 million for Maintenance, an increase of $266,000 or 2.1%, from the FY15 Budget. The FY16 Proposed Budget includes $5.9 million for materials and $7.0 million for services. Of the total, $8.4 million or 65% is for plant and machinery services and materials, $2.1 million is for electrical system maintenance, and $2.2 million is for building and grounds work.
- $173,000 for Professional Services, an increase of $52,000 or 43.2%, from the FY15 Budget primarily due to the projected use of as-needed engineering services based on project needs. The budget includes $105,000 for as-needed engineering services to support priority maintenance projects in FY16; $50,000 for environmental testing required as part of MWRA’s air quality permit; and $18,000 for lab and testing and analysis.
- $412,000 for Other Materials, an increase of $41,000 or 11.1%, from the FY15 Budget. The FY16 Proposed Budget includes $159,000 for health and safety materials, $98,000 for work clothes, and $68,000 for vehicles expenses (tolls, mileage, and gas). The increase is primarily associated with more need for health and safety supplies to comply with prevailing practices in the wastewater industry.
- $261,000 for Other Services, an increase of $13,000 or 5.1%, from the FY15 Budget. The FY16 Proposed Budget includes $74,000 for permit fees, $62,000 for hazardous safety services, $36,000 for telephones, $34,000 for membership dues and subscriptions, $15,000 for freight charges, and $10,000 for printing services.
### Program Description and Goals:

The **Residuals Management Program** manages the processing and disposal of approximately 100-105 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. A new, five year contract with NEFCo will go into effect in January 2016. MWRA pumps liquid sludge from Deer Island through the Braintree-Weymouth cross-harbor tunnel to the Fore River processing facility where the sludge 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 recently completed 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 proposed budget reflects an assumption of 102.1 tons per day (TPD based on TSS). This includes a base of 100.4 TPD per recent history which reflects improvements in digestion due to the use of an eighth digester. It also includes an average of 1.7 TPD due to the incremental impact of the phase-in of the DITP co-digestion project starting in October 2015.

- 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 FY16 Proposed Budget is $16.2 million, an increase of $579,000 or 3.7%, from the FY15 Budget.

- $130,000 for **Wages and Salaries**, an increase of $10,000 or 8.6%, as compared with the FY15 Budget mainly due to the inclusion of funds in FY16 for a part-time marketing intern position to assist with development of retail markets for MWRA’s Bay State Fertilizer product. This line item funds one permanent 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.

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**FY16 Proposed Current Expense Budget**

<table>
<thead>
<tr>
<th>RESIDUALS MANAGEMENT PROGRAM</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WAGES &amp; SALARIES</strong></td>
<td>$116,333</td>
<td>$115,594</td>
<td>$119,867</td>
<td>$130,163</td>
<td>$10,296 or 8.6%</td>
</tr>
<tr>
<td>OVERTIME</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>FRINGE BENEFITS</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>CHEMICALS</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>UTILITIES</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>ONGOING MAINTENANCE</td>
<td>1,021,639</td>
<td>675,045</td>
<td>696,295</td>
<td>846,097</td>
<td>$149,802 or 21.5%</td>
</tr>
<tr>
<td>TRAINING &amp; MEETINGS</td>
<td>-</td>
<td>357</td>
<td>3,400</td>
<td>3,400</td>
<td>-</td>
</tr>
<tr>
<td>PROFESSIONAL SERVICES</td>
<td>-</td>
<td>12,085</td>
<td>36,000</td>
<td>1,001</td>
<td>$(34,999) or -97.2%</td>
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<tr>
<td>OTHER MATERIALS</td>
<td>12,079</td>
<td>6,402</td>
<td>100</td>
<td>10,100</td>
<td>$10,000 or 1000.0%</td>
</tr>
<tr>
<td>OTHER SERVICES</td>
<td>14,756,709</td>
<td>14,205,038</td>
<td>14,740,825</td>
<td>15,184,328</td>
<td>$443,503 or 3.0%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$15,906,760</td>
<td>$15,014,521</td>
<td>$15,596,487</td>
<td>$16,175,089</td>
<td>$578,602 or 3.7%</td>
</tr>
</tbody>
</table>

**Change**

<table>
<thead>
<tr>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>$10,296 or 8.6%</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>$149,802 or 21.5%</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>$(34,999) or -97.2%</td>
</tr>
<tr>
<td>$10,000 or 1000.0%</td>
</tr>
<tr>
<td>$443,503 or 3.0%</td>
</tr>
</tbody>
</table>
- **$846,000 for Maintenance**, an increase of $150,000 or 21.5%, from the FY15 Budget. The funding supports the maintenance 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 FY16 Proposed Budget also reflects adjustments for current inflation indices and the likely timing of maintenance work.

- **$1,000 for Professional Services** which is a placeholder for marketing and sales services to assist with development of retail markets for MWRA’s Bay State Fertilizer product. The $35,000 decrease from FY15 to FY16 reflects the exclusion of funding for bi-annual stack testing in FY16 since it will not be required in that year.

- **$15.2 million for Other Services**, an increase of $444,000 or 3.0%, from the FY15 Budget. The FY16 Proposed Budget primarily funds the Sludge Pelletization portion of the NEFCo contract. The FY16 Proposed Budget includes $14.3 million for sludge processing, a $406,000 increase as compared to the FY15 Budget primarily due to an increase in the projected inflation rates for materials, electricity, natural gas, and labor. Projected FY16 sludge tonnage of 102.1 average tons per day (TPD) is slightly less than the 103 TPD assumed in the FY15 CEB primarily due to adjustments to reflect recent history after an eighth digester became operational. In addition, this line item also covers Grit and Screenings disposal of $889,000, which is $36,000 more than the FY15 Budget due to expected price increases for the next contract.
## CLINTON WASTEWATER TREATMENT PROGRAM

### FY16 Proposed Current Expense Budget

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGES &amp; SALARIES</td>
<td>604,116</td>
<td>607,738</td>
<td>625,208</td>
<td>616,515</td>
<td>-8,693 -1.4%</td>
</tr>
<tr>
<td>OVERTIME</td>
<td>56,965</td>
<td>53,581</td>
<td>58,000</td>
<td>55,000</td>
<td>-3,000 -5.2%</td>
</tr>
<tr>
<td>FRINGE BENEFITS</td>
<td>782</td>
<td>814</td>
<td>1,000</td>
<td>1,000</td>
<td>-</td>
</tr>
<tr>
<td>CHEMICALS</td>
<td>290,347</td>
<td>290,179</td>
<td>381,745</td>
<td>357,265</td>
<td>-24,480 -6.4%</td>
</tr>
<tr>
<td>UTILITIES</td>
<td>221,034</td>
<td>248,488</td>
<td>229,163</td>
<td>248,540</td>
<td>19,377 8.5%</td>
</tr>
<tr>
<td>ONGOING MAINTENANCE</td>
<td>185,143</td>
<td>236,616</td>
<td>206,540</td>
<td>463,720</td>
<td>257,180 124.5%</td>
</tr>
<tr>
<td>TRAINING &amp; MEETINGS</td>
<td>-</td>
<td>-</td>
<td>300</td>
<td>300</td>
<td>-0.0%</td>
</tr>
<tr>
<td>PROFESSIONAL SERVICES</td>
<td>1,566</td>
<td>1,688</td>
<td>1,700</td>
<td>1,700</td>
<td>0.0%</td>
</tr>
<tr>
<td>OTHER MATERIALS</td>
<td>147,904</td>
<td>146,694</td>
<td>147,900</td>
<td>147,000</td>
<td>-900 -0.6%</td>
</tr>
<tr>
<td>OTHER SERVICES</td>
<td>15,172</td>
<td>12,673</td>
<td>26,073</td>
<td>24,706</td>
<td>-1,367 -5.2%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,523,029</strong></td>
<td><strong>$1,598,471</strong></td>
<td><strong>$1,677,629</strong></td>
<td><strong>$1,915,746</strong></td>
<td><strong>$238,117 14.2%</strong></td>
</tr>
</tbody>
</table>

### 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 FY16 Proposed Budget reflects the third full fiscal year of operation of the Clinton aeration system efficiency improvements and redundant pumping at the influent and intermediate lift stations. These improvements were completed in the 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. It also included the installation of SCADA to control the system, collect data for storage, and visually monitor the processes. The redundant pumps also enable MWRA to avoid the cost of renting additional pumps which were required four times in the past. Further, the new submersible pumps are energy efficient and significantly reduce the plant’s energy consumption. National Grid, in early 2013, allotted a grant for $177,000 for this work which became available at completion.

