



Executive Summary

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MWRA Mission

The Massachusetts Water Resources Authority (MWRA) is an independent authority that provides wholesale water and sewer services to its member communities and funds its operations primarily through member community assessments and charges. MWRA's mission is to provide reliable, cost-effective, high-quality water and sewer services that protect public health, promote environmental stewardship, maintain customer confidence, and support a prosperous economy. MWRA's long-term plan emphasizes improvements in service and systems and includes performance targets for operating the water and wastewater systems and maintaining new and existing facilities.

Parallel to MWRA's goal of carrying out its capital projects and operating programs is its goal of providing sustainable and predictable assessments by working in partnership with its member communities. The need to achieve and maintain a balance between these two goals continues to be the critical issue facing the MWRA. MWRA has a five-year Strategic Business Plan which articulates the mission statement, values, and goals of the agency, including specific initiatives.

During the year, MWRA measures actual performance on a monthly basis using various reporting tools. The monthly financial Staff Summary reports on actual spending versus the budget and provides summary explanations of the variances at the line item level. At least twice a year staff prepares projections for the year-end with a similar level of explanations. The performance indicator reports (the Orange and Yellow Notebooks) capture a variety of parameters regarding performance of each major functional area, on a monthly and quarterly basis.

Overview

Each year, MWRA prepares a budget that reflects the best available information for anticipated expenditures and revenues. MWRA transmits its FY16 Proposed Budget to the Advisory Board in February. The Advisory Board then has sixty days to review, comment, and provide recommendations. MWRA also hosts a public hearing to solicit comments on the budget and community assessments from citizens in its service area. In June, MWRA's Board of Directors holds hearings on the budget to review recommendations by the Advisory Board and new information available since the budget was developed. Staff incorporates Board decisions from the hearings and presents a final budget for approval in June.

Final FY16 Budget Summary

The Final FY16 Budget has a combined assessment increase of 3.4%.

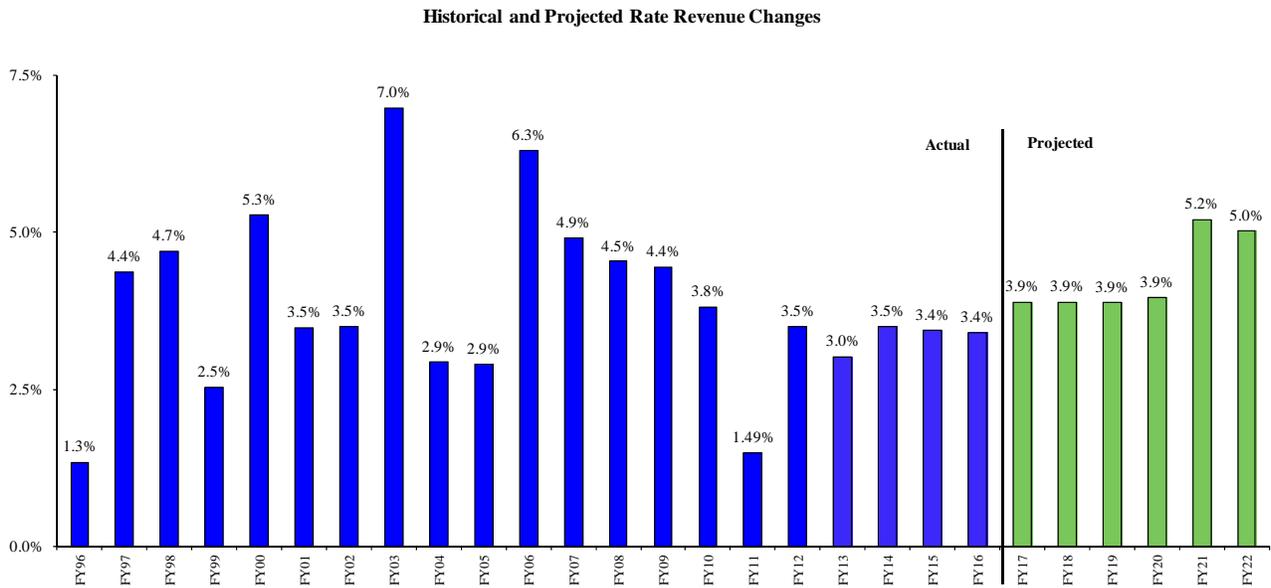
Measures taken by the Authority to achieve the 3.4% rate increase include:

- Limiting Direct and Indirect Expenses increase to 2.6%;
- Continued practice of targeted defeasance;
- Budgeted headcount at 1,170 positions, 5 fewer positions than FY15;
- Budgeted 1,160 Full-Time Equivalent (FTE's) positions;
- Debt Service savings of \$1.3 million in FY16 from a \$30 million defeasance in FY15;
- Higher Other Revenue of \$5.6 million due to a one-time revenue for water provided during the community managed CSO project to Cambridge;

- The release of the debt service reserves related to the amendments to the Bond Indenture is included in the planning estimates; and
- Assumes No Debt Service Assistance.

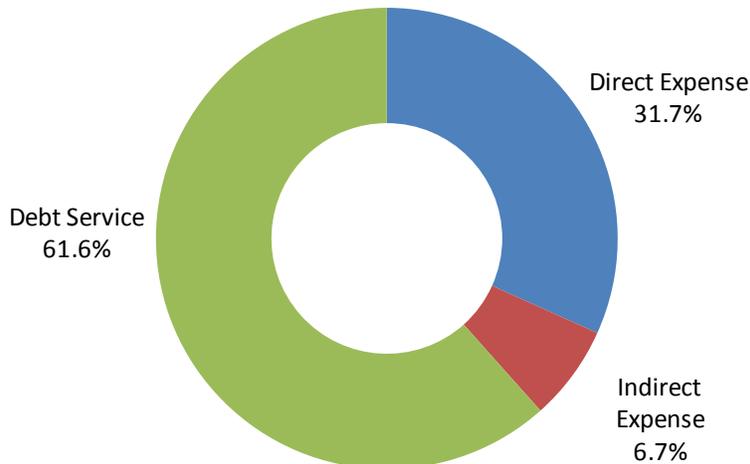
As MWRA continues to pursue a rate management strategy which promotes sustainable and predictable assessments and addresses the Authority’s Pension and Other Post Employment Benefits (OPEB) related liabilities.

The graph below represents historical and projected assessment changes based on the Final FY16 Budget.



The Final FY16 Budget projects total expenses of \$702.5 million, \$34.2 million or 5.1% above FY15 Actuals. Capital financing costs remain the largest component of the CEB and account for 61.6% of total expenses. No Debt Service Assistance (DSA) is assumed for FY16.

FY16 Current Expense Budget



Total expenses include \$432.7 million for Capital Financing costs and \$269.8 million for operating expenses, of which \$222.8 million is for Direct Expenses and \$47.0 million is for Indirect Expenses. Total expenses increased \$34.2 million or 5.1% from FY15 Actuals mainly due to a higher debt service requirement of \$23.5 million, higher Direct Expenses of \$10.4 million due to inclusion of Cost of Living Adjustments (COLA) for staff, higher healthcare costs, and higher projected energy expenses.

The \$23.5 million or 5.7% increase in capital financing expenses reflects debt service associated with the projected issuances of \$100 million in June 2015 and \$100 million of new money in June 2016 as well as new State Revolving Fund (SRF) debt of \$54.5 million to be issued in FY16. Offsetting these issuances, are the impacts of the \$26.5 million targeted defeasance which will reduce debt service by approximately \$1.3 million in FY16, \$12.6 million in FY17, \$13.1 million in FY18, and \$4.0 million in FY19.

The Final FY16 Rate Revenue Requirement is \$672.4 million, an increase of \$22.1 million or 3.4% over the FY15 Budget.

The Final FY16 Budget revenues, excluding rate revenue, total \$30.1 million, an increase of \$2.1 million or 7.4% over FY15 Actuals. The Final FY16 Budget non-rate revenue budget includes \$20.7 million in Other User Charges and Other Revenue and \$9.4 million for Investment Income. The majority of the increase is due to recognizing a one-time water revenue for water provided to the City of Cambridge during an FY14 Combined Sewer Overflow (CSO) project.

The table on the following page shows MWRA's Final FY16 Budget for revenue and expenses compared with the FY15 Budget and FY14 Actual. Changes from FY15 to FY16 are described in the Revenue and Expense section of the Executive Summary.

Table I-1

TOTAL MWRA	FY14 Actuals	FY15 Actuals	FY16 Final Budget	Change FY16 Final Budget vs FY15 Actuals	
				\$	%
EXPENSES					
WAGES AND SALARIES	\$ 91,751,235	\$ 94,350,655	\$ 99,363,168	\$ 5,012,513	5.3%
OVERTIME	3,400,247	4,521,867	4,219,293	(302,574)	-6.7%
FRINGE BENEFITS	18,074,366	18,325,579	19,326,756	1,001,177	5.5%
WORKERS' COMPENSATION	2,311,448	2,307,123	2,343,000	35,877	1.6%
CHEMICALS	10,226,458	9,749,142	9,790,849	41,707	0.4%
ENERGY AND UTILITIES	23,396,747	21,073,529	23,164,822	2,091,293	9.9%
MAINTENANCE	29,453,365	28,322,686	28,698,772	376,086	1.3%
TRAINING AND MEETINGS	328,782	369,657	413,714	44,057	11.9%
PROFESSIONAL SERVICES	4,900,235	4,950,866	5,819,611	868,745	17.5%
OTHER MATERIALS	5,986,021	6,060,042	6,164,588	104,546	1.7%
OTHER SERVICES	21,736,151	22,378,137	23,529,902	1,151,765	5.1%
TOTAL DIRECT EXPENSES	\$ 211,565,055	\$ 212,409,283	\$ 222,834,475	\$ 10,425,192	4.9%
INSURANCE	\$ 2,050,555	\$ 2,161,628	\$ 2,160,797	(831)	0.0%
WATERSHED/PILOT	26,640,877	27,167,900	28,096,233	928,333	3.4%
HEEC PAYMENT	3,525,799	2,690,026	1,946,157	(743,869)	-27.7%
MITIGATION	1,494,900	1,459,902	1,400,000	(59,902)	-4.1%
ADDITIONS TO RESERVES	169,304	482,953	(34,927)	(517,880)	-107.2%
RETIREMENT FUND	7,470,927	7,824,155	8,159,521	335,366	4.3%
ADDITIONAL PENSION DEPOSIT		-	-	-	
POSTEMPLOYMENT BENEFITS	4,976,411	4,821,320	5,224,848	403,528	8.4%
TOTAL INDIRECT EXPENSES	\$ 46,328,773	\$ 46,607,884	\$ 46,952,628	\$ 344,745	0.7%
STATE REVOLVING FUND	\$ 72,684,514	\$ 75,066,883	\$ 81,876,276	6,809,393	9.1%
SENIOR DEBT	\$ 229,505,983	240,678,003	283,024,431	42,346,428	17.6%
SUBORDINATE DEBT	\$ 100,117,241	99,686,106	49,222,442	(50,463,664)	-50.6%
LOCAL WATER PIPELINE CP	\$ 316,440	263,758	4,149,242	3,885,484	1473.1%
CURRENT REVENUE/CAPITAL	\$ 9,200,000	10,200,000	11,200,000	1,000,000	9.8%
CAPITAL LEASE	\$ 3,217,060	3,217,060	3,217,060	-	0.0%
CORE FUND DEPOSIT	\$ 132,238	730,421	-	(730,421)	-100.0%
BOND REDEMPTION		(6,745,598)	-	6,745,598	-100.0%
VARIABLE RATE SAVINGS	\$ (12,770,132)	(13,016,491)	-	13,016,491	-100.0%
DEFEASANCE ACCOUNT	-	-	-	-	
DEBT SERVICE ASSISTANCE	(853,660)	(853,660)	-	853,660	-100.0%
TOTAL DEBT SERVICE	\$ 401,549,684	\$ 409,226,482	\$ 432,689,451	\$ 23,462,969	5.7%
TOTAL EXPENSES	\$ 659,443,512	\$ 668,243,648	\$ 702,476,554	\$ 34,232,906	5.1%
REVENUE & INCOME					
RATE REVENUE	\$ 628,721,000	\$ 650,315,783	\$ 672,440,000	22,124,217	3.4%
OTHER USER CHARGES	8,030,020	8,274,428	8,683,898	409,470	4.9%
OTHER REVENUE	11,266,436	10,014,309	12,000,066	1,985,757	19.8%
RATE STABILIZATION	3,500,000	-	-	-	
INVESTMENT INCOME	12,129,653	9,688,997	9,352,590	(336,407)	-3.5%
TOTAL REVENUE & INCOME	\$ 663,647,109	\$ 678,293,517	\$ 702,476,554	\$ 24,183,037	3.6%

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.
- 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.
- 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.
- Advocacy of MWRA interests in new and developing regulatory issues.
- Continue to develop and implement long-term strategies to ensure assessment increases to MWRA's communities are sustainable and predictable.
- 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.

