MWRA
Advisory
Board

FY 2010

Integrated Comments and Recommendations

on the MWRA's Proposed
Capital Improvement Program
and
Current Expense Budget

The Community Advisory Board to the
Massachusetts Water Resources Authority

May 2009

The MWRA Advisory Board…

was established by the State Legislature to represent the 60 communities in the MWRA service area. Through annual comments and recommendations on the Authority's proposed capital and current expense budgets and rates, the Advisory Board provides a ratepayer perspective on the MWRA's plans and policies to improve the region's water and sewer systems.

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Integrated Comments and Recommendations

On the MWRA's Proposed
Fiscal Year 2010
Capital Improvement Program
and
Current Expense Budget

May 2009

Joseph E. Favaloro

Executive Director

Preface

Pursuant to its responsibility under Sections 8 and 23 of Chapter 372 of the Acts of 1984, the MWRA Advisory Board has undertaken a comprehensive review of the Authority's proposed Current Expense Budget and Capital Improvement Program and Budget for the fiscal year beginning July 1, 2009 (FY 2010). The Advisory Board's review has produced these integrated *COMMENTS AND RECOMMENDATIONS*, which state the Advisory Board's opinions on a number of issues and policies, plus recommendations on proposed spending in each MWRA department. These *Comments and Recommendations* were approved at the May 21, 2009 meeting of the full Advisory Board.

These *Comments and Recommendations* were prepared by Joseph Favaloro, Cornelia Potter and Matthew Romero of the Advisory Board staff. Overall direction was provided by Vice Chairman for Finance, Bernard Cooper, with the participation of Advisory Board members.

All base information for figures and tables, schematics and photographs contained within the *Comments and Recommendations* document are provided by MWRA or their consultants, unless otherwise noted.

The Advisory Board extends its appreciation to MWRA staff for their assistance in reviewing the FY10 Capital and Current Expense Budgets.

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INTRODUCTION

Each year the MWRA Advisory Board formulates *Comments and Recommendations* on the Massachusetts Water Resources Authority's (MWRA's) Proposed Capital Improvement Program (CIP) and Proposed Current Expense Budget (CEB), with the general goal of protecting the interests of the municipalities and the ratepayers. Most often, this is achieved by proposing reductions to the CEB to mitigate the immediate impacts upon the ratepayers, and reductions to the CIP to mitigate the long-term impacts upon the ratepayers. The Advisory Board's approach this year is no different in this regard: there are both short-term and long-term problems and concerns to be faced.

In recent years, the Advisory Board's *Comments and Recommendations* have begun to stress the relationship between the CIP and the CEB, particularly as the percentage of debt service to the overall Current Expense Budget increases. In an effort to address both the short-term challenges – rate revenue requirement increases of over $140 million through FY13 – and the long-term challenges – capital spending that will manifest itself as debt service in future years, as well as the still increasing costs of debt service through FY22 – facing the Authority, this year the Advisory Board will undertake a combined *Comments and Recommendations on the MWRA's Proposed FY 2010 Capital Improvement Program and Current Expense Budget*. **It should be noted that all CEB comparisons being made are between the Proposed FY10 CEB and the Original FY09 CEB, not the Amended FY09 CEB.**

This review will stress the interrelationships between the CIP and CEB where appropriate and with a narrative focused upon the areas with the most relevance to meeting budgetary challenges; however, to avoid sacrificing the comprehensive nature of the Advisory Board's annual reviews, the appendices will include detailed backup of the individual CEB line items and CIP programs typically found in the narrative text.

The Advisory Board recognizes that the financial environment in which this review is undertaken can be called challenging at best. Economists have called this the worst recession since the Great Depression. In the past 18 months, there has been a financial meltdown, instability of the credit markets caused by the sub-prime crisis. Within one year of its historic highs during October 2007, the DOW plunged almost 40%. The federal government took unprecedented actions to save AIG, Fannie Mae, and Freddie Mac among others. Lehman Brothers and Chrysler filed for bankruptcy. In short, the financial landscape of the world has changed dramatically.

States across the country are facing a free-fall of revenue and are facing massive deficits in their budgets. For the first time since 2003, the Massachusetts Proposed FY10 State Budget reduced spending from the previous year. At the time of this writing, state revenue projections for FY09 have already been lowered three times, yet continue to plummet. Moreover, what was once a budget gap of $3.5 billion has now skyrocketed by another billion dollars, forcing the state to look at potential increases to revenue – the House increased the sales tax to 6.25% in its version; increasing the gas tax, local option taxes, and other revenue sources are under consideration – as they simultaneously cut critical services and programs that hit at the core of government's purpose and mission.

Much like the state is doing, communities are wrestling with decisions on potential service cuts, pay freezes, furloughs, and layoffs in order to survive. In the midst of making these difficult decisions, the cities and towns received word that the original House Budget would effectively cut local aid by 25%.

Ultimately, everything filters down to the individuals and families of the Commonwealth. Whether called ratepayers, taxpayers or consumers, they are the same people. It is they who bear the burden, who feel the pain. When the MWRA raises a city or town's water and sewer assessment, homeowners end up paying more for retail water and sewer bills. When local aid is cut, local taxpayers end up with higher tax bills and reduced services. When sales, gas, and local option taxes increase, it is the consumers that end up paying more for goods and services.

For the last 15 years, Americans' levels of indebtedness were at their highest, while savings levels were at all-time lows. Consumers are now unburying themselves from this incurred debt while facing significant increases on the interest rates for it. At the same time, many are losing their jobs or having their salaries frozen or reduced; homes are being foreclosed; their 401Ks and what little savings they have are significantly reduced.

There is still no light at the end of this tunnel and despite recent signs that some sectors of the market are beginning to recover, there are many signs that full recovery will take some time. At the state level, the Massachusetts Taxpayers Foundation projects that revenues will not return to 2008 levels until at least 2014. In short, the current economic crisis is a multi-year problem and, as such, requires a multi-year approach and strategy.

The Authority should be commended for its financial management in recent years. During difficult times, staff has managed to keep the Authority's financial standing viewed positively, which resulted in a recent upgrade to its credit rating by Standard & Poor's. Over the years the Authority has reduced the level of its workforce, restructured debt, and adopted a long-range approach to rates management. By reacting quickly and effectively, it mitigated its limited exposure during the sub-prime crisis, and managed to turn the potential liability of its Lehman Swaps toward a net favorable gain through a replacement transaction.

In short, though challenged by the current financial landscape, the Authority's financial condition is stable, unlike its counterpart quasi-governmental agencies like the MBTA and Turnpike Authority. Both of these agencies are facing dramatic decisions to simply maintain solvency and maintain operations. By contrast, the Authority instead has an opportunity to be proactive in its financial decision-making in acknowledging the multi-year financial crisis facing the nation and its ratepayers. The Advisory Board's aim is to not only provide relief to the MWRA's ratepayers and member communities, but also to ensure that the Authority's good financial standing continues to set it apart from other quasi-state agencies. The Advisory Board believes the Authority's multi-year strategy should be undertaken within the context of two basic two-part recommendations.

The Advisory Board's Recommendations on the MWRA's Proposed FY10 CIP and CEB

1. Capital Improvement Program Recommendation:

a. **That the Authority lower capital spending by no less than $100 million over the next four years (FY10-13), while accounting for the addition of Inflow and Infiltration (I/I) Program Phase VII costs.**

b. **That the Authority further reduce new borrowing by the amount of stimulus grant funding received during the cap period.**

2. Current Expense Budget Recommendation:

a. **That the Authority reduce future rate revenue requirements by no less than $100 million over the next four years (FY10-13).**

b. **That, regardless of levels of Debt Service Assistance (DSA) in FY10, MWRA final FY10 assessments be no higher than preliminary assessments.**

The *Comments and Recommendations* will discuss these recommendations in greater detail, identifying potential tools the Authority has to meet these recommendations, but these two two-part recommendations form the general basis and approach the Advisory Board believes the Authority should take over the next four years.

It should be noted that the Authority has already maintained tight control of expenses and extended a more than decade-long commitment to reducing staffing; tightening and reducing vehicle and equipment replacements; modifying operations; and reducing overtime, training, and travel expenses, while managing the impacts of rising utility and chemical costs and solidifying its commitment to ongoing maintenance. Additionally, the Authority has adopted capital spending controls including a five-year capital spending cap and Master Plan.

After the Governor's 9(c) cuts eliminated Debt Service Assistance in FY09, the Authority amended its FY09 CEB without issuing a mid-year rate increase, instead accounting for favorable trends and reducing spending. Similarly, the Authority's Proposed FY10 CEB continues this tight control of expenses. The Advisory Board commends the Authority for submitting a Proposed CEB that uses many of the Advisory Board's recommendations from previous years to achieve a proposed 4.8% rate revenue requirement increase. However, this also means that the choices facing the Authority in its Final FY10 CEB carry with them various levels of risk; difficult decisions will need to be made, not only in FY10, but also beyond. Indeed, if the financial landscape were less turbulent, and if ratepayers/taxpayers/consumers were not already facing severe financial difficulties, the Authority would be right on target as an agency balancing its needs against its costs. However, financial times have changed, and the Authority must also adjust its approach accordingly.

In conclusion, the Advisory Board's challenge to the Authority is to recognize that the world has changed, revisit their assumptions, and reduce projected costs for 2.5 million ratepayers in the context of a multi-year strategy.

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HIGHLIGHTS

Capital Improvement Program Observations

Currently Open Capital Projects Total Nearly $5 Billion

The Authority states that the total contract value of active (or open) capital projects is $4.956 billion, of which $3.063 billion is projected to have been spent through FY09.[1] Future spending, as identified to date, totals $1.9 billion, of which $1.6 billion is to be spent during the next ten years (FY10-19). The Authority also budgets $0.105 billion for potential contingency allowances during the ten-year period.

The total contract value increased by $88.3 million from the Final FY09 CIP and by $198.6 million since the Advisory Board's review of the Proposed FY09 CIP at this time last year.[2] The increases were driven by updated inflation estimates of $15.0 million, $25.2 million for new projects or expanded scope changes, and $45.6 million due to updated cost estimates.

Another $0.3 billion from the Master Plan has been included for the period beyond FY19. Most of this amount is for Deer Island Treatment Plant Asset Protection and the Residuals Processing Facility. It can be expected that the Authority will continue to analyze capital spending needs with each future budget process and that spending for the years FY14-18 (the next cap period), and for the years that follow, will expand based on the Master Plan.

Spending Since the Inception of the MWRA is Nearly $7.6 Billion

Another $4.53 billion for completed (and closed out) capital projects is identified in Appendix 7 in the Proposed FY10 CIP document. Thus, together with the $3.063 billion discussed above, total spending from inception through FY09 is expected to reach $7.59 billion.

The $3.1 Billion Master Plan Shapes the Proposed Capital Budget

The Authority's Master Plan for Wastewater and Waterworks projects identifies nearly $3.1 billion in capital spending.[3] Nearly $2.034 billion (66%) is identified for the twelve-year period FY 2007 through FY 2018, while another $1.044 billion of future capital needs is identified for the thirty-year period from FY 2019 through FY 2048.[4] Additional spending needs can be expected to be identified in future updates of the Master Plan, anticipated every five or so years. Also to be developed will be Business and Operations Support project needs including Information Systems projects. These projects are now expected to be added to the Business Plan.

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[1] Includes current projections for FY09.
[2] Does not include contingency funding.
[3] In 2006 dollars.
[4] These figures include disbursements and repayments to the Community Assistance programs.

The Budget for the Five-Year Cap Period FY09-13 is Projected to be $1,131 Million

The Authority is proposing a budget of $1,131 million for FY09-13. The total represents spending of $1,084.1 million plus contingency allowances of $46.9 million.

Table 1

Program	Total Contract	Spending thru FY08	Remaining Balance	FY09	FY10	FY11	FY12	FY13	FY09-13
Wastewater System Improvements	**$2,454.1**	**$1,216.1**	**$1,237.9**	**$131.8**	**$170.4**	**$181.5**	**$125.8**	**$86.7**	**$696.2**
Interception & Pumping	717.4	487.3	230.1	9.2	4.3	28.0	16.0	23.5	81.0
Treatment	510.1	51.8	458.3	18.8	59.5	66.4	61.2	35.8	241.7
Residuals	212.4	63.8	148.6	0.2	1.3	1.6	2.1	1.3	6.5
CSO	927.3	522.2	405.1	102.6	106.4	87.8	47.2	26.7	370.7
Other	86.9	91.0	-4.2	1.0	-1.1	-2.3	-0.7	-0.6	-3.7
Waterworks System Improvements	**2,415.7**	**1,598.9**	**816.8**	**64.8**	**58.1**	**50.0**	**74.1**	**103.7**	**350.7**
Drinking Water Quality Improvements	641.8	508.5	133.3	19.9	12.3	4.9	16.3	18.0	71.4
Transmission	994.1	672.9	321.2	12.6	18.8	21.0	29.9	31.7	114.0
Distribution and Pumping	749.0	302.0	447.0	23.0	21.1	19.7	24.4	44.6	132.8
Other	30.8	115.5	-84.7	9.3	5.9	4.4	3.5	9.4	32.5
Business & Operations Support	**86.2**	**42.9**	**43.3**	**8.6**	**9.6**	**8.3**	**7.6**	**3.2**	**37.3**
TOTAL MWRA w/o CONTINGENCY	**$4,956.0**	**$2,857.9**	**$2,098.0**	**$205.2**	**$238.1**	**$239.8**	**$207.5**	**$193.6**	**$1,084.2**

(See footnote[5])

Capital Spending FY09-13

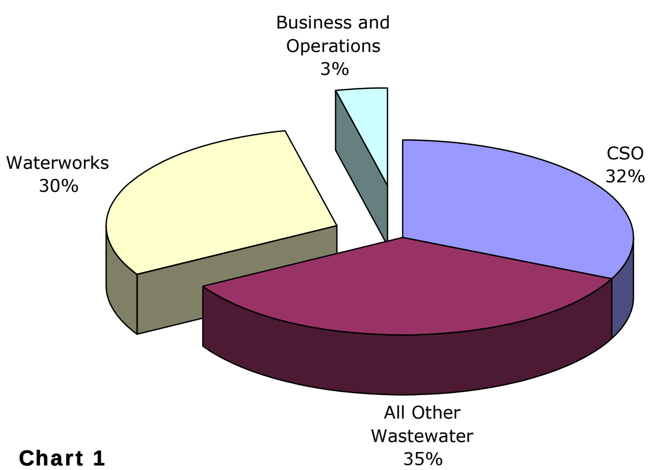

Chart 1
(See footnote [4])

Over the five-year period, fully two-thirds of all spending is for Wastewater projects. Another 30% supports Waterworks projects, while 3% is for Business and Operations Support projects. (See Chart 1.)

Just under one-third of all spending for the period – $370.6 million – is budgeted for the Combined Sewer Overflow Control Program. The amount is more than half of all Wastewater spending for the period.

Sixteen projects with spending of $15 million or more during the cap period represent just over 75% of all spending for FY09-13 or $818.2 million.[6] Five of the eight Wastewater projects are part of the CSO Control Program. Spending at that level tends to be for projects in construction.

Table 2

Largest Wastewater Projects FY09-13 $000s		
Project	**FY09-13 Spending**	**Program**
DITP Asset Protection	$ 225,022	Treatment
North Dorchester Bay	$ 98,945	CSO (MWRA Managed)
Reserved Channel Sewer Separation	$ 80,930	CSO (Community Managed)
East Boston Branch Sewer Relief	$ 76,044	CSO (MWRA Managed)
Cambridge Sewer Separation	$ 36,445	CSO (Community Managed)
Brookline Sewer Separation	$ 22,727	CSO (Community Managed)
Braintree-Weymouth Relief Facilities	$ 16,533	Interception and Pumping
West Roxbury Tunnel	$ 15,719	Interception and Pumping
TOTAL	**572,365**	

[5] Numbers may vary slightly from MWRA figures due to rounding.
[6] Net of contingency

Table 3

Largest Waterworks Projects FY09-13 $000s		
Project	**FY09-13 Spending**	**Program**
MetroWest Tunnel	$ 62,682	Transmission
John J. Carroll Water Treatment Plant	$ 41,134	Drinking Water Quality Improvements
Local Water Pipeline Improvement Loan Program	$ 28,942	Waterworks Other
New Connecting Mains - Shaft 7 to WASM 3	$ 27,152	Distribution and Pumping
Southern Spine Distribution Mains	$ 25,936	Distribution and Pumping
NIH Redundancy and Covered Storage	$ 23,036	Distribution and Pumping
Blue Hills Covered Storage	$ 21,828	Drinking Water Quality Improvements
Rehabilitation of Other Pumping Stations	$ 15,168	Distribution and Pumping
TOTAL	**245,878**	

The Authority also points out that two-thirds of all spending planned during the cap period ($732.5 million) is either mandated or related to Deer Island. Another $75.4 million is for non-mandated projects already in construction. The total is $807.9 million or 75% of all spending for the cap period.

Spending during the cap period is to peak during FY10 and FY11 at $251 million and $250 million respectively (including contingency fund allowances). More than half of all planned spending during these two years is for the Wastewater Program. The largest areas of Wastewater spending are the CSO Control Program and the Deer Island Asset Protection Program. In comparison, Waterworks spending increases from $58.1 million in FY10 to $103.7 million in FY13, greater than Wastewater spending for only the last year of the five-year cap period.

Capital Spending FY09-13

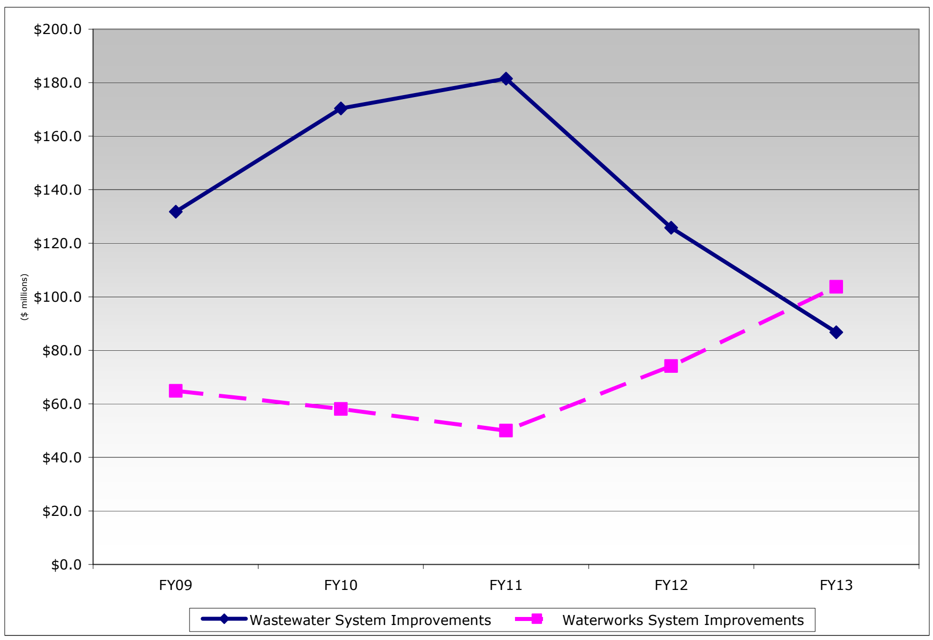

Chart 2

The Proposed Budget for FY09-13 Puts Spending $10 million Below the Cap Calculation

A year ago, in the final FY09 CIP, the Authority set a new capital spending cap for the five-year period, FY09-13, at $1,143.8 million. According to the Cap calculation, the Authority now expects spending and other adjustments to reach $1,134.3 million or $9.8[7] million less than the official cap number set last June. (See Table 4 and Appendix E.) Lower spending of $40.0 million in FY09 and $13.7 million in FY10 is partially offset by increased or later than previously assumed spending in FY11, FY12 and FY13 (increases totaling $44.2 million).[8]

[7] Note: due to rounding, the Authority's budget lists a figure of $9.5 million.
[8] As compared to the Final FY09 CIP and related cap calculation.

Table 4

Baseline Cap Calculation versus Updated Spending Projections	FY09	FY10	FY11	FY12	FY13	Total FY09-13
Projected Expenditures	$230.0	$251.7	$224.3	$196.7	$178.7	$1,081.4
Contingency	15.6	13.8	12.0	12.1	11.4	64.9
Inflation on Unawarded Construction	0.0	0.5	2.8	7.8	11.3	22.4
Less: Chicopee Valley Aqueduct Projects	(1.2)	(1.9)	(9.1)	(9.5)	(2.9)	(24.6)
FY09-13 CAP	**$244.4**	**$264.1**	**$230.0**	**$207.1**	**$198.5**	**$1,144.1**
FY10 Updated Projections	$204.3	$250.4	$252.8	$216.2	$210.6	$1,134.3
Increase/(decrease)	(40.1)	(13.7)	22.8	9.1	12.1	(9.8)

(See footnote)[9]

Future Risk Factors

The Authority has also identified other potential risk factors that could increase capital spending in the future. These include:

- Whether the West Roxbury Tunnel project involves rehabilitation or replacement of the tunnel could add $60 million to the $80 million already included in the budget, bringing the total project cost closer to $140 million.

- The Cross Harbor Cable may need a deeper installation or protective material as part of the harbor dredging project; additional costs could be in the $20 million range.

- A Chelsea Creek dredging initiative could cost as much as $10 million.

- New mandates could arise and cause increased spending in the future.

[9] Note: Due to rounding, Authority's figures may differ from Table 4; additional cap calculation data in Appendix E.