The FY16 Proposed Budget assumes the NPDES permit will be in full effect for the whole year, which impacts the use of Ferric Chloride because the NPDES permit requires Clinton to remove more phosphorus from the effluent. However, the FY16 Proposed Budget for this chemical is less than the FY15 Budget due to refinements to usage estimates by Clinton management based on actual experience.
Clinton’s FY16 Proposed Budget includes estimates for numerous maintenance projects including a $250,000 placeholder for a periodic painting of the active concrete channel tanks to address deterioration due to contact with effluent.

The FY16 Proposed Budget does not include funds for the operating impact of the Clinton Digester Cleaning and Rehabilitation Capital projects. Clinton’s two digesters are approximately 20% filled with compacted grit which is limiting their efficiency. The project calls for emptying, cleaning, and rehabilitating the tanks, installing a 36 inch influent gate, which would allow for throttling back on the plant flow during high flow conditions, and concrete repairs throughout the plant. This work may impact plant operations during wet weather emergencies/severe weather, thus increasing overtime and the timing of CEB maintenance projects. If this occurs, MWRA will identify available funds within the FY16 Proposed Budget and will absorb any additional expenses.

**Budget Highlights:**

- $617,000 for **Wages and Salaries**, a decrease of $9,000 or 1.4%, from the FY15 Budget. The FY16 Proposed Budget funds eight permanent positions, including one part-time clerical position that was previously budgeted as a temporary employee. The decrease from FY15 to FY16 reflects the inclusion of a vacancy rate to reflect the likely pace of hiring for positions that become vacant offset by cost of living adjustments.

- $55,000 for **Overtime**, a decrease of $3,000 or 5.2%, from the FY15 Budget based on historical trends. Overtime is used for critical maintenance work and to meet the 24 hour, 7 day per week emergency coverage requirement.

- $357,000 for **Chemicals**, a decrease of $24,000 or 6.4%, from the FY15 Budget due primarily to usage based on actual experience. Chemicals are used for sludge processing and disposal and wastewater treatment. The FY16 Proposed Budget assumes the new NPDES permit will be in effect for the full year. Chemicals represent 19% of the budget.

- $248,000 for **Utilities**, an increase of $19,000 or 8.5%, from the FY15 Budget. The budget includes $167,000 for electricity, $63,000 for fuel oil, and $17,000 for water. Electricity is based primarily on FY14 actual usage because it was the first full fiscal year with the aeration system fully operational. The increase from FY15 to FY16 reflects projected electricity price escalations due to market conditions. Utilities represent 13% of the FY16 Proposed Budget.

- $464,000 for **Maintenance**, an increase of $257,000 or 125%, from the FY15 Budget due to the inclusion of a non-routine, major painting project. The FY16 Proposed Budget includes a $250,000 placeholder for painting to address issues with an active concrete channel tank as well as $70,000 for major projects based on the most current rolling priority list. The remainder of the budget is for routine materials and services. Maintenance represents 24% of the FY16 Proposed Budget.

- $147,000 for **Other Materials**, a decrease of $900 or 0.6%, from the FY15 Budget. The Other Materials budget includes $135,000 for clean fill for the landfill operation.

- $25,000 for **Other Services**, a decrease of $1,000 or 5.2%, from the FY15 Budget. The budget includes $11,000 for permit fees, $5,000 for telephones, and $3,000 for railroad easement expenses.
### FY16 Proposed Current Expense Budget

#### FIELD OPERATIONS by Program

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOXIC REDUCTION &amp; CONTROL</td>
<td>$3,344,029</td>
<td>$3,588,160</td>
<td>$3,816,083</td>
<td>$3,826,675</td>
<td>$10,592</td>
</tr>
<tr>
<td>WASTEWATER OPERATIONS</td>
<td>12,223,165</td>
<td>11,915,072</td>
<td>12,449,729</td>
<td>13,023,874</td>
<td>574,145</td>
</tr>
<tr>
<td>WATER OPERATIONS &amp; MAINT</td>
<td>26,424,383</td>
<td>27,634,874</td>
<td>27,998,583</td>
<td>28,842,631</td>
<td>844,048</td>
</tr>
<tr>
<td>METRO MAINTENANCE</td>
<td>14,915,954</td>
<td>15,476,383</td>
<td>15,641,949</td>
<td>15,919,816</td>
<td>277,867</td>
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<tr>
<td>OPERATIONS SUPPORT</td>
<td>4,692,076</td>
<td>4,680,909</td>
<td>4,957,462</td>
<td>4,845,055</td>
<td>(112,407)</td>
</tr>
<tr>
<td>FOD ADMIN</td>
<td>6,836,311</td>
<td>4,859,745</td>
<td>5,196,833</td>
<td>5,216,707</td>
<td>19,874</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$68,435,918</td>
<td>$68,155,143</td>
<td>$70,060,639</td>
<td>$71,674,758</td>
<td>$1,614,119</td>
</tr>
</tbody>
</table>

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 196 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 Brutsch 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. This unit also performs TV inspections of the wastewater interceptor system and leak detection. In addition, this unit maintains 179 revenue water meters, 26 master water meters, 187 revenue wastewater meters, and 35 other wastewater monitoring sites.

**Operations Support** provides technical support to the Field Operations Department (FOD) in two key areas. Engineering staff coordinate all engineering issues related to the operation of the water and wastewater systems. The SCADA unit is 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 FY16 Proposed Budget is $71.7 million, an increase of $1.6 million or 2.3%, from the FY15 Budget.
- $37.4 million for **Wages and Salaries**, an increase of $629,000 or 1.7%, from the FY15 Budget mainly due to wage increases associated with collective bargaining agreements and more funding for the intern program. The Wages and Salaries line item accounts for 52% of the FY16 Proposed Budget and funds 482 positions; offset by a 2% vacancy rate to reflect the likely pace of hiring for positions that become vacant. Of the remaining budget, $488,000 is for stand-by pay to ensure support for operational and maintenance needs during wet weather and emergencies, and $117,000 is for interns to provide support in several areas including Operations Engineering, SCADA, and TRAC.
- $2.9 million for **Overtime**, an increase of $533,000 or 22.6%, from the FY15 budget. The budget includes $1.2 million for emergency related overtime; $1.1 million for planned overtime – an increase of $506,000 from the FY15 budget, due mainly to anticipated need to for overtime for the North Main Pump Station/Winthrop Terminal Facility Butterfly Replacement project; and $572,000 for operational coverage needs.
- $6.7 million for **Chemicals**, of which $6.4 million is for water treatment and $323,000 is for wastewater treatment. The FY16 Proposed Budget is $55,000 or 0.8% higher than the FY15 Budget due to increases of $132,000 in Soda Ash, primarily due to estimated price increase, and $55,000 in Fluoride, as the Federal regulations lowering the dosage have not been implemented. These increases are offset by decreases of $119,000 in Sodium Hypochlorite due to estimated lower pricing and $10,000 for Copper Sulfite due to less need to treat algae blooms in recent years. Additionally, Sodium Bisulfite decreases by $17,000, of which $12,000 of this decrease is at the Carroll Water Treatment Plant where the current contract price is less than the FY15 budget price.
$10.3 million for **Utilities**, an increase of $872,000 or 9.3%, from the FY15 Budget. The FY16 Proposed Budget includes $7.3 million for electricity, $1.9 million for diesel fuel, $516,000 for water, $486,000 for natural gas, and $88,000 for propane. Electricity increases $927,000 primarily due to projected price increases, offset by a $24,000 placeholder for estimated savings from anticipated installation of solar panels at the Chelsea facility and Water increases by $30,000 due to pricing. These increases are offset by a $32,000 net reduction for Diesel Fuel based on historical trends and $30,000 reduction in Natural Gas due to the estimated use at the newly converted IPS.

$9.6 million for **Maintenance**, a decrease of $248,000 or 2.5%, from the FY15 Budget. The FY16 Proposed Budget includes $4.3 million in day-to-day needs, $3.2 million for services, $1.7 million in major projects, and $418,000 for energy initiatives. Some of the major projects planned for FY16 Proposed Budget include:

- Manhole Rehabilitation Contract $360,000
- Invasives Control - Stillwater Basin - DASH $213,500
- Replace Washdown Piping with Stainless Steel at Prison Pt. $125,000
- Carpet Replacement - Chelsea Facility $100,000
- Annual tank cleaning $100,000
- Retrofit new VFDs for Caruso Large Pumps $90,000

$111,000 for **Training and Meetings**, an increase of $19,000 or 20.7%, from the FY15 Budget which covers training required for work duties, health and safety compliance, and job-related licensures and certifications. Cyber security training as well as SCADA technical training contributed significantly to the increase in FY16.