FY16 Initiatives:

- Continue assessment and evaluation of sustainable cost savings opportunities throughout the organization.
- 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 Eversource. Pursue grant-funding and cost-sharing arrangements to defray costs of implementing these initiatives.
- Prepare for commencement of pilot, commercial food waste co-digestion project at Deer Island Treatment Plant in FY17.
- 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 and operate new Spot Pond covered storage facility in water system.
- 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.
- Continue to develop and implement contaminant monitoring plans in the water system.

FY15 Accomplishments:

- Developed the FY16 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.
- Implemented the Amendments to the Authority's General Bond Resolution, which allowed for the release of \$112 million in reserves of which \$102 million was used to defease outstanding debt for budgetary relief in fiscal years 2016 through 2027. The remaining \$10 million was deposited to MWRA's OPEB Trust.
- Defeased \$30.5 million of outstanding debt on June 22, 2014 for budgetary relief for fiscal year 2016 through 2019 thereby reducing the rate of increase to the Rate Revenue Requirement in those years. The sources of funding for this defeasance was primarily the fiscal year 2015 current expense budget surplus.
- Competitively bid CY14 Renewable Energy Portfolio Standard certificates which resulted in FY15 revenues of \$330,000 (Class II). In addition, received FY15 revenues of \$1.0 million from forward marketing of CY14 (Class I and Solar) Renewable Portfolio Standards (RPS) certificates.
- Procured multi-year electricity supply contracts for MWRA's facilities.
- Received revenue for energy generated at numerous facilities including the following: hydroelectric \$507,000 from Oakdale Station, \$179,000 from Cosgrove Station, and \$15,000 from the Loring Road Pump Station; wind of \$443,000 from Charlestown Pump Station; and solar of 93,000 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

\$1.8 million in revenue for FY15. Deer Island also self-generated ~29% of the plant's total required power during the year.

- Received \$648,000 in utility rebates for completed energy projects.
- Processed 100.4 average tons per day of sludge at the Pelletization Plant and disposed of 6,227 of grit and screenings through a contracted vendor.
- In water system, exercised 767 and replaced 24 mainline valves; exercised 391 and replaced 10 blow-off valves.
- In the wastewater system, inspected 29 miles and cleaned 21.65 miles of MWRA pipeline. Also inspected more than 1,100 structures and rehabilitated 25 manholes.
- At DITP, treated 99% of flow through secondary and met secondary permit limits at all times. Operated DITP without any NPDES Permit violations during FY15.

SOURCES AND USES OF FUNDS

MWRA funds its operations primarily through member community assessments. Funds supporting the current expense budget are not subject to appropriation with the exception of debt service assistance. The table below shows MWRA's sources and uses of funds for The Final FY16 Budget.

Revenue

SOURCES & USES OF FUNDS*		
\$ in Millions		
<i>Sources of Funds</i>		
Other User Charges	\$8.7	1.2%
Other Revenue	12.0	1.7%
Investment Income	9.4	1.3%
Rate Revenue	672.4	95.7%
Rate Stabilization	0.0	0.0%
TOTAL REVENUE	\$702.5	100.0%
<i>Uses of Funds</i>		
Total Expenses before Debt		
Service Offsets	\$702.5	
Less:		
Debt Service Assistance	0.0	
Bond Redemption	0.0	
Sub-Total Net Expenses	702.5	
Capital Financing	432.7	61.6%
Direct Expenses	222.8	31.7%
Indirect Expenses	47.0	6.7%
TOTAL EXPENSES	\$702.5	100.0%
TOTAL EXPENSES Less Offsets	\$702.5	
*May not add up due to rounding		

MWRA is required by its enabling act to balance its budget each year by establishing user assessments for water and sewer services that provide funds sufficient to recover the cost of operations (excluding depreciation), maintenance and improvements, and debt service, as well as meeting required reserve levels.

In the Final FY16 Budget, 95.7% of revenue is derived from rate revenue. The remaining 4.3% of revenue will come from interest on investments, charges to other water and sewer customers (including Chicopee Valley Aqueduct (CVA) communities), non-recurring revenue, annual charges to sewer system users with permits issued by MWRA's Toxic Reduction and Control Department (TRAC), penalties assessed to holders of sewer use permits, and other miscellaneous sources.

Rate Revenue

Under The Final FY16 Budget, the MWRA will raise \$672.4 million of its total revenue requirements from water and sewer assessments to member communities. Of the \$672.4 million, \$446.1 million will fund the sewerage system, an increase of 1.4% as compared to FY15; and \$226.4 million will fund the water system, an increase of 7.7% as compared to FY15.

Non-Rate Revenue

Other User Charges

Other User Charges include revenues derived from the provision of water and sewer services to communities and other entities under special agreements. Other User Charges in the Final FY16 Budget total \$8.7 million, an increase of \$409,000 or 4.9% from FY15 Actuals and includes \$4.8 million for CVA communities, \$1.7 million for Deer Island water usage, \$753,000 in entrance fees paid by Stoughton, Wilmington, and the Dedham Westwood Water District, \$500,000 for the Commonwealth's partial reimbursement for Clinton Wastewater Treatment Plant expenses, \$608,000 in water revenue, and \$366,000 in sewer revenue to contract communities.

Other Revenue

Other Revenue is budgeted at \$12.0 million, an increase of \$2.0 million or 19.8% from FY15 Actuals mainly for due to one-time revenue for water provided during the community managed CSO project to the City of Cambridge.

Other Revenue includes \$2.2 million in permit fees and penalties, \$3.1 million for the sale of Renewable Portfolio Credits, sale of generated power, and revenues for demand response programs, and \$6.7 million in miscellaneous revenue.

Permit Fees and Penalties

The Final FY16 Budget includes \$2.2 million in fees charged to industries that discharge toxic materials into the MWRA sewer system. These permit fees partially offset the annual costs of permitting, inspecting, and monitoring these industries.

Energy Revenue

The Final FY16 Budget includes \$3.1 million which pertains to the Authority's energy programs for the sale of Renewable Portfolio Standard credits, participation in the demand response program, and the sale of power including hydro, wind, and solar generated at various MWRA's facilities as well as a large number of miscellaneous revenue items.

Miscellaneous Revenue

The Final FY16 Budget includes \$6.7 million in miscellaneous revenue mainly for the City of Cambridge one-time water revenue as highlighted above.

Investment Income

MWRA earns income by investing reserves and fund balances in a variety of interest-yielding securities. The Final FY16 Budget includes \$9.4 million in investment income, a decrease of \$336,000 or 3.5% from FY15 Actuals due to having fewer funds invested long-term due to liquidity needs for the reserve release based on the amendments to the Bond Indenture anticipated for FY16. The FY16 short-term interest rate is 0.20%, unchanged from the FY15 Budget.

Non-Recurring Revenue

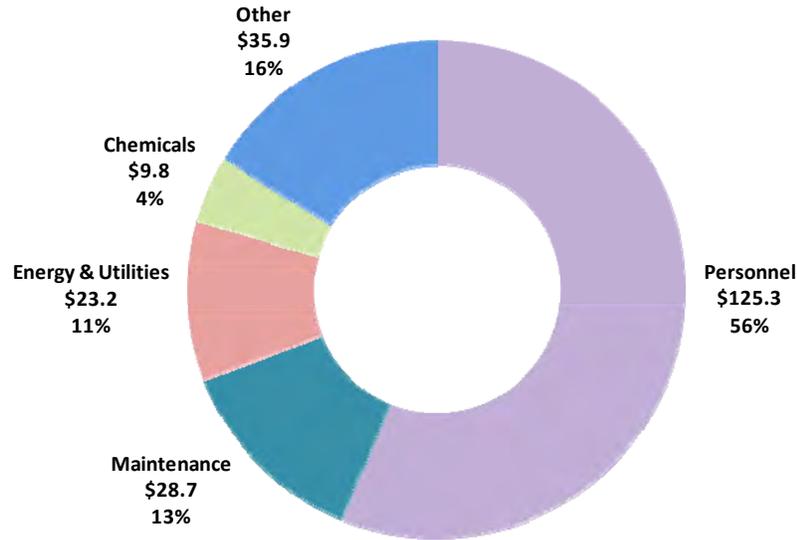
Non-Recurring Revenue is one-time revenue used in a given fiscal year to reduce assessments to member communities. In any fiscal year when annual revenues exceed expenses, MWRA may transfer the unexpended amount to the rate stabilization reserve. Within certain limits, MWRA may use this money to reduce the Rate Revenue Requirement in any subsequent year. Consistent with the requirements of its enabling act and its general bond resolution, MWRA treats transfers from the rate stabilization reserve as revenue in that fiscal year. For the Final FY16 Budget, no Rate Stabilization fund usage is projected.

Direct Program Expenses

The Final FY16 Direct Expense Budget is \$222.8 million, \$10.4 million or 4.9% above FY15 Actuals. The principal drivers for the increase are wages and salaries due to cost of living adjustments (COLAs), increased energy costs mainly for projected electricity pricing, sludge expense reflecting higher contract indices, fringe benefits for projected healthcare cost increases, and higher maintenance. MWRA continues to manage direct expenses through implementing cost improvement initiatives, such as cross-training staff, competitive purchase of energy and chemicals, lease space reductions, and increased self-generation of electricity.

The chart below combines related direct expense line items into general cost categories and shows that labor costs (wages and salaries, overtime, fringe benefits, workers' compensation, and training) are the largest component of the direct expense budget 56%, other (professional services, other materials, and other services) 16%, maintenance 13%, utilities 11%, and chemicals 4%.

Direct Expenses by Category
(in millions)



Wages and Salaries – The budget includes \$99.4 million for Wages and Salaries as compared to \$94.4 million reported in FY15, an increase of \$5.0 million or 5.3%. Regular Pay which is 98.2% of total Wages and Salaries, increased \$2.8 million mostly for COLA increases. The Final FY16 Budget funds 1,170 positions, 5 fewer positions than FY15 Budget. On the Full-Time-Equivalent (FTE’s) basis the budget is set for 1,160. The Authority started to report FTE’s in June of 2015. It is important to note that the Authority is striving to achieve the 1,150 FTE goal recommended by Amawalk consultants based on a staffing study in 2012, to be reached in a five-year timeframe. As always, new hires and backfills of vacant positions will be managed at the agency level and addressed on a case-by-case basis by senior management.

Overtime – The budget includes \$4.2 million for Overtime, \$303,000 or 6.7% less than FY15 Actuals. Fewer projected wet weather events in FY16 more than offset the increase in funding is associated with the planned overtime activities for the North Main Pump Station and Winthrop Terminal Facility Butterfly Valve Replacement project which will require as many as 62 overnight shutdowns.

Fringe Benefits – The budget includes \$19.3 million for Fringe Benefits, an increase of \$1.0 million or 5.6% from FY15 Actuals. Health Insurance premiums total \$16.8 million, an increase of \$1.0 million or 6.4% from FY15 Actuals largely due to anticipated cost increases.

Workers’ Compensation – The budget includes \$2.3 million for Workers’ Compensation, an increase of \$36,000 or 1.6% from FY15 Actuals and is based on a three-year average of actual and projected spending.

Chemicals – The budget includes \$9.8 million for Chemicals, an increase of \$42,000 or 0.4% from FY15 Actuals mainly due to the revised dosing protocol for fluoride as well as updated assumptions for usage and pricing based on the most recent information. The FY16 Budget does not include any funding for the new Deer Island National Pollutant Discharge Elimination System (NPDES) permit which is projected to have more stringent requirements for enterococcus treatment compliance.

Utilities – The budget includes \$23.2 million for Utilities, which is \$2.1 million or 9.9% from FY15 Actuals. The increase reflects underspending on electricity in FY15 due to lower than expected congestion pricing and lower than budgeted and transmission and delivery expenses that are not projected to continue in FY16. The budget funds \$16.9 million for Electricity, \$3.3 million for Diesel Fuel, \$2.2 million for Water, and \$486,000 for Natural Gas.