Current Expense Budget Observations

The Budget in Brief

The Massachusetts Water Resources Authority has proposed a Current Expense Budget for Fiscal Year 2010 (beginning July 1, 2009) of $610.5 million. Non-rate revenue of $36.7 million plus offsets (from Debt Service Assistance) of $7 million leave $566.8 million to be raised from rate revenue. The amount is $26.0 million or 4.8% more than the $540.8 million budgeted for FY09.

Table 5

MWRA CURRENT EXPENSE BUDGET
($ millions)

	FY09 Budget	FY10 Proposed	$ Change	% Change
Expenses				
Direct Expenses	215.9	214.5	-1.4	-0.6%
Indirect Expenses	45.8	41.6	-4.2	-9.2%
Capital Financing	328.8	354.4	25.6	7.8%
Subtotal Expenses	***590.5***	***610.5***	**20.0**	**3.4%**
Offsets				
Bond Redemption	0.0	0.0	0.0	-
Debt Service Assistance	(11.3)	(7.0)	4.3	-38.1%
Subtotal Offsets	***(11.3)***	***(7.0)***	**4.3**	**-38.1%**
Net Expenses	**579.2**	**603.5**	**24.3**	**4.2%**
Revenues				
Other User Charges	7.6	7.9	0.3	3.9%
Other Revenue	5.4	5.2	-0.2	-3.7%
Rate Stabilization	5.1	10.3	5.2	102.0%
Investment Income	20.4	13.3	-7.1	-34.8%
Subtotal Non-Rate Revenue	***38.5***	***36.7***	**-1.8**	**-4.7%**
Rate Revenue	540.8	566.8	26.0	4.8%
Total Revenue and Income	**579.3**	**603.5**	**24.2**	**4.2%**
FY10 Rate Revenue Increase ($)		26.0		
FY10 Rate Revenue Increase (%)		4.81%		

Direct Expense spending is budgeted at $214.5 million, a $1.4 million (0.7%) reduction from the $215.9 million originally budgeted in FY09. Also putting pressure on the budget have been increased prices and use of Electricity and Diesel Fuel, certain Chemicals (such as Soda Ash), as well as increased costs of Health Insurance and Medicare expense. Maintenance expense increases by $1.3 million or 4.6%, as major facilities age and certain equipment becomes obsolete.

Direct Expenses Increases/Decreases By Percentage

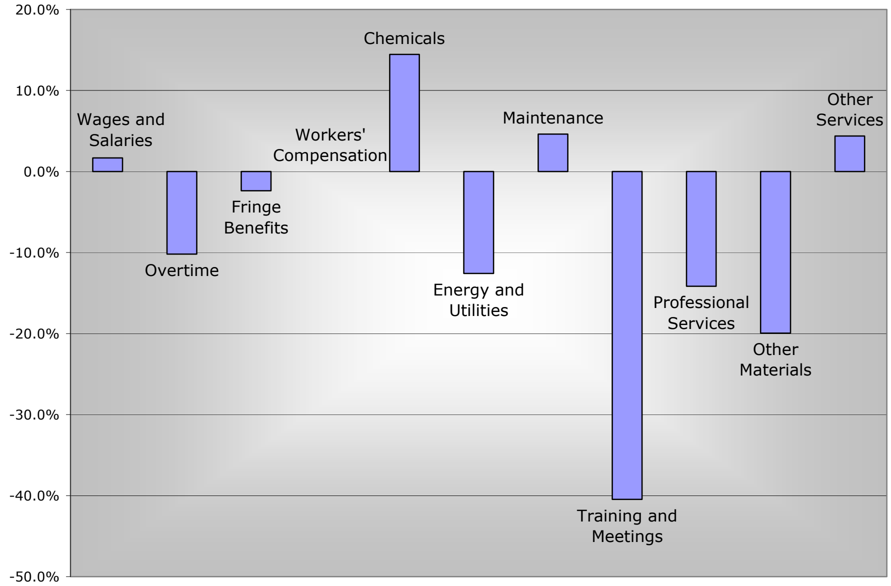

Chart 3

Indirect Expense spending is budgeted at $41.6 million, a decrease of $4.25 million (9.3%) from the $45.8 million originally budgeted in FY09. The reduction reflects lower reserves requirements due to the lower operating expenses and revised additions to the pension fund associated with other post-employment benefit (OPEB) deposits, which had been directed to the pension fund in FY09.

Capital Financing Expenses increase by $25.6 million (7.8%) to $354.4 million or 58% of the FY10 budget. Debt Service Assistance of $7.0 million is treated as an offset to Capital Financing Expenses; the amount is 70% of an estimated $10 million expected to be raised through the provisions of recently filed Bottle deposit legislation.

Rate Revenue Requirements & Percentage Increases[10]

Actual, Proposed and Projected Rate Revenue Requirements @ 4.8% in FY10

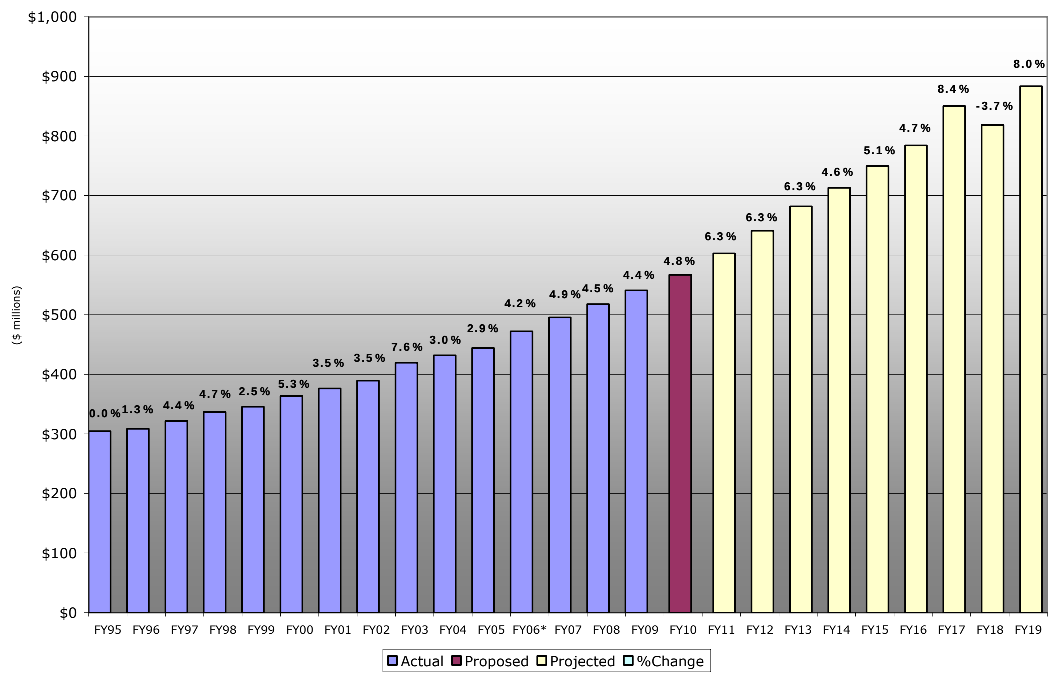

Chart 4

Non-Rate Revenue of $36.7 million comes from Other User Charges, Other Revenue, a drawdown from the Rate Stabilization Fund, and Investment Income. While the use of Rate Stabilization monies more than doubles to $10.3 million from FY09, Investment Income falls 35% to $13.3 million from the $20.4 million budgeted in FY09. As noted above, Debt Service Assistance receipts of $7 million is treated as an offset to Capital Financing Expenses.

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[10] The rate revenue increase in FY06 is 4.2% higher than the Final FY05 rate revenue requirement of $453.0 million, which did not include Debt Service Assistance of $8.02 million; figures based upon Proposed FY10 CEB projections and rate runs.

Rate Revenue of $566.8 million is proposed, a 4.8% increase over the $540.8 million budgeted in FY09.

Even with the significant benefits of reduced debt service payments resulting from the January 2007 restructuring transaction and from the more recent February 2009, refunding plus the upcoming bond defeasance transaction of $10 million (already reflected in the $354.4 million budgeted for Debt Service and other Capital Financing Expenses), the proposed increase in Rate Revenue is the second-highest in seven years.

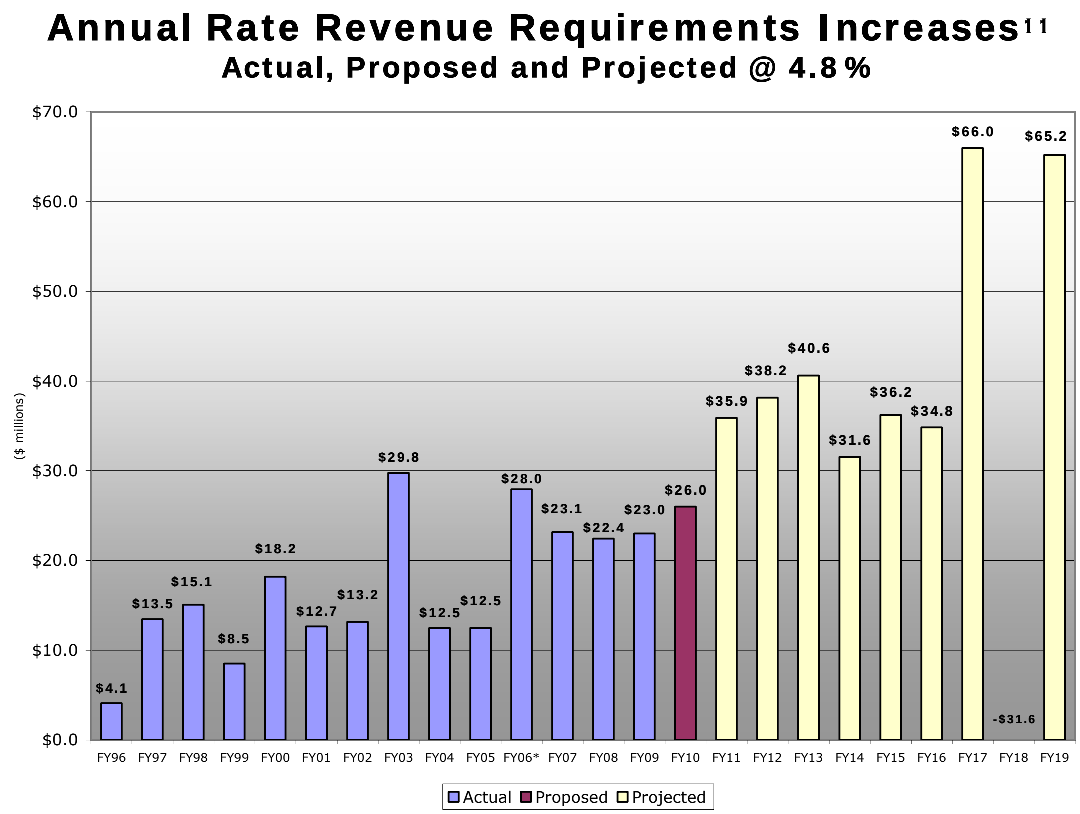

Chart 5

[11] The rate revenue increase in FY06 is 4.2% higher than the Final FY05 rate revenue requirement of $453.0 million, which did not include Debt Service Assistance of $8.02 million; figures based upon Proposed FY10 CEB projections and rate runs.

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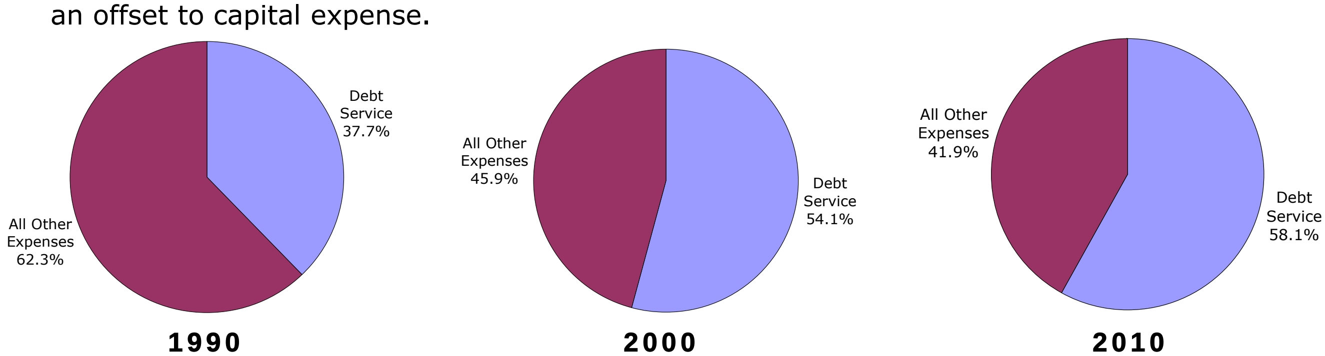
Table 6

Proposed Fiscal Year 2010 Capital Financing Summary ($ millions)		
DEBT SERVICE		
Senior Debt Service		Fixed Rate
Outstanding	171.15	
New FY10	7.51	FY10 borrowing
Total Senior Debt Service	*$178.66*	
Subordinate Debt Service	*102.79*	Variable Rate 4.0% interest assumption
State Revolving Loan Fund Debt Service		Low-interest loans from the Commonwealth 2.0% Water, 2.5% Sewer
Outstanding	56.74	
New FY10	3.32	FY10 Borrowing
Total SRF Debt Service	*$60.06*	
TOTAL DEBT SERVICE	**$341.51**	
OTHER CAPITAL EXPENSES		
Water Pipeline Program Commercial Paper Interest	4.10	Debt service supporting $25 million/year for Local Water Pipeline Improvement Loan Program
Current Revenue for the Capital Program	5.60	
Chelsea Facility Lease Payment	3.22	
TOTAL OTHER CAPITAL EXPENSES	**12.92**	
TOTAL CAPITAL EXPENSES	**$354.43**	

Other Highlights

- Debt outstanding through FY09 totals $ 5.7 billion.
- New MWRA borrowing of $100 million and SRF borrowing of $60 million is proposed for FY10.
- Other sources of capital funding include Tax Exempt Commercial Paper.
- Stimulus funding could also serve as a source of capital funding.
- Debt Service Assistance, such as the $7 million budgeted from Bottle Bill receipts, is treated as an offset to capital expense.



See Footnote[12]

Chart 6

[12] Before offsets

Overview

There are many components of capital financing that must be explored to understand any proposed reduction to this line item. Major components include: the relationship of capital spending to debt service, the various components of the Authority's debt service (senior debt service, subordinate debt service, SRF) including interest rate assumptions, the Authority's ability to refinance its existing debt, as well as other elements of capital finance including the Local Pipeline Improvement Program debt service, the use of current revenue for the capital program, and the structure of the Chelsea Lease.

The Relationship Between Capital Spending and Debt Service

Debt service makes up the largest component of the Authority's Proposed FY10 Current Expense Budget, 58.7%[13], and, as such, seemingly provides the greatest opportunity to reduce current expenses, and thereby the rate revenue requirement. Debt service is by its very nature inextricably tied to the Capital Improvement Program and, consequently, a discussion of the one cannot preclude a discussion of the other. It is, therefore, important to have a clear understanding of the relationship between proposed capital spending and the resulting debt service.

In Table 7 below, the Authority estimates the incremental reduction of Rate Revenue Requirements if the Capital Improvement Program (CIP) were reduced by $10 million, $25 million, and $50 million annually. In summary, while debt service is reduced, the greatest benefit is found in the later years projected.

Table 7

Change in Rate Revenue Requirement with Incremental Reductions to Capital Spending
($000)

	FY2009	FY2010	FY2011	FY2012	FY2013	*FY09-13*
Capital Program Reduced by $10M annually	$ -	$ (342)	$ (1,009)	$ (2,118)	$ (2,668)	*$ (6,137)*
Capital Program Reduced by $25M annually	$ -	$ (854)	$ (2,523)	$ (5,077)	$ (6,899)	*$ (15,353)*
Capital Program Reduced by $50M annually	$ -	$ (1,709)	$ (5,046)	$ (9,649)	$ (14,323)	*$ (30,727)*
	FY2014	**FY2015**	**FY2016**	**FY2017**	**FY2018**	***FY14-18***
Capital Program Reduced by $10M annually	$ (3,510)	$ (4,369)	$ (5,250)	$ (6,154)	$ (6,985)	*$ (26,267)*
Capital Program Reduced by $25M annually	$ (8,775)	$ (10,923)	$ (13,040)	$ (15,153)	$ (16,525)	*$ (64,416)*
Capital Program Reduced by $50M annually	$(17,524)	$ (21,611)	$ (25,356)	$ (27,448)	$ (26,140)	*$ (118,080)*

Another way to illustrate the "lag effect" relationship between capital spending and capital financing is found in Chart 7, which shows actual and projected capital spending and paid and projected debt service.

[13] After offsets.

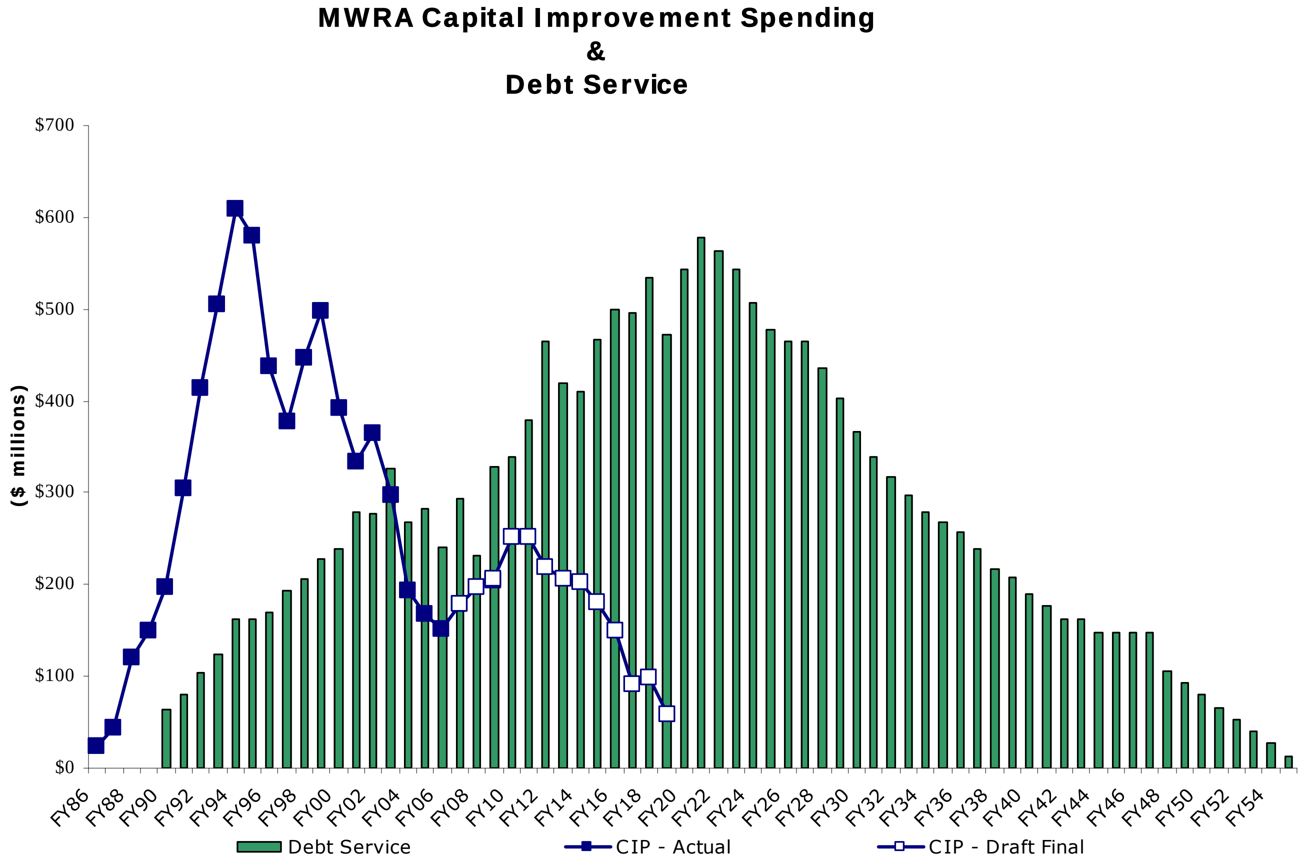


Chart 7

This analysis reminds us that while there is a direct relationship between capital spending and the supporting debt service, reducing capital spending as a method of reducing rate revenue is best used as a long-term tool for managing rates in future years. As is clearly seen in Chart 7, debt service is not projected to peak until FY22 when it totals almost as much as the total Proposed FY10 CEB. It is, therefore, with the hope of addressing the long-term issues facing the Authority (post-FY13) that the Advisory Board has recommended reducing capital spending by no less than $100 million during the current cap period.

Reducing capital spending provides limited benefit in the next four years to make it a sizeable tool for addressing the full short-term challenge identified through FY13, and other elements of capital financing, as well as other tools, must be examined if a meaningful reduction to debt service is to be achieved.

Components of Capital Financing

Outstanding Principal and Debt Service
The Authority currently has $5.7 billion in outstanding principal made up of senior debt, subordinate debt (both synthetically fixed and floating variable rate), and SRF debt (Chart 8). It is important to note that not all subordinate debt is variable rate, and that over half of outstanding subordinate debt is, in effect, fixed-rate debt.