$347,000 for **Professional Services**, a decrease of $432,000 or 55.5%, from the FY15 Budget. The reduction reflects the resizing of budgets for as-needed engineering services, leak detection surveys, dam safety work, and energy audits based on projected needs in FY16. It also reflects the removal of a placeholder for a metropolitan Boston Local Limit Study of $125,000 resulting from the delay in issuance of the next NPDES permit for DITP. The FY16 Proposed Budget includes $213,000 for engineering services, which is made up of $133,000 for as-needed engineering services to support CEB-funded maintenance projects; $65,000 for a multi-year dam safety contract; and $15,000 for evaluation of spill prevention, control, and countermeasure plans. Additionally, the Professional Services budget also includes $65,000 for an annual macrophyte survey at the reservoirs; $55,000 for water quality assurance services for macrophyte harvesting; and $10,000 for energy audits at various facilities.

$1.1 million for **Other Materials**, a decrease of $9,000 or 0.8%, from the FY15 Budget. The FY16 Proposed Budget includes $402,000 for vehicle expenses for gas, mileage reimbursements, and tolls; $219,000 for health and safety supplies, $252,000 for work clothes; and $100,000 for lab and testing supplies.

$3.2 million for **Other Services**, an increase of $194,000 or 6.5%, from the FY15 Budget due to increases in taxes associate with lease payments and use of police details based on projected projects. The FY16 Proposed Budget includes $2.0 million for annual lease payments for the Chelsea office building; $505,000 for telephones, and $435,000 for police details.
LABORATORY SERVICES

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGES &amp; SALARIES</td>
<td>$4,113,753</td>
<td>$4,200,693</td>
<td>$4,563,513</td>
<td>$4,543,295</td>
<td>$(20,218) -0.4%</td>
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<tr>
<td>OVERTIME</td>
<td>71,746</td>
<td>61,699</td>
<td>56,706</td>
<td>61,706</td>
<td>5,000 8.8%</td>
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<tr>
<td>FRINGE BENEFITS</td>
<td>512</td>
<td>505</td>
<td>1,200</td>
<td>600</td>
<td>$(600) -50.0%</td>
</tr>
<tr>
<td>CHEMICALS</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>UTILITIES</td>
<td>23,032</td>
<td>27,689</td>
<td>24,265</td>
<td>27,205</td>
<td>2,940 12.1%</td>
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<tr>
<td>ONGOING MAINTENANCE</td>
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<td>248,489</td>
<td>285,652</td>
<td>307,396</td>
<td>21,744 7.6%</td>
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<td>TRAINING &amp; MEETINGS</td>
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<td>5,176</td>
<td>2,000</td>
<td>4,000</td>
<td>2,000 100.0%</td>
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<td>PROFESSIONAL SERVICES</td>
<td>130,607</td>
<td>156,185</td>
<td>155,395</td>
<td>151,445</td>
<td>(3,950) -2.5%</td>
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<tr>
<td>OTHER MATERIALS</td>
<td>889,095</td>
<td>827,126</td>
<td>985,556</td>
<td>1,028,498</td>
<td>42,942 4.4%</td>
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<tr>
<td>OTHER SERVICES</td>
<td>82,390</td>
<td>93,753</td>
<td>92,985</td>
<td>92,651</td>
<td>(334) -0.4%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$5,563,606</strong></td>
<td><strong>$5,621,315</strong></td>
<td><strong>$6,167,272</strong></td>
<td><strong>$6,216,796</strong></td>
<td><strong>$49,524 0.8%</strong></td>
</tr>
</tbody>
</table>

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 (SDWA), 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 (DITP), 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 (MassDEP).

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

**Budget Highlights:**

- The FY16 Proposed Budget is $6.2 million, an increase of $50,000 or 0.8%, from the FY15 Budget.
- $4.6 million for **Wages and Salaries**, a decrease of $20,000 or 0.4%, from the FY15 Budget. The FY16 Proposed Budget funds 55 positions, the same as in FY15. The FY16 Proposed Budget also includes $113,000 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 summer beach monitoring. The decrease from FY15 to FY16 is primarily due to a reduction to the budget for Stand-by Pay based on historical trends offset by increases for cost of living adjustments.
- $27,000 for **Utilities**, an increase of $3,000 or 12.1%, as compared with the FY15 Budget. This funding covers the purchase of gases and cryogenic liquids used for various laboratory instruments.
- $307,000 for **Maintenance**, an increase of $22,000 or 7.6%, from the FY15 Budget. The increase is primarily due to expected spending in FY16 for Laboratory building modifications for the Southboro HVAC/roof project and the service contract for the Mobile Lab equipment. The FY16 Proposed Budget includes $210,000 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 $30,000 for laboratory modifications.

- $4,000 for **Training and Meetings**, an increase of $2,000 or 100%, from the FY15 Budget. The funding covers EPA Environmental Laboratory Advisory Board Forum on Lab Accreditation/National Environmental Monitoring Conference.

- $151,000 for **Professional Services**, a decrease of $4,000 or 2.5%, from the FY15 Budget. 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).

- $1.0 million for **Other Materials**, an increase of $43,000 or 4.4%, from the FY15 Budget mainly due to the inclusion of additional supplies for the mobile laboratory. The FY16 Proposed Budget includes $680,000 for laboratory and testing supplies and $300,000 for replacement of obsolete lab instruments.

- $93,000 for **Other Services**, which is primarily level funded with the FY15 Budget. The FY16 Proposed 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 (EnQual) has two sections: EnQual-Water and EnQual-Wastewater (WW). EnQual-Water manages compliance with reporting requirements of the MA DEP Drinking Water Regulations, as well as conducts and oversees the drinking water quality monitoring program. Activities include maintaining and monitoring the Contaminant Monitoring System (CMS) and a mobile S::CAN unit for as-needed sampling in the communities. EnQual-Water also maintains an algae monitoring program, responds to customer complaints, and reviews system water quality data. EnQual-WW manages compliance with the reporting requirements of MWRA’s National Pollutant Discharge Elimination System (NPDES) permits. The group must submit permit reports to state and federal regulators, the science advisory panel and its subcommittees, and several libraries, and post many of these reports on EnQual’s Harbor and Bay web pages. EnQual-WW also monitors the quality of sewage influent and effluent, and of Boston Harbor, its tributary rivers, and Massachusetts Bay; manages environmental data; and produces technical reports.

Budget Highlights:

- The FY16 Proposed Budget is $4.7 million, an increase of $4,000 or 0.1%, from the FY15 Budget.
- $3.0 million for Wages & Salaries, essentially level-funded with the FY15 Budget. The budget funds 33 positions offset by a 2% vacancy rate to reflect the likely pace of hiring for backfilling vacant positions.
- $56,000 for Ongoing Maintenance, level-funded with the FY15 Budget. This funds equipment and maintenance of drinking water Contaminant Monitoring System and S::CAN drinking water analysis equipment.
- $1.5 million for Professional Services, which is level funded with the FY15 Budget. Of the total budget, $1.2 million is for laboratory testing and analysis in support of MWRA’s Harbor and Outfall Monitoring (HOM) Program, including Cape Cod bay monitoring; and $300,000 covers contracts for the following activities which are co-funded through cost-sharing arrangements:
  - University of Maine’s buoy off Cape Ann; instruments measuring algae and other water quality indicators
  - Bays Eutrophication Model maintenance
  - Study of satellite imaging to measure water quality.

The FY16 Proposed Budget continues to reflect approximately $840,000 in annual savings due to the reduction in scope of HOM monitoring that took place in 2011 through 2013 based on favorable findings of more than nine years of monitoring data and regulatory approval.
$55,000 for Other Materials, an increase of $2,000 or 3.8%, from the FY15 Budget. Funding in this line item mainly support Health and Safety supplies need for operations.

$110,000 for Other Services, level funded with the FY15 Budget. This funds professional memberships and Verizon communication costs related to the Contaminant Monitoring System.
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 FY16 Proposed Budget is $7.7 million, a decrease of $341,000 or 4.2%, from the FY15 Budget.

- $7.6 million for Wages and Salaries, a decrease of $316,000 or 4.0%, from the FY15 Budget. Wages and Salaries represent 98.1% of the FY16 Proposed Budget and includes funding for 79 positions, less a vacancy rate adjustment. This funding level is four positions fewer than included in the FY15 Budget.

- $66,000 for Overtime, an increase of $1,000 or 2.3%, from the FY15 Budget. The increase in OT is mainly due to the new collective bargaining agreements. 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.

- $9,000 for Training & Meetings, an increase of $2,500 or 39.1%, from the FY15 Budget. Training funds cover attendance at conferences and technical seminars.
• **Professional Services**, a decrease of $25,000 or 100%, from the FY15 Budget. Funding for as-needed utility borings/test pit services to support CEB projects was eliminated. Management expects minimal usage of this new contract for CEB in-house projects. If required, spending will be absorbed within the FY16 Proposed Budget.

• $35,000 for **Other Materials**, a decrease of $5,000 or 13.3%, from the FY15 Budget primarily due to lower historical spending for vehicle expenses and office supplies. The budget covers vehicle expenses, office supplies, health and safety supplies, and survey equipment.