Maintenance – The budget includes \$28.7 million for Maintenance projects, an increase of \$376,000 or 1.3% from FY15 Actuals. The FY16 Maintenance request is in line with FY14 actual maintenance spending of \$29.5 million.

Training and Meetings – The budget includes \$414,000 for Training and Meetings, an increase of \$44,000 or 11.9% from FY15 Actuals.

Professional Services – The budget includes \$5.8 million for Professional Services, an increase of \$869,000 or 17.5% from FY15 Actuals. The budget reflects funding of \$1.8 million for Security, \$1.7 million for Regulatory Monitoring, and \$1.3 million for Other Professional Services to support items such as the professional staff development and as-needed professional services.

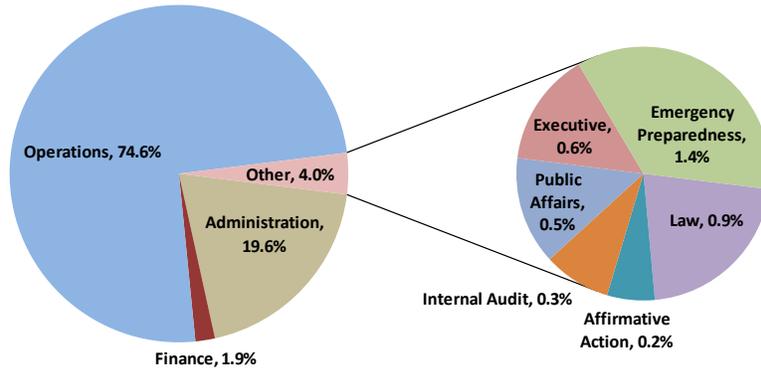
Other Materials – The budget includes \$6.2 million for Other Materials, an increase of \$105,000 or 1.7% from FY15 Actuals. The budget includes funding of \$1.7 million for Vehicle Purchases, \$996,000 for Vehicle Expenses mostly for gasoline purchases, \$841,000 for Lab and Testing Supplies, \$709,000 for Equipment/Furniture, \$435,000 for Health and Safety, \$425,000 for Computer Hardware needs, and \$377,000 for Work Clothes.

Other Services – The budget includes \$23.5 million for Other Services, an increase of \$1.2 million or 5.1% from FY15 Actuals. The budget includes funding of \$14.1 million for Sludge Pelletization, \$3.6 million for Space/Lease Rentals and related expenses for the CNY and Chelsea facilities, \$1.7 million for Voice and Data costs, \$1.2 million for Grit & Screenings, and \$1.2 million for Other Services. The largest increase is for Telecommunications of \$268,000 for increased lines for security initiatives, Sludge Pelletization of \$218,000 due to increases in inflation indices, and Space/Lease Rentals of \$144,000 for contractual increases.

Functional Area Budget Summary

The chart below shows the breakdown of the MWRA's direct expense budget by division.

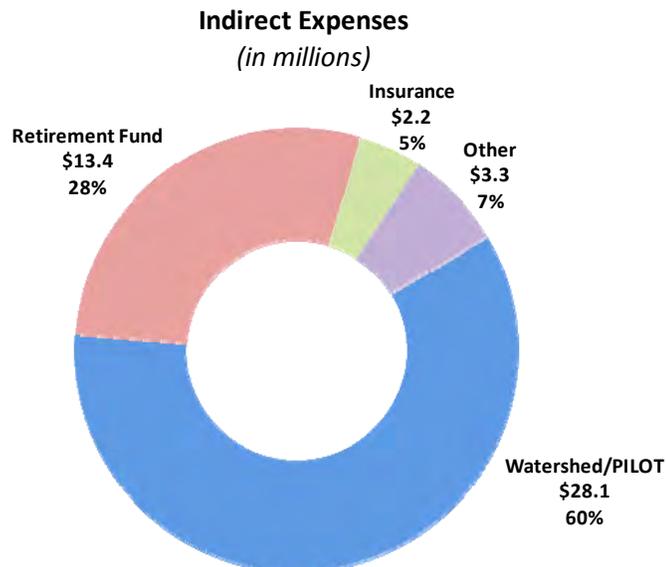
MWRA Direct Expense Budgets by Division



Indirect Program Expenses

The Final FY16 Indirect Expense Budget is \$47.0 million, \$345,000 or 0.7%, above FY15 Actuals. The principal drivers for the increase are the Water Supply Protection Program due to higher operating expenses and Payment in Lieu of Taxes (PILOT) costs, Pension due to higher mandatory and optional payment amounts, and increased Addition to Reserves.

The graph below combines related indirect expense line items into the general cost categories and shows that Water Supply Protection Program expenses are the largest component of the indirect expense budget 60% followed by Retirement Fund 28%, Other (for items such as HEEC, Mitigation, and Addition to Reserves) 7%, and Insurance 5%.



Insurance

MWRA purchases property and casualty insurance from external insurance carriers with a self-insured retention of \$2.5 million dollars and Worker's Compensation Excess insurance with a self-insured retention of \$500,000 per claim. The Final FY16 Budget includes \$2.2 million for Insurance, level funded at FY15 Actuals. The Final FY16 Budget was based on actual average spending for the past five years, FY10-14. The budget includes \$1.7 million for premiums and fees and \$440,000 for the projected cost of claims made against the self-insured portion of MWRA coverage. MWRA mitigates the budgetary risk of self-insurance by maintaining an Insurance Reserve. The reserve, which was established as part of the Bond Resolution, requires that an independent insurance consultant review the funding level every three years and provide recommendations as to its adequacy. The Insurance Reserve Fund is currently funded at \$14.0 million which was within the acceptable range as indentified in the insurance consultant review as of February 2014.

Watershed Reimbursement/PILOT

The Enabling Act directs MWRA to pay the Commonwealth of Massachusetts for several statutory obligations: Payment in Lieu of Taxes (PILOT) for Commonwealth-owned land in the watersheds, operating expenses of the Division of Water Supply Protection, and debt service costs for purchases of land around the supply reservoirs to protect the watersheds. The Final FY16 Budget includes \$28.1 million for the Division of Water Supply Protection (formerly MDC Division of Watershed Management), an increase of \$928,000 or 3.4%, over FY15 Actuals. The budget is comprised of \$13.1 million for reimbursement of operating expenses net of revenues, \$7.9 million for Payment in Lieu of Taxes (PILOT), and \$5.6 million for debt service expenses on prior land purchases financed by the Commonwealth. The largest increases are for operating expenses net of revenues of \$394,000 mainly for contractual increases and Payment in Lieu of Taxes of \$200,000.

Harbor Electric Energy Company (HEEC)

The Final FY16 Budget includes \$1.9 million for the Harbor Energy Electric Company (HEEC), a decrease of \$744,000 or 27.7%, from FY15 Actuals. This funding is for the repayment of the capital investment for the Deer Island electric cable and substation which provides electric power to the treatment plant. The significant decrease is due to contractual obligations which expired in May 2015.

Mitigation

MWRA disburses mitigation funds to communities affected by MWRA projects or facilities pursuant to MWRA's Statement of Mitigation Principles and/or specific agreements with communities. MWRA mitigation may include relieving the direct impacts of construction, meeting environmental and regulatory requirements, long-term operating agreements, or community compensation for impacts over and above those addressed by other mitigation. In rare situations, where the extent and duration of the impact of a project or facility on a community is such that restoring the area to its pre-project state is insufficient to relieve the stress of MWRA's presence during the project, MWRA funds or contributes to improvements to affected areas.

Mitigation expenses are funded in the capital budget and in the current expense budget. The Final FY16 Budget includes funding of \$1.4 million in potential community compensation for the City of Quincy and the Town of Winthrop. Both mitigation agreements terms were recently extended from FY15 to FY25.

Operating Reserves

The Final FY16 Budget includes a reduction of \$34,927 for the Operating Reserve, a decrease of \$518,000 from the FY15 Budget. The Operating Reserve balance is in compliance with MWRA General Bond Resolution which requires a balance of one-sixth of annual operating expenses. Based on the Final FY16 Budget, the required balance is \$39.4 million versus the \$39.5 million required in FY15.

Retirement System Contribution

The Final FY16 Budget includes \$8.2 million for the Retirement Fund, an increase of \$335,000 or 4.3%, over FY15 Actuals. This funding of \$8.2 million represents the minimum required contribution for FY16 based on the most recent actuarial evaluation of January 1, 2013. The Pension Fund achieved virtual full funding as of January 1, 2015 at 98.3%.

GASB 45 – Accounting and Reporting by Employers for Postemployment Benefits Other than Pensions

The Authority has complied with the GASB 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions (OPEB)*, by disclosing this liability in the year-end Financial Statements. As part of the multi-year strategy to address its unfunded liabilities for OPEB and pension holistically, the Board approved a plan to pay down our pension liability and upon reaching full funding, move to address the OPEB obligation. This strategy was employed in the FY08-15 budgets (although temporarily halted in FY11 to achieve a 1.5% rate increase). Based on the latest actuarial evaluation, MWRA's pension fund is at 98.3% funding level, which is considered virtually fully funded. As such, in the Final FY16 Budget the Authority will begin funding its OPEB liability at \$5.2 million, continuing the Authority's long-term commitment to address its liabilities. Furthermore, to maximize the benefits in terms of returns and accounting treatment, an irrevocable OPEB Trust was established after Board approval and funding started on April 23rd, 2015 with \$10,800,000 deposit. The source of the deposit is \$10 million cash reserves which became available due to the Amended and Revised Bond Indenture, and \$800,000 from funds appropriated in FY10 for funding OPEB.

Indirect Expenses

Indirect Expenses for FY16 total \$47.0 million, a decrease of \$345,000 or 0.7% from FY15 Budget Actuals. Below are the highlights of major changes:

The budget includes \$28.1 million for the Division of Water Supply Protection (formerly MDC Division of Watershed Management), an increase of \$938,000 or 3.4% over FY15 Actuals. The budget is comprised of \$14.1 million for reimbursement of operating expenses net of revenues, \$8.3 million for Payment in Lieu of Taxes (PILOT), and \$5.6 million for debt service expenses on prior land purchases financed by the Commonwealth. The largest increases are for operating expenses net of revenues of \$394,000 mainly for contractual increases and Payment in Lieu of Taxes of \$200,000.

The budget includes \$8.2 million for the Retirement Fund, an increase of \$343,000 or 4.4% over FY15 Actuals required contribution. This funding of \$8.2 million represents the minimum required contribution for FY16 based on the actuarial valuation of January 1, 2013, and confirmed by the January 1, 2015 actuarial report.

The budget includes \$1.9 million for the Harbor Energy Electric Company (HEEC), a decrease of \$744,000 or 27.7% from FY15 Actuals. This funding is for the repayment of the capital investment for the Deer Island electric cable and substation which provides electric power to the treatment plant. The significant decrease is due to contractual obligations which expired in May 2015, ending the amortization of the cable financing component of the capital investment.

The budget includes \$2.2 million for Insurance nearly matching FY15's Actuals. The FY16 Budget was based on actual average spending for the past five years, FY10-14. It should be noted that at the June 3rd meeting, the Board of Directors approved the MWRA FY16 Insurance program with a not to exceed estimate of \$290,000 for the excess liability coverage line item. Since the June 3rd Board meeting, staff obtained the actual amount for the excess liability coverage which was \$267,000, for a savings of \$23,000.

The Authority has complied with the GASB 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions (OPEB)*, by disclosing this liability in the year-end Financial Statements. As part of the multi-year strategy to address its unfunded liabilities for OPEB and pension holistically, the Board approved a plan to pay down our pension liability and upon reaching full funding, move to address the OPEB obligation. This strategy was employed in the FY08-15 budgets (although temporarily halted in FY11 to achieve a 1.5% rate increase). Based on the latest actuarial evaluation, MWRA's pension fund is at 98.3% funding level, which is considered virtually fully funded. As such, in the Final FY16 Budget the Authority will begin funding its OPEB liability at \$5.2 million, continuing the Authority's long-term commitment to address its liabilities. Furthermore, to maximize the benefits in terms of returns and accounting treatment, an irrevocable OPEB Trust was established after Board approval and funding started on April 23rd, 2015 with \$10,800,000 deposit. The source of the deposit is \$10 million cash reserves which became available due to the Amended and Revised Bond Indenture, and \$800,000 from funds appropriated in FY10 for funding OPEB.