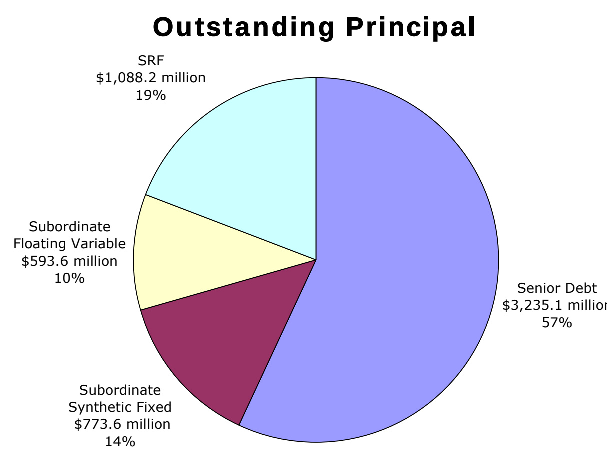


Chart 8

In addition to repaying this principal, the Authority pays interest on the amount borrowed, resulting in its annual debt service payments. The Authority is proposing

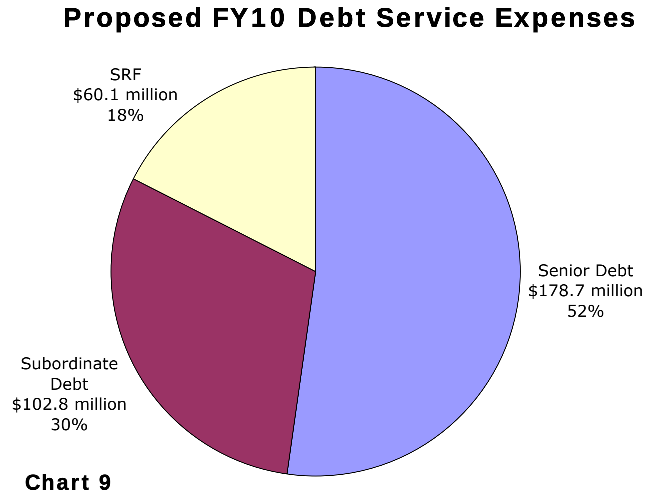


Chart 9

$341.5 million for total debt service payments in FY10 including Senior Debt Service, Subordinate Debt Service, and SRF Debt Service (Chart 9).

Debt Service on Senior MWRA Debt

Senior Debt service is fixed-rate; short of refinancing there is typically little opportunity to reduce this component of capital financing. However, the proposed budget includes $18.1 million for the full year cost of scheduled debt service payments on the February 2009 borrowing of $175 million in new money plus the partial year debt service payment on a $100 million borrowing planned during FY10. ***The Advisory Board anticipates updated amounts to be reflected in the Final FY10 CEB.***

Debt Service on Subordinate MWRA Debt

As noted before, over half of the Subordinate Debt is synthetically fixed, and only 10% of total outstanding principal is truly variable rate.

The Authority notes that the proposed FY10 budget assumes a 4.0% interest rate for variable rate debt. The rate is the same as that assumed for FY09 and is measurably higher than actual rates. The Authority notes that there is no guarantee that current rates will stay low and that rates that rise higher than budget assumptions would expose the Authority to significant risks. ***The Authority notes that a 25 basis point shift in variable rates has the value of $1.4 million, and that 100 basis points is equivalent to $5.6 million.***

Bond Defeasance and Refunding

Another tool for modifying capital financing expense, in both the short-term and the longer term, is refunding or defeasing existing senior and subordinate debt as the opportunities to do so become available. The Authority has refunded some debt as part of the February 2009 revenue bond issuance. Nearly $230 million of refunding bonds were sold for savings of approximately $690,000 per year between FY 2010 and 2015 and nearly $2 million per year between FY 2016 and 2027. This refunding took place after the submission of the Proposed FY10 CEB and, therefore, ***the Advisory Board notes that these savings can be expected to be reflected in the updated assumptions for the Final FY10 CEB.*** The Advisory Board would also like to point out that the Authority has not typically incorporated any planned defeasance transactions in the proposed CEB.

In its Proposed FY10 CEB, the Authority included plans this spring to defease up to $10 million of bonds with principal due primarily during FY10 and FY11 to ease rate revenue requirements in those two upcoming years. The Authority has since proposed additional defeasance opportunities. ***The updated benefits of this upcoming transaction can also be expected to be reflected in the Final FY10 CEB.***

The Authority states that currently there are no immediate opportunities for restructuring debt service payments; however, future refinancings and restructurings may be possible, and could also result in rescheduled debt service payments to ease rate revenue requirements in future years. ***The Advisory Board expects that the Authority will continue to monitor this situation and be prepared to undertake any actions necessary to pursue future refinancings and restructurings.***

SRF Borrowings
The Authority is assuming debt service on SRF borrowings of $60.1 million including $3.32 million on new borrowings during FY10. The Final FY10 CEB will reflect updated assumptions based on the recent SRF borrowing and schedule for debt service payments.

Other Components of Capital Financing

Local Water Pipeline Improvement Loan Program Interest Payments
Now in its tenth year, the $250 million Local Water Pipeline Improvement Loan Program (LPIP) originally provided $25 million per year to communities to replace and rehabilitate municipal water pipelines. After adjustments for the actual pace of distributions, funding is available through FY13.

The Authority is proposing a budget of $4.1 million for debt service relating to the commercial paper issued in support of the Local Water Pipeline Loan Program. The assumptions include a 4% interest rate on an average balance of $102.15 million; the assumed maximum loan balance is $194 million. ***The Advisory Board anticipates that the average balance and interest rate assumptions will be updated for the Final FY10 CEB.***

Use of Current Revenue to Fund Capital Projects
For FY10, the Authority is proposing to budget $5.6 million in current revenue to fund ongoing capital projects. The amount is the highest in at least four years; the FY09 budget included $4.5 million.

This category of expense is typically budgeted at levels greater than necessary to meet the coverage requirements of the bond covenants. ***If this category of expense were reduced, while still meeting the coverage requirements, it could provide some reduction in capital financing expense.***

Capital Lease
The Authority is budgeting $3.2 million for the eighth year of payments on the capital lease for the Chelsea office and maintenance facilities. This is the same amount budgeted each year since 2002.[14]

The Advisory Board believes that the Authority is paying a measurably higher interest rate at 7.83% than what might be obtained through a renegotiation of the terms of the lease. Authority staff has reported that initial discussions have taken place last fall and mid winter. ***If the Authority were able to renegotiate the terms of the Chelsea Lease with a goal of arriving at a revised, reduced payment schedule before the end of June, the Advisory Board believes that savings of several hundred thousand dollars per year are possible.***

Debt Service Offsets
Among the credits that can be used to offset budgeted amounts for debt service (and also to offset debt service coverage requirements) are use of bond redemption funds and variable rate savings. The Authority is assuming a bond redemption transaction this spring, using $10 million in FY09 funds to benefit FY10 debt service obligations and up to $10 million, also in FY09 funds, to benefit and lower FY11 debt service payments. No variable rate savings from previous years are assumed, as the Authority now accrues actual savings in the year in which it occurs.

Debt Service Assistance (DSA) is also treated as a debt service offset. The budget submitted earlier this year to the Legislature by the Governor's Office includes $10.0 million from the anticipated revenues from a proposed bottle deposit bill for the statewide Debt Service Assistance Program, of which the Authority has estimated it would be eligible for $7.0 million. The Authority will be updating its assumptions about Debt Service Assistance receipts for FY10 as part of the spring revisit process. **As noted before, the Advisory Board recommends that regardless of**

[14] The Authority treats this expense as an operating expense for purposes of calculating the coverage requirement called for in the bond covenants; otherwise, this is considered a capital finance expense.

levels of DSA in FY10, MWRA final assessments be no higher than preliminary assessments.

Economic Recovery Act (Stimulus) Funding

The proposed FY10 CEB does not include assumptions about the potential receipt of funding from the Economic Recovery Act (stimulus funding). However, if the Authority is the recipient of stimulus funding, either through the SRF Program or through other venues, assumptions for new borrowing can be revised. An important feature in updating borrowing assumptions will be the shape of the funding program and whether monies are treated as outright grants or as loans that will later be forgiven. **As noted earlier, the Advisory Board recommends that the Authority reduce new borrowing by the amount of stimulus grant funding received during the cap period.** The Advisory Board anticipates that most of the "replaced" borrowings will impact the FY11 budget and beyond.

Reserve Requirements

The Authority made a number of changes to the bond covenants in January 2007, which will allow certain reserve requirements to be eased when two-thirds of its outstanding principal has been issued pursuant to the revised covenants. The Authority currently estimates that this turning point will be reached in FY 2014 or FY 2015. ***Ways to reach and potentially shorten this turning point: new borrowing, refundings, and repayments of principal over the next several years.***

The Advisory Board's approach in its *Comments and Recommendations* this year is to identify potential tools or areas for potential reduction to meet its specific recommendation to reduce the rate revenue requirement by $100 million between FY10-13. Any of the tools identified carry with them some level of risk, however, and these risks must be taken into account when deciding what further reductions to make to address the short-term problem.

Toolbox 1

"Toolbox"	
Potential Reduction	Potential $s
Updated senior debt service to reflect the February 2009 and proposed FY10 borrowing	Contingent upon updated borrowing plans
Updated debt service to reflect February 2009 refunding	$0.7 million reduction expected in FY10
Reduction in variable rate debt interest rate assumptions	25 basis point reduction = $1.4 million
Updated FY10 debt service to reflect additional defeasance proposed in FY09	Estimated to be $0.827 million
Consideration of future refinancing and restructuring transactions.	Contingent on market conditions and existing maturities.
Updated average balance and interest assumptions for LPIP	25 basis point reduction = estimated $0.25 million
Reduction of use of current revenue for capital program to minimum levels required by coverage calculation	Dependent upon final coverage calculation
Reduced interest rate and reduced payment for renegotiated Chelsea Lease	1% reduction = $300,000[15]
Maximization of appropriate tools (new borrowing, refundings and repayments of principal) over the next several years to release reserves.	Two-thirds outstanding principal issued = $172 million

[15] Advisory Board calculated estimate based upon information available on Chelsea Lease.

Table 8

Proposed Fiscal Year 2010 Personnel Expenses Summary ($s)		
Regular Pay	$90,796,098	Regular wages and salaries for full and part-time employees.
Other Pay	+ $1,404,159	Includes shift differential, holiday pay, temporary employees, interns/co-ops, and stand by pay.
Wages and Salaries Subtotal	$92,200,257	
Fringe Benefits	$16,072,161	Includes health insurance, dental insurance, Medicare, and all other fringe benefits.
Overtime	$3,508,793	For planned maintenance, emergency, and coverage.
Workers' Compensation	$1,325,000	Includes compensation payments, medical payments, and other related costs.
TOTAL PERSONNEL EXPENSES	**$113,106,211**	

Other Highlights

- Personnel Expenses increase by less than 1%.
- Regular Pay increases by 2% and reflects 24 fewer positions than FY09.
- Four of the five categories of Other Pay have declined (Holiday Pay increased slightly).
- Overtime declines by 10%, or $400,000.
- Fringe benefits make up 7.5% of all Direct Expenses and 14.6% of total Personnel Costs.

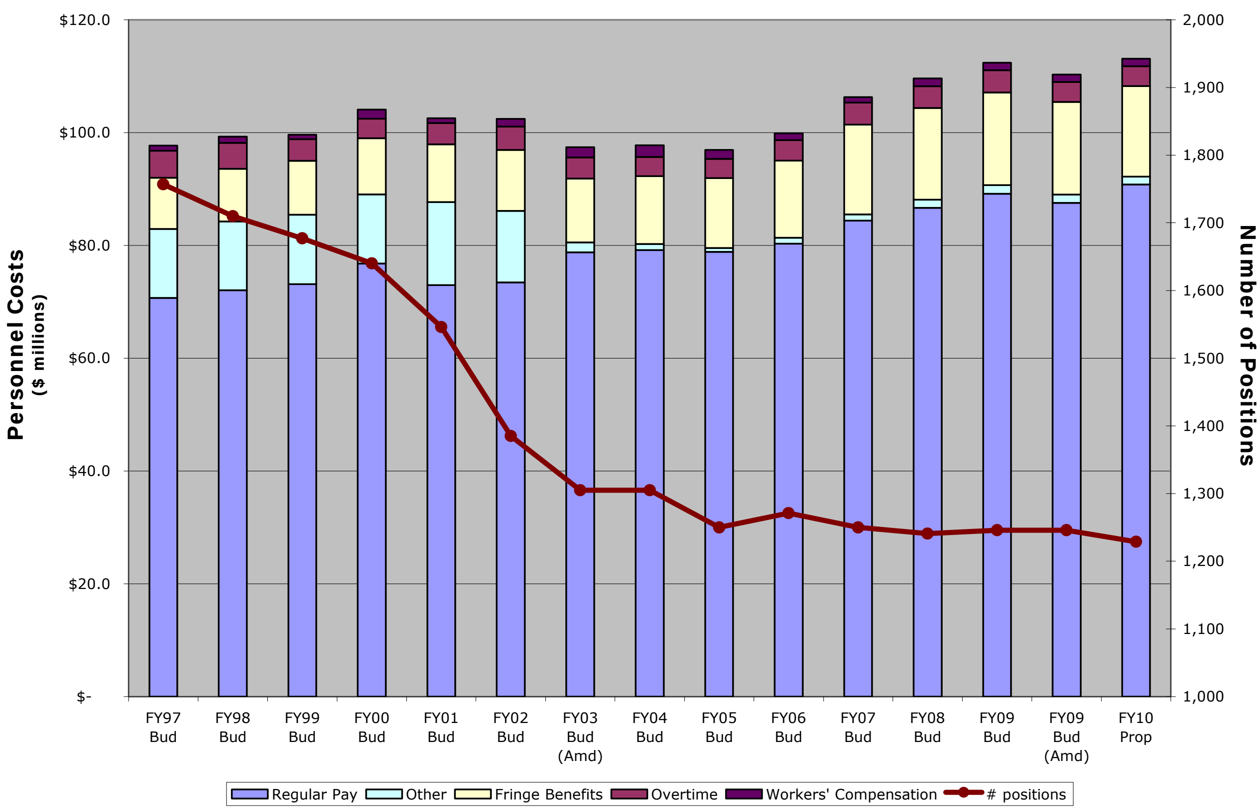


Chart 10

Overview

The Advisory Board typically presents the total cost of Personnel-related expenses over time (See Chart 10), including Wages and Salaries, Overtime, Fringe Benefits, and Workers' Compensation.

The Authority is proposing a budget of $113,106,211 for all Personnel-Related Expenses for FY10.

Wages and Salaries

The Authority's proposed budget of $92.2 million for Wages and Salaries in FY10 represents a 1.7% increase from the original FY09 budget.

The budget supports 1,229 positions and reflects a continuing downward trend over the last dozen years. As of December 2008, staffing stood at 1,235 positions; the budgeted number also assumes a target year-end staffing level of 1,222 by June 2010. This compares with the peak number of filled positions of 1,775 in March 1997, a reduction of over 550 positions or nearly one-third. The budget reflects provisions of current contract agreements; also included are estimated accruals for leave balance liabilities.

Contributing to the lower staffing levels over the years have been the completion of a number of new and upgraded facilities, as well as new technology and increased automation of facilities. Other efficiencies have been achieved through union negotiations. Union contracts will be up for renegotiation during FY10. ***The Advisory Board expects the Authority to approach contract negotiations during FY10 within the context of the financial challenges facing the Authority between FY11 and FY13 and the aim of managing Personnel expenses during this timeframe.***

Overtime

The Authority's proposed budget of $3.5 million for Overtime expense in FY10 is the lowest in ten years. The reductions reflect a decline in the number of Overtime hours, including reduced overtime for coverage, based on adjustments developed with the cooperation of the unions. The Authority has been working on containing and tightening the use of Overtime, including negotiating agreements with facility operators to carry out light maintenance tasks. Increases in kitting of materials for planned maintenance has allowed some maintenance work to be completed within shorter timeframes and regular schedules. Changes in shift assignments and staffing levels have also resulted in measurable savings.

Fringe Benefits

The Authority is proposing a budget of $16.1 million for Fringe Benefits in FY10, a 2.4% decrease from the original FY09 budget. Included in this category of expense are: Health Insurance, Dental Insurance, Unemployment Insurance, Medicare payments, Tuition Reimbursement and Overtime Meals (see Chart 11).

The reason for the decrease in the Fringe Benefits budget is the anticipated savings related to a provision in the Governor's proposed budget introducing a new income-based method of calculating an employee's contribution for health care benefits. The Authority's proposed budget

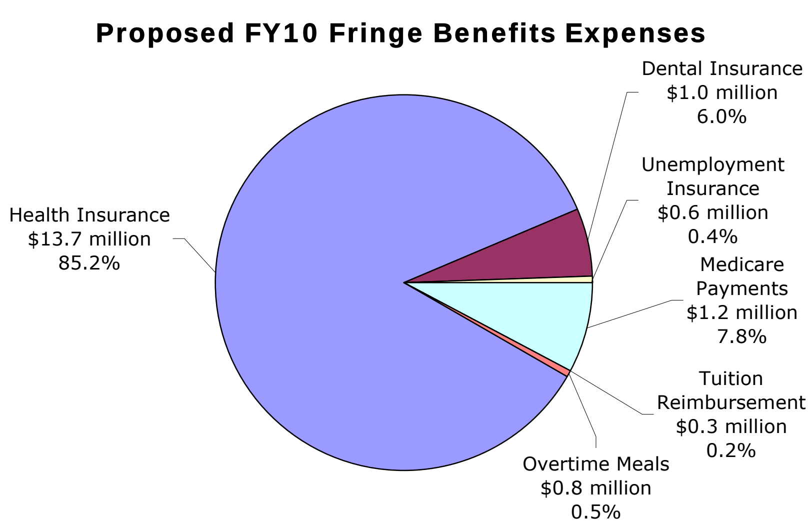


Chart 11

reflects lower Authority contributions toward health insurance payments of an estimated $1.4 million if the proposed legislation is approved. The Authority is proposing to use the $1.4 million in anticipated savings for a nominal OPEB contribution in FY10 (see page 24).

Because the Authority's Proposed FY10 CEB includes this potential reduction in Fringe Benefits, it masks the fact that the rising cost of Fringe Benefits, particularly Health Insurance, has been a subject of continual discussion for a number of years. Indeed, Fringe Benefits have been a "pressure point" for the Authority's budget in recent years as well. Between FY04 and FY09, the Authority's Fringe Benefits expense has increased by over 50%. As such, the Advisory Board expects that the Authority will monitor any proposed legislation regarding health insurance contributions very closely.

It should be noted that since the Authority prepared the proposed budget, the GIC has announced a lower rate increase, at 3.19%, than the Authority had assumed. In addition, changes to the Dental Insurance program, possibly moving the program to the GIC, could also mean savings in the future. ***The Advisory Board anticipates the Final FY10 budget will reflect the status of these developments.***

Workers' Compensation

The Authority is proposing a budget of $1,325,000 for Workers' Compensation expense in FY10, the same amount as budgeted for FY09. Actual spending was at lower levels in FY08 and FY07, as the Authority has resolved a number of open claims. However, accruals through March 2009 are running nearly $400,000 over budget for the year-to-date and reflect actual payments, as well as monthly reserve adjustments.

Toolbox 2

"Toolbox"	
Potential Reduction	Potential $s
Potential contract concessions or favorable negotiations with unions during FY10 for union contracts beginning in FY11	Contingent upon collective bargaining
Updated Fringe Benefits costs to reflect any updated legislation	Contingent upon legislative action

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Table 9

Proposed Fiscal Year 2010 Indirect Expenses Summary ($s)		
Pension	$8,392,132	Scheduled pension contribution plus additional $2.8 million for rebuilding depleted pension fund levels.
Post-Employment Benefits	$1,400,000	Assumes changes to employees' share of fringe benefits per Governor's budget.
Insurance	$2,625,000	Insurance and payments/claims.
Mitigation Payments	$1,481,367	Mitigation payments to Quincy and Winthrop.
HEEC Payments	$3,877,500	Cross harbor cable to Deer Island (includes both debt service and O&M components)
Watershed Reimbursements[16]	$23,599,673	Supports the operations and related costs of the state's Division of Conservation and Recreation Watershed Management Division.
Additions to Reserves	$210,954	1/6th of all planned Operating Expenses
TOTAL INDIRECT EXPENSES	**$41,586,626**	

Other Highlights

- The Authority's defined contribution is based on a two-year-old actuarial study; an updated analysis is being prepared.
- Insurance expense assumes a 10% increase in premiums.
- Mitigation payments have increased 2.5%.
- HEEC payments have decreased by 7%.
- Watershed direct expenses were essentially level-funded; the 4.2% increase reflects increases in Payments in Lieu of Taxes (PILOT).

[16] Note: due to an accounting treatment for updated debt service information, the Authority lists Watershed Reimbursement at $23.6 million; however, the $24.3 million listed in Table 10 reflects the actual expenses of the DWSP.

Watershed Reimbursement / PILOT Payments / Debt Service

The Authority has proposed a budget of $24,275,901 for Watershed Reimbursement, which includes operating expenses for the Division of Water Supply Protection (DWSP), debt service for Watershed Land purchases, and Payments in Lieu Of Taxes (PILOTs).

As noted above, the DWSP has essentially level-funded its operating expenses, and the 2.2% increase overall is due to increases in PILOTs combined with a decrease in projected revenue (see Table 10). In essence, the DWSP is doing its part to tighten its expenses due to the current economic situation; the Advisory Board commends both DWSP and the Authority for controlling these expenses.