• $30,000 for **Other Services**, an increase of $2,000 or 5.2%, from the FY15 Budget due to higher historical spending for membership and dues. 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 Department’s primary responsibilities are as follows:

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. 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 are 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. Key work includes:

- reviews water and wastewater system expansion requests, water supply agreements, and emergency water withdrawal requests
- assists with project siting decisions, environmental reviews, and permitting, including assessing impacts on MWRA facilities from other agencies’ projects
- develops strategies for reducing long-term emergency risks
- prepares plans for mitigating the risk of a range of hazards (i.e. climate change and sea level rise) on MWRA facilities and systems.

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 also actively work with industry associations and other groups with agendas consistent with MWRA’s to advance 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 regulatory-required 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.

Meter Data – Staff 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.

Budget Highlights:

- The FY16 Proposed Budget is $3.5 million, an increase of $253,000 or 7.9%, from the FY15 Budget.

- $2.9 million for Wages and Salaries, an increase of $245,000 or 9.2%, from the FY15. The FY16 Proposed Budget includes funding for 30 permanent positions which is two more than funded in FY15. The budget also includes a 2% vacancy rate to reflect the likely pace of hiring for vacant positions. The budget increase is primarily due to wage increases associated with collective bargaining agreements plus the two additional funded positions. The FY16 Proposed Budget also includes $13,000 for two summer interns to assist with GIS work and policy research and $13,000 for Stand By Pay to support employees on call for Telog issues.

- $195,000 for Maintenance, an increase in cost of $4,000 or 2.1%, from the FY15 Budget. The FY16 Proposed Budget $70,000 in Special Equipment Services for water meter flow testing, $60,000 for wastewater meter verification, $60,000 for wastewater community testing temporary metering, and $5,000 for telog software maintenance.

- $9,000 for Training and Meetings, an increase of $3,000 or 41.7%, from the FY15 Budget. The budget covers participation in training and conferences primarily focused on water quality regulations and geographic information systems.

- $3,000 for Professional Services, which is level funded with the FY15 Budget and covers costs associated with the translation of the Consumer Confidence Report and also programming of the GIS user interface.

- $171,000 for Other Materials, an increase of $3,000 or 1.9%, as compared with the FY15 Budget primarily due to anticipated postage increases. This line item includes funding of $143,000 for postage and mailing of the Consumer Confidence Report (CCR), $15,000 for water conservation kits, $10,000 for mapping supplies, $2,000 for office supplies, $1,000 for vehicle expenses, and $500 for work clothes for the employees in our Meter Data section.

- $198,000 for Other Services, a decrease of $1,000 or 0.6%, as compared with the FY15 Budget. The funding in this line item includes $118,000 for telephones expenses to support meter operations, $60,000 for printing the Consumer Confidence Report, $18,000 for printing water conservation and other informational brochures, $2,000 for Memberships and Dues, and $1,000 for Police Details.
LAW DIVISION

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGES &amp; SALARIES</td>
<td>$1,541,984</td>
<td>$1,553,270</td>
<td>$1,576,145</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
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<tr>
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<td>OTHER MATERIALS</td>
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<td><strong>TOTAL</strong></td>
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<td><strong>$1,676,041</strong></td>
<td><strong>$1,732,256</strong></td>
<td><strong>$1,900,601</strong></td>
<td><strong>$168,345 9.7%</strong></td>
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</table>

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.

**FY16 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 indemnitators and to litigate insurance coverage disputes as they arise, all in the interest of cost savings.

**Budget Highlights:**

- The FY16 Proposed Budget is $1.9 million, an increase of $168,000 or 9.7%, as compared with the FY15 Budget.
- $1.7 million for Wages and Salaries, an increase of $176,000 or 11.1%, as compared with the FY15 Budget mainly due to cost of living adjustments, union settlement for one employee, and addition of one staff member. The budget funds 17 positions, one position more than in FY15.
- $116,000 for Professional Services, a decrease of $5,000 or 4.1%, from the FY15 Budget. Funding in the line item supports projected need for outside legal services during FY16.
- $26,000 for Other Services, a decrease of $2,000 or 7.8%, from the FY15 Budget. Funding in this line item supports legal database administrative fees and professional membership and dues for the legal staff.
Administration & Finance Division
Budget
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).

FY16 Goals:

- Manage and coordinate the Authority’s finance and support service functions.
- Develop and implement long-term strategies to ensure assessment increases to MWRA’s communities are sustainable and predictable.
- 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.

**FY16 Initiatives**

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

• Develop options and recommendations to ensure sustainable and predictable assessments and charges to our communities.

• Continue the implementation of the Strategic IT Study.

**FY15 Mid-Year Accomplishments:**

• Developed the FY16 Proposed Budget consistent with the FY15 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.

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

• Developed specifications for 62 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.

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

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

• 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.
• Began collecting the required acknowledgement of the State Ethics Commission’s Summary of the Conflict of Interest Law from all employees.

• Competitively bid CY14 Renewable Energy Portfolio Standard certificates which resulted in FY15 revenues of $84,587 (Class II). In addition, received FY15 revenues of $578,239 from forward marketing of CY14 (Class I and Solar) Renewable Portfolio Standards (RPS) certificates.

• Awarded the following major contracts in FY15 to date: DITP Cryogenics Chillers Replacement; Quabbin Power, Communication and Security Improvements Design; DITP Clarifier Rehab Phase II Design; Construction WASM 36; Gate, Siphon and Floatables Controls 003; Boston Low Service Beacon Street Line Design; DITP Thermal Power Plant BMS System Upgrade; VFD Additions DITP Secondary Oxygen Reactor Batteries A, B and C, and North Main Pump Station – Winthrop Terminal Facility ESDC/REI.

• Advertised or received bids/proposals/statements for the following: VFD Additions DITP Secondary Oxygen Reactor Batteries A, B and C; DITP Valve and Piping Replacement ESDC/REI; Instrumentation Systems Services; Fore River Railroad Mainline Adjustment Design; Security Equipment Maintenance and Repair; NPDES Compliance; Leak Detection Survey Services; and Reading Extension Sewer Rehabilitation Design.

• Recycled 514 batteries, 7.43 tons of paper, 104.285 tons of scrap metal (includes stainless steel and aluminum) and 2,480 pounds of brass and copper, generating $39,317 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 FY16 Proposed Budget is $406,000, a decrease of $6,000 or 1.5%, as compared to the FY15 Budget.
- $397,000 for Wages and Salaries, a decrease of $5,000 or 1.3%, as compared to the FY15 Budget mainly due to lower funding for interns offset by contractual increases. The FY16 Proposed 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.

FY16 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.

FY16 Initiatives:

- Continue assessment and evaluation of sustainable cost savings opportunities throughout the organization.
- Develop options and recommendations to ensure sustainable, predictable, 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.

FY15 Mid-Year Accomplishments:

- Developed the FY16 Proposed Budget consistent with the FY15 planning estimates, for both the Current Expense Budget and the Capital Improvement Program.
- Provided financial analysis for system expansion initiatives and preliminary long-term water redundancy options.
Budget Highlights:

- The FY16 Proposed Budget is $848,000, an increase of $34,000 or 4.2%, as compared to the FY15 Budget.

- $847,000 for Wages and Salaries, an increase of $33,000 or 4.1%, as compared to the FY15 Budget mainly due to contractual increases. The FY16 Proposed 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.

FY16 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.

FY15 Mid-Year 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 which helps minimize debt service expenses.
- Completed the 2014 Series D, E and F bond transaction which was a refunding and new money transaction. The transaction included $73.1 million in new money and $170.8 million in refunding bonds, which were issued at an All-in TIC of 3.41%. The refunding transaction resulted in $20.2 million or 10.45% present value savings and $56.4 million in gross debt service savings.
- Completed the Massachusetts Clean Water Trust (MCWT) Pool 18 borrowing. This $52.6 million transaction was made at subsidized interest rates contributing to a lower overall cost of debt for the Authority.
- MWRA received the consent from the MCWT to proposed amendments to the General Bond Resolution which allows that process to continue forward.

Budget Highlights:

- The FY15 Final Budget is $1.0 million, an increase of $4,000 or 0.4% as compared to the FY15 Budget.
- $682,000 for Wages and Salaries, a decrease of 68,000 or 9.1%, from the FY15 Budget mainly due to one less budgeted position offset by cost of living increases. The final budget funds eight positions, one position fewer than in the FY15 Budget.
- $334,000 for Professional Services, an increase of $74,000 or 28.5%, as compared with the FY15 Budget.
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.

FY16 Goals:

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

FY16 Initiatives:

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

FY15 Mid-Year Accomplishments:

- Rolled out electronic time sheet approval to Chelsea Operations departments.
- Collaborated with Procurement and MIS Departments to substantially complete testing Contract Management for FY15 implementation.