Funding for the Operating Reserve for FY16 is \$518,000 lower than the FY15 Budget. The Operating Reserve balance is in compliance with MWRA General Bond Resolution which requires a balance of one-sixth of annual operating expenses. Based on the Final FY16 Budget the required balance is \$39.4 million versus the \$39.5 million required in FY15.

Capital Financing

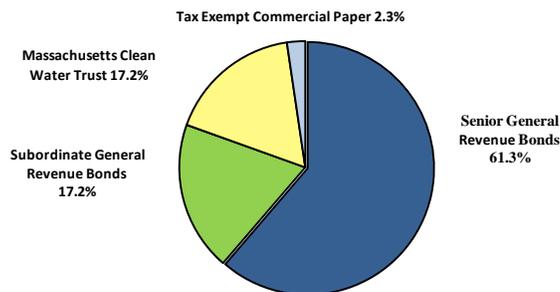
Outstanding Debt and Debt Management

The \$7.9 billion spent on MWRA's modernization efforts to date, has relied heavily on debt financing. Total debt as of June 30, 2015 was \$5.6 billion consisting of senior and subordinated debt, as well as Tax-Exempt Commercial Paper. The MWRA enjoys strong unenhanced senior debt ratings of Aa1, AA+, and AA+ from Moody's, Standard & Poor, and Fitch, respectively.

Type	Principal Outstanding June 30, 2015	% of Total
Senior General Revenue Bonds	\$ 3,434,620,000	61.3%
Massachusetts Clean Water Trust	\$ 1,076,000,218	19.2%
Subordinate General Revenue Bonds	\$ 963,370,000	17.2%
Tax Exempt Commercial Paper	\$ 130,000,000	2.3%
Total	\$ 5,603,990,218	100.0%

80.5% of MWRA's Debt is Fixed Rate

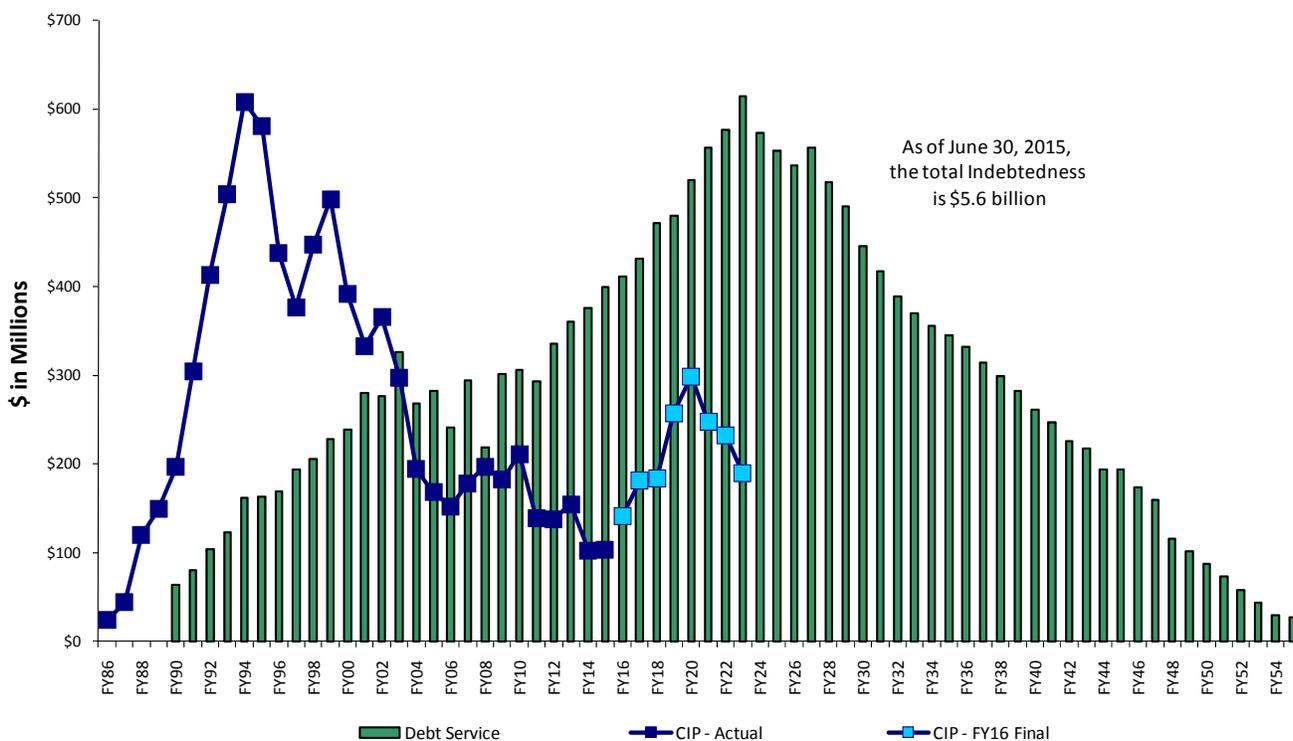
Principal Outstanding



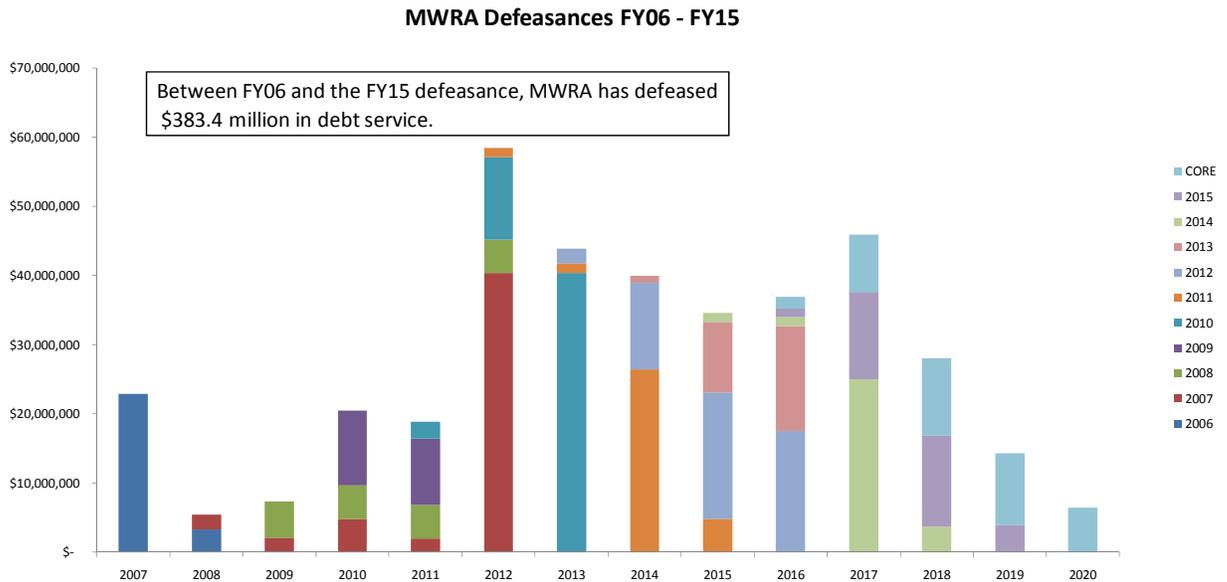
The following graph was updated with The Final FY16 CIP spending and debt service projections to illustrate the relationship between the MWRA’s CIP and debt service.

Over the past 25 years, MWRA has been focused on construction of new water and sewer facilities, many of which had been neglected for years, to bring the system into regulatory compliance. These efforts relied heavily on debt financing. Going forward, the majority of capital spending will be geared towards asset protection and water redundancy initiatives. As indicated above, as of June 30, 2015, MWRA’s total debt was \$5.6 billion which relate to the significant increases in debt service obligations in the upcoming years. The Authority’s debt service obligation as a percent of total expenses has increased from 36% in 1990 to over 61% in the Final FY16 Budget, thus continuing to be the largest challenge for the Authority to manage assessments in future years.

MWRA Capital Improvement Spending & Debt Service



MWRA continues to actively manage its debt structure to take advantage of favorable interest rates. Tools used by the MWRA to lower borrowing costs and manage rates include current and advanced refunding of outstanding debt, maximizing the use of the subsidized State Revolving Fund (SRF) debt, and the use of surplus revenues to defease debt. The MWRA also uses Tax-Exempt Commercial Paper to minimize the financing cost of construction in process. Since 2006, the Authority has used these tools to defease over \$383.4 million in debt as illustrated on the graph on the next page.



The Final FY16 Budget capital financing costs total \$432.7 million and remain the largest portion of the MWRA’s budget and includes a targeted defeasance which will reduce debt service by approximately \$903,000 in FY16, \$8.6 million in FY17, \$9.6 million in FY18, and \$1.4 million in FY19.

The Final FY16 Budget assumes a 3.25% interest rate for variable rate debt which is the same level as in FY15. The Authority’s variable rate debt assumption is comprised of three separate elements: the interest rate for the daily and weekly series; liquidity fees for the Standby Bond Purchase Agreement, Letter of Credit, and Direct Purchase providers; and remarketing fees. While MWRA continues to experience unusually low interest rates, they are not reflective of historical averages and there is no guarantee that rates will stay low.

The Final FY16 Budget capital financing costs increased by \$23.5 million or 5.7% compared to the FY15 actuals. This increase in the MWRA’s debt service is the result of projected FY16 issuances partially offset by the impact of the projected defeasance. The Final FY16 capital financing budget includes:

- \$283.0 million in principal and interest payments on MWRA’s senior fixed rate bonds. This amount includes \$6.5 million to support issuances of \$100 million in June 2015 and \$1.8 million to support issuances of \$100 million of new money in June 2016.
- \$49.2 million in principal and interest payments on subordinate bonds;

- \$81.9 million in principal and interest payments on SRF loans. This amount includes \$5.4 million to support issuances of \$16.0 million in Spring 2015 and \$46.5 million in 2016;
- \$11.2 million to fund ongoing capital projects with current revenue and to meet coverage requirements;
- \$4.1 million to fund the interest expense related to the Local Water Pipeline Assistance Program;
- \$3.2 million for the Chelsea Lease; and

The table below provides detail on The Final FY16 Budget capital financing line item. It further illustrates how upgrading the sewerage system has dominated the capital program to date. Current and future borrowings increasingly support improvements to the water system. A complete list of the Authority's indebtedness by series is presented in Appendix F.

	Amount Outstanding	Total FY16 Capital Costs	Sewer	Water
Total SRF ¹ Debt	\$1,076.0	\$81.9	\$63.9	\$18.0
Total Senior Debt	\$3,434.6	283.0	181.5	101.5
Total Subordinate Debt	\$963.4	49.2	34.8	14.4
Total SRF and Debt Service²	\$5,474.0	\$414.1	\$280.3	\$133.8
Water Pipeline Commercial Paper	130.0	4.1	0.0	4.1
Current Revenue/Capital ³		11.2	11.2	0.0
Capital Lease		3.2	1.9	1.3
CORE Fund Deposit		0.0	0.0	0.0
	130.0	\$18.6	\$13.1	\$5.4
Total Capital Financing (before Debt Service Offsets)	5,604.0	\$432.7	\$293.4	\$139.3
Debt Service Offsets:				
Debt Service Assistance		0.0	0.0	0.0
Bond Redemption		0.0	0.0	0.0
Total Capital Financing	5,604.0	\$432.7	\$293.4	\$139.3

¹ SRF debt service payments reflect net MWRA obligations after state and federal subsidies.

² Numbers may not add due to rounding.

³ Current Revenue/Capital is revenue used to fund ongoing capital projects.

Community Profile and Assessments

MWRA provides wholesale water and sewer services to 61 communities or local bodies. Fifty-one local bodies purchase water supply services, and 45 local bodies purchase wastewater transport and treatment services. Thirty-five local bodies purchase both. Approximately 2.9 million people, or 43% of the population of Massachusetts, live and work in the communities that purchase water and/or

wastewater services from MWRA.

MWRA's largest single customer is the Boston Water and Sewer Commission (BWSC), which provides retail services in the City of Boston. In the Final FY16 Budget, rate revenue from BWSC will account for 31% of MWRA's total rate revenue. The table on page I-20, lists MWRA communities, the services received, and the MWRA assessments for FY16.

Each year MWRA determines preliminary wholesale water and sewer assessments in February and final assessments in June before the beginning of the new fiscal year. These assessments must satisfy the statutory requirement that MWRA fully recover its budgeted water and sewer costs by apportioning net costs among its wholesale water and sewer customers.