Watershed Reimbursement [17]

Table 10

EXPENSES	FY2008 Budgeted	FY2008 Actual	FY2009 Budgeted	FY2010 Proposed	Increase %
Division of Water Supply Protection Operating Expenses	$13,519,545	$13,667,613	$13,720,279	$13,720,068	0.0%
Revenue	$1,285,000	$1,827,382	$1,503,000	$1,403,000	-6.7%
Net	$12,234,545	$11,840,231	$12,217,279	$12,317,068	0.8%
Debt Service	5,608,833	5,608,833	5,608,833	5,608,833	0.0%
TOTAL	$17,843,378	$17,449,064	$17,826,112	$17,925,901	0.6%
Payment In Lieu Of Taxes	6,040,000	6,226,338	5,933,500	6,350,000	7.0%
TOTAL	**$23,883,378**	**$23,675,402**	**$23,759,612**	**$24,275,901**	**2.2%**

Watershed CIP Projects

The Authority has some projects in its Proposed FY10 CIP that relate to water supply protection with planned spending in the FY10-13 period.

The Wachusett Reservoir Spillway Improvements/Winsor Dam Repair project was undertaken to make necessary improvements at dams that are 60 and 100 years old respectively; however, during preparations for improvements at the Wachusett dam, the presence of polychlorinated biphenyls (PCBs) was discovered in exterior caulking materials and nearby facilities as well. Three separate contracts were developed for PCB-removal. The project is currently scheduled for completion in FY10, with $2.5 million in projected spending.

Watershed Land purchasing also begins to drop off during the FY10-13 period with $3.8 million in projected spending for FY10, and $1.0 million or less per year for FY11-13.

The Authority is also proposing $7.5 million in Dam Repairs with the majority (84.5%) scheduled in the FY10-13 timeframe.

Pension Expense / OPEB

The Authority has budgeted $8.4 million for Pension Fund expense, which includes the scheduled payment, as well as an additional $2.8 million for rebuilding depleted pension fund levels. OPEB is budgeted at $1.4 million. In FY09, the Board of Directors voted to redirect the funds originally designated for the OPEB liability toward the pension fund liability based, in part, upon its financial advisors' advice. As a result, the Proposed FY10 budget appears to show a sharp decrease in Pension Fund expense and a significant increase in OPEB expense; in actuality, the Authority has dramatically altered its strategy with regard to these two line items.

[17] Derived from MWRA data.

In recent years, the Advisory Board has consistently advocated against funding OPEB until better direction is received from the rating agencies about the best approach to meet this liability. However, as part of the Authority's approach toward the FY10 CEB, the portion of the FY09 Pension Fund expense that was redirected from OPEB expense is being reserved to help conduct the defeasance transaction planned for this spring (see also page 16). The $1.4 million proposed for FY10 is not only a nominal amount compared to the amounts proposed in the last two years, but also is tied directly to legislation proposed by the Governor. The proposed legislation would introduce a new income-based method of calculating an employee's contribution for health care benefits; if adopted, the Authority estimates savings of $1.4 million in Fringe benefits (see also page 20). The Proposed FY10 CEB has reduced Fringe Benefits by $1.4 million, but placed the same amount as a "placeholder" in the OPEB line item. Should the legislation not be enacted, the $1.4 million would be redirected back to the Fringe Benefits line item.

Two potential areas for reduction can be found in these two categories of expense. ***First, the $2.8 million beyond the required pension payment could be reduced while still maintaining the Authority's fiscal responsibility toward its pension liability by following its adopted schedule. Second, if the Governor's legislation is enacted and the Authority realizes savings on Fringe Benefits expense, the $1.4 million proposed for OPEB could also be reduced.***

Beyond highlighting these areas of potential reduction, the Advisory Board would also like to point out that these are unusual and unique times financially; as such, perhaps they provide the opportunity to revisit and review traditional practices. Investment strategies for the pension fund, for example, might be revisited in light of the economic crisis; for example, perhaps the Authority should consider extending its current position of not funding the OPEB liability to a large degree, or at all, until some measure of financial equilibrium is restored.

Addition to Reserves

The Authority's bond resolutions require three reserve funds: the *Operating Reserve*, the *Insurance Reserve* and the *Renewal and Replacement Reserve*.

The Operating Reserve must equal two months of budgeted MWRA operating costs (which include Direct Expenses, Insurance, Mitigation payments, Retirement Fund deposits, Post-Employment Benefits, BECo/HEEC expense and the Chelsea Lease payment). ***The Advisory Board expects the Authority to make any necessary adjustments to the Operating Reserve additions based upon any additional operating expense reductions in the Final FY10 CEB.***

Toolbox 3

"Toolbox"	
Potential Reduction	Potential $s
Reconsideration of Pension Fund expense – additional payments beyond required schedule	Up to $2.8 million
Reconsideration of OPEB payment	$1.4 million (contingent upon legislative action)
Recalculation of Operating Reserve deposit (contingent upon any additional operating expense reductions)	1/6th of additional reductions

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Table 11

Proposed Fiscal Year 2010 Maintenance Expense Summary ($s)		
Buildings and Grounds Expense	$4,892,789	Materials and services for maintaining buildings and grounds.
Automotive Expense	$706,500	Materials and services for maintaining vehicles.
Plant and Machinery Expense	$12,703,269	Materials and services for maintaining plant and machinery expenses. (E.g. drive chains, facility painting and coating)
Pipeline Expense	$965,777	Materials and services for maintaining pipeline.
Specialized Equipment Expense	$3,198,976	Materials and services for specialized equipment. (E.g. grit screens, lab equipment repairs, sewer bucketing equipment)
Computer Expense	$2,660,899	Includes materials, services, software licenses and upgrades.
Electrical Expense	$822,026	Materials and services for maintaining electrical systems.
All Other Maintenance Expense	$3,437,375	Includes HVAC materials and services and purchase cards.
TOTAL MAINTENANCE EXPENSE	**$29,387,611**	

Other Highlights

- Maintenance expense increases by $1.3 million or 4.6%.
- Maintenance expense is 14% of all Direct Expenses.

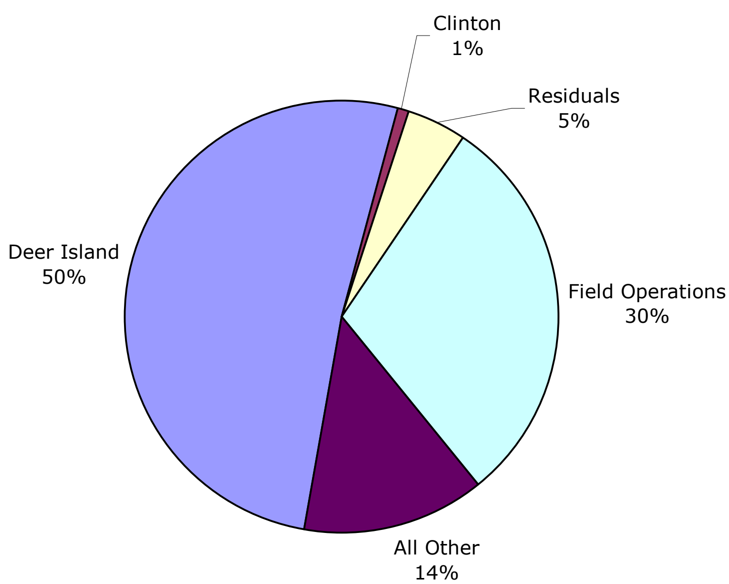


Chart 12

- Half of all Maintenance is for Deer Island ($15.1 million).
- Another 30%, or $8.7 million, is for Field Operations, including the CWTP, Headworks, CSO facilities and water and wastewater pump stations.
- All other Operations Division Maintenance expense is $1.9 million and includes $1.33 million for the Residuals plant plus $0.23 million for the Clinton Wastewater Treatment Plant.
- All other maintenance expense accounts for $4.0 million, or 13.6%, of total maintenance expense including $2.5 million for MIS and $0.3 million for Lab Services.

Agency-wide

The Authority is proposing a budget of $29,387,611 for Maintenance expense in FY10, an increase of 4.6% (nearly $1.3 million) over the $28,089,127 budgeted for FY09. This category of expense has grown by 50% in the last four years, an increase of nearly $10 million. This growth reflects the fact that even the so-called "new" facilities are aging: major elements of the Deer Island Wastewater Treatment Plant are 15 years old and the Carroll Water Treatment Plant is almost five years old. As the agency completes these major facilities and upgrades of many others, it is moving increasingly into "maintenance mode" with its facilities and systems.

Maintenance spending is at the core of both the Current Expense and Capital Budgets. Some maintenance projects in the Current Expense Budget address immediate needs until a larger, more comprehensive capital project can be scoped and designed as part of the Capital Program. Some projects are ongoing, such as regular painting and coating of facilities and are considered components of the Current Expense Budget; others are periodic, such as pump or VFD replacements and are considered candidates for the Capital Budget. Still others appear in both budgets, depending on the their size and duration: most roof repair projects have been considered part of the Current Expense Budget, while more recently, larger roof repair and replacement projects meet the criteria for inclusion in the Capital Budget (discussed below).

Half of all Current Expense Budget Maintenance spending is for the Deer Island Wastewater Treatment Plant, $15.1 million. Another 30%, or $8.7, million supports Maintenance spending for the Field Operations Department.

The Authority has been using a Reliability Centered Maintenance strategy (RCM) in identifying and prioritizing maintenance needs. RCM is a structured maintenance approach that rigorously analyzes systems' design, operational and maintenance strategies, and safety issues. The Authority states that by reviewing systems in their site-specific operating context, staff maintenance efforts can be more focused on maximizing value. Often, the result is a Preventive Maintenance (PM) Program that is less costly and more effective in maintaining system availability and long-term asset protection.

<u>Deer Island Maintenance Spending</u>
Of Deer Island's $15.1 million maintenance expenses, 68% is for maintenance services, the remaining 32% for maintenance materials.

The largest category of expense within the Deer Island maintenance budget is affiliated with plant and machinery maintenance. Together, plant and machinery materials and services represent 55%.

Deer Island Proposed FY10 Maintenance Spending

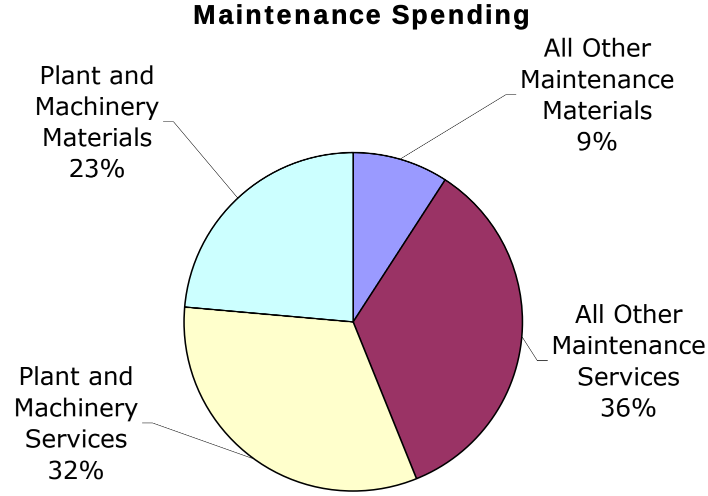


Chart 13

Examples of projects planned are: facilities painting and coating (ongoing), scrubber media replacements, rebuilding of aerators and reactor mixer gearboxes, large motor repairs, replacement of obsolete elevator controllers, rebuilding the aeration blower gearbox, hypochlorite tray repairs, among many others. Also planned are replacement of existing oxygen analyzers for the reactor vent lines, replacement of failed HVAC units, replacement of 22 drive chains, and a number of electrical repairs.

Deer Island capital projects represent $234.4 million in spending in the Capital Improvement Program for the cap period (FY09-13). Capital spending on the plant grows rapidly between FY09 and FY10, more than tripling from $18.4 million to $59.5 million. Spending on the plant from FY10 - FY12 averages nearly $59 million per year.

The Authority proposes funding for 72 contracts during the cap period, 11 under Deer Island Plant Optimization, totaling $9.38 million, and 61 contracts for Deer Island Treatment Plant Asset Protection, totaling $225.0 million. Energy projects, such as wind turbines, are budgeted as part of the Alternative Energy Initiatives under Business and Operations Support.

Two large contracts dominate Deer Island capital spending: Primary and Secondary Clarifier Rehabilitation ($56.1 million, awarded January 2009) and North Main Pump Station Variable Frequency Drive (VFD) Replacements ($32.5 million, to be awarded spring 2010). Together these two contracts represent 40% of all Deer Island capital spending during the cap period. Another six contracts with spending over $5 million bring the total to $141.9 million or 60% of all Deer Island capital spending.

Table 12

Top Deer Island Projects During Cap Period FY09-13
($ millions)

Top Eight Projects, Over $5 Million	Amount	Comments
Prim & Sec Clarifier Rehab	$56.12	Total project cost within cap; awarded at $59.38 million; high priority
North Main PS VFD Replacement	32.50	Total project cost, all within cap; increase to $40.0 million expected
Electrical Equipment Upgrade 3	14.00	
Heat Loop Pipe Replacements	11.20	Awarded at $10.8 million; high priority
Power System Improvements	9.50	Three parts: $2.9 million awarded, two others still to be awarded
Digester Mod 1&2 Pipe Replacement	8.00	Does not include design/ESDC costs
NMPS Motor control	5.31	
HVAC Equipment Replacement	5.27	
subtotal	**$141.90**	
All Other Active Projects During Cap	**$92.50**	There are 64 other active Deer Island contracts
TOTAL	**$234.40**	

Field Operations Department

Maintenance work performed by the Field Operations Department is budgeted at $8.7 million for FY10. The amount represents an increase of $808,167 or 11% over the FY09 budget and reflects a $569,100 net increase in major projects and parts (including energy initiatives, project materials such as carbon replacement for Nut Island and other wastewater pump stations, and replacement of an air handling unit at the Chelsea Screenhouse), a $17,677 net increase in day-to-day project needs and an increase of $293,390 in service contract spending (including increases for alarm services, elevator services and wastewater metering services).

A series of asset management projects are budgeted in the CIP under Interception and Pumping Asset Management (for Wastewater projects) totaling $36.049 million for the cap period FY09-13 and under Other Waterworks Projects (for Waterworks projects) totaling $1.089 million for the cap period. As facilities age, these projects will include more specific facility based projects and contracts, particularly for the Water Treatment Plant.

Table 13

Field Operations Department Asset Protection Projects With Spending During FY09-13 ($ millions)		
Project	Amount	Comments
Nut Island Mech & Elec Replacements	9.10	
Headworks Screens/Grit Construction	5.00	
Alewife Brook PS Rehab Construction	3.27	
Columbus Park & Ward St HVAC	3.00	
Prison Point HVAC	2.92	
PS/CSO Condition Assessment	1.74	
Headworks Upgrades Construction	1.72	Concept Plan underway
Interceptor Renewal Construction #1	1.60	
Headworks Screens/Grit Design	1.00	
Subtotal (Top 9 Projects)	**$29.35**	**Accounts for nearly 90% of FY09-13 spending**
All Other I&P FAMP	$3.70	
TOTAL I&P FAMP	**$33.05**	Total contract cost is $86.9 million; remainder after FY13
Waterworks Facility Asset Protection	**$1.09**	Total contract cost is $4.775 million; remainder after FY13
TOTAL	**$34.14**	

Residuals Maintenance

The Authority is budgeting $1.33 million in the CEB for capital repair, replacement and improvement projects as called for in the NEFCO contract provisions. The CIP includes $6.57 million for capital projects, studies and design contracts for the FY09-13 timeframe.

Clinton Wastewater Treatment Plant Maintenance

The Authority is budgeting $230,000 in the FY10 CEB for maintenance of the Clinton Wastewater Treatment Plant. The capital program includes $2.78 million for the FY09-13 period.

Capitalization Policy

The Authority's capitalization policy states that: "Expenditures for tangible assets are included in the Capital Improvement Program and Budget if the expected cost of the individual asset or capital project is $100,000 or more and if the expected useful life is more than one year. Expenditures for intangible assets are capitalized if the expected cost is $100,000 or more and if the expected benefit period is three years or more. Annually recurring costs and expenditures for maintenance of assets are not capitalized, even if their costs may exceed $100,000."

The policy is subject to interpretation. One recent example is a Deer Island roof replacement project, which, unlike earlier phases, was a larger project involving several facilities with a cost of $2.3 million in FY09 and $1.23 million in FY10. The project had been budgeted in the CEB, but staff now report that the project is expected to be assigned to the CIP. Another project, the Melrose Sewer Extension, is charged to the CIP but questions remain as to whether construction costs should be charged to the CEB. ***The Advisory Board anticipates a $1.23 million reduction to maintenance by shifting the Deer Island Roof project to the CIP, and notes that similar shifts could occur if the Authority were to revisit its capitalization policy.***

Toolbox 4

"Toolbox"	
Potential Reduction	Potential $s
Reclassification of Deer Island roof project spending from CEB to CIP	$1.23 million reduction to PFY10 CEB; anticipated increase to CIP
Other reclassifications of projects that meet a revised capitalization policy	Contingent upon any new language or interpretation of capitalization policy

Table 14

Proposed Fiscal Year 2010 Utilities Summary ($s)		
Electricity	$20,890,933	Most facilities are powered by electricity including DITP and CWTP.
Diesel Fuel	$2,314,726	Heating, CTGs at DITP, and other backup generators.
Water	$1,738,746	A "pass-through" cost to account for water; self-supplied.
Natural Gas	$754,040	Primarily used for heating various MWRA facilities.
All Other Utilities	$289,636	Oxygen, #2 Fuel Heating Oil, Propane and all Other Utilities.
TOTAL UTILITIES EXPENSES	**$25,988,081**	

Other Highlights

- Utilities Expenses have decreased over $3.7 million, or 12.6%.
- Utilities costs represent 12% of all Direct Expenses.
- Over 71% of purchased Electricity (kWh) powers Deer Island Treatment Plant.
- Another 6.6% of purchased Electricity (kWh) powers the Carroll Water Treatment Plant.
- Diesel fuel expenses have been reduced $1.3 million, or 36%.
- Natural gas expense falls $107,000, or $12%.
- Natural gas use at the Fore River pelletizing plant is part of the NEFCo monthly charge, under *Other Services.*

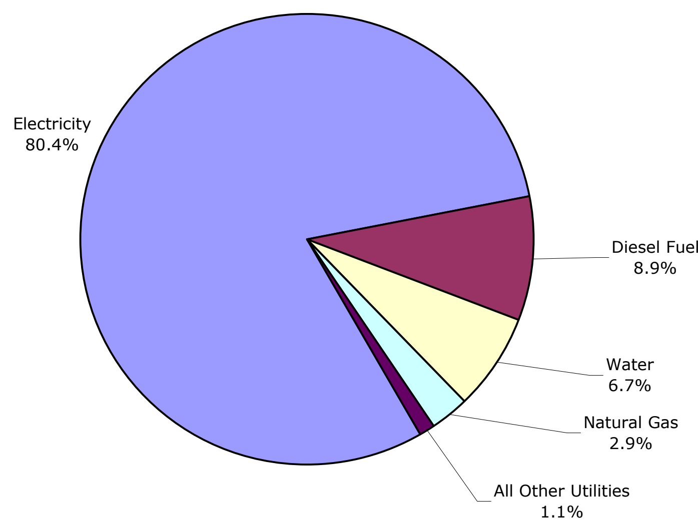


Chart 14

Electricity

Electricity costs, which make up 12% of all Direct Expenses, have two components: the amount of electricity purchased and the unit price of electricity purchased. The Authority's proposed budget for electricity expense represents 80% of total utilities costs for FY10. Of that, almost 71% of purchased electricity is used to power the Deer Island Treatment Plant (see Chart 15).

Proposed FY10 Electricity Expense By Cost Center

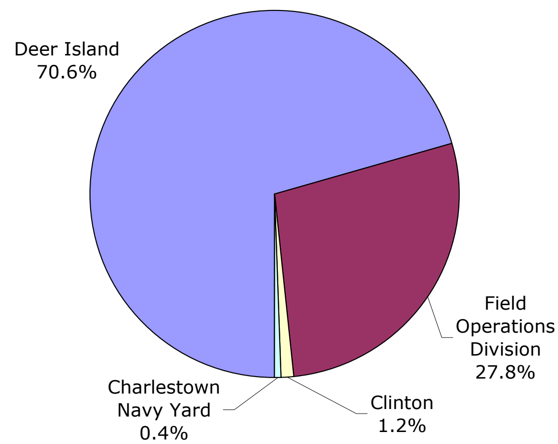


Chart 15

Usage
There are three components of usage: required usage – the total amount of electricity actually needed to run operations; avoided purchase – self-generated energy from alternative sources used for operations (e.g. wind, solar, STGs); avoided use – demand-side changes and reductions of use (e.g. energy-efficient equipment replacement).

The Authority's required usage has remained fairly constant over recent years but has declined slightly due to the continued pursuit of demand-side initiatives (discussed below).

As noted in Table 15, the Authority's proposed FY10 budget indicates that it expects 24% of Deer Island's electricity to be self-generated, or under the avoided purchase category.