Budget Highlights:

- The FY16 Proposed Budget is $1.6 million, a decrease $30,000 or 1.9%, as compared to the FY15 Budget.
- $1.4 million for Wages and Salaries, a decrease of $10,000 or 0.7%, as compared with the FY15 Budget mainly due to lower headcount offset by contractual increases. The FY16 Proposed Budget funds 17 positions, one position fewer than in FY15.
- $140,000 for Professional Services, a decrease of $20,000 or 12.5%, from the FY15 Budget. The FY16 Proposed 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.
The **Risk Management Department** is responsible for all MWRA insurance programs 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/vendor 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 exposures and establishing contract insurance requirements and monitoring contractors/vendors for compliance.
- Provide support to all MWRA Departments on all insurance, claims, litigation and risk management issues.

**FY15 Mid-Year Accomplishments:**

- Successfully procured MWRA’s Insurance Program through a competitive bid process for all lines of coverage at a 3% reduction in program cost compared to FY14.
- Provided timely support to MWRA managers on all insurance, claims, litigation and risk management issues.

**Budget Highlights:**

- The FY16 Final Budget is $462,000, an increase $30,000 or 6.9%, from the FY15 Budget.
- $421,000 for **Wages & Salaries**, an increase of $19,000 or 4.8%, as compared to the FY15 Budget mainly due to contractual increases. The proposed budget funds four positions.
- $40,000 for **Professional Services**, an increase of $10,000 or 33.3%, as compared to the FY15 Budget which represents an average spending for the past three fiscal years.

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### FY16 Proposed Current Expense Budget

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGES &amp; SALARIES</td>
<td>$364,317</td>
<td>$397,081</td>
<td>$401,581</td>
<td>$421,020</td>
<td>$19,439 4.8%</td>
</tr>
<tr>
<td>OVERTIME</td>
<td>23</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>TRAINING &amp; MEETINGS</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>PROFESSIONAL SERVICES</td>
<td>30,757</td>
<td>57,751</td>
<td>30,000</td>
<td>40,000</td>
<td>10,000 33.3%</td>
</tr>
<tr>
<td>OTHER MATERIALS</td>
<td>12</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>OTHER SERVICES</td>
<td>333</td>
<td>760</td>
<td>600</td>
<td>800</td>
<td>200 33.3%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$395,442</strong></td>
<td><strong>$455,596</strong></td>
<td><strong>$432,181</strong></td>
<td><strong>$461,820</strong></td>
<td><strong>$29,639 6.9%</strong></td>
</tr>
</tbody>
</table>

The **Risk Management Department** is responsible for all MWRA insurance programs 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/vendor 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 exposures and establishing contract insurance requirements and monitoring contractors/vendors for compliance.
- Provide support to all MWRA Departments on all insurance, claims, litigation and risk management issues.

**FY15 Mid-Year Accomplishments:**

- Successfully procured MWRA’s Insurance Program through a competitive bid process for all lines of coverage at a 3% reduction in program cost compared to FY14.
- Provided timely support to MWRA managers on all insurance, claims, litigation and risk management issues.

**Budget Highlights:**

- The FY16 Final Budget is $462,000, an increase $30,000 or 6.9%, from the FY15 Budget.
- $421,000 for **Wages & Salaries**, an increase of $19,000 or 4.8%, as compared to the FY15 Budget mainly due to contractual increases. The proposed budget funds four positions.
- $40,000 for **Professional Services**, an increase of $10,000 or 33.3%, as compared to the FY15 Budget which represents an average spending for the past three fiscal years.
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.

**FY16 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.

**FY15 Mid-Year Accomplishments:**

- Continued to work with the landlord to implement facility improvements as provided in our lease agreements for CNY headquarters.
- In conjunction with MIS, continued to look at ways to maximize efficiency of day-to-day office equipment such as printers, copiers, and facsimile machines.
Budget Highlights:

- The FY16 Proposed Budget is $2.3 million, an increase of $25,000 or 1.1%, as compared with the FY15 Budget.

- $430,000 for **Wages and Salaries**, an increase of $6,000 or 1.5%, as compared to the FY15 Budget mainly due to contractual increases. The budget supports seven positions.

- $24,000 for **Overtime**, which is level funded with the FY15 Budget.

- $104,000 for **Utilities**, an increase of $5,000 or 4.8%, as compared to the FY15 Budget mainly due to increased electricity pricing.

- $31,000 for **Ongoing Maintenance**, which is level funded with the FY15 Budget. 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.

- $8,000 for **Professional Services**, an increase of $8,000 or 100%, as compared with the FY15 Budget. Funding will support as-needed professional services which arise during the year.

- $56,000 for **Other Materials**, a decrease of $50,000 or 47.5%, from the FY15 Budget mainly due to elimination of one-time funding for chair replacement at our Charlestown Navy Yard Headquarters. This line item includes funding for postage, supplies, furniture, and equipment.

- $1.6 million for **Other Services**, an increase of $57,000 or 3.6%, as compared with the FY15 Budget mainly due to 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.
**FLEET SERVICES**

### FY16 Proposed Current Expense Budget

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
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<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WAGES &amp; SALARIES</strong></td>
<td>$716,386</td>
<td>$733,745</td>
<td>$755,986</td>
<td>$781,846</td>
<td>$25,860</td>
</tr>
<tr>
<td><strong>OVERTIME</strong></td>
<td>11,952</td>
<td>6,711</td>
<td>14,690</td>
<td>13,000</td>
<td>(1,690)</td>
</tr>
<tr>
<td><strong>FRINGE BENEFITS</strong></td>
<td>158</td>
<td>8</td>
<td>1,000</td>
<td>250</td>
<td>(750)</td>
</tr>
<tr>
<td><strong>UTILITIES</strong></td>
<td>1,658</td>
<td>2,283</td>
<td>3,000</td>
<td>2,500</td>
<td>(500)</td>
</tr>
<tr>
<td><strong>ONGOING MAINTENANCE</strong></td>
<td>647,629</td>
<td>629,236</td>
<td>684,000</td>
<td>710,000</td>
<td>26,000</td>
</tr>
<tr>
<td><strong>TRAINING &amp; MEETINGS</strong></td>
<td>-</td>
<td>42,000</td>
<td>42,000</td>
<td>42,000</td>
<td>-</td>
</tr>
<tr>
<td><strong>OTHER MATERIALS</strong></td>
<td>550,563</td>
<td>532,507</td>
<td>570,201</td>
<td>517,600</td>
<td>(52,601)</td>
</tr>
<tr>
<td><strong>OTHER SERVICES</strong></td>
<td>796</td>
<td>532</td>
<td>2,100</td>
<td>1,600</td>
<td>(500)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$1,929,142</td>
<td>$1,947,022</td>
<td>$2,072,977</td>
<td>$2,068,796</td>
<td>(4,181)</td>
</tr>
</tbody>
</table>

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.

**FY16 Goals:**

- Continue to cost effectively maintain the Authority’s fleet of vehicles and pieces of equipment.
- Integrate more alternative fueled vehicles into the authority’s fleet
- Continue to install Automatic Vehicle Locators (AVL) devices in all authority vehicles.

**FY15 Mid-Year Accomplishments:**

- Developed specifications for 62 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.
- The Authority continues to fuel diesel powered vehicles/equipment with bio-diesel. MWRA in being rated as one of the largest bio-fuel users by the Massachusetts Alternative Fuel Coalition (MAFC).
- Prepared documentation for the surplus sale of 27 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.