The table on page I-21 presents the calculation of MWRA's Final FY16 Rate Revenue Requirement. The table shows that most of MWRA's current expenses are directly attributable to either water or sewer service costs, or to investment in the water or sewer systems. Expenses that support both systems are allocated to water or sewer assessments based on generally accepted cost allocation principles. Investment Income and Other Revenues offset water and sewer expenses. The resulting net cost of water and sewer services is the amount MWRA recovers through water and sewer assessments.

Wholesale Assessment Methodology

MWRA calculates separate user assessments for water and sewer services. Budgeted water operating and capital costs are allocated based on each community's share of total water use for the most recent calendar year. The sewer assessment methodology allocates budgeted operating and maintenance costs based on share of wastewater flow and strength parameters, and capital costs based on proportion of maximum flow, strength, and population. MWRA uses three-year averaging of wastewater flows to calculate the flow-related components of wholesale sewer assessments. Flow averaging moderates the short-term impact of year-to-year changes in community flow, but does not eliminate the long-term impact of changes in each community's relative contribution to the total flow.

MWRA Fully Served Water and Sewer Customers	Final FY15 Water Assessment	Final FY16 Water Assessment	Percent Change from FY15	Final FY15 Sewer Assessment	Final FY16 Sewer Assessment	Percent Change from FY15	Final FY15 Combined Assessment	Final FY16 Combined Assessment	Dollar Change from FY15	Percent Change from FY15
ARLINGTON	\$4,555,760	\$4,724,970	3.7%	\$7,726,704	\$7,699,278	-0.4%	\$12,282,464	\$12,424,248	\$141,784	1.2%
BELMONT	2,582,348	2,674,576	3.6%	4,664,723	4,624,861	-0.9%	7,247,071	7,299,437	52,366	0.7%
BOSTON (BWSC)	75,628,730	80,205,208	6.1%	128,143,674	129,701,392	1.2%	203,772,404	209,906,600	6,134,196	3.0%
BROOKLINE	6,529,438	6,910,863	5.8%	12,542,458	12,639,575	0.8%	19,071,896	19,550,438	478,542	2.5%
CHELSEA	3,782,023	4,155,184	9.9%	7,256,657	7,435,243	2.5%	11,038,680	11,590,427	551,747	5.0%
EVERETT	4,611,174	4,636,654	0.6%	7,816,187	8,056,404	3.1%	12,427,361	12,693,058	265,697	2.1%
FRAMINGHAM	7,583,720	8,243,826	8.7%	11,278,349	11,893,982	5.5%	18,862,069	20,137,808	1,275,739	6.8%
LEXINGTON	6,035,866	6,695,144	10.9%	7,177,414	6,970,176	-2.9%	13,213,280	13,665,320	452,040	3.4%
MALDEN	6,273,748	6,941,818	10.6%	12,260,112	12,439,049	1.5%	18,533,860	19,380,867	847,007	4.6%
MEDFORD	5,979,858	6,432,009	7.6%	11,075,116	11,355,458	2.5%	17,054,974	17,787,467	732,493	4.3%
MELROSE	2,650,477	2,853,930	7.7%	5,945,198	6,054,875	1.8%	8,595,675	8,908,805	313,130	3.6%
MILTON	2,854,051	3,156,824	10.6%	5,025,212	5,018,915	-0.1%	7,879,263	8,175,739	296,476	3.8%
NEWTON	10,437,524	12,205,271	16.9%	20,176,404	19,710,607	-2.3%	30,613,928	31,915,878	1,301,950	4.3%
NORWOOD	3,277,568	3,755,101	14.6%	6,492,751	6,718,885	3.5%	9,770,319	10,473,986	703,667	7.2%
QUINCY	10,605,214	11,918,042	12.4%	19,001,720	19,481,076	2.5%	29,606,934	31,399,118	1,792,184	6.1%
READING	1,931,410	2,032,766	5.2%	4,642,124	4,624,378	-0.4%	6,573,534	6,657,144	83,610	1.3%
REVERE	4,484,031	5,013,281	11.8%	10,193,891	10,261,623	0.7%	14,677,922	15,274,904	596,982	4.1%
SOMERVILLE	6,896,106	7,060,400	2.4%	14,845,808	15,585,894	5.0%	21,741,914	22,646,294	904,380	4.2%
STONEHAM	3,490,972	3,381,301	-3.1%	4,477,065	4,429,220	-1.1%	7,968,037	7,810,521	(157,516)	-2.0%
WALTHAM	8,061,502	8,631,171	7.1%	12,953,820	12,680,425	-2.1%	21,015,322	21,311,596	296,274	1.4%
WATERTOWN	3,096,347	3,392,382	9.6%	5,774,673	5,760,051	-0.3%	8,871,020	9,152,433	281,413	3.2%
WINTHROP	1,454,285	1,629,550	12.1%	3,221,355	3,183,339	-1.2%	4,675,640	4,812,889	137,249	2.9%
TOTAL	\$182,802,152	\$196,650,271	7.6%	\$322,691,415	\$326,324,706	1.1%	\$505,493,567	\$522,974,977	\$17,481,410	3.5%

MWRA Sewer and Partial Water Customers	Final FY15 Water Assessment	Final FY16 Water Assessment	Percent Change from FY15	Final FY15 Sewer Assessment	Final FY16 Sewer Assessment	Percent Change from FY15	Final FY15 Combined Assessment	Final FY16 Combined Assessment	Dollar Change from FY15	Percent Change from FY15
CANTON	\$991,292	\$1,286,728	29.8%	\$3,547,316	\$3,933,960	10.9%	\$4,538,608	\$5,220,688	\$682,080	15.0%
NEEDHAM	1,193,697	1,012,962	-15.1%	5,466,144	5,408,445	-1.1%	6,659,841	6,421,407	(238,434)	-3.6%
STOUGHTON	931,975	1,106,344	18.7%	4,391,426	4,392,863	0.0%	5,323,401	5,499,207	175,806	3.3%
WAKEFIELD	1,611,741	1,855,071	15.1%	5,594,367	5,563,282	-0.6%	7,206,108	7,418,353	212,245	2.9%
WELLESLEY	1,379,407	852,477	-38.2%	5,333,992	5,278,300	-1.0%	6,713,399	6,130,777	(582,622)	-8.7%
WILMINGTON	363,646	353,379	-2.8%	2,353,306	2,476,867	5.3%	2,716,952	2,830,246	113,294	4.2%
WINCHESTER	1,253,400	1,234,222	-1.5%	3,867,732	3,868,461	0.0%	5,121,132	5,102,683	(18,449)	-0.4%
WOBBURN	3,032,534	3,091,283	1.9%	9,535,730	9,492,994	-0.4%	12,568,264	12,584,277	16,013	0.1%
TOTAL	\$10,757,692	\$10,792,466	0.3%	\$40,090,013	\$40,415,172	0.8%	\$50,847,705	\$51,207,638	\$359,933	0.7%

MWRA Sewer-only Customers	Final FY15 Water Assessment	Final FY16 Water Assessment	Percent Change from FY15	Final FY15 Sewer Assessment	Final FY16 Sewer Assessment	Percent Change from FY15	Final FY15 Combined Assessment	Final FY16 Combined Assessment	Dollar Change from FY15	Percent Change from FY15
ASHLAND				\$2,310,206	\$2,380,635	3.0%	\$2,310,206	\$2,380,635	\$70,429	3.0%
BEDFORD				3,085,246	3,199,185	3.7%	3,085,246	3,199,185	113,939	3.7%
BRAINTREE				8,363,839	8,507,387	1.7%	8,363,839	8,507,387	143,548	1.7%
BURLINGTON				4,943,181	4,905,353	-0.8%	4,943,181	4,905,353	(37,828)	-0.8%
CAMBRIDGE				22,157,757	23,259,670	5.0%	22,157,757	23,259,670	1,101,913	5.0%
DEDHAM				5,024,472	5,063,931	0.8%	5,024,472	5,063,931	39,459	0.8%
HINGHAM SEWER DISTRICT				1,651,545	1,695,096	2.6%	1,651,545	1,695,096	43,551	2.6%
HOLBROOK				1,594,287	1,657,660	4.0%	1,594,287	1,657,660	63,373	4.0%
NATICK				5,330,710	5,526,614	3.7%	5,330,710	5,526,614	195,904	3.7%
RANDOLPH				5,931,064	6,011,817	1.4%	5,931,064	6,011,817	80,753	1.4%
WALPOLE				3,509,806	3,559,098	1.4%	3,509,806	3,559,098	49,292	1.4%
WESTWOOD				2,426,073	2,473,296	1.9%	2,426,073	2,473,296	47,223	1.9%
WEYMOUTH				10,972,561	11,087,503	1.0%	10,972,561	11,087,503	114,942	1.0%
TOTAL				\$77,300,747	\$79,327,245	2.6%	\$77,300,747	\$79,327,245	\$2,026,498	2.6%

MWRA Water-only Customers	Final FY15 Water Assessment	Final FY16 Water Assessment	Percent Change from FY15	Final FY15 Sewer Assessment	Final FY16 Sewer Assessment	Percent Change from FY15	Final FY15 Combined Assessment	Final FY16 Combined Assessment	Dollar Change from FY15	Percent Change from FY15
LYNNFIELD WATER DISTRICT	\$490,333	\$614,185	25.3%				\$490,333	\$614,185	\$123,852	25.3%
MARBLEHEAD	2,101,639	2,278,325	8.4%				2,101,639	2,278,325	176,686	8.4%
NAHANT	382,274	425,527	11.3%				382,274	425,527	43,253	11.3%
SAUGUS	3,202,440	3,645,083	13.8%				3,202,440	3,645,083	442,643	13.8%
SOUTHBOROUGH	765,656	850,020	11.0%				765,656	850,020	84,364	11.0%
SWAMPSCOTT	1,782,932	1,827,959	2.5%				1,782,932	1,827,959	45,027	2.5%
WESTON	1,993,015	2,240,675	12.4%				1,993,015	2,240,675	247,660	12.4%
TOTAL	\$10,718,289	\$11,881,774	10.9%				\$10,718,289	\$11,881,774	\$1,163,485	10.9%

MWRA Partial Water-only Customers	Final FY15 Water Assessment	Final FY16 Water Assessment	Percent Change from FY15	Final FY15 Sewer Assessment	Final FY16 Sewer Assessment	Percent Change from FY15	Final FY15 Combined Assessment	Final FY16 Combined Assessment	Dollar Change from FY15	Percent Change from FY15
DEDHAM-WESTWOOD WATER DISTRICT	\$49,042	\$305,532	523.0%				\$49,042	\$305,532	\$256,490	523.0%
LYNN (LWSC)	209,723	264,873	26.3%				209,723	264,873	55,150	26.3%
MARLBOROUGH	3,433,407	3,894,026	13.4%				3,433,407	3,894,026	460,619	13.4%
NORTHBOROUGH	1,044,206	1,103,542	5.7%				1,044,206	1,103,542	59,336	5.7%
PEABODY	1,219,096	1,480,393	21.4%				1,219,096	1,480,393	261,297	21.4%
TOTAL	\$5,955,474	\$7,048,366	18.4%				\$5,955,474	\$7,048,366	\$1,092,892	18.4%
SYSTEMS TOTAL	\$210,233,607	\$226,372,877	7.7%	\$440,082,175	\$446,067,123	1.4%	\$650,315,782	\$672,440,000	\$22,124,218	3.4%

Retail Charges

As noted above, MWRA provides water and sewer services to communities on a wholesale basis. Each community then re-sells services on a retail basis. As a result, household water and sewer charges include each household's share of the community's MWRA water and sewer assessments, plus the community's own charges for the provision of local water and sewer services.

Each community independently establishes retail rates. When establishing local rates, community officials consider issues related to the pricing of services, level of cost recovery, and the local rate structure or methodology. Several factors contribute to a broad range of local rate structures in the MWRA service area:

- Differences in the extent to which water and sewer costs are supported through property taxes and other sources of revenue;
- Differences in the means by which communities finance investments in their own water and sewer systems; and
- Differences in communities' retail rate methodologies.

Some communities have flat unit rates, while others have inclining block rates. Local rates may also provide for differentials among classes of users, such as higher rates for commercial or industrial users, abatements to low-income or elderly residents, and adjusted sewer rates for customers with second meters used for lawn irrigation.