Table 15

	Required Usage (kWh)	Avoided Purchase (kWh)	Purchased Electricity (kWh)	Electricity Cost ($s)
Deer Island	166,798,610	40,126,810	126,671,800	$13,142,107
Field Operations Division	49,971,297	-	49,971,297	$7,324,891
Clinton	2,104,595	-	2,104,595	$259,305
Charlestown Navy Yard	778,745	-	778,745	$164,629
TOTAL	**219,653,247**	**40,126,810**	**179,526,437**	**$20,890,932**

Table 16 indicates the five sources of self-generation at Deer Island in the Proposed FY10 CEB, some of which relate directly to projects included in the Proposed FY10 CIP.

The existing Steam Turbine Generators (STGs) generate over 28 million kWh in electricity, but the capital project to upgrade the STGs would contribute an additional 5 million kWh.

The Authority is also in the midst of a project to construct wind turbines at Deer Island, which are projected to generate 1.725 million kWh.

The Authority has already installed solar panels on Deer Island with the assistance of a Massachusetts Technology Collaborative (MTC) grant, which accounts for the 100,000 kWh already included in the Proposed FY10 CEB.

Table 16

DITP Avoided Purchase by Source	
STGs	28,071,910
CTGs	4,760,000
Hydro	5,469,900
Wind	1,725,000
Photovoltaic	100,000
TOTAL	**40,126,810**

The Authority has also proposed several alternative energy (avoided purchase) projects in its Proposed FY10 CIP; moreover, the Authority has also applied for stimulus funds for several additional alternative energy projects that were not included in the Proposed FY10 CIP (see Table 17).

As noted above, some projects already exist, some have been funded in the Proposed FY10 CIP, and some have not been funded yet, but could move forward should the Authority receive outside funding sources (stimulus funds and/or additional grants). The Advisory Board applauds the Authority's efforts to reduce the electricity costs through avoided purchase. Moreover, the Advisory Board supports the Authority's continuing pursuit of cost-effective alternative energy projects in the future.

Additionally, the Authority has sought to reduce the amount of electricity needed to conduct its operations – avoided use – by pursuing a number of demand-side changes and initiatives (See Table 18).

Table 17

Alternative Energy Initiatives

Energy Source	Location	Funded	Avoided Purchase (kWh)
Wind Turbines	Deer Island	Yes	1,060,000
	Nut Island	Yes	3,788,000
	CWTP	Study	2,430,000
	DeLauri P.S.	No	3,700,000
	Braintree-Weymouth P.S.	Study	2,896,000
	Norumbega	No	2,600,000
	Gillis P.S.	No	2,600,000
	Southborough	Study	2,537,000
	Chelsea Maintenance	No	Unavailable
STG	Deer Island (STG)	Existing	28,071,910
	Deer Island (Upgrade)	Yes	5,000,000
Photovoltaic	Deer Island (Phase I)	Yes	100,000
	Deer Island (Phase II)	No	Unavailable
	CWTP	Study	600,000
	Cottage Farm	No	131,400
	Union Park	No	105,000
	Nut Island	No	100,000
	Southborough	No	14,000
Hydroelectric	Deer Island	Existing	5,800,000
	Loring Road	Existing	1,200,000
	Wachusett	No	750,000
	Oakdale (Upgrade)	Yes	366,000
	Cosgrove	Existing	3,375,000
Digester Gas	Clinton	Existing	320,000
Existing			40,126,810
Potential New			27,417,500
TOTAL			**67,544,310**

The Advisory Board commends the Authority for its demand-side initiatives and the resulting reduction to electricity expense as well.

Table 18

Demand-Side Energy Initiatives

Project	Location	Funded	Avoided Use (kWh)
Lighting Phase I	Deer Island	Yes	1,340,000
Lighting Phase II	Deer Island	Yes	1,260,000
Lighting Phase III	Deer Island	Yes	TBD
Lighting Phase IV	Deer Island	Yes	TBD
VFD Replacement	Deer Island	Yes	1,250,000
Energy Audits	Chelsea	Yes	228,100
Soda Ash Mixers Turned Off	CWTP	Existing	1,760,000
Pump Station Rehab	Various	Yes	1,105,824
South Station Pumps	Deer Island	Existing	1,300,000
Lighting Retrofits	CWTP	Existing	450,000
Energy Audits	Clinton	Existing	370,000
TOTAL			**9,063,924**

See footnote [18]

Pricing

The second component of the Authority's electricity costs is unit-pricing. While the Authority has some contracts that utilize fixed pricing, Deer Island's pricing, and, therefore, the majority of electricity purchased, is variable. At this time, the Authority is projecting a further decrease in electricity pricing during FY10, which contributes greatly to the overall decline of utilities costs in the Proposed FY10 CEB. The Deer Island electricity contract is expected in time for the Final FY10 CEB and ***the Advisory Board expects electricity expenses in the Final FY10 CEB to reflect the updated projections based on both updated pricing and usage assumptions.***

Diesel

At $2.3 million, diesel expenses make up almost 9% of the utilities budget. Expense for diesel declined by 36% in the Proposed FY10 CEB, largely due to a reduction in pricing assumptions and an assumed starting inventory of 800,000 gallons on Deer Island at the beginning of FY10. Diesel costs at Deer Island are largely a function of purchased amounts and timing of purchases.

[18] As of the time of this writing, the Wachusett Hydroelectric project has been postponed pending a larger discussion of the system expansion and downstream release policies.

Almost all diesel expenses for FOD are for wastewater operations: pumping, headworks, and CSOs, and are utilized largely for heating.

Table 19

Diesel Usage		
	Usage (gal)	**Cost ($s)**
Deer Island	232,940	$582,350
Field Operations Division	629,955	1,732,377
Clinton	-	-
Charlestown Navy Yard	-	-
TOTAL	**862,895**	**$2,314,727**

The largest category of use of diesel fuel at Deer Island is for wet weather operation of the CTGs. The use of the CTGs during wet weather events arose following power outages at Deer Island in 2004 and 2005. Since then, the Authority has invested tens of millions of dollars in equipment repairs and upgrades, undertaken staff training, changed operating procedures, and hired new electricians. The Authority is much better positioned than before to avoid new outages or to start up the CTGs more quickly and reliably in the event of an outage in the future.

The Authority currently assumes the use of 324,000 gallons of diesel fuel to support 120 hours (five days) of wet weather operation at $2.50 per gallon, for a total expense of about $800,000. Thus, every ten hours of operation is the equivalent of approximately $67,500; operation over a 24-hour period would result in an expense of $162,000 and three days would be nearly $500,000. (Or, 75 hours results in an expense of $500,000.) ***The Advisory Board notes that if the Authority were to reconsider its budgeted amounts for diesel fuel use for CTG operation during wet weather events, there could be some resulting savings in the diesel fuel expense.***

Toolbox 5

"Toolbox"	
Potential Reduction	Potential $s
Updated electricity assumptions – usage, self-generation + demand management, and pricing	Contingent upon pricing futures
Reduction in CTG wet weather event hour assumptions	10 hour reduction = $67,500

Table 20

Proposed Fiscal Year 2010 Other Services Summary ($s)		
Pelletization	15,911,501	NEFCo contract to process and dispose of sludge pellets.
Lease	3,151,649	Charlestown, Chelsea, Marlborough Records Center
Telephone	1,382,062	Voice and data lines; Operations Division
Grit and Screenings Removal	1,078,885	Removal of grit and screened materials from various facilities.
All Others	2,654,620	Printing, membership/dues/subscriptions, advertising; health/safety, moving/freight; permit fees; police details; other equipment rentals; Advisory Board operations; various other services.
TOTAL OTHER SERVICES EXPENSES	**$24,178,717**	

Other Highlights

- NEFCo contract runs from FY01-FY15.
- Grit and Screenings removed from Deer Island, Headworks including Nut Island, certain pump stations, CSO facilities.
- Police Details decline by one-third from FY08 actual spending, due to the assumption of the use of flaggers; other capital construction-related use of Police Details is reflected in each capital project.
- Membership/ Dues/Subscriptions declines 61% to $197,658; Authority eliminated funding for Water Environment Research Foundation (WERF) as part of an initiative to curtail spending. It had been funded at $117,500.

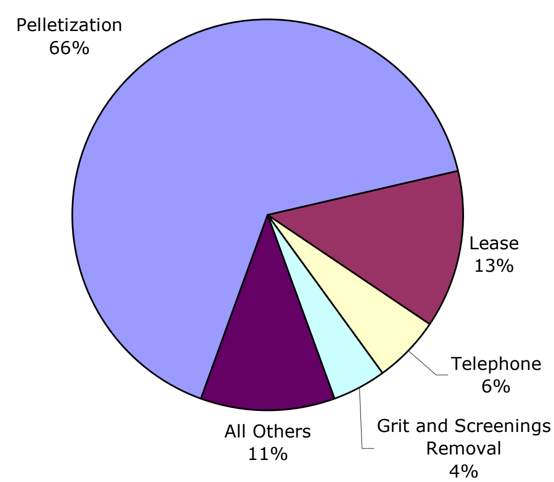


Chart 16

Overview

The largest driver of the Other Services category of spending is pelletization, which makes up two-thirds of total category spending. Pelletization costs must be discussed in two contexts – in the short-term through the end of the current NEFCo contract, and the long-term costs beyond FY15. Short-term costs are directly tied to the amount of sludge processed, and the long-term costs will begin to be addressed through two projects in the Proposed FY10 CIP. Regarding the other line items in this category of expense, the Authority has largely had success in recent years in reducing costs. One other area of note is a discussion of the reduction of the Police Details line item.

Pelletization

Pelletization forms the majority of the Other Services category. As noted before, the issue of pelletization costs must be addressed in two time-frames: the short-term costs under the current NEFCo contract, and the long-term costs after the contract expires in FY15.

In the short-term, the only method of controlling Pelletization costs is to reduce the amount of residuals being processed. The Proposed FY10 CEB includes an assumption that 106 tons-per-day (TPD) will be processed. To put this in context, a reduction of 1 TPD on an annual basis would reduce Pelletization costs by $113,000 per year.

In discussions with Authority staff as part of the Proposed FY09 Amended Budget process, the Advisory Board had encouraged the Authority to explore the potential for reducing sludge quantities. Understanding that such changes could not be undertaken immediately, ***if the Authority were able to make any short-term (before FY15) process changes or equipment modifications at the Deer Island Treatment Plant to reduce sludge quantities, it could lead to some savings on pelletization costs.***

It should be noted that one component of the pelletization costs is governed by the Producer Price Index (PPI). ***The Advisory Board expects pelletization costs to reflect any updated PPI information.***

Additionally, there are many long-term issues to consider with the Fore River facility. Most important will be the new costs associated with pelletization after the expiration of the NEFCo contract. Currently, the contract is financially beneficial for the Authority, particularly with the elimination of barging costs. NEFCo, or any other bidder, will undoubtedly seek a contract with a more favorable contract structure for the vendor. This means that costs for pelletization will undoubtedly increase post-FY15.

This upcoming change may, however, provide the opportunity for the Authority to reexamine how it handles its residuals processing as a whole. Some topics that could be considered could be a cost-benefit analysis of continuing to privatize the function versus managing the process in-house, or perhaps considering the processing and disposal functions separately, contracting out for one, while retaining the other in-house.

The Proposed FY10 CIP includes a two-phased project that will be critical to these considerations. The first phase is a condition assessment of the Fore River facility, currently scheduled to begin this spring, which will undertake an evaluation of the current facility. The second phase will identify and evaluate any emerging or alternative technologies for pelletization and processing.

The Authority has begun to put together a partial list of technologies that could be considered as part of the emerging technologies analysis portion of this project. Among them are Sludge-To-Oil, which would subject sludge to high pressure and temperature to reduce volume and result in "e-fuel" with a high BTU value; Enhanced Gas Production, which increases gas production for greater energy recovery; sludge reduction, which would reduce the quantity of sludge to be processed; sludge to liquid, which relies primarily upon heat recovery; gasification, which creates "syngas" from sludge; thermal solidification, which essentially melts sludge into glass; and cell destruction, which destroys up to 90% of solids, resulting in increased gas production and greater energy recovery.

The evaluation of these and other technologies provides an excellent opportunity for the Authority to redesign and restructure its operations to take advantage of new processes. Moreover, all of these technologies seem designed to reduce sludge quantities, increase energy recovery, and/or result in beneficial re-use products.

The Advisory Board supports the Authority's proactive approach by beginning this project half-way through the current NEFCo contract in anticipation of any structural or operational changes that may need to be undertaken. Given the inevitable cost increases associated with residuals processing after the current contract expires, it would behoove the Authority ***to explore and pursue any emerging technologies that could reduce the quantities of sludge being processed, and which provide a beneficial reuse product. Moreover, the Authority may need to work with the Legislature, if needed, to ensure the Authority receives "green credits" for any beneficial reuse products or additional energy generation from any resulting sludge byproduct.***

It should be noted that the Proposed FY10 CIP and Master Plan both include placeholder projects for any capital improvements identified in the condition assessment. The Advisory Board expects that these projects will be more fully discussed with the next update of the Master Plan, which would need to be completed in FY12 for use in setting the next capital spending cap during FY13 (the Proposed FY14 budget process).

Lease

The portion of this line item attributable to the Chelsea lease pertains specifically to the operating and tax costs associated with the facility. A discussion of potential savings by renegotiation of the capital portion of the annual Chelsea lease payment can be found under the Capital Financing section (page 17). Regarding the other facilities and leases, the Authority has continued to monitor its facility needs, reducing unnecessary leased space and lease costs. The Advisory Board expects that the Authority will continue monitoring this item for any potential reductions and savings.

Also included in lease expense are the costs of the Charlestown Navy Yard space, rental of some garage space, and lease of space in Marlborough for the Records Center.

Telephones

Much as with lease costs, the Authority has continued to monitor this expense and reduce it whenever possible by consolidating telephone accounts. This expense is used not only for voice data lines, but also by several remote facilities.

Grit and Screenings

The Authority's proposed budget of $1.1 million for grit and screenings expenses increases 9.4% over FY09. The amount is based on a slight increase in the assumed quantities plus a 5% increase in price. A new two-year contract is about to go into effect.

The contract is to haul and dispose of minor residuals from various MWRA wastewater facilities. Minor residuals are by-products of wastewater pre-treatment and primary/secondary treatment processes and include grit, screenings and scum screenings. A third of the amount is collected at Deer Island and the balance is from various other wastewater facilities, including Nut Island and the other headworks, CSO facilities, pump stations and the Chelsea Creek Screenhouse.

Police Details

The Proposed FY10 CEB budgets $342,000 for police details, which represents a reduction of one-third from actual police detail spending in FY08. The reason for this decline is due to an assumption of the implementation of a gubernatorial executive order that allows state agencies to use certified flaggers or signage in lieu of police details in certain instances.

Of the three agencies most impacted by this executive order – Massachusetts Highway Department (MHD), the Department of Conservation and Recreation (DCR), and the MWRA – the Authority is the only one that does not own or control the roads that it works on. As of an April presentation to the Advisory Board, the Authority was also the only one of the three agencies implementing the new flagger regulations. Because the Authority has been the first agency to implement these new regulations, they have met with resistance and protests from local police when conducting their work, in some cases garnering media attention around what is considered by many to be a "hot button" issue, with multiple municipalities challenging the MWRA'S legal authority to perform work under the terms of the new regulations. In order to avoid confrontation while attempting to perform their scheduled assignment, the Authority has typically abandoned work at the disputed location and moved on to other assignments. As a result, the Authority has fallen measurably behind on its planned maintenance programs, particularly valve exercising and meter maintenance.

Moreover, there are additional costs that have impacted at least the initial cost-savings. Additional equipment (signs, cones, safety vests, protective wear, and uniforms) needed to be purchased, and staff trained to become flaggers since there were no certified flaggers in the state at the time of the implementation of this executive order. Additional "hidden" or trade-off costs include the fact that MWRA employees are being diverted from their other duties to act as flaggers. Because the Authority has largely utilized buildings and grounds staff, the effect wasn't as pronounced during the winter, but in warmer weather the impacts of diverting this staff will be more noticeable.

Beyond the Authority's maintenance programs, there is also the potential for these regulations to impact capital projects as well. Most projects won't be impacted because they are either grandfathered or they require police details (e.g. roads with high traffic volume and/or speed limits), but capital projects moving forward will be bid under the new regulations. If similar confrontations with police occur with capital projects, it could produce significant delays and complications. Unlike the maintenance program where the crew can be sent to other jobs and worksites, capital projects could potentially come to a halt during any police protests.

The Hultman Aqueduct is one example of a new project being bid under the new regulations where MWRA staff has indicated potential difficulties may arise with local police as the project moves forward. Another potential consequence could be the loss of some stimulus funding should work on capital projects be delayed. If projects receive stimulus funding predicated upon work being completed by a date-certain, any delays could place capital projects in jeopardy of missing this deadline, and therefore, becoming ineligible under the terms of the stimulus program.

While it is admirable that the Authority is trying to work under the new regulations issued by the Governor, this must be balanced with practicality. To fall significantly behind on maintenance is untenable. To potentially lose stimulus funds due to capital construction delays would be untenable. The priority must be the execution of the Authority's basic functions, and only then institution of the new program. Until the Administration offers greater support and assistance to the Authority in facing the challenges of implementing this policy, the Authority should continue making decisions that best allow it to complete its work.

Toolbox 6

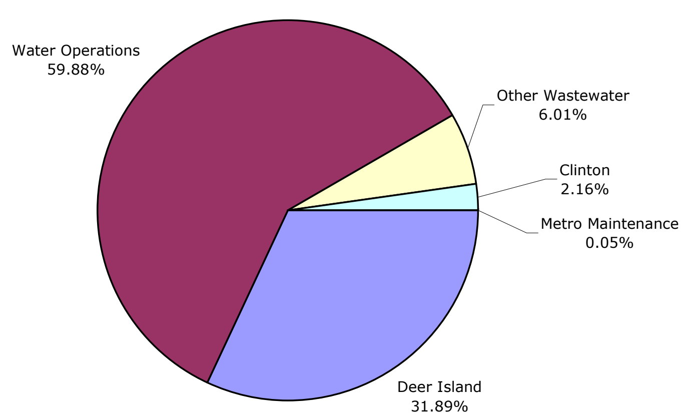
"Toolbox"	
Potential Reduction	Potential $s
Reduction of sludge quantity assumptions	1 ton-per-day (annualized) reduction = $113,000
Updated pelletization costs per updated PPI information	Contingent upon movement in PPI
Greater energy recovery or beneficial reuse of pellets from new technology	Beyond FY13 potential benefit contingent upon technology development
Qualification of beneficial reuse of sludge byproducts for "green credits" (Beyond FY13 benefit)	Contingent upon value of "green credits" at time of redemption and legislative action

Table 21

Proposed Fiscal Year 2010 Chemicals Summary ($s)		
Sodium Hypochlorite	$3,299,206	Used for treatment at DITP ($1.9 million) and CWTP ($1.2 million).
Soda Ash	$3,117,778	Used primarily at the CWTP.
Hydrofluosilic Acid	$963,293	Fluoride control at CWTP.
Liquid Oxygen	$607,541	Ozone generation at CWTP.
Sodium Bisulfite	$543,647	For dechlorination of treated wastewater and water.
Aqua Ammonia	$494,813	Added to sodium hypochlorite to form monochloramines for residual disinfection.
Ferric/Ferrous Chloride	$412,469	For struvite and odor control at DITP.
Sodium Hydroxide	$400,849	For odor control at DITP and headworks facilities.
All Other Chemicals	$1,465,396	For algae control; corrosion control in Framingham Relief Sewer.
TOTAL CHEMICALS EXPENSES	**11,304,992**	

Other Highlights

- Proposed Chemicals budget is 5% of all proposed FY10 Direct Expenses.
- Chemicals budget increases 14.5% from FY09 due largely to price increases.
- The Authority assumes no new treatment requirements (NPDES permit) in FY10.



- Total Water Operations chemicals: $6,769,892
- Total DITP chemicals: $3,605,313
- Total Other Wastewater Transport Facilities chemicals: $679,659
- Total Clinton chemicals: $244,629

Chart 17

Overview

The Authority's proposed budget includes $11.3 million for Chemicals, an increase of 14.5% almost entirely due to increased pricing. Of the 17 chemicals used in Authority water and wastewater operations, the budgets for four chemicals decreased, two stayed the same and eleven have increased.

NPDES Permit

The National Pollution Discharge Elimination System (NPDES) permit expired in August 2005, approaching four years ago. Typically, the Authority's proposed CEBs have assumed that the new NPDES permit would be in effect for a full year; therefore, they would include a full-year of increased treatment of enterococcus and the corresponding increase to chemical costs. One of the Advisory Board's routine recommendations since the NPDES permit expired was to reduce or eliminate this expense if it appeared unlikely to see a NPDES permit by the beginning of the fiscal year.

This year, the Authority did not include any of these additional chemical costs in the proposed budget. This is one more example of the steps the Authority took to submit an arguably "tight" proposed budget. The Authority took a risk in an area where it has historically remained conservative with its assumptions, and the Advisory Board commends them for making these decisions to control costs to the ratepayers.

The Authority estimates that a full year of treatment to support the potential tighter treatment standard would add costs approaching $1 million. The potential for increased chemicals costs, as well as the potential for eased harbor and outfall monitoring requirements and costs are important considerations for the Authority's future budgets. (See also the section on Professional Services.)