**Budget Highlights:**

- The FY16 Proposed Budget is $2.1 million, a decrease of $4,000 or 0.2%, as compared to the FY15 Budget.
- $782,000 for Wages & Salaries, an increase of $26,000 or 3.4%, as compared to the FY15 Budget mainly due to due contractual increases. The final budget supports 11 positions.
- $710,000 for Ongoing Maintenance, an increase of $26,000 or 3.8%, as compared with the FY15 Budget. The budget includes funds for automotive materials and services to maintain MWRA’s vehicle fleet.
$518,000 for Other Materials, a decrease of $53,000 or 9.2%, as compared with the FY15 Budget due to lower vehicle fuel prices. The FY16 Proposed 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.
## FY16 Proposed Current Expense Budget

### HUMAN RESOURCES

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGES &amp; SALARIES</td>
<td>$1,808,014</td>
<td>$1,841,890</td>
<td>$1,838,773</td>
<td>$1,802,565</td>
<td>$(36,208) -2.0%</td>
</tr>
<tr>
<td>OVERTIME</td>
<td>21</td>
<td>71</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>FRINGE BENEFITS</td>
<td>17,477,396</td>
<td>18,017,283</td>
<td>18,237,135</td>
<td>18,943,607</td>
<td>706,472 3.9%</td>
</tr>
<tr>
<td>WORKERS' COMPENSATION</td>
<td>2,114,701</td>
<td>2,311,448</td>
<td>2,200,000</td>
<td>2,343,000</td>
<td>143,000 6.5%</td>
</tr>
<tr>
<td>ONGOING MAINTENANCE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>TRAINING &amp; MEETINGS</td>
<td>2,097</td>
<td>4,703</td>
<td>3,263</td>
<td>3,263</td>
<td>- 0.0%</td>
</tr>
<tr>
<td>PROFESSIONAL SERVICES</td>
<td>374,418</td>
<td>311,329</td>
<td>412,602</td>
<td>399,102</td>
<td>(13,500) -3.3%</td>
</tr>
<tr>
<td>OTHER MATERIALS</td>
<td>15,944</td>
<td>19,542</td>
<td>16,845</td>
<td>16,845</td>
<td>- 0.0%</td>
</tr>
<tr>
<td>OTHER SERVICES</td>
<td>12,964</td>
<td>13,913</td>
<td>19,782</td>
<td>17,782</td>
<td>(2,000) -10.1%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$21,805,555</strong></td>
<td><strong>$22,520,179</strong></td>
<td><strong>$22,728,400</strong></td>
<td><strong>$23,526,164</strong></td>
<td><strong>$797,764 3.5%</strong></td>
</tr>
</tbody>
</table>

### HUMAN RESOURCES by Area

<table>
<thead>
<tr>
<th>AREA</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPLOYEE/COMP/BEN</td>
<td>$685,095</td>
<td>$668,946</td>
<td>$648,243</td>
<td>$660,063</td>
<td>$11,820 1.8%</td>
</tr>
<tr>
<td>LABOR RELATIONS</td>
<td>1,063,684</td>
<td>1,056,810</td>
<td>1,136,480</td>
<td>1,060,551</td>
<td>(75,929) -6.7%</td>
</tr>
<tr>
<td>TRAINING</td>
<td>419,146</td>
<td>423,447</td>
<td>461,278</td>
<td>473,680</td>
<td>12,402 2.7%</td>
</tr>
<tr>
<td>CENTRALIZED FRINGE BENEFITS</td>
<td>19,637,630</td>
<td>20,370,976</td>
<td>20,482,396</td>
<td>21,331,870</td>
<td>849,472 4.1%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$21,805,555</strong></td>
<td><strong>$22,520,179</strong></td>
<td><strong>$22,728,400</strong></td>
<td><strong>$23,526,164</strong></td>
<td><strong>$797,764 3.5%</strong></td>
</tr>
</tbody>
</table>

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. 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.

### FY16 Goals:

- Attract and retain a qualified high-performance workforce, hire and promote qualified minority, female, and veteran 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.
FY16 Initiatives:

- Upgrade employment application program to enhance applicant database and expedite critical hiring.
- Develop additional specialized recruitment sources to attract women, minorities, and veterans for difficult to fill positions including expanding social network recruiting capabilities.
- Expand supervisory, professional, and career development training programs necessary to support succession planning initiatives including developing additional job shadowing training programs.
- Develop a model to establish a knowledge transfer program for each department.
- Negotiate new contracts for Dental Insurance, Employee Assistance Program (EAP), and Occupational Medical Services.
- Continue to develop and expand summer intern program.
- 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.

Mid-Year FY15 Accomplishments:

- Negotiated successor collective bargaining agreements with all five collective bargaining unions of the MWRA.
- Continued to support the agency’s efforts in developing and implementing succession planning activities in anticipation of an increase in retirements over the next several years.
- Through aggressive claims management, the MWRA works to minimize the cost of work related injury claims. MWRA staff work in conjunction with a third party administrator and uses medical exams, surveillance, and nurse case managers to settle cases when found to be cost effective. Through December, MWRA settled 6 cases resulting in significant future savings.
- Investigated complaints of violations of MWRA policies and Code of Conduct as necessary.
- Updated and communicated policies associated with harassment prevention and non-discrimination.
- Completed a variety of professional and technical training to MWRA employees including Confined Space Entry, Wind Turbine Tower Climbing Safety, Certified Water/Wastewater Maintenance Technician (IMI), Hoisting License Mandatory Refresher Training, Wastewater & Water Operator Exam Prep, OSHA 24-Hour Hazmat Technician Refresher, OSHA 10-Hour Construction Safety, Ultra-Violet Vendor Training (Switchgear, I&C Meters, SCADA, Generator), Supervisory Development, Business Writing, Specification Writing and Vehicle Maintenance.
- Provided regular reporting on agency headcount and use of overtime/compensatory time.
Budget Highlights:

- The FY16 Proposed Budget is $23.5 million, an increase of $798,000, or 3.5% as compared to the FY15 Budget.

- $1.8 million for **Wages and Salaries**, a decrease of $36,000 or 2.0%, as compared to the FY15 Budget mainly due to a lower headcount offset by contractual increases. The budget includes funding for 19 positions, 2 fewer than in FY15.

- $18.9 million for **Fringe Benefits**, an increase of $706,000 or 3.9%, as compared to the FY15 Budget. The budget includes $16.5 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.

- $2.3 million for **Workers’ Compensation**, an increase of $143,000 or 6.5%, as compared to the FY15 Budget. The Human Resources Department is responsible for the management of this program and the coordination with the third-party administrator and legal counsel.

- $399,000 for **Professional Services**, a decrease of $14,000 or 3.3%, as compared with the FY15 Budget due to lower than projected need in FY16. The FY16 Budget includes $155,000 for Professional Development and Technical Training, $120,000 for Workers’ Compensation Claims Administration and Legal Services, $45,000 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)

**FY16 Proposed Current Expense Budget**

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>FY13 Actual</th>
<th>FY14 Actual</th>
<th>FY15 Final</th>
<th>FY16 Proposed</th>
<th>Change FY15 to FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAGES &amp; SALARIES</td>
<td>$5,004,036</td>
<td>$4,943,896</td>
<td>$5,258,566</td>
<td>$5,512,006</td>
<td>$253,440 (4.8%)</td>
</tr>
<tr>
<td>OVERTIME</td>
<td>4,220</td>
<td>20,617</td>
<td>2,810</td>
<td>2,810</td>
<td>- 0.0%</td>
</tr>
<tr>
<td>FRINGE BENEFITS</td>
<td>37</td>
<td>378</td>
<td>-</td>
<td>-</td>
<td>N/A</td>
</tr>
<tr>
<td>ONGOING MAINTENANCE</td>
<td>2,326,564</td>
<td>3,299,537</td>
<td>2,914,743</td>
<td>2,986,632</td>
<td>71,889 (2.5%)</td>
</tr>
<tr>
<td>TRAINING &amp; MEETINGS</td>
<td>155,470</td>
<td>121,798</td>
<td>325,000</td>
<td>240,000</td>
<td>(85,000) (-26.2%)</td>
</tr>
<tr>
<td>PROFESSIONAL SERVICES</td>
<td>413,172</td>
<td>599,185</td>
<td>527,732</td>
<td>459,272</td>
<td>(68,460) (-13.0%)</td>
</tr>
<tr>
<td>OTHER MATERIALS</td>
<td>981,307</td>
<td>1,127,010</td>
<td>1,159,565</td>
<td>1,387,565</td>
<td>228,000 (19.7%)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$9,115,523</strong></td>
<td><strong>$10,325,126</strong></td>
<td><strong>$10,334,944</strong></td>
<td><strong>$10,734,813</strong></td>
<td><strong>$399,869 (3.9%)</strong></td>
</tr>
</tbody>
</table>

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.

**FY16 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:

- 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.

**FY16 Initiatives:**

**Information Technology Management Program**

This program is intended to improve Information Technology (IT) organization and the oversight processes for selecting, implementing and operating IT solutions throughout the MWRA. The FY16 initiatives are as follows:

- Establishment of an Information Technology Steering Committee to recommend and prioritize projects, policies, and standards.

- 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 put in place with the MAXIMO 7.6 upgrade effort through the use of the Smart Cloud Control Desk Module.

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.

Application Improvement Program

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 initiatives for FY2016 area as follows:

**Administration and Finance Initiatives**

- **Enterprise Document/Records Management Implementation:** A component of Enterprise Document/Records Management in underway with the pilot design and implementation of both the Enterprise Vault system archiving application and the Clearwell identification and collection electronic discovery application. These applications will provide the MWRA with rigorous and efficient electronic archiving, disposal processes that will comply with the records retention requirements of the Commonwealth of Massachusetts, improved ability to meet the requirements associated with public records requests and litigation document/discovery production, and 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. The focus in FY16 will be on Construction contacts.