Additional information on rate structure within the member communities is available on the MWRA Advisory Board website as part of its annual retail rate survey.

Calculation of the FY16 Rate Revenue Requirement (000's)

	Sewer	Water	Total
Allocated Direct Expenses	\$150,055	\$72,780	\$222,834
Allocated Indirect Expenses	\$12,998	\$33,955	\$46,953
PLUS			
Capital Expenses:			
Debt Service (less offsets)	\$280,282	\$133,842	\$414,123
Current Revenue for Capital	\$11,200	\$0	\$11,200
Other Capital Expenses	\$1,923	\$5,443	\$7,366
PLUS			
Non-Rate Revenue:			
Investment Income	-\$4,935	-\$4,418	-\$9,353
Fees and Other Revenue	-\$5,455	-\$15,229	-\$20,684
Rate Stabilization	\$0	\$0	\$0
EQUALS			
Rate Revenue Requirement	\$446,067	\$226,373	\$672,440

Revenue and Expenditure Trends

Because MWRA is required by its enabling act to balance its budget and to establish annual assessments to cover all expenses, revenue must change as expenses are changing each year. The Rate Revenue Requirement in any year is the difference between MWRA expenses and other revenue sources, most notably non-rate revenue, investment income, and debt service assistance from the Commonwealth (which directly reduces debt service expense). For FY16, community assessments are projected to represent 95.7% of total revenue.

MWRA's planning estimates are projections based on a series of assumptions about future spending (operating and capital), interest rates, inflation, and other factors. MWRA uses the planning estimates to model and project what future rate increases might be based upon these assumptions, as well as to test the impact of changes to assumptions on future rate increases. The planning estimates are not predictions of what rate increases will be but rather they provide the context and framework for guiding MWRA financial policy and management decision making that ultimately determine the level of actual rate increases on an annual basis. Conservative projections of future rate increases benefit the MWRA by providing assurance to the rating agencies that MWRA anticipates to raise revenues sufficient to pay for its operations and outstanding debt obligations now and over the long-term. Additionally, conservative forecasts of rate revenue increases enable member communities to adequately plan and budget for future payments to MWRA. However, the Authority continues to tighten certain planning estimate assumptions for future years and has limited annual capital spending to \$160.0 million.

MWRA also updates its estimates of anticipated revenues and expenses over a multi-year planning horizon. These estimates provide a context for budget discussions and allow MWRA to consider multiple-year rates management implications and strategies as it evaluates alternative capital and operating budget options, the ultimate goal being sustainable and predictable assessment increases.

The table below and Appendix D (in more detail) present the combined estimated future rate revenue requirements for FY16 through FY25. The planning estimates shown below assume no Debt Service Assistance from the Commonwealth and use of Rate Stabilization and Bond Redemption reserves through FY2023 to manage the rate increases. These projections also include the release of cash and debt service reserves starting in FY16 as a result of Bond Indenture changes.

Rates & Budget Projections											
FY16 Final CEB	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Total Rate Revenue (\$000)	\$ 650,316	\$ 672,440	\$ 698,606	\$ 725,790	\$ 753,918	\$ 783,697	\$ 824,471	\$ 865,825	\$ 836,159	\$ 822,366	\$ 813,431
Rate Revenue Change from Prior Year (\$000)	\$ 21,595	\$ 22,124	\$ 26,166	\$ 27,184	\$ 28,128	\$ 29,779	\$ 40,774	\$ 41,355	\$ (29,666)	\$ (13,793)	\$ (8,935)
Rate Revenue Increase	3.4%	3.4%	3.9%	3.9%	3.9%	3.9%	5.2%	5.0%	-3.4%	-1.6%	-1.1%
Use of Reserves (\$000)	\$ 6,746	\$ -	\$ -	\$ -	\$ -	\$ 34,682	\$ 13,646	\$ 13,136	\$ 1,156	\$ -	\$ -

Estimated Household Bill

Based on annual water usage of 61,000 gallons	\$1,007	\$1,055	\$1,100	\$1,154	\$1,204	\$1,253	\$1,326	\$1,393	\$1,425	\$1,460	\$1,497
Based on annual water usage of 90,000 gallons	\$1,486	\$1,556	\$1,622	\$1,703	\$1,777	\$1,848	\$1,956	\$2,055	\$2,102	\$2,154	\$2,208

Increasing debt service to pay down and finance the capital improvement program is the most important factor driving estimates of future budget increases. Over the past several years MWRA's Tax-Exempt Commercial Paper program, debt refinancing, federal grants, SRF loans, and Commonwealth debt service assistance have mitigated the impact on ratepayers of new capital spending. However, new water system improvements, for which there are fewer non-ratepayer sources of funding, and the impact of new financing will increase MWRA capital financing costs over the next several years.

MWRA employs rates management tools where available (e.g. refunding for savings, extended maturities on future borrowings, variable rate debt, and increased use of Tax-Exempt Commercial Paper) to help cushion and smooth the growth in capital financing expenses. Despite these initiatives, the size of the capital program will unavoidably continue to drive increases in community assessments.

The second largest budget factor is projected growth of base operating costs. The estimated \$61.1 million increase in direct expenses from FY16 to FY25 is primarily the result of an assumed annual inflation rate.

MWRA's planning estimates are projections based on a series of assumptions about future spending (operating and capital), interest rates, inflation, and other factors. The assumptions include:

- Direct expense inflation rate of 2.5% for salaries and 3.0% for other direct expenses starting in FY17;
- CIP inflation rate of 2.5%;
- Capital spending based on the latest CIP expenditure forecast up to FY18, and spending is capped at \$160 million per year starting in FY18;
- Long-term fixed rate debt issues with 30-year terms and 5.0% interest rates in FY16, 5.5% rates in FY17, 5.75% rates in FY18 and 6.0% rates from FY19 and beyond;
- Variable rate interest projected at 3.25% in FY16, 3.50% in FY17, 3.75% in FY18, and 4.0% thereafter.

The planning estimates generally use conservative assumptions to help communities plan for future payments to MWRA.

There are several areas where differences from planning estimate assumptions may alter projected increases:

- Changes in anticipated borrowing rates or expected investment income rates;
- The planning estimates do not factor in any positive year-end variances which may be used to defease debt or reserved to offset Rate Revenue Requirements in future years;
- Fewer opportunities for SRF borrowing than expected due to Federal Budget cuts; a dollar borrowed through the SRF at 2% replaces the need to borrow a dollar long-term at an assumed 5% rate;
- Overall inflationary pressures;
- Debt refinancing opportunities;
- Capital spending; and
- Growth in direct expenses, greater than current assumptions is an area of increased concern. Many of the savings in prior years through staffing reductions, optimization of operations, and scope

revisions to professional services are already reflected in the budget. More importantly, going forward the MWRA is faced with a growing need to maintain its facilities and ensure that adequate funding is available.

As in the past, the peak years on the next ten-year horizon regarding assessments are driven by the current debt structure. FY20 still represents a significant challenge for the Authority from a long-term rates management perspective.

FY16 Final Capital Improvement Program

The Final FY16 Capital Improvement Program totals \$6.0 billion of which approximately \$3.8 billion has been spent through FY14 with a remaining balance of \$2.2 billion. It is important to note that the totals represented above do not include the Boston Harbor Project and some other smaller projects removed from the CIP upon completion. These projects totaled approximately \$4.1 billion. In FY16, the Authority will also reach a significant milestone as the court mandated Combined Sewer Overflow (CSO) program is nearing completion.

FY16 spending is projected to be \$140.5 million of which \$88.1 million supports Wastewater System Improvements, \$43.4 million supports Waterworks System Improvements, and \$9.0 million is for Business and Operations Support.

FY14-18 Cap Spending

Based on the Final FY16 CIP, the five-year spending is now at \$689.1 million, which is \$102.5 million or 13.0% below the base-line cap and is attributable to exclusion of the Community Assistance Programs, cash flow changes between the years based on the latest cost estimates, and updated schedules. The exclusion of the Community Assistance Programs from the Cap calculation account for a reduction of \$65.0 million.

Final FY16 Cap FY14-18 Comparison

Final FY16		FY14	FY15	FY16	FY17	FY18	Total FY14-18
		Projected Expenditures	\$102.2	\$104.7	\$140.5	\$180.8	\$183.4
	Contingency	0.0	4.7	7.6	11.1	11.4	34.8
	Inflation on Unawarded Construction	0.0	0.0	1.1	5.4	8.6	15.1
	Less: I/I Program	0.0	(17.2)	(17.2)	(18.9)	(17.6)	(71.0)
	Less: Water Loan Program	0.0	1.4	2.2	2.5	(0.1)	6.0
	Less: Chicopee Valley Aqueduct Projects	(5.6)	(1.4)	(0.1)	(0.1)	(0.2)	(7.3)
	FY16 Draft Final FY14-18 Spending	\$96.6	\$92.2	\$134.1	\$180.8	\$185.5	\$689.1

Final FY16 vs. FY14-18 Base-Line Cap		FY14	FY15	FY16	FY17	FY18	Total FY14-18
		Projected Expenditures	(\$40.3)	(\$42.9)	(\$8.8)	\$39.1	\$46.5
	Contingency	(7.6)	(4.8)	(2.4)	1.3	2.1	(11.3)
	Inflation on Unawarded Construction	(0.8)	(4.2)	(7.3)	(5.7)	(4.9)	(22.8)
	Less: I/I Program	0.0	(17.2)	(17.2)	(18.9)	(17.6)	(71.0)
	Less: Water Loan Program	0.0	1.4	2.2	2.5	(0.1)	6.0
	Less: Chicopee Valley Aqueduct Projects	(0.6)	0.7	1.4	1.2	0.2	3.0
	FY14-18 Cap (\$ Change)	(\$49.2)	(\$66.9)	(\$32.2)	\$19.5	\$26.3	(\$102.5)
	FY14-18 Cap (% Change)	-33.8%	-42.1%	-19.4%	12.1%	16.6%	-13.0%

The FY14-18 Cap based on the Final FY16 CIP complies with both the overall and annual Cap requirements.

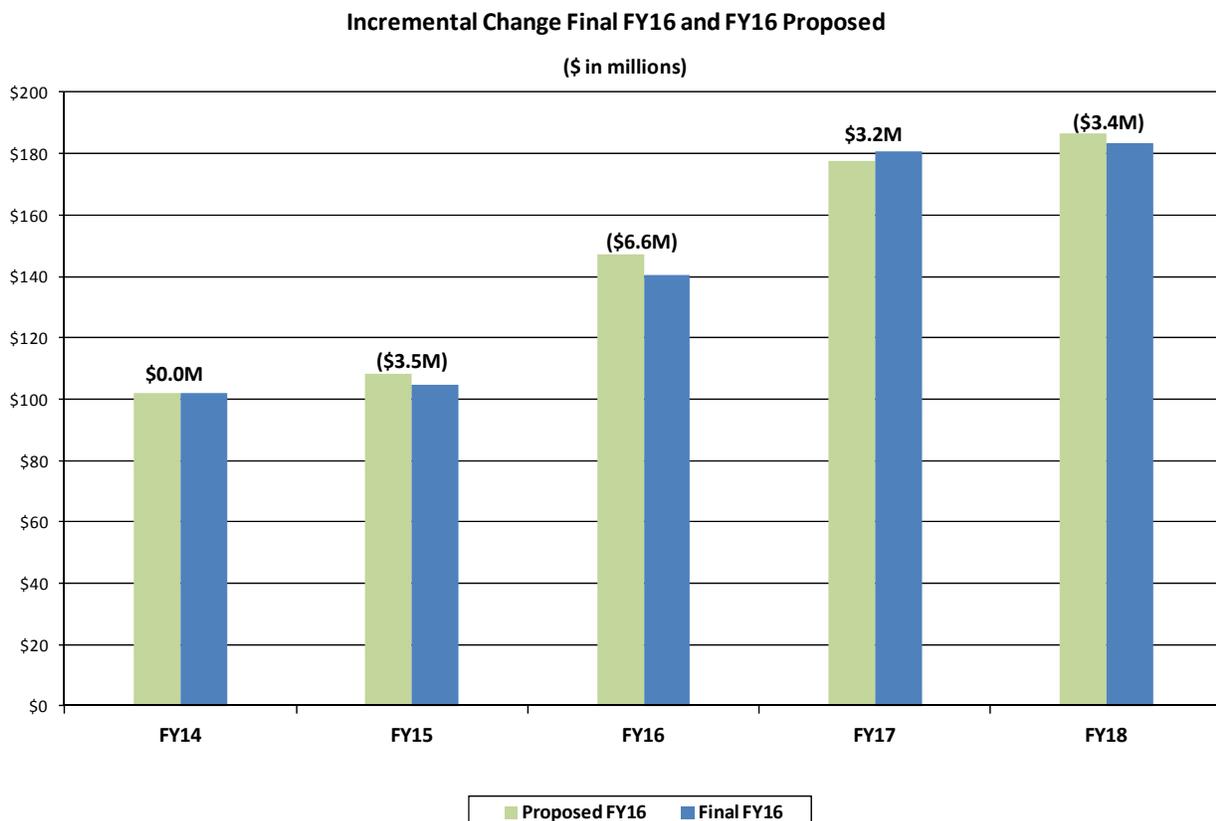
Final FY16 CIP Compared to the FY16 Proposed CIP by Program

The Final FY16 CIP increased by \$3.2 million versus the FY16 Proposed CIP approved by the Board of Directors in June 2015, with most of the additional spending in years outside of the current Cap period.