Pricing

Additional risk for future chemicals budgets is price volatility. Every chemical contract for the Field Operations Department expires in FY09 or FY10. Market conditions necessitated the reopening of some contracts in FY09, resulting in higher prices for some chemicals. Others, such as sodium hypochlorite, remain in abeyance, as the Authority discusses barge versus trucked delivery costs. At the same time, the economic downturn may shift demand for some chemicals, resulting in lower than previously anticipated prices for some chemicals. ***The Advisory Board expects the Authority to adjust chemical prices to reflect updated pricing and delivery assumptions.***

Usage

Staff continues to implement controls to further optimize usage; demand is also impacted by certain flow or process conditions, such as the levels of struvite and the need for chemical treatment. ***The Advisory Board expects the Authority to continue monitoring operations for potential dosage modifications and update quantity assumptions accordingly.***

Toolbox 7

"Toolbox"	
Potential Reduction	Potential $s
Updated chemical prices and delivery assumptions	Contingent upon contract awards and future chemical pricing outlook
Updated dosage modifications	Contingent upon additional operational data

Table 22

Proposed Fiscal Year 2010 Professional Services Summary ($s)		
Lab and Testing Analysis	$2,667,468	Primarily harbor and outfall monitoring; some specialized outside lab services.
Security	$1,660,511	Security and guard service contracts.
Engineering	$820,000	Specialized outside services such as dam inspection; beach nourishment studies for Deer Island
All Other Professional Services	$1,078,234	Legal Services, Audit Services, Communications including WAC and WSCAC
TOTAL PROFESSIONAL SERVICES EXPENSES	**$6,226,213**	

Other Highlights

- Funding for WAC and WSCAC was eliminated in the Proposed FY10 CEB.
- Lab and testing analysis has decreased by 18.2%, due largely to a proposal to take additional work in-house.
- Harbor and Outfall Monitoring costs are linked to the NPDES permit. If a new permit comes into effect in FY10, a reduction in this line item is possible.
- All Other Professional Services includes trustee and financial advisor services for the Finance Division; insurance consultant services; energy consulting services; technical and professional development services for human resources; legal services; audit services; communications including funding for WAC and WSCAC.

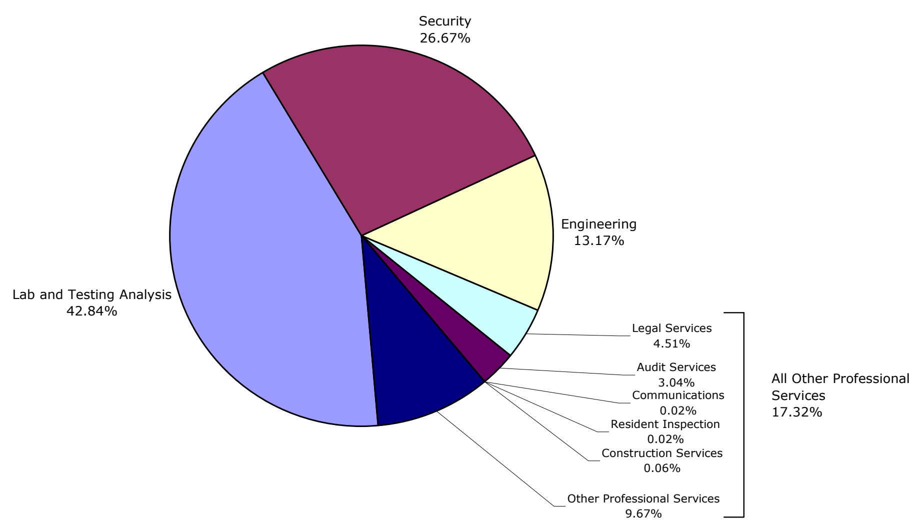


Chart 18

Lab and Testing Analysis

Over the years, the Advisory Board has supported the reconsideration of the shape, scope and budget for harbor and outfall monitoring (HOM) activities and the inclusion of the contingency plan in the NPDES permit.

The ENQUAD budget for Professional Services has grown from $3.04 million in FY01 to $4.35 million in FY03, the highest year for the department. The first major review of the monitoring plan took place in 2003 and resulted in about $900,000 per year in savings. Spending has since gradually declined to below $3 million in FY07, and now the proposed FY10 budget for Professional Services spending is at $2.55 million, the lowest since FY01.

The Advisory Board has noted that the Authority has worked over recent years to modify and reduce the scope of some of the work, reducing the frequency of sampling and reporting of some parameters. The Authority noted that some discretionary spending was eliminated, several studies completed, and some monitoring was redesigned for improved efficiency. Other cost reductions have resulted from bringing some of the work in-house and from making modifications to the ambient monitoring plan.

Over the years the Advisory Board expressed continuing concern about the level of spending for harbor and outfall monitoring. Many of the research and reporting requirements were very conservative and were set years ago, prior to the completion of the new Deer Island plant and the Central Laboratory. Some of the research parameters, testing requirements and reporting frequencies can be changed without compromising understanding of the receiving water conditions or effluent impacts. The Advisory Board recommended that the Authority revisit Harbor and Outfall Monitoring expense and revise assumptions for upcoming spending.

In the Authority's recent staff summary to the Board of Directors the Authority reports that based on eight years of extensive baseline monitoring data and eight years of extensive discharge monitoring data, the original monitoring questions have been answered. Results of the work performed to date confirm the extensive benefits of the Deer Island plant and related projects for the health of the harbor and the outfall area. The outfall and treatment plant are performing as well or better than predicted. Recent contaminant data collected from MWRA's final effluent show that the actual levels of most contaminants in the effluent are dramatically less than predicted in EPA's original 1988 planning estimates.

The total cost to MWRA since the outfall monitoring program began in 1992 is approximately $53 million in outside contracts, plus another $2.5 million for MWRA's laboratory expenses. Ambient monitoring requirements continue to cost MWRA more than $3 million per year (including contract and in-house expenses) to implement.

The Advisory Board supports the Authority's continuing efforts to pursue permit modifications that would result in lower monitoring and reporting costs for the MWRA. Continue steps to bring some sampling and reporting work in-house, where doing so can be shown to be cost-effective. The Advisory Board also encourages the Authority to expand efforts to build on other institutional, agency and academic research programs to meeting monitoring and reporting needs, as well as seeking alternative sources of funding.

As mentioned earlier, the NPDES permit (including the HOM requirements) is nearly four years beyond its expiration. By the terms of the permit, the Authority continues to operate under the language of the expired permit until a new one is issued. This year, the Authority attempted to make interim changes to the old permit's monitoring requirements through an appeal to EPA. Unfortunately, EPA rejected the request. While it is likely that EPA will continue to maintain its stance, ***if the Authority continued to request interim changes, the savings of $1.3 million annually could be realized should EPA change its stance.***

Security

The proposed budget for Professional Services relating to the Office of Emergency Preparedness (OEP) is $1.66 million, a reduction of 14% ($275,676) from the FY09 budget and covers the costs of the security services contract for a number of Authority facilities. The Authority has worked to refine and reduce costs, and achieve scheduling and shift related efficiencies.

It should be noted that capital security costs are almost entirely now included as part of each individual project with authorization of the OEP.

Engineering Services

The Authority is proposing a budget of $820,000 for Engineering Services, primarily for as-needed services for the Deer Island and Field Operations Departments. It should be noted that while this expense appears to have increased 30% from FY09, this is largely due to a change in budget treatment. In essence, this expense was shifted from the CIP to the CEB, and so would have been incurred anyway.

All Other Professional Services – Communications

The Authority has reduced Communications Services, reflecting a decision not to fund the Wastewater Advisory Committee and the Water Supply Citizens Advisory Committee in FY10. This decision was discussed at the February meeting of the Board of Directors, at the time of the introduction of the proposed FY10 Current Expense Budget. It was the sense of the Board to reinstate the $174,000 budget in the final version of the CEB in June. The Advisory Board concurs with this recommendation and looks forward to a continued relationship with WAC and WSCAC whereby additional areas of mutual interest can be identified and better coordination can be achieved.

Toolbox 8

"Toolbox"	
Potential Reduction	Potential $s
Reduction or elimination of Harbor Outfall Monitoring requirements of the new NPDES permit (contingent upon EPA's issuance of new permit and terms therein)	Range of $1 – $2.5 million per year
Interim reductions to Harbor Outfall Monitoring requirements under the existing and expired NPDES permit	$1.3 million – contingent upon continued MWRA requests and alteration of EPA's position upon monitoring

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Table 23

Proposed Fiscal Year 2010 Other Materials Summary ($s)		
Vehicle Expense	$1,170,535	Bulk gasoline, diesel purchases, and some toll fees.
Lab and Testing Supplies	$731,922	Supports Central Lab and TRAC.
Vehicle Purchase/Replacements	$600,000	Purchases of vehicles and equipment under $100,000.
Equipment/Furniture	$236,230	Miscellaneous equipment and furniture.
Computer Hardware	$156,387	PCs, printers, plotters, and scanners.
Office Supplies	$180,725	Office supplies including paper.
All Other *Other Materials*	$1,048,098	Includes postage, work clothes, health and safety materials.
TOTAL OTHER MATERIALS EXPENSES	**4,123,897**	

Other Highlights

- Other Materials spending is down 20% from FY09.
- Vehicle Purchase/Replacement has decreased by 42%.
- Computer Hardware has decreased by 57%.
- Postage, Lab and Testing Supplies and Work Clothes have either been level-funded or reduced.

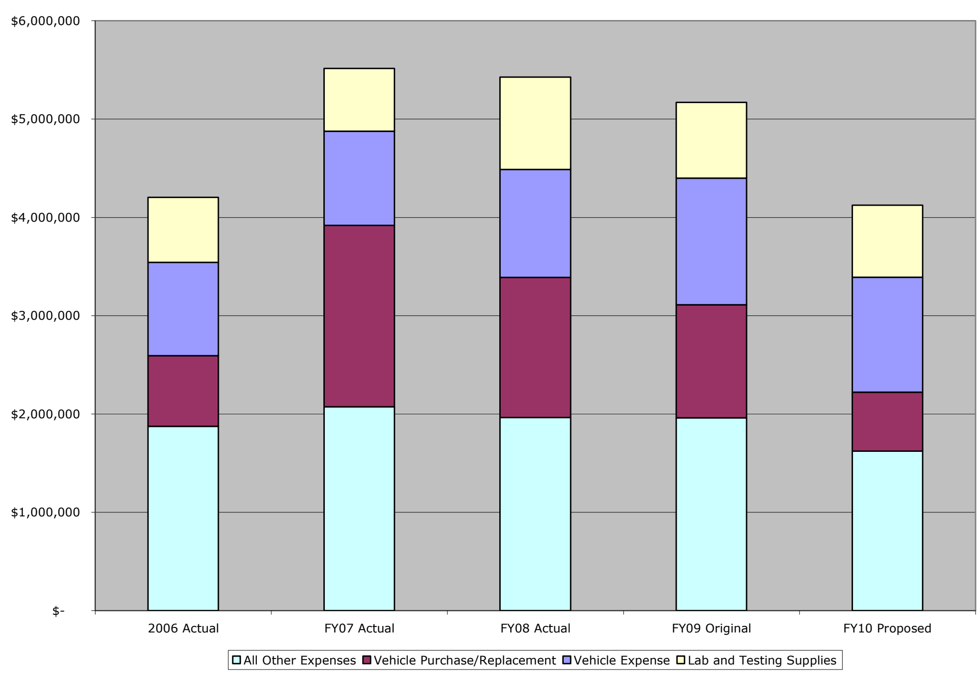

Chart 19

Vehicle Expense

The Authority is proposing to budget $1,170,535 for Vehicle Expense in FY10. The amount includes the purchase of bulk gasoline and bulk diesel, as well as some toll fees. The budget is based on FY08 and FY09 fuel usage and recent fuel costs. The Authority anticipates that the costs for tolls will likely increase in the final budget.

Lab and Testing Supplies

Lab and Testing Supplies are budgeted at $731,992 for FY10 and are reduced from the $770,236 budgeted in FY09. The Authority has worked to contain this category of expense, but some reductions may not be sustainable.

Vehicle Purchase

Vehicle Purchases expense has been reduced by nearly one half from the FY09 budget of $1,150,000 to $600,000. This strategy will add another year to the replacement cycle, bringing the average fleetwide cycle to 12 years. Over the years the Authority has reduced its fleet by 10% and among other steps has introduced a successful trade down strategy, reduced the number of domiciled vehicles and increased the vehicle pool. Over time, continued reductions in planned vehicle replacements will not be sustainable. Postponed replacement of vehicles increases materials and services costs in the Fleet Services Department.

Laboratory Equipment

Laboratory Equipment purchases of $236,230 is reduced from the $329,430 budgeted in FY09. Spending at this level is below the replacement needs of the agency, and further postponement of equipment replacement risks service delivery.

Computer Hardware

Computer Hardware spending has been lowered to $156,387 from the $385,383 budgeted in FY09 and is a demonstration of efforts to reprioritize spending decisions during the difficult economic conditions. Postponed purchases of such items as the toughbook computers impact efforts to strengthen data management in the field.

Office Supplies

Office Supplies are budgeted at $180,725 for FY10, a reduction from the $192,703 budgeted in FY09. The amount is the lowest in at least five years, and is an example of the many areas where the Authority is tightening spending in virtually every corner of the budget. Even office calendars have been cut.

All Other Materials

All Other Materials spending has been level-funded or reduced for FY10.

Table 24

Proposed Fiscal Year 2010 Training and Meetings Expense Summary ($s)		
Training and Meetings	$173,203	Professional training, travel for incurred cost audits, and MIS training.
TOTAL TRAINING AND MEETINGS EXPENSE	**$173,203**	

Other Highlights

- Training and Meetings Expense is reduced by 40% and $100,000 below spending in FY07.
- Only training and meeting expenses needed for maintaining professional licenses has been requested.

The Authority budgets for Training and Meetings costs that cover a variety of meetings, seminars, conferences and training sessions. Among them are infrared and acoustic ultrasonic training sessions for Deer Island staff, annual boom deployment training, an annual meeting of the Water Security Congress on the security of drinking water infrastructure, out of state site audits, recertification and new technology training for the MIS Department, and law seminars.

At $173,203, the Authority's proposed budget for Training and Meetings is the lowest in at least six years both in terms of the total dollar amount budgeted and the amount per capita.

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Table 25

Proposed Fiscal Year 2010 Revenue Summary ($s)		
Rate Revenue	$566,821,000	Revenue generated directly from member communities through annual assessments.
Other User Charges	$7,910,979	From 20 customers including Chicopee, Wilbraham, Lancaster, South Hadley, Cambridge; emergency water supply connections and entrance fees.
Hydropower Revenue	$226,293	Revenue generated from hydroturbines.
Permit Fees	$1,780,000	TRAC permit and monitoring fees.
Penalties	$220,100	Issued through the TRAC program.
Payments from Commonwealth	$867,000	For chemical costs via statute.
Miscellaneous Revenue	$607,169	Includes revenue from Fore River Railroad, antenna licenses and other miscellaneous revenues.
Revenue – Energy	$1,528,200	Includes payments through Price Response + Load Reduction Program; renewable portfolio credits.
Other Revenue Subtotal	$5,228,762	
Rate Stabilization	$10,279,966	From rate reserves.
Investment Income	$13,261,249	Interest on both short- and long-term investments.
TOTAL REVENUE	**$603,501,956**	

Other Highlights

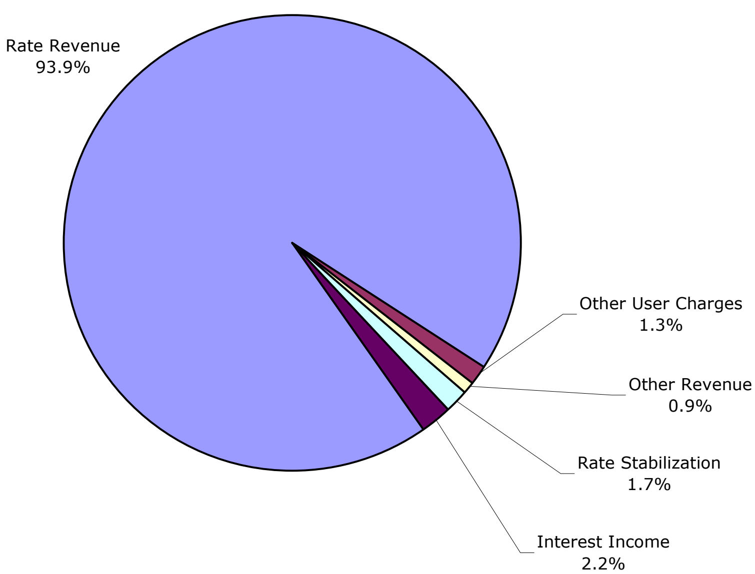

Chart 20

- Rate Revenue has increased 4.8%.
- MWRA treats Debt Service Assistance receipts as an offset to Capital Financing Expense rather than as revenue; bond redemption funds are treated as a credit to Capital Financing Expense.
- Rate stabilization fund drawdown is doubled to $10.3 million, and is currently projected at $12.0 million for FY11.
- The Authority projects that current rate stabilization funds will be fully utilized by FY14.
- The Authority assumes a short-term interest rate of 0.75% and a long-term rate of 4.30%.

Overview

The Authority is proposing Revenue receipts totaling $603.5 million. Nearly 94% is to come from Rate Revenue, the remaining 6% is to come from Other User Charges, Other Revenue, Rate Stabilization Funds, and Investment Income. (See Chart 20.)

Each 1% increase in rate revenue in FY10 represents $5.4 million.

Other User Charges

Other User Charges increase 4.4% ($0.3 million) to $7.9 million for FY10.

Table 26

Other User Charges		
Westborough State Hospital	$105,079	Individual users of water system
Fernald School	$124,201	
Commonwealth Zoological (State Zoo)	$29,975	
DCR Pools/Parks	$19,983	
Regis College	$54,446	Individual users of sewer system
NE Center for Children	$12,703	
Lancaster	$167,711	Income relating to Clinton Wastewater Treatment Plant costs
Worcester	$122,524	
Clinton	$500,000	
Chicopee	$2,858,775	CVA Communities
Wilbraham	$535,303	
South Hadley	$612,092	
WTP Residuals	$323,627	From nine water treatment plants
Emergency Water Use Surcharge	$579,496	From Wilmington
Entrance Fees	$553,128	From Stoughton and Dedham/Westwood
Deer Island	$1,311,936	Transfer payment of sewer cost to water revenue
TOTAL	**$7,910,979**	

Among the charges in this category of revenue are $579,496 relating to the Emergency Water Use Surcharge and $553,128 for Entrance Fees from Stoughton and the Dedham-Westwood Water District.

Other Non-Rate Revenue

Other Non-Rate Revenue totals $5.2 million and includes permit fees and fines, hydropower revenue, chemical cost reimbursement payments from the Commonwealth, energy program revenues and other miscellaneous revenues (See Table 25).

The Authority is budgeting $18 million for permit and monitoring fees charged to industries and other permitted customers that discharge toxic and other regulated wastes into the sewer system. This amount represents a 1.1% decrease from the FY09 original budget. The Authority points out that receipts are a function of the number of industrial users and that the number of photo processors in the service area has decreased as have some large users. The Authority is planning on updating the regulations to reflect average annual sewer rate increases, required changes from EPA and changes to certain language in the fee regulations to improve clarity.

Non-Recurring Revenue: Rate Stabilization Fund

The Authority's proposed use of the Rate Stabilization Fund more than doubles to $10.3 million in FY10. Over the years, the Authority has deposited year-end surplus funds into the Stabilization Fund and to the Bond Redemption Fund (the use of which is treated as an offset to Debt Service – see page 17) and judiciously drawn down these funds to ease the pace of rate revenue increases.

The Authority has already reflected in the proposed budget the use of $10 million for a defeasance transaction scheduled this spring, which will benefit (reduce) scheduled Debt Service payments in FY10. As noted in the Capital Financing section, the Authority has typically not included any planned defeasance in its proposed budgets in years past. That they have done so this year again points toward the relatively "tight" budget it has submitted for review.

Additionally, in anticipation of sharply increased Debt Service payments for FY11, the Authority plans to defease a second $10 million this spring to reduce projected Debt Service payments primarily in FY11. With Debt Service projected to rise by $100 million from FY 2010 to FY 2014, the use of these Stabilization Funds will play a significant part in controlling even higher rate revenue requirements.

It should also be noted that like Bond Redemption Funds, Debt Service Assistance funds are treated as an offset to Debt Service expense (see page 17).

Investment Income

The Authority is assuming Investment Income of $13.3 million in FY10, a reduction of $7.2 million or 35% from FY09.

Sharply dropping interest rates are the reason for the dramatic multi-year decline in this key source of non-rate revenue (see Chart 21). The Authority is assuming interest rates associated with short-term investments at 0.75% and 4.0% for long-term investments. ***A change of 25 basis points is equivalent to $1.2 million.***

Investment Income Recent History

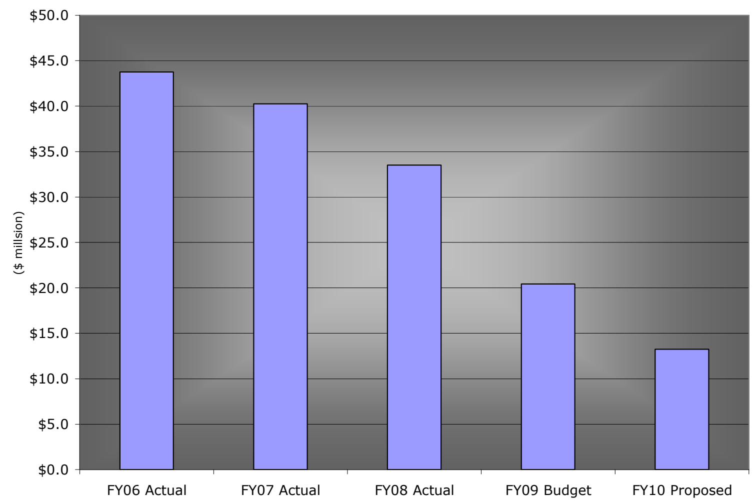

Chart 21

Rate Revenue

The Authority is proposing Rate Revenue receipts of $566.8 million – an increase of 4.8%, or $26.0 million. The amount is nearly 94% of the Authority's proposed total revenue.