- **Enterprise Resource Planning (ERP) System Upgrades:** During FY16, upgrades will occur to the e-procurement applications, Mobile Supply Chain Management (MSCM) infrastructure, and Business Software, Inc. Tax Factory application.

**Compliance Management Initiatives**

- **E-LAB:** Phase one of E-LAB project was completed. The Laboratory Information Management System (LIMS) was upgraded to version 6. Phase two of this project, Electronic Laboratory Notebook (ELN) is in development and will be completed in FY2016.

- 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. Current PIMS application is not compliant with EPA’s Cross-Media Electronic Reporting Regulation (CROMERR) requirements. CROMERR requirements were reviewed to determine what modules of PIMS need to be enhanced. Required modification can be done partially by the vendor and partially by MIS utilizing EPA’s shared services. MIS is working to determine scope of required changes to the PIMS application.

- **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 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.

- **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.

Operations Management Initiative

- **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 7.6 in order to become supported by IBM. This effort includes:
  - Completing the upgrade
  - Consolidating DI and FOD systems into one
  - Implementing four new modules
  - Implementing Smart Cloud Control Desk Module as a replacement for Service Desk

- **PI:** The MWRA uses PI to monitor important operating parameters of assets in the field and also facility assets at DITP and CWTP. The current system is running “end-of-life” hardware and server operating system (OS). The PI 2012 upgrade will monitor the same assets as the old system with much improved functionality and performance. The new system is a multi-tier configuration with servers for the database and application, and desktops for the Processbook and datalink client tools. The new system will be upgraded to a 64 bit OS and provide high availability features.

Information Security Program

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:

- **Information Security Plan Design and Implementation (Phase 2)**
- **Security Infrastructure Review, Upgrade, and Monitoring**
- **Authority Mobile Application Delivery Implementation**
- **Secure File Delivery Implementation**
- **Secure Media Destruction Program Improvements**

Technology Infrastructure Improvement Program

The MWRA currently owns and operates 1,281 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 archive 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.
  
  - **Campus Wide WIFI**: The MWRA has pockets of wireless access points in Vehicle Maintenance, Warehouse, and Laboratory Services. These systems have limited access, are administered independently, and have no redundancy. The design approach for Campus Wide WIFI is to provide wireless networking at all of the MWRA locations where it is cost effective, can be centrally managed, and can have redundancy.
  
  - **Voice-Over-IP (VOIP)**: The existing legacy PBX phone systems are approaching the end of support and product life. VOIP is a mature technology and a core component of Unified Communications. Explore VOIP technologies for solution set that offers existing PBX functionality as a minimum.

- **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**: Desktop, mobile, printers, MFD etc.

- **Workforce Mobilization**: Explore new technologies and hardware platforms to improve efficiencies in business process while in the field. Target business units for this initiative are Engineer and Construction, Water and Wastewater Operations, and Maintenance.

**FY15 Accomplishments:**

**Information Technology Management Program**

- **Change Management**: A Change Management policy was documented to establish a framework for introducing a proposed change to an MWRA Information Technology (IT) resource. Tracking will be put into place with the Maximo 7.6 upgrade effort through the use of the Smart Cloud Control Desk module.

- **MIS Reorganization**: With the hiring of a Manager of IT Security, Architecture & Engineering, MIS has begun the organizational transformation recommended in the 5 year Strategic Plan.

**Application Improvement Program**

- **e-Discovery Archive and Purge Solution**: Began data collection for the following consultant’s templates: (1) Enterprise Vault Solution Design, (2) Archiving Policies, and compiled a list of Department contacts for the Business Definition phase. Installed and configured the documentation portal and informed IT Team members to begin reviewing templates and collecting data. IT and Records Center staff completed the collection of the retention codes and periods by department and added them into interim database for querying and reporting. Developed a SQL database to manage the records series codes, corresponding departments and Department Records Managers (DRMs), Active Records Filing Schemes, and Vital Records Filing Schemes.
- **E-Procurement - Strategic Sourcing and Contracts Management**: An environment and application upgrade on the development system was scheduled and completed the 2nd weekend in March; the environment upgraded from 10.0.4 to 10.1 and the application from 9.1.1.1 to 9.1.1.4 and has required fixes and new functionality needed for implementing Construction Contracts. The first Non-Professional Service (NPS) Contract event was posted in Q3. Created new security roles for Contracts, Affirmative Action Compliance Unit (AACU), and Accounts Payable (AP) staff. Also completed custom workflows for approvals and new contract reports.

- **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.

- **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. This project was completed in FY15 Q2.

- **Operations Management Monitoring System (OMMS)**: New profiles have been added that allows staff to easily view critical operating information. The "Pump Stations" profile allows staff to monitor flows and pressures at 10 pump stations while the "Community Flow and Pressures" profile organizes MWRA communities by name and pressure zone for quick access to data from their MWRA mobile device.

- **GIS**: Completed a proof of concept (Enqual's Harbor Station Viewer) using new technology that is now available because of the recent GIS upgrade. The new technology allows for easier distribution and access to GIS mapping applications and plays a key role in future development efforts. The Project was a proof of concept to use the new tools available in the recently upgraded GIS System. The development initiative was completed in FY15 Q2. The production environment is expected to be completed by FY15 Q4.

### Information Security Program

- **Security Awareness Computer Based Training (CBT)**: Created a “How to Reset Password” job aid for CBT training and had it posted on Pipeline. Installed, configured, and tested the Learning Management System on a new CBT development server, and then copied the setup to a new production server. For staff with PCs, sent a reminder to them for completing the training. Staff without PCs (approximately 300) need to schedule sessions at Chelsea or DITP to complete the training.

- **Authority Mobile Application Delivery Implementation**: Proof of Concept environment has been built in support of the Mobile Device Management platform. 49 iPads and 123 iPhones are being managed with platform. Nine applications have been identified for mobile application delivery.

### Technology Infrastructure Improvement Program

- **Desktop Refresh Program**: Completed the upgrade of some 825 desktops from Windows XP to Windows 7 of which 417 were PC replacements and 411 were in place upgrades.

- **Print, Fax, Scan and Copy**: Installed new multi-function devices (MFDs) throughout MWRA facilities consolidating services (Print, FAX, Scan, Copier) onto one platform. The rollout has replaced 55 pieces of aged equipment for better than a 2:1 equipment reduction. In addition, MWRA will enter into a new 36-month lease for nine MFDs expected to come off support in Q4 FY15; and three new requests from Operations staff for a total of 12 new or replacement MFDs in FY16.
Storage and SAN: The MWRA increased the storage capacity to accommodate, GIS, and Cumulus archiving project at the end of FY15 Q1.

Net2020 Infrastructure Upgrade Program: Successfully completed an upgrade of the Core Network Switch in Chelsea Data Center. Deer Island will be completed in FY15 Q4. This core switch connects all the Authority's users to all the MIS services including Email, Internet, Intranet, and applications. With this implementation, the Network backbone speed has increased from 1GB to 10GB and provides speed of 1 GB to every Desktop at these locations.

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 was completed in May 2014. The final stage of the DITP upgrade is under way and expected to be completed in FY15 Q4.

Budget Highlights:

- The FY16 Proposed Budget is $10.7 million, an increase of $400,000 or 3.9%, as compared to FY15 Budget.
- $5.5 million for Wages and Salaries, an increase of $253,000 or 4.8%, as compared to the FY15 Budget due to cost of living adjustments. The budget includes funding for 56 positions.
- $3.0 million for Ongoing Maintenance, an increase of $72,000 or 2.5%, as compared to FY15 Budget mainly due to increases for computer licenses and vendor support agreements. 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 remains level funded with the FY15 Budget. Funding will support staff training in various computer applications as part of the MIS IT Strategic Plan.
- $240,000 for Professional Services, a decrease of $85,000 or 26.2%, as compared to FY15 Budget mainly due to lower projected need for professional support initiatives. Funding will support the continued development of an MIS Strategic Plan and implementation services.
- $459,000 for Other Materials, a decrease of $68,000 or 13.0%, as compared to FY15 Budget mainly due to the lower computer hardware and software requests.
- $1.4 million for Other Services, an increase of $228,000 or 19.7%, as compared to FY15 Budget mainly due to increased security related telecommunications needs.
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.

FY16 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.

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

- Review Procurement Policies and Procedures (e.g. ADM13, ADM20).

- Continue staff procurement training.

FY15 Mid-Year Accomplishments:

- Competitively bid CY14 Renewable Energy Portfolio Standard certificates which resulted in FY15 revenues of $84,587 (Class II). In addition, received FY15 revenues of $578,239 from forward marketing of CY14 (Class I and Solar) Renewable Portfolio Standards (RPS) certificates.
Awarded the following major contracts in FY15 to date: DITP Cryogenics Chillers Replacement; Quabbin Power, Communication and Security Improvements Design; DITP Clarifier Rehab Phase II Design; Construction WASM 36; Gate, Siphon and Floatables Controls 003; Boston Low Service Beacon Street Line Design; DITP Thermal Power Plant BMS System Upgrade; VFD Additions DITP Secondary Oxygen Reactor Batteries A, B and C, and North Main Pump Station – Winthrop Terminal Facility ESDC/REI.