	Proposed FY16	Final FY16	\$ Change	% Change	Proposed FY16 FY14-18	Final FY16 FY14-18	FY14-18 \$ Change	FY14-18 % Change
Wastewater Systems Improvements	\$ 2,975.5	\$ 2,974.6	\$ (0.9)	0.0%	\$ 432.0	\$ 419.3	\$ (12.7)	-2.9%
Waterworks System Improvements	2,906.7	2,909.4	2.7	0.1%	248.3	251.3	3.0	1.2%
Business and Operations Support	127.0	128.4	1.4	1.1%	41.5	40.9	(0.6)	-1.4%
Total MWRA without contingency	\$ 6,009.2	\$ 6,012.4	\$ 3.2	0.1%	\$ 721.8	\$ 711.5	\$ (10.3)	-1.4%

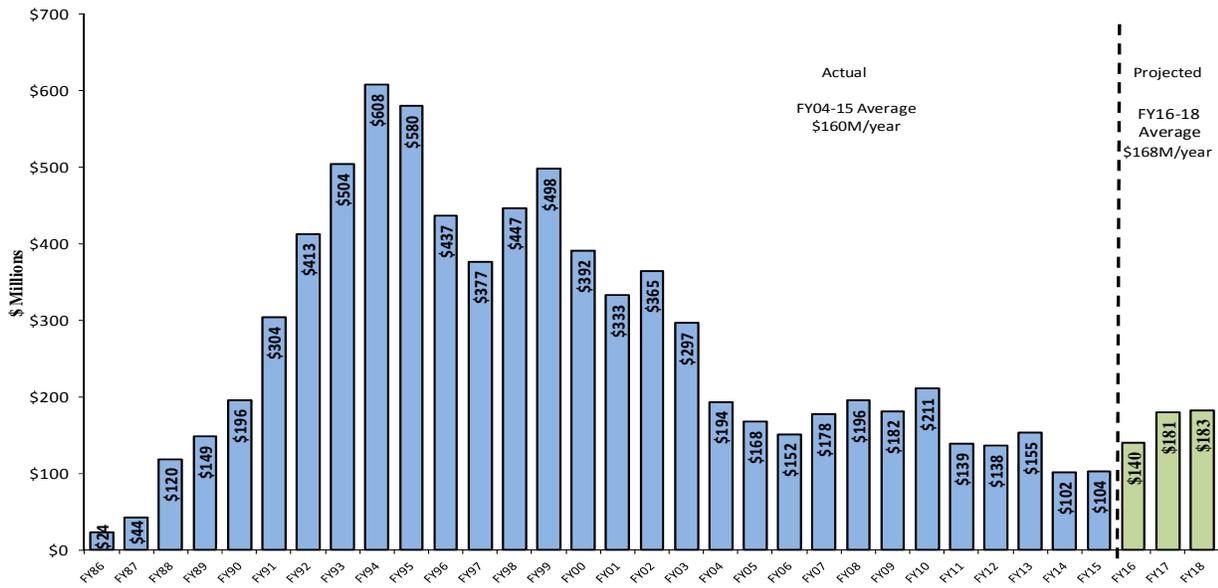
The Final FY16 CIP is primarily level funded with the Proposed FY16 CIP and reflects updated scope changes and cost estimates, particularly in the FY14-18 timeframe.

The chart below shows the incremental change between the Final FY16 CIP and the Proposed FY16 CIP by fiscal year.



Historical Spending

The chart on the following page captures the historical CIP spending through FY14 and projects spending to FY18 based on the Final FY16 CIP.



Changing Nature of the Capital Program - Shift from Mandated Projects

Since 1985, nearly 80% of the Authority's spending has been on court mandated projects. Going forward, the majority of spending will support Asset Protection, Water System Redundancy, Pipeline Replacement and Rehabilitation, and continued support for Community Assistance programs. Asset Protection and Water System Redundancy spending is projected to rise from past levels and currently accounts for 56.4% and 25.8% of FY14-18 capital expenditures respectively, a total of nearly \$585.0 million of the \$711.5 million projected to be spent over the 5-year period.

	Total Contract	FY09-13	FY14-18	FY19-23	Beyond 23
Asset Protection	\$2,254.7	\$248.0	\$401.2	\$734.8	\$235.3
Carroll WTP	438.2	38.5	15.2	11.8	0.0
Water Redundancy	1895.0	134.7	183.8	495.3	218.5
CSO	873.8	315.5	57.7	3.0	0.0
Other	550.7	88.4	53.6	-21.1	-64.8
Total	\$6,012.4	\$825.1	\$711.5	\$1,223.8	\$389.0
Asset Protection	37.5%	30.1%	56.4%	60.0%	60.5%
Carroll WTP	7.3%	4.7%	2.1%	1.0%	0.0%
Water Redundancy	31.5%	16.3%	25.8%	40.5%	56.2%
CSO	14.5%	38.2%	8.1%	0.2%	0.0%
Other	9.2%	10.7%	7.5%	-1.7%	-16.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

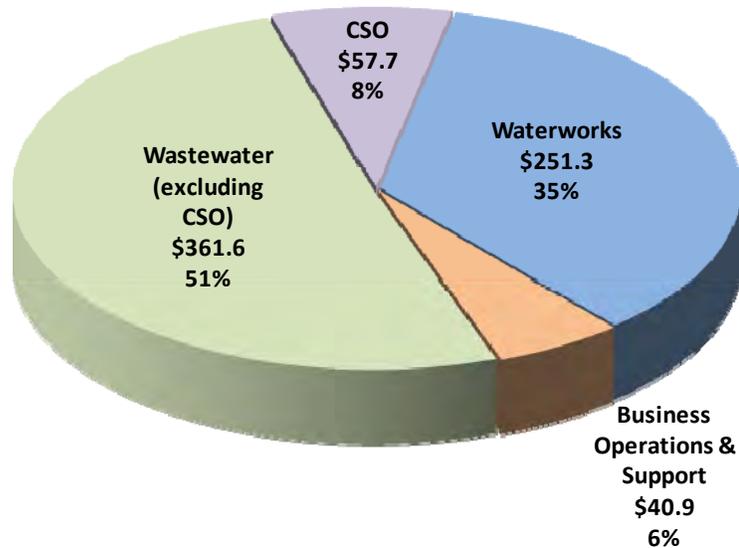
The Final FY16 projects total CIP spending of \$2.2 billion starting in FY15.

Final FY16 FY14-18 CIP Expenditures

Spending during the FY14-18 timeframe is projected to be \$711.5 million. Yearly cash-flows for the Cap period are shown below:

	Total Contract Amount	Payments Thru FY14	Projected Spending	FY14	FY15	FY16	FY17	FY18	Total FY14-18
Wastewater System Improvements	\$2,974.6	\$1,791.7	\$1,182.9	\$55.7	\$71.5	\$88.1	\$108.3	\$95.7	\$419.3
Interception & Pumping	890.0	527.4	362.6	6.9	9.5	20.1	32.2	29.3	98.0
Treatment	775.6	213.8	561.8	29.1	21.5	37.6	50.2	45.7	184.0
Residuals	167.6	64.6	103.0	0.1	-	-	2.9	1.6	4.6
CSO	898.5	853.3	45.2	15.6	23.3	13.2	4.1	1.5	57.7
Other Wastewater	242.9	132.5	110.3	4.0	17.2	17.2	18.9	17.6	75.0
Waterworks System Improvements	\$2,909.4	\$1,915.6	\$993.8	\$41.0	\$26.3	\$43.4	\$62.9	\$77.7	\$251.3
Drinking Water Quality Improvements	666.3	625.4	40.9	30.2	15.1	6.4	4.9	2.3	58.9
Transmission	1,224.2	759.5	464.7	4.5	3.0	19.5	24.3	27.5	78.8
Distribution & Pumping	949.1	377.5	571.6	4.8	9.1	17.4	31.9	42.6	105.8
Other Waterworks	69.8	153.2	(83.4)	1.5	(0.9)	0.1	1.8	5.2	7.8
Business & Operations Support	128.4	83.0	45.4	5.5	6.9	9.0	9.6	10.0	40.9
Total MWRA	\$6,012.4	\$3,790.3	\$2,222.1	\$102.2	\$104.7	\$140.5	\$180.8	\$183.4	\$711.5

The graph below illustrates a breakdown of the major program spending for the FY14-18 timeframe.

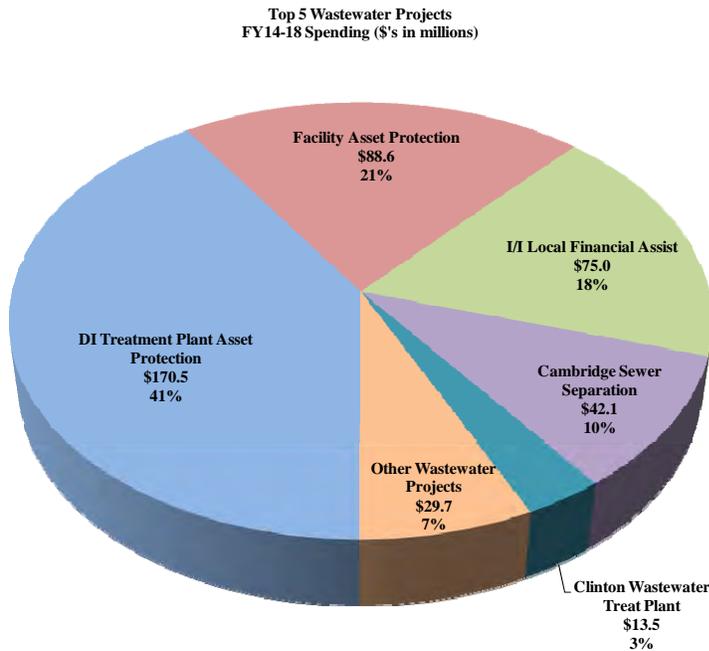


Top 10 Projects – FY14-18 Cap Period

It is important to emphasize that the majority of spending within the Wastewater and Water Capital programs is concentrated in several larger projects with significant spending in the FY14-18 timeframe. These projects are either currently under construction or soon to be awarded. The top 5 projects for the Wastewater program total \$389.7 million for FY14-18 period and represent 93.0% of the \$432.0 million total program.

Project	Total Contract Amount	FY14-18 Spending	% of Program
DI Treatment Plant Asset Protection	\$ 720.4	\$ 170.5	41%
Facility Asset Protection	311.8	88.6	21%
I/I Local Financial Assist	242.6	75.0	18%
Cambridge Sewer Separation	92.6	42.1	10%
Clinton Wastewater Treat Plant	20.5	13.5	3%
Total Top 5 Wastewater Projects	\$ 1,387.8	\$ 389.7	93%
Other Wastewater Projects	1,586.8	29.7	7%
Total Wastewater	\$ 2,974.6	\$ 419.3	100%

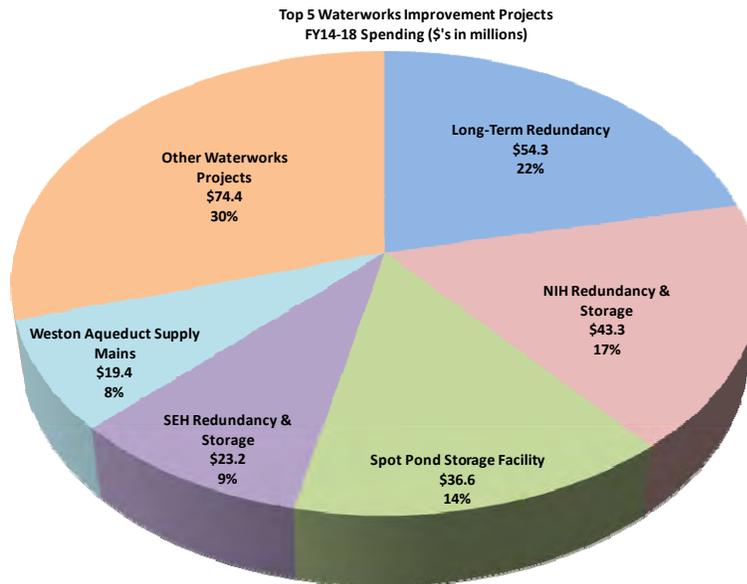
The breakdown of the \$419.3 million program by the major projects is illustrated below:



Similarly, the top five projects for the Waterworks program total \$176.9 million for FY14-18 and represent 70% of the \$251.3 million total program.