Despite many efforts – the major restructuring transaction of January 2007, more recent refinancings and restructuring transactions, and lower capital spending than in the 1990s - rate revenue requirements continue to rise. This is due to continued measurable increases in annual debt service payments on the borrowings previously issued to support the capital program. According to the projections that accompany the proposed FY10 Current Expense Budget, rates are expected to rise by another $200 million by FY 2016 (See Chart 5).

Additional Sources of Revenue

The Authority needs to continue to explore additional sources of revenue as a means of controlling and reducing the annual rate revenue requirement.

<u>System Expansion</u>
The Advisory Board has long advocated for judicious expansion of the Authority's water service area. Moreover, the Advisory Board has strongly advocated for the streamlining of the membership application process. Based upon recent studies, the Authority has estimated that it can easily sell an additional 12 MGD beyond its current amount. Indeed, at the time of this writing, the Town of Wilmington just became a member of the MWRA's water system. ***The Authority estimates that every 1 million gallons per day sold to a new customer is estimated to yield $5.0 million***

in one-time entrance fee revenue. The Advisory Board will continue to press for a streamlining of the system expansion process, and continues to endorse the Authority's efforts in this regard.

Dedicated Streams of Revenue

Another potential source of non-rate revenue is the development of dedicated streams of revenue to meet water and sewer infrastructure needs. A recent report has identified the statewide needs for water and sewer infrastructure investment at $13 billion over the next twenty years. The MWRA itself has spent nearly $7.6 billion in the twenty-five years since the Authority was created. Another $3 billion has been identified through the Master Plan looking out over forty years. Several legislative solutions have been identified or are being pursued:

1) ***Expansion of the bottle deposit, as recommended in the Governor's budget, could raise $10 to $20 million each year.***

2) ***A bottle bill tax modeled after Chicago's 5-cent tax on every bottled water container sold could generate up to $65 million annually for statewide water and sewer infrastructure needs.***

3) Seek a change in the statute relating to the Commonwealth Sewer Rate Relief Fund to mirror the septic tax credit.

4) Continue to push for Debt Service Assistance even during these difficult economic times. As the economy recovers, over the next few years, seek Debt Service Assistance funding based on the statutory language. ***Full funding could provide MWRA with more than $60 million per year***.

Legislative Changes

Additional small changes to existing legislation could benefit the MWRA:

1) ***A change to the fringe rate that the MWRA reimburses the state for the health care and related costs of Watershed Division employees would limit the Authority's exposure to actual costs, instead of the additional 25.8% the Authority currently pays. Such a change could reduce annual costs by $1 million***.

2) ***Removal of an archaic loophole in the PILOT payment program relating to lands in the Quabbin Reservoir watershed would eliminate duplicate Payments in Lieu of Taxes to watershed communities, saving over $425,000 each year.***

Also under discussion has been the possibility of seeking new revenue through the sale of advertising space. Possible locations include the Norumbega Reservoir, along the Massachusetts Turnpike and Deer Island, with its high visibility in Boston Harbor.

Toolbox 9

“Toolbox”	
Potential Reduction	Potential $s
Sale of up to 900 tons of Bay State Fertilizer each year according to terms of NEFCo contract.	$175-$235 per ton depending on delivery option.
Updated investment income interest rate assumptions.	25 basis points = $1.2 million
Sale of additional water to new communities and users up to 12 MGD.	1 MGD = $5.0 million
Expansion of the bottle deposit per the Governor’s budget.	Current projections = $10 million to $20 million
Additional revenue generated by new tax on bottled water.	5-cent tax = approximately $65 million (depends on number purchased)
Restoration of DSA funding to statutory language.	Estimates based upon previous projections = $60+ million/year
Change to legislation limiting MWRA’s exposure to actual health care and related costs for Watershed Division employees.	Current estimates = $1 million
Removal of loophole in PILOT payment program currently allowing duplicate PILOT payments to watershed communities.	Over $425,000/year
Advertising at various MWRA-owned facilities.	Dependent upon market value

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General CIP Discussion Topics

Waterworks System Redundancy

As part of its Integrated Water Supply Improvement Program, the Authority has invested $1.7 billion in infrastructure improvements for the waterworks system. In its Master Plan, the Authority outlined many of the challenges that will be facing the system in the future. One of the primary issues of concern is that of system redundancy – providing backup or alternative service options for potential single-points of failure. A number of the Proposed FY10 CIP projects have been included with the aim of improving system-wide redundancy.

However, even in these projects there exist potential opportunities for reductions in capital spending. One such example that the Authority has already included in its Proposed FY10 CIP is the Long-Term Redundancy project. Historically, the plan for providing redundancy for the metropolitan tunnel system has involved one or more proposed parallel deep rock tunnel loops. However, the aim of this project is to evaluate a series of alternative surface pipe improvements to achieve required redundancy at a lower cost.

This type of reevaluation of capital needs and projects not only for waterworks projects, but also wastewater projects may prove an invaluable tool for achieving the $100 million reduction in capital spending the Advisory Board is recommending.

The CSO Control Program

The Authority is proposing a budget of $927.3 million for the CSO Control Program. More than half the amount, or $522.2 million, has been accrued through FY08, leaving a remaining balance of $405.1 million. One quarter of that amount, $102.6 million, is assumed for the current fiscal year, FY09. Spending is to peak in FY10, at $106.35 million. Spending for the current cap period is set at $370.58 million.

The Program has changed and grown considerably over the years. The Final CSO Conceptual Plan listed a total cost of $398 million in 1994. By 1997 this cost had risen to $487 million when EPA and DEP approved the Final CSO Facilities Plan and Environmental Impact Report. The Plan at that point contained 25 CSO projects. The Proposed FY10 CIP reflects 35 wastewater system improvement projects, at a cost of $927.3 million, $87.0 million more than the $840.3 million in the proposed FY09 CIP a year ago, growth of over 10%. The increase was largely due to project cost estimate increases for the Reserved Channel Sewer Separation project, which more than doubled from $54.2 million when it was added to the Plan to $113.3 million in the proposed FY10 CIP. The MWRA projects the cost to complete the Plan at $958.8 million.

In short, the cost of the CSO Control Plan has more than doubled over the last fifteen years.

Of the 35 projects in the Plan, the Authority reports that, through calendar year 2008, 22 projects have been completed. Of the remaining 13 projects, seven are in construction and five more are in design. Average annual volume of CSO discharge has been reduced from 3.3 billion gallons in 1988 to 605 million gallons today, an 82% reduction, with 73% of the 605 million gallons receiving treatment at MWRA's four CSO facilities. Of the 84 CSO outfalls addressed in the Plan, 27 have been closed and nine more are scheduled to be closed with completion of the remaining work.

As noted in the Highlights section, five of the eight largest Wastewater projects during the cap period are part of the CSO Control Program. The largest is nearly $100 million for the remaining work to be done on the North Dorchester Bay project, while the next largest, at nearly $81 million of budgeted spending during the cap period, is the Reserved Channel Sewer Separation project, also in South Boston. The East Boston Branch Sewer Relief project is the third-largest for the period, at $76.0 million. Together, these three projects represent $256 million in spending between FY09 and FY13.

The two other CSO projects that are among the largest projects during the cap period are Cambridge Sewer Separation and Brookline Sewer Separation. The Cambridge project, with a total cost of $57.8 million and cap period spending of $36.4 million, is intended to minimize CSO flows to the Alewife Brook. Following a delay, Cambridge resumed design work last fall for three of the five projects that comprise the Alewife Brook plan. The Brookline Sewer Separation project, with most of its $24.0 million cost to fall within the cap period ($22.7 million), is to reduce treated CSO discharges to the Charles River at the Cottage Farm CSO facility. The notice to proceed for the first of two construction contracts was issued last fall. The second construction contract is to be advertised in the spring of 2009.

Other Wastewater Capital Projects of Note

Two other Wastewater capital projects with spending of $15 million or more during the cap period are the Braintree-Weymouth Relief Facilities project (relating to the Intermediate Pump Station site) including a land acquisition related payment of an estimated $14.5 million and the West Roxbury Tunnel project. The land acquisition payment is still an open question; in the meantime, the Authority is budgeting for the potential of making the payment. The Authority is also budgeting $79.1 million for the West Roxbury Tunnel project of which $15.7 million is assumed for the cap period. The tunnel design contract was awarded in January 2009. Construction is assumed to start in May 2012 with spending of $12.0 million budgeted for FY 2013.

In addition, the Authority now plans to add a new $40 million Phase VII to the Infiltration/Inflow Local Financial Assistance Program that will provide $18 million in grants ($45 million) and $22 million in interest-free loans (55%) and add three years (FY16-18) to the distribution schedule. The Authority notes that 20% of communities have exhausted their funding allocation and 70% of communities have used over 75% of their funding allocation. The Authority anticipates adding $9.7 million in net accruals to the cap period.

Some Other Observations

As the Advisory Board has noted in previous years' *Comments*, the Authority is working with a finite amount of resources when addressing its capital needs. Especially within the context of the five-year spending cap, the amount of money available for the capital program is limited. The Advisory Board applauds the Authority's commitment to the five-year spending cap, particularly within the context of maintaining predictable and sustainable rate increases. Effectively managing capital expenses is a critical component to controlling the resulting debt service on the current expense side.

Other current expenses also impact the management of capital expenses including staffing levels and materials, which are also finite. Given these restrictions, it follows that the Authority has a limit to the amount of work on capital projects it can manage and undertake. The Authority believes its proposed level of capital spending to be appropriate and manageable and the operational resources to be sufficient to meet the capital program as proposed. The Authority has also identified what it considers to be the appropriate schedule and balance of system-wide capital needs through its Master Plan.

Yet the dramatically changed and still changing economy points to the need to reassess the level of resources committed to its capital program and resize the program over the next four years to achieve revised and lowered capital spending of the $100 million recommended by the Advisory Board in this year's *Comments*.

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Appendix A

The Advisory Board's Recommendations on the MWRA's Proposed FY10 CIP and CEB

1. Capital Improvement Program Recommendation:

a. That the Authority lower capital spending by no less than $100 million over the next four years (FY10-13), while accounting for the addition of Inflow and Infiltration (I/I) Program Phase VII costs.

b. That the Authority further reduce new borrowing by the amount of stimulus
grant funding received during the cap period.

2. Current Expense Budget Recommendation:

a. That the Authority reduce future rate revenue requirements by no less than $100 million over the next four years (FY10-13).

b. That, regardless of levels of Debt Service Assistance (DSA) in FY10, MWRA final FY10 assessments be no higher than preliminary assessments.

Appendix B

"Toolbox"	
Potential Reduction	Potential $s
Updated senior debt service to reflect the February 2009 and proposed FY10 borrowing	Contingent upon updated borrowing plans
Updated debt service to reflect February 2009 refunding	$0.7 million reduction expected in FY10
Reduction in variable rate debt interest rate assumptions	25 basis point reduction = $1.4 million
Updated FY10 debt service to reflect additional defeasance proposed in FY09	Estimated to be $0.827 million
Consideration of future refinancing and restructuring transactions.	Contingent on market conditions and existing maturities.
Updated average balance and interest assumptions for LPIP	25 basis points reduction = estimated $0.25 million
Reduction of use of current revenue for capital program to minimum levels required by coverage calculation	Dependent upon final coverage calculation
Reduced interest rate and reduced payment for renegotiated Chelsea Lease	1% reduction = $300,000[1]
Maximization of appropriate tools (new borrowing, refundings and repayments of principal) over the next several years to release reserves.	Two-thirds outstanding principal issued = $172 million
Potential contract concessions or favorable negotiations with unions during FY10 for union contracts beginning in FY11	Contingent upon collective bargaining
Updated Fringe Benefits costs to reflect any updated legislation	Contingent upon legislative action
Reconsideration of Pension Fund expense – additional payments beyond required schedule	Up to $2.8 million
Reconsideration of OPEB payment	$1.4 million (contingent upon legislative action)
Recalculation of Operating Reserve deposit (contingent upon any additional operating expense reductions)	1/6th of additional reductions
Reclassification of Deer Island roof project spending from CEB to CIP	$1.23 million reduction to PFY10 CEB; anticipated increase to CIP
Other reclassifications of projects that meet a revised capitalization policy	Contingent upon any new language or interpretation of capitalization policy
Updated electricity assumptions – usage, self-generation + demand management, and pricing	Contingent upon pricing futures

[1] Advisory Board calculated estimate based upon information available on Chelsea Lease.

Appendix B

"Toolbox" (ctd)	
Potential Reduction	Potential $s
Reduction in CTG wet weather event hour assumptions	10 hour reduction = $67,500
Reduction of sludge quantity assumptions	1 ton-per-day (annualized) reduction = $113,000
Updated pelletization costs per updated PPI information	Contingent upon movement in PPI
Greater energy recovery or beneficial reuse of pellets from new technology	Beyond FY13 potential benefit contingent upon technology development
Qualification of beneficial reuse of sludge byproducts for "green credits" (Beyond FY13 benefit)	Contingent upon value of "green credits" at time of redemption and legislative action
Updated chemical prices and delivery assumptions	Contingent upon contract awards and future chemical pricing outlook
Updated dosage modifications	Contingent upon additional operational data
Reduction or elimination of Harbor Outfall Monitoring requirements of the new NPDES permit (contingent upon EPA's issuance of new permit and terms therein)	Range of $1 – $2.5 million per year
Interim reductions to Harbor Outfall Monitoring requirements under the existing and expired NPDES permit	$1.3 million – contingent upon continued MWRA requests and alteration of EPA's position upon monitoring
Sale of up to 900 tons of Bay State Fertilizer each year according to terms of NEFCo contract.	$175-$235 per ton depending on delivery option.
Updated investment income interest rate assumptions.	25 basis points = $1.2 million
Sale of additional water to new communities and users up to 12 MGD.	1 MGD = $5.0 million
Expansion of the bottle deposit per the Governor's budget.	Current projections = $10 million to $20 million
Additional revenue generated by new tax on bottled water.	5-cent tax = approximately $65 million (depends on number purchased)
Restoration of DSA funding to statutory language.	Estimates based upon previous projections = +$60 million/year
Change to legislation limiting MWRA's exposure to actual health care and related costs for Watershed Division employees.	Current estimates = $1 million
Removal of loophole in PILOT payment program currently allowing duplicate PILOT payments to watershed communities.	Over $425,000/year
Advertising at various MWRA-owned facilities.	Dependent upon market value

Appendix C

	Total MWRA	FY09 Original	FY10 Proposed	Change FY10 Proposed to FY09 Original Budget $	%
EXPENSES	Wages and Salaries	90,676,105	92,200,261	1,524,156	1.7%
	Overtime	3,906,671	3,508,791	(397,880)	-10.2%
	Fringe Benefits	16,462,542	16,072,161	(390,381)	-2.4%
	Workers' Compensation	1,325,000	1,325,000	-	0.0%
	Chemicals	9,876,380	11,304,992	1,428,612	14.5%
	Energy and Utilities	29,724,532	25,988,079	(3,736,453)	-12.6%
	Maintenance	28,089,127	29,387,611	1,298,484	4.6%
	Training and Meetings	290,913	173,203	(117,710)	-40.5%
	Professional Services	7,252,264	6,226,213	(1,026,051)	-14.1%
	Other Materials	5,170,041	4,138,597	(1,031,444)	-20.0%
	Other Services	23,145,528	24,164,016	1,018,488	4.4%
	TOTAL DIRECT EXPENSES	**215,919,103**	**214,488,924**	**(1,430,179)**	**-0.7%**
	Insurance	2,450,000	2,625,000	175,000	7.1%
	Watershed/PILOT	23,083,385	23,599,674	516,289	2.2%
	HEEC Payment	4,161,027	3,877,500	(283,527)	-6.8%
	Mitigation	1,445,234	1,481,367	36,133	2.5%
	Addition to Reserves	2,790,504	210,954	(2,579,550)	-92.4%
	Retirement Fund	11,906,836	8,392,132	(3,514,704)	-29.5%
	Post-Employment Benefits	-	1,400,000	1,400,000	-
	TOTAL INDIRECT EXPENSES	**45,836,986**	**41,586,627**	**(4,250,359)**	**-9.3%**
	Debt Service (before offsets)	328,779,672	354,426,403	25,646,731	7.8%
	Bond Redemption	-	-	-	-
	Debt Service Assistance	(11,250,000)	(7,000,000)	4,250,000	-37.8%
	TOTAL DEBT SERVICE	**317,529,672**	**347,426,403**	**29,896,731**	**9.4%**
	TOTAL EXPENSES	**579,285,761**	**603,501,954**	**24,216,193**	**4.2%**
REVENUE AND INCOME	Rate Revenue	540,819,000	566,821,000	26,002,000	4.8%
	Other User Charges	7,576,985	7,910,980	333,995	4.4%
	Other Revenue	5,389,387	5,228,762	(160,625)	-3.0%
	Rate Stabilization	5,073,365	10,279,966	5,206,601	102.6%
	Investment Income	20,427,025	13,261,246	(7,165,779)	-35.1%
	TOTAL REVENUE AND INCOME	**579,285,762**	**603,501,954**	**24,216,192**	**4.2%**

Appendix D

Line Item	FY09 Original	FY10 Proposed	$ Δ	% Δ	Description
Regular Pay	89,161,560	90,796,098	1,634,538	1.8	Base salaries for employees including longevity + sick leave buyback
Sick Pay			-	0.0	
Vacation Pay			-	0.0	
REGULAR PAY	89,161,560	90,796,098	1,634,538	1.8	
Shift Differential	213,510	195,746	(17,764)	(8.3)	incremental hourly pay for working offshift
Holiday Pay	233,045	257,919	24,874	10.7	incremental hourly pay for working on holidays
Other Temp. Employees	467,629	421,141	(46,488)	(9.9)	temporary or contract employees, contract chemists in Lab
Interns/Co-Ops	51,263	28,001	(23,262)	(45.4)	QA/QC database interns
Stand By Pay	549,098	501,352	(47,746)	(8.7)	on-call pay
WAGES AND SALARIES	90,676,105	92,200,257	1,524,152	1.7	
Overtime	3,866,243	3,465,050	(401,193)	(10.4)	
Overtime 1.5#			-	0.0	
Overtime 2.0#			-	0.0	
Shift OT Differential .75	40,428	43,743	3,315	8.2	
OT Retro Pay			-	0.0	
Overtime Training			-	0.0	
OVERTIME	3,906,671	3,508,793	(397,878)	(10.2)	
Overtime Meals	78,811	78,555	(256)	(0.3)	
Health Insurance	14,201,017	13,695,538	(505,479)	(3.6)	consistent with Governor's budget changes
Dental Insurance	903,125	959,050	55,925	6.2	legislation filed to join Commonwealth plan is in committee
Unemployment Insurance	60,000	60,000	-	0.0	
Medicare	1,188,589	1,248,018	59,429	5.0	
Tuition Reimbursement	31,000	31,000	-	0.0	
FRINGE BENEFITS	16,462,542	16,072,161	(390,381)	(2.4)	
Compensation Payments	765,000	765,000	-	0.0	
Medical Payments	490,000	490,000	-	0.0	medical claims
Other	70,000	70,000	-	0.0	legal fees, medical exams and reviews
WORKERS' COMPENSATION	1,325,000	1,325,000	-	0.0	
PERSONNEL COSTS	112,370,318	113,106,211	735,893	0.7	
Caustic Soda	7,320	10,860	3,540	48.4	odor control at DI thermal power plant
Soda Ash	3,045,974	3,117,778	71,804	2.4	corrosion control at water treatment plant
Sodium Hypochlorite	2,511,593	3,299,206	787,613	31.4	disinfection + odor control at DI, CWTP, Ware, Clinton, HW, CSO's
Hydrofluosilic Acid	840,978	963,293	122,315	14.5	fluoridation
Copper Sulfate	15,000	15,000	-	0.0	algae control in reservoir
Sodium Hydroxide	287,184	400,849	113,665	39.6	odor control and to elevate pH levels
Other	132,957	103,480	(29,477)	(22.2)	digester gas + boiler chemicals at DI, aluminum sulfate + lime at Cllinton
Polymer	314,754	348,474	33,720	10.7	sludge thickening at DI, Clinton
Sodium Bisulfite	608,537	543,647	(64,890)	(10.7)	dechlorinate at DI + CSO's, removal residual ozone at CWTP
Activated Carbon	231,251	273,600	42,349	18.3	odor control at DI
Ferrous Chloride	384,387	-	(384,387)	(100.0)	struvite control (alternates with ferric chloride depending on price)
Liquid Oxygen	586,381	607,541	21,160	3.6	disinfection at CWTP
Nitrogen	25,000	25,000	-	0.0	for purging of the gas system at DI