Advertised or received bids/proposals/statements for the following: VFD Additions DITP Secondary Oxygen Reactor Batteries A, B and C; DITP Valve and Piping Replacement ESDC/REI; Instrumentation Systems Services; Fore River Railroad Mainline Adjustment Design; Security Equipment Maintenance and Repair; NPDES Compliance; Leak Detection Survey Services; and Reading Extension Sewer Rehabilitation Design.

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.

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

Completed preliminary reviews of procurement sections of the Management Policies of the Board of Directors (ADM1) and other procurement procedures (ADM13, ADM20).

Processed 4,829 purchase orders in Q1 and Q2 of FY15 for a total of $19,870,519.

Instituted an on-line virtual catalog for the provision of logo employee clothing, provided by ServiceWear Apparel, procured through the U.S. Communities Government Purchasing Alliance. This program along with the Debit Card program provides employees a choice in the selection of uniform clothing items while realizing efficiencies now that MWRA staff no longer orders, receives, stores, or distributes clothing items.

Moved the Authority’s Purchasing Card Program to Bank of America NA, through the Commonwealth of Massachusetts State Blanket Agreement PRF44designatedOSC. MWRA will now receive an annual rebate based on the total Commonwealth P-Card purchasing spends. At the current State rebate percentage, with MWRA’s annual spend of approximately $500,000, MWRA will realize an annual rebate which is estimated to be at least $7,000 while also eliminating all per card fees that are charged by the current vendor.

Procured the Authority’s vehicle purchases at the beginning of Fiscal Year 2015; including 34 vehicles procured through the use of a “Reverse Auction” format.

Purchased 252,000 gallons of ultra-low-sulfur, #2 diesel fuel for the Deer Island Thermal/Power Plant at a cost of $2.7053/gallon, lower than the FY15 budget price of $3.20/gallon.

Conducted six training sessions on Specification Development for Authority staff with approximately 120 employees attending.

Set up an online vehicle and equipment auction process and brought in $73,173 in revenue in Q1 and Q2 of FY15.
- Recycled 514 batteries, 7.43 tons of paper, 104.285 tons of scrap metal (includes stainless steel and aluminum) and 2,480 pounds of brass and copper, generating $39,317 in revenues.

**Budget Highlights:**

- The FY15 Final Budget is $3.8 million, an increase of $145,000 or 3.8%, from the FY15 Budget.

- $3.8 million for **Wages and Salaries**, an increase of $137,000 or 3.8%, from the FY15 Budget mainly due to cost of living adjustment increases. The funding supports 44 positions, one position lower than the FY15 Budget.

- $114,000 for **Other Materials**, an increase of $15,000 or 14.7%, from the FY15 Budget mainly due to historical spending trends. This line item mainly supports centralized office supply purchases.

- $50,000 for **Other Services**, a decrease of $6,000 or 11.4%, from the FY15 Budget. 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 later years.
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 provide 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.

**FY16 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.

**FY16 Initiatives:**

- Implement the recently-promulgated underground storage tank regulations including the revised Stage I requirements for gasoline dispensing facilities.

- Coordinate implementation of the anticipated air quality operating permit renewal for the Deer Island Treatment Plant.

**FY15 Mid-Year Accomplishments:**

- Provided ongoing real estate services, including appraisal and negotiation, on projects such as the Fore River Railroad track relocation project, Charlestown Navy Yard lease, Chelsea lease.

- Provided real estate services (appraisal, negotiation, plan and legislation review) on sale of Fox Point (Dorchester) and for easement swap with Quincy Shipyard, LLC (Quincy).

- Managed nine (9) permit agreements (six at Turkey Hill and three at Walnut Hill), including the termination of two (2) permit agreements with MetroPCS per its request in second quarter of FY15. Coordinated with Operations for approval of the equipment changes (including removal) and improving the invoicing system for...
maintenance reimbursements. Total revenue for the nine agreements is $470,000 of which MWRA and the host community each receive half. Currently renegotiating one of seven permit agreements due for renewal.

- Managed fee assessment for long-term 8M permits on MWRA fee controlled land. 8M fees for these agreements total approximately $52,000 per year. Also provided assistance to Operations on short-term 8M permit agreements in which fees are assessed.

- Staff acquired easements and negotiated licenses and extensions to support projects. Acquired: easements from 65+ property owners for Section 36, New W11C, and Shaft 9A in Arlington: In progress: easement acquisitions and grant of license to City of Marlboro for Carroll Water Treatment Plant (CWTP) security entrance renovations; and easement and licenses to support Alewife Brook Conduit renovations and Webster Avenue Pipe Bridge Replacement (Somerville), property interest from City of Chelsea for Chelsea Headworks Renovation.

- 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. Provide 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.

- Continued with the remediation assessment of the oil contamination resulting from the February 2010 spill at the Cottage Farm Combined Sewer Overflow (CSO) facility.

- Completed the 5-year periodic evaluation of the waste disposal site conditions at Spot Pond Brook near Gillis Pump Station and the Fore River Staging Area.

- Provided technical support for the assessment and abatement design for PCBs at the Cottage Farm CSO Facility. Submitted draft PCB Abatement Plan to EPA and continue to evaluate project scope and schedule.

- Submitted and received approval from EPA for the PCB Abatement Plan for the Chelsea Creek Headworks. Continued to provide technical support during the pilot testing to evaluate the effectiveness of various abatement and encapsulation techniques.

- Completed a limited abatement of PCB-contaminated paint at Ward Street Headworks.

- Completed a limited asbestos abatement project at the Oakdale Power Station.

- 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 Gillis Pump Station, comprehensive leak detection testing and internal repair of a 20,000-gallon underground tank at Nut Island Headworks, repaired and rebuilt underground piping sumps at multiple facilities, and general monitoring system repair and upgrades at other facilities. Continued with the new MassDEP-required monthly inspection requirement for all underground fuel storage tank systems.

- In response to the installation of a new electrical transformer implemented a new Spill Prevention, Control, and Countermeasure (SPCC) Plan for the Intermediate Pump Station in Weymouth. Completed an update to
the Spill Prevention, Control, and Countermeasure (SPCC) Plan for the MWRA Braintree-Weymouth Pump Station. Incorporated these new and revised plans into the MWRA-wide SPCC annual training program.

- Continued to prepare, coordinate and oversee the completion of annual SPCC Plan training of over 200 MWRA oil handling staff and managers.

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

- 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 and Pump Station,
  - Remote Headworks Rehabilitation,
  - Northern Intermediate High project,
  - Section 36 Watertown-Waltham Connection,
  - Alewife Brook Pump Station facility upgrades,
  - MWR003 Gate, Siphon and Floatables Control project
  - Southern Extra High Pipeline
  - Sudbury Aqueduct Connection Alternatives
  - Section 53 Water Line
  - Fells Covered Storage microwave antenna tower project

- Completed work with EPA and Operations staff to implementing diesel engine emission controls for Cottage Farm, Prison Point, and CWTP. Coordinated installation of retrofit emissions controls for the new Loring Road and Arlington Covered Storage emergency generator. Continued to work with Operations staff to implement new maintenance and recordkeeping requirements for emergency generators. Completed air emissions testing at the Biosolids Processing Facility.

- Completed the triennial third party verification process of the DITP greenhouse gas emissions for 2013 and coordinating a similar verification of the Biosolids Processing Facility greenhouse gas emissions for 2014.

- With the end of 2014 completed the second three year control period of the Regional Greenhouse Gas Initiative and competed the transfer of carbon allowances covering the total carbon emissions from the DITP combustion turbine generators.

Provided technical and environmental regulatory support for upgrades at the Ware Disinfection Facility including a new potable water supply for the facility, a new onsite septic system, a new industrial waste water holding tank, and a new wastewater dry well. Submitted self-certification documentation to DEP for the new industrial wastewater holding tank.

- 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 FY16 Final Budget is $663,000, a decrease of $104,000 or 13.5%, as compared to FY15 Proposed Spending.

- $453,000 for Wages and Salaries, an increase of $17,000 or 3.9%, as compared to FY15 Proposed Spending mainly for projected contractual increases. The budget supports four positions.

- $3,000 for Training and Meetings, no change from the FY15 Proposed Spending.

- $201,000 for Other Services, a decrease of $125,000 or 38.4%, as compared to FY15 Proposed Spending. The decrease is due to the decreased costs for the underground storage tank project based on the award of a new lower cost contract.