Project	Total Contract Amount	FY14-18 Spending	% of Program
Long-Term Redundancy	\$ 409.4	\$ 54.3	22%
NIH Redundancy & Storage	90.2	43.3	17%
Spot Pond Storage Facility	61.2	36.6	15%
SEH Redundancy & Storage	99.5	23.2	9%
Weston Aqueduct Supply Mains	281.1	19.4	8%
Total Top 5 Waterworks Projects	\$ 941.4	\$ 176.9	70%
Other Waterworks Projects	1,968.0	74.4	30%
Total Waterworks	\$ 2,909.4	\$ 251.3	100%

The breakdown of the \$251.3 million program by the major projects is illustrated below:



Future Risks

Going forward the largest decision that MWRA will have to make is pertaining to the Long-Term Redundancy project specifically the Sudbury Aqueduct alternatives plans. That decision will have a significant impact on the capital program for the next 10-15 years.

CIP Impact on Current Expense Budget

In addition to the annual financing costs included in the Current Expense Budget, the Capital Improvement Program affects the annual operating budget when capital facilities come on-line and require adjustments to operating budgets. In prior years, completion of the Deer Island Treatment Plant, the Carroll Water Treatment Plant, and the residuals processing facility in Quincy resulted in significant increases in operating expenses. Operating costs will be reduced by approximately \$623,000 through FY26, primarily due to Asset Protection projects at the Deer Island Treatment Plant. These reductions will be offset by IS program related maintenance initiatives that are projected to increase operating costs by nearly \$699,000 by FY26. The following table summarizes the projected CIP impact on the operating budget by project over the next ten years, beginning in FY16.

Fiscal Year	CEB Impacts (000)										
	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Total
DI Treatment Plant Asset Protection (not including Co-Digestion or Combined Heat and Power Plant)	(\$278)	(\$16)	\$202	(\$225)	(\$290)	(\$72)	\$0	\$0	\$0	\$0	(\$678)
DI Treatment Plant Asset Protection - Co-Digestion ONLY	0	0	0	0	0	0	0	0	0	0	0
Clinton Phosphorous Removal Project	0	30	31	0	0	0	0	0	0	0	61
Wastewater Alternative Energy Projects	0	0	0	0	0	0	0	0	0	0	0
North Dorchester Bay	0	371	(382)	0	0	0	430	(443)	0	0	(24)
Total Wastewater (inflated)	(\$278)	\$386	(\$149)	(\$225)	(\$290)	(\$72)	\$430	(\$443)	\$0	\$0	(\$641)
Carroll Water Treatment Plant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Quabbin Water Treatment Plant	0	0	0	0	0	0	0	0	0	0	0
Wachusett Algae Treatment Facility	0	0	0	0	41	42	0	0	0	0	82
Spot Pond Storage Facility	0	0	0	0	0	0	0	0	0	0	0
Water Energy Projects	0	(32)	(33)	0	0	0	0	0	0	0	(65)
Total Water (inflated)	\$0	(\$32)	(\$33)	\$0	\$41	\$42	\$0	\$0	\$0	\$0	\$18
Maximo Upgrades & Lawson Enhancements	\$52	\$106	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$158
Storage Upgrades	0	106	109	0	0	0	0	0	0	0	215
Telecommunications	0	0	27	0	0	0	0	0	0	0	27
NET 2020 DITP & Southborough	0	0	0	0	0	0	0	0	0	0	0
Information Security Program	0	32	0	0	0	0	0	0	0	0	32
Information Technology Management Program	72	0	0	0	0	0	0	0	0	0	72
Application Improvement Program	0	0	0	84	0	0	0	0	0	0	84
IT Infrastructure Program	0	0	111	0	0	0	0	0	0	0	111
Total Business and Operations Support (inflated)	\$124	\$244	\$247	\$84	\$0	\$0	\$0	\$0	\$0	\$0	\$699
TOTAL MWRA	(\$155)	\$598	\$65	(\$141)	(\$249)	(\$30)	\$430	(\$443)	\$0	\$0	\$76

Capital Financing and Grant Revenues

In the past, MWRA has been able to finance approximately 20 percent of its capital spending with grant receipts, totaling approximately \$1.1 billion through FY03. However, since FY03, the MWRA has only received \$4.9 million in capital grants. In addition to participating in federal and state grant programs, the MWRA benefitted from the American Recovery and Reinvestment Act of 2009 which is projected to forgive approximately \$33.0 million in State Revolving Fund loan principal. The Authority continues to pursue grant funding and take advantage of any possible program available to maximize grant funding opportunities.

MWRA expects to borrow the majority of funds necessary for future capital spending. Borrowing will include the issuance of fixed and variable rate revenue bonds; borrowing from the Massachusetts Clean Water Trust (also known as the State Revolving Loan Fund or SRF), and a Tax-Exempt Commercial Paper program.

MWRA Organization and History

The MWRA Enabling Act

MWRA was created by legislative act in 1984, and inherited the Sewerage and Waterworks Divisions

of the Commonwealth of Massachusetts Metropolitan District Commission (MDC). In July 1985, MWRA assumed control of the water and sewer systems, including facilities, properties, and the right to utilize water withdrawn from system reservoirs. The Commonwealth, under the management of the MDC Watershed Management Division (now the Department of Conservation and Recreation – Division of Watershed Management), retained ownership of real property, including the reservoirs and watersheds.

The Enabling Act also established the MWRA Advisory Board to represent the cities and towns in the service area. The Advisory Board appoints three members of the MWRA Board of Directors, approves the extension of water and sewer services to additional communities, and reviews and makes recommendations on MWRA's annual Current Expense Budget and Capital Improvement Program.

In 1987, the legislature transferred responsibility to operate and maintain the Clinton Wastewater Treatment Plant from the Commonwealth to the MWRA.

History and Accomplishments

In 1985, the U.S. District Court for Massachusetts found MDC in violation of numerous aspects of the federal Clean Water Act, and the responsibility for those violations passed to MWRA as successor to MDC. The court issued a detailed compliance schedule for actions to be taken by MWRA to achieve and maintain compliance with the Clean Water Act.

MWRA achieved all of the milestones in the schedule related to the construction of treatment facilities on Deer Island, and is working to achieve milestones with respect to implementation of its long-term Combined Sewer Overflow (CSO) control plan. These achievements have made noticeable, measurable improvements in the quality of Boston Harbor and its beaches.

MWRA is also working to achieve compliance with an extensive consent order issued by the Massachusetts Department of Environmental Protection (MassDEP) mandating the steps necessary to achieve required improvements to the MWRA water system.

MWRA Rates Management

Between FY96 and FY02 the MWRA limited rate revenue increases to an average of 3.6% annually as a result of debt service assistance from the Commonwealth, federal grants to support the Boston Harbor Project, lower borrowing costs, use of financing tools that delayed costs to later years, a favorable bid climate for construction projects, and aggressive efforts to control capital and operating costs.

As debt service costs resulting from mandated capital investment have steadily increased, MWRA's dependence on rising debt service assistance (DSA) allocations have similarly increased. DSA reached a high of \$50.2 million in FY02. In FY03, in response to a state-wide recession, debt service assistance was eliminated and as a result, MWRA was forced to have an unprecedented mid-year rate adjustment, increasing the rate increase from 2.9% to 6.9% as part of an overall strategy in response to cover the loss. Additionally, the Authority made substantial cuts to both its capital improvement program and current expense budgets. Reductions in debt service assistance result in greater reliance on reserves, budget cuts or a combination of the two. In response to a strengthening local economy, debt service assistance was restored in FY04 at the level of \$4.1 million. In the following four years,

the debt service allocation increased to \$8.0 million in FY05, \$9.6 million in FY06, \$19.0 million in FY07, and \$17.0 million in FY08. In light of the economic downturn in the ensuing years, no Debt Service Assistance was received in FY09-11. In FY12, it was once again restored at a reduced level of \$384,000 but was once again eliminated in FY13 through 9C cuts. For the FY14 and FY15 budgets, no Debt Service Assistance was assumed but the Authority received \$854,000 of Debt Service Assistance in March 2014.

Planning estimates for 2016 through 2025 forecast rate revenue requirement increases of 3.4% in FY16, 3.9% annually from FY17 through FY20, 5.2% in FY21, 5.0% in FY22, and decreases of 3.4%, 1.6%, and 1.1% in years FY23, FY24, and FY25, respectively.

In FY06, the MWRA formed a Rates Management Committee to evaluate the Authority's debt portfolio and credit structure to propose recommendations that deliver responsible short-term solutions for mitigating imminent rate spikes and long-term strategies for achieving sustainable and predictable rates. In line with the Board of Directors' strategy to deliver long-term sustainable and predictable rates for our 61 ratepayer communities, the MWRA initially preserved the scheduled use of its reserves for future years when projected rate increases are more significant. The change to the indenture released more than \$113 million in reserves in April 2015 and was applied in future years to mitigate rate increases.

The FY16 Budget:

- Continues to refine planning estimates assumptions to provide greater predictability of future assessments;
- Judiciously uses reserves to lower rate increases, but maintain adequate balances; and
- Continues the Authority's multi-year rates management strategy of providing sustainable and predictable assessment increases to our member communities.

MWRA Organization

MWRA has five separate divisions and the Affirmative Action and Compliance Unit Department (AACU).

Each division provides operations or support services to carry out MWRA's activities under the direction of the Executive Office. MWRA's organizational structure is included in the document before the Table of Contents.

The **Executive Office** provides centralized MWRA management, direction, and policy development. The budget includes funds for the Office of the Executive Director, the Board of Directors, the Advisory Board, and other advisory committees. It includes the following departments: Office of Emergency Preparedness; Public Affairs; and Internal Audit.

The **Operations Division** operates the water and wastewater treatment systems; the water transmission and distribution system; the wastewater collection, transport, and combined sewer overflow (CSO) systems; and the residuals processing facility. It also provides laboratory and engineering and construction services; enforces sewer use regulations and seeks to limit the discharges of toxic materials; manages environmental studies of Boston Harbor and Massachusetts Bay; monitors water quality; and includes the Planning and Coordination Department.

In FY2015 the **Administration and Finance Division** was separated into two divisions.

The **Administration Division** is responsible for managing the support services functions of the Authority.

The Administration is comprised of seven departments: Director's Office; Facilities; Fleet Services; Human Resources; Management Information Systems (MIS); Procurement; and Real Property and Environmental Management.

The Administration 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 **Finance Division** is responsible for managing the finance functions of the Authority.

Finance (A&F) Division is comprised of five departments: Director's Office; Rates and Budget; Treasury; Controller; and Risk Management.

The 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).

The **Law Division** provides legal counsel to all divisions on compliance with federal and state law, real estate matters, labor and employment law, litigation, and construction issues. Division attorneys provide or supervise through outside counsel the representation of MWRA in all litigation.

The **Affirmative Action and Compliance Unit (AACU) Department** 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/Women Business Enterprises (MBE/WBE) in Authority procurement activities.

Statement of Financial Position

In accordance with its enabling act, each year MWRA submits annual reports to the Governor, the President of the State Senate, the House of Representatives, the Advisory Board, and the Chairs of the State Senate and House Committees on Ways and Means containing financial statements relating to its operations maintained in accordance with Generally Accepted Accounting Principles in the United States of America (GAAP) and, commencing with the annual reports for 1986, audited by independent certified public accountants. MWRA's audited financial statements at June 30, 2015 are available online at www.mwra.com.