Line Item	FY09 Original	FY10 Proposed	$ Δ	% Δ	Description
Carbon Dioxide	298,059	262,605	(35,454)	(11.9)	to increase pH + alkalinity level of water suppply at CWTP
Ferric Chloride	-	412,469	412,469	0.0	struvite control (alternates with ferrous chloride depending on price)
Hydrogen Peroxide	135,162	176,994	41,832	30.9	corrosion control at DI
Aqua Ammonia	199,319	494,813	295,494	148.3	secondary disinfection at CWTP
Nytrazyme	252,525	249,384	(3,141)	(1.2)	H2S control metro west wastewater pipelines
CHEMICALS	9,876,381	11,304,993	1,428,612	14.5	
Natural Gas	860,923	754,040	(106,883)	(12.4)	at various water + WW facilities
Electricity	23,416,674	20,890,934	(2,525,740)	(10.8)	three major contracts
Water	1,619,655	1,738,746	119,091	7.4	process water, DI , WW facilities, Clinton,
Oxygen	2,000	500	(1,500)	(75.0)	Metro maintenance
Acetelyn	1,000	-	(1,000)	(100.0)	
Other	64,425	124,652	60,227	93.5	DI Lab chemicals
#2 Fuel Oil Heating	66,000	56,250	(9,750)	(14.8)	Clinton treatment plant
Diesel Fuel	3,617,164	2,314,726	(1,302,438)	(36.0)	heating at various facilities, CTG operation DI
Propane	76,691	108,234	31,543	41.1	water operations, shaft 8
UTILITIES	29,724,532	25,988,082	(3,736,450)	(12.6)	
Building and Grounds Materials	724,975	765,276	40,301	5.6	concrete, crushed stone, gravel for water pipeline maintenance
Building and Grounds Service	5,485,290	4,127,513	(1,357,777)	(24.8)	janitorial services at DI, crane services
Automotive Materials	439,500	438,500	(1,000)	(0.2)	starters + alternators
Automotive Services	269,000	268,000	(1,000)	(0.4)	spring + suspension work
Plant & Mach. Mat'ls	5,525,401	6,960,945	1,435,544	26.0	grit piping + pods, burner replacement + boiler repair
Plant & Mach. Services	5,831,726	5,742,324	(89,402)	(1.5)	rebuild ozone generator at CWTP
Pipeline Materials	376,840	376,840	-	0.0	friction clamps, transitional couplings
Pipeline Services	468,937	588,937	120,000	25.6	manhole rehabilitation contract
Spec. Equip. Mat'ls	948,102	830,497	(117,605)	(12.4)	batteries, sewer bucketing materials
Spec. Equip. Services	1,756,429	2,368,479	612,050	34.8	instrumentation services for water, WW facilities
Computer Materials	475,783	356,676	(119,107)	(25.0)	PC supplies + parts, TIC/CADD materials
Computer Services	292,494	356,244	63,750	21.8	preventative maintenance on computer environmental controls
Comp. Software-Licenses/Upg	1,812,901	1,947,979	135,078	7.5	Lawson maintenance
HVAC Materials	634,403	469,546	(164,857)	(26.0)	materials for water + WW pump stations
HVAC Services	525,914	293,180	(232,734)	(44.3)	preventative maintenance at CWTP
Electrical Materials	801,355	945,375	144,020	18.0	as needed for pipe maintenance + WW CSO's
Electrical Services	1,668,977	2,492,000	823,023	49.3	high + medium voltage service at CWTP
Purchase Cards	51,100	59,300	8,200	16.0	
ONGOING MAINTENANCE	28,089,127	29,387,611	1,298,484	4.6	
Trainings and Meetings	175,833	115,582	(60,251)	(34.3)	
OutoOfState Meetings/Briefings	4,450	2,850	(1,600)	(36.0)	
OutOfState Prof Assoc/Semi	33,587	10,408	(23,179)	(69.0)	
OutOfState Industry Assoc/	26,600	6,700	(19,900)	(74.8)	
Out of State Site Audits	9,500	7,500	(2,000)	(21.1)	
InState Overnight Meetings	1,725	1,725	-	0.0	
InState Local Meetings	35,327	26,178	(9,149)	(25.9)	
TM Other Consultants/Vendo	3,891	2,260	(1,631)	(41.9)	
TRAINING & MEETINGS	290,913	173,203	(117,710)	(40.5)	

Appendix D

Line Item	FY09 Original	FY10 Proposed	$ Δ	% Δ	Description
Engineering	895,000	820,000	(75,000)	(8.4)	dam inspection, design support, beach nourishment study DI
Lab & Testing & Analysis	2,970,867	2,667,468	(303,399)	(10.2)	harbor + outfall monitoring, cryptosporidium testing
Legal	211,000	281,000	70,000	33.2	outside legal counsel
Audit	189,000	189,000	-	0.0	yearly audit, GASB
Communications	174,697	1,150	(173,547)	(99.3)	WAC, WSCAC
Other	864,113	602,184	(261,929)	(30.3)	energy consulting services, trustee bank services
Security	1,936,187	1,660,511	(275,676)	(14.2)	security service contract for Chelsea, DI, CWTP, CNY
Resident Inspection	1,400	1,400	-	0.0	backflow prevention inspection
Construction Services	-	-	-	0.0	Digsafe
PROFESSIONAL SERVICES	7,242,264	6,222,713	(1,019,551)	(14.1)	
Office Supplies	192,703	180,725	(11,978)	(6.2)	various office supplies
Postage	221,123	224,349	3,226	1.5	USPS, UPS, mailing CCR report
Lab & Testing Supp.	770,236	731,922	(38,314)	(5.0)	DI Lab supplies, DITP
Health/Safety	309,046	312,726	3,680	1.2	Lab gloves, roadwasy safety materials for flaggers, fall retrieval spare parts
Equip/Furniture	329,430	236,230	(93,200)	(28.3)	radios and related equipment, replacement light sensors
Veicle Purch./Replace	1,150,000	600,000	(550,000)	(47.8)	prioritized list most critical replacements
Work Clothes	366,989	348,047	(18,942)	(5.2)	work clothes, boots, jackets
Vehicle Expense	1,289,311	1,170,535	(118,776)	(9.2)	fuel, bulk diesel + gasoline, tolls
Other Materials	147,101	150,826	3,725	2.5	Clinton landfill gravel, oil spill containment supplies
Computer Hardware	385,383	156,387	(228,996)	(59.4)	PICS network equipment, toughbooks
Computer Software	1,300	1,000	(300)	(23.1)	SCADA computer software
Purchase Cards	7,420	11,150	3,730	50.3	
OTHER MATERIALS	5,170,042	4,123,897	(1,046,145)	(20.2)	
Printing Services	329,769	280,007	(49,762)	(15.1)	CCR, annual report, budget reports, TRAC industrial waste report
Health/Safety	434,000	366,000	(68,000)	(15.7)	ambuland, fire extinguisher, hazmat cleanup
Telephone	1,392,802	1,382,062	(10,740)	(0.8)	MIS voice + data, metering + monitoring
Mem/Dues/Sub	504,513	197,658	(306,855)	(60.8)	professional memberships + dues
Advertising	83,500	63,524	(19,976)	(23.9)	recruiting + contract advertising
Space Lease/Rentals	3,039,850	3,151,649	111,799	3.7	Chelsea + CNY rents
Moving/Freight	84,215	95,000	10,785	12.8	delivery + freight charges
Other Rentals	143,134	143,195	61	0.0	copier + mail equipment leases
Other Services	1,067,283	1,011,377	(55,906)	(5.2)	fax, copier + printer maintenance; oil boom service; aquatic plant control; remediation projects
Grit & Screenings Removal	986,552	1,078,885	92,333	9.4	grit, screenings + scum from DI, NI, other headworks, pump stations, CSO's
Sludge Pelletization	14,423,853	15,911,501	1,487,648	10.3	NEFCo contract to process + dispose of sludge pellets
Permit Fees	213,058	155,859	(57,199)	(26.8)	DI + Clinton; air quality permits
Police Details	443,000	342,000	(101,000)	(22.8)	construction projects, meter + value maintenance
Landfill Reservation Fee			-	0.0	now part of NEFCo contract responsibility
OTHER SERVICES	23,145,529	24,178,717	1,033,188	4.5	
OTHER DIRECT COSTS	103,538,788	101,379,216	(2,159,572)	(2.1)	w/o Personnel-Related Costs
DIRECT COSTS	215,909,106	214,485,427	(1,423,679)	(0.7)	all Direct Expenses

Appendix D

Line Item	FY09 Original	FY10 Proposed	$ Δ	% Δ	Description
Premiums	1,750,004	1,925,000	174,996	10.0	
Payments/Claims	699,996	700,000	4	0.0	
INSURANCE	2,450,000	2,625,000	175,000	7.1	estimate of annual renewal, vote in June
Watershed Reimbursement	12,217,280	12,317,068	99,788	0.8	DCR costs less certain revenues
PILOT	5,933,500	6,350,000	416,500	7.0	payments in lieu of taxes
Watershed Debt Service	4,932,605	4,932,605	-	0.0	debt service on watershed land purchases
REIMBURSEMENTS	23,083,385	23,599,673	516,288	2.2	
State Revolving Fund - P &	54,177,684	60,062,046	5,884,362	10.9	SRF debt service on existing + estimated new borrowings
Revenue Bonds P&I	176,164,721	178,661,173	2,496,452	1.4	debt service on existing + planned new senior debt
Debt Service Assistance	(11,250,000)	(7,000,000)	4,250,000	(37.8)	estimated revenue is treated as an offset to debt service
Current Revenue/Capital	4,499,992	5,600,000	1,100,008	24.4	revenue is deposited in capital Construction Fund
Subordinate MWRA Debt	87,515,208	102,786,124	15,270,916	17.4	principal + interest payments on existing variable rate debt
Local Water Pipeline CP	3,204,996	4,100,000	895,004	27.9	interest on commercial paper issued to support water pipeline loan program
Capital Lease	3,217,070	3,217,060	(10)	(0.0)	capital (mortgage) portion of Chelsea facility
Variable Debt Savings			-	0.0	budgeted lower than assumed variable debt interest rate of 4%
DEBT SERVICE	317,529,671	347,426,403	29,896,732	9.4	total of all capital financing related expenses
HEEC Agreement Capacity Ch	3,394,027	3,325,500	(68,527)	(2.0)	debt service payment for construction/installation of cross harbor cable
HEEC Agreement O&M Charge	767,000	552,000	(215,000)	(28.0)	operations/maintenance charge for cross harbor electric cable to DI
OTHER	4,161,027	3,877,500	(283,527)	(6.8)	
Mitigation, Quincy	752,088	770,888	18,800	2.5	payments to offset impacts of Authority facilities in Quincy
Mitigation, Winthrop	693,148	710,479	17,331	2.5	payments to mitigate impacts of DI + related activities
MITIGATION	1,445,236	1,481,367	36,131	2.5	
Operating Reserve	2,790,504	210,954	(2,579,550)	(92.4)	incremental addition to Operating Reserve due to increases in Operating Expenses
ADDITIONS TO RESERVE	2,790,504	210,954	(2,579,550)	(92.4)	
Pension Expense	11,906,836	8,392,132	(3,514,704)	(29.5)	deposit to pension fund based on actuarial study plus increment to rebuild fund
PENSION EXPENSE	11,906,836	8,392,132	(3,514,704)	(29.5)	
Post Employment Benefits	-	1,400,000	1,400,000	0.0	estimated lower health care contributions, consistent w/Governor's pFY10 budget
POST EMPLOYMENT BENEFITS	-	1,400,000	1,400,000	0.0	
INDIRECT COSTS	363,366,659	389,013,029	25,646,370	7.1	
OPERATING COSTS (Direct + Indirect)	579,275,765	603,498,456	24,222,691	4.2	
Rate Revenue	540,819,000	566,821,000	26,002,000	4.8	revenue based on rates charged to communities
RATE REVENUE	540,819,000	566,821,000	26,002,000	4.8	
Other User Charges	7,023,861	6,778,355	(245,506)	(3.5)	Clinton plant income, CVA payments, water treatment plant residuals charges
Entrance Fees	553,124	553,128	4	0.0	Stoughton, Dedham-Westwood Water District payments
OTHER USER CHARGES	7,576,985	7,331,483	(245,502)	(3.2)	

Line Item	FY09 Original	FY10 Proposed	$ Δ	% Δ	Description
Hydro-power Revenue	226,293	226,293	-	0.0	income from hydropower facility at Cosgrove Intake
Permit Fees	1,800,000	1,780,000	(20,000)	(1.1)	TRAC fees for permitting + inspecting large industrial + other significant users
Surcharge - Emerg Water Su	-	579,496	579,496	0.0	payments from emergency water users including Wilmington
Penalties	220,100	220,100	-	0.0	payments for violations of sewer use regulations
Payments From Commonwealth	867,000	867,000	-	0.0	for costs of chemicals used for water + wastewater treatment
Miscellaneous Revenue	625,998	607,169	(18,829)	(3.0)	Fore River Railroad fees + leases, antenna licenses, pellet sales, other misc
Revenue -Energy	1,649,996	1,528,200	(121,796)	(7.4)	renewable portfolio credits, load reduction program
Profit (Loss) On Disp. Of E	-	-	-	0.0	sales of surplus equipment, see miscellaneous
Operating Grant	-	-	-	0.0	
OTHER REVENUE	5,389,387	5,808,258	418,871	7.8	
Rate Stabilization	5,073,365	10,279,966	5,206,601	102.6	to manage impacts of increased rate revenue requirement
RATE STABILIZATION	5,073,365	10,279,966	5,206,601	102.6	
Combined Reserves	4,537,618	4,226,346	(311,272)	(6.9)	income from short term + long term investments of monies in these various funds
Construction	2,164,301	492,487	(1,671,814)	(77.2)	income from short term + long term investments of monies in these various funds
Debt Service	2,184,514	603,273	(1,581,241)	(72.4)	income from short term + long term investments of monies in these various funds
Debt Service Reserves	6,917,390	5,519,191	(1,398,199)	(20.2)	income from short term + long term investments of monies in these various funds
Operating	1,366,652	804,771	(561,881)	(41.1)	income from short term + long term investments of monies in these various funds
Revenue	1,797,593	606,137	(1,191,456)	(66.3)	income from short term + long term investments of monies in these various funds
CORE	508,690	331,977	(176,713)	(34.7)	income from short term + long term investments of monies in these various funds
Redemption	950,267	677,067	(273,200)	(28.7)	income from short term + long term investments of monies in these various funds
INTEREST INCOME	20,427,025	13,261,249	(7,165,776)	(35.1)	income from short term + long term investments of monies in these various funds
TOTAL REVENUE	579,285,762	603,501,956	24,216,194	4.2	

Appendix E

Cap Calculation versus Proposed FY10 Updated Projections

Final FY09 CIP

Final FY09 CIP - Baseline Cap (June 2008)	FY09	FY10	FY11	FY12	FY13	Total FY09-13
Projected Expenditures	$230.0	$251.7	$224.3	$196.7	$178.7	$1,081.4
Contingency	15.6	13.8	12.0	12.1	11.4	64.9
Inflation on Unawarded Construction	0.0	0.5	2.8	7.8	11.3	22.4
Less: Chicopee Valley Aqueduct Projects	(1.2)	(1.9)	(9.1)	(9.5)	(2.9)	(24.6)
FY09-13 CAP	**$244.4**	**$264.1**	**$230.0**	**$207.1**	**$198.5**	**$1,144.1**

Proposed FY10 CIP

Proposed FY10 CIP Updated Spending Projections	FY09	FY10	FY11	FY12	FY13	Total FY09-13
Projected Expenditures	$205.3	$238.0	$239.8	$207.5	$193.6	$1,084.2
Contingency	0.0	13.0	10.9	11.0	11.9	46.8
Inflation on Unawarded Construction	0.0	0.5	3.3	7.5	12.1	23.4
Less: Chicopee Valley Aqueduct Projects	(1.0)	(1.1)	(1.3)	(9.7)	(7.0)	(20.1)
FY09-13 CAP	**$204.3**	**$250.4**	**$252.7**	**$216.3**	**$210.6**	**$1,134.3**

Change

Final FY09 to Proposed FY10 Comparison	FY09	FY10	FY11	FY12	FY13	Total FY09-13
Projected Expenditures	($24.7)	($13.7)	$15.5	$10.8	$14.9	$2.8
Contingency	(15.6)	(0.8)	(1.1)	(1.1)	0.5	(18.1)
Inflation on Unawarded Construction	0.0	0.0	0.5	(0.3)	0.8	1.0
Less: Chicopee Valley Aqueduct Projects	0.2	0.8	7.8	(0.2)	(4.1)	4.5
FY09-13 CAP	**($40.1)**	**($13.7)**	**$22.7**	**$9.2**	**$12.1**	**($9.8)**

Appendix F
Proposed FY10 Capital Improvement Program

Program / Project	Total Contract Amount	Payments Through FY08	FY09	FY10	FY11	FY12	FY13	FY09-13
Total MWRA	**4,955,947**	**2,857,956**	**205,297**	**237,976**	**239,797**	**207,460**	**193,561**	**1,084,091**
S.1 Wastewater	**2,454,118**	**1,216,133**	**131,921**	**170,278**	**181,470**	**125,801**	**86,676**	**696,146**
S.10 Interception & Pumping	**717,408**	**487,285**	**9,248**	**4,277**	**27,952**	**16,002**	**23,507**	**80,986**
S.102 Quincy Pump Facilities	25,908	25,908	completed project					
S.104 Braintree-Weymouth Relief Facilities	241,867	215,032	1,129	460	14,944			**16,533**
S.105 New Neponset Valley Relief Sewer	30,300	30,300	completed project					
S.131 Upper Neponset Valley Sewer System	54,782	53,150	1,124	9	500			**1,633**
S.106 Wellesley Ext Replacement Sewer	64,359	64,359	completed project					
S.107 Framingham Extension Relief Sewer	47,856	47,856	completed project					
S.127 Cummingsville Replacement Sewer	9,189	8,955	234					**234**
S.130 Siphon Structure Rehabilitation	2,679	940					120	**120**
S.132 Corrosion & Odor Control	14,776	3,003		69	276	1,308	1,479	**3,132**
S.136 West Roxbury Tunnel	79,064	8,880	345	829	828	828	12,889	**15,719**
S.137 Wastewater Central Monitoring	19,958	13,939	5,048	971				**6,019**
S.139 South System Relief Project	4,945	3,440						
S.141 Wastewater Process Optimization	2,365	930				34	68	**102**
S.142 Wastewater Meter Sys-Equip Replace	26,578	5,089	54		136	100	500	**790**
S.143 Regional I/I Management Planning	169	169	completed project					
S.145 I&P Facility Asset Protection	86,862	5,337	1,314	1,939	11,269	13,451	8,076	**36,049**
S.146 D.I. Cross Harbor Tunnel	5,000	0						
S.147 Randolph Trunk Sewer Relief	750	0				281	375	**656**
S.25 Treatment	**510,128**	**51,794**	**18,806**	**59,461**	**66,425**	**61,176**	**35,779**	**241,647**
S.200 DI Plant Optimization	73,507	34,474	1,451	1,660	1,500	2,071	2,698	**9,380**
S.206 DI Treatment Plant Asset Protection	424,506	16,046	16,979	56,662	61,907	57,709	31,765	**225,022**
S.210 Clinton Wastewater Treatment Plant	3,128	345	161	343	1,935	344		**2,783**
S.211 Laboratory Services	8,987	929	215	796	1,084	1,052	1,316	**4,463**

Appendix F
Proposed FY10 Capital Improvement Program

Program / Project	Total Contract Amount	Payments Through FY08	FY09	FY10	FY11	FY12	FY13	FY09-13
S.12 Residuals	**212,381**	**63,811**	**238**	**1,295**	**1,610**	**2,093**	**1,333**	**6,569**
S.261 Residuals	63,811	63,811	completed project					
S.271 Residuals Asset Protection	148,570	0	238	1,295	1,610	2,093	1,333	**6,569**
S.13 CSO	**927,326**	**522,216**	**102,591**	**106,354**	**87,801**	**47,183**	**26,651**	**370,580**
S.3520 MWRA Managed	**451,729**	**269,450**	**69,637**	**62,884**	**37,756**	**9,159**	**1,356**	**180,792**
S.339 North Dorchester Bay	237,988	139,042	41,816	24,125	24,046	8,578	380	**98,945**
S.354 Hydraulic Relief Projects	2,295	2,295						
S.347 East Boston Branch Sewer Relief	86,750	10,705	25,239	37,848	12,904	53		**76,044**
S.348 BOS019 Storage Conduit	14,288	14,332	-44					**-44**
S.349 Chelsea Trunk Sewer	29,779	29,779						
S.350 Union Park Detention Treatment Fac	49,805	49,811	-6					**-6**
S.353 Upgrade Existing CSO Facilities	22,385	22,385						
S.355 MWR003 Gate & Siphon	2,839	0				376	976	**1,352**
S.357 Charles River CSO Controls	5,601	1,101	2,631	911	806	152		**4,500**
S.3521 Community Managed	**425,406**	**207,678**	**30,647**	**42,363**	**48,967**	**37,904**	**25,238**	**185,119**
S.340 S. Dorch Bay Sew Separ (Fox Pt.)	53,485	53,763	19	-296				**-277**
S.341 S. Dorch Bay Sew Separ (Comm. Pt.)	63,638	54,891	3,062	427	2,630	2,628		**8,747**
S.344 Stony Brook Sewer Separation	44,094	45,052	270	-1,228				**-958**
S.342 Neponset River Sewer Separation	2,681	2,444		236				**236**
S.343 Constitution Beach Sewer Separation	3,769	3,769						
S.346 Cambridge Sewer Separation	57,816	18,451	1,500	9,664	7,862	9,158	8,261	**36,445**
S.351 BWSC Floatables Controls	933	933						
S.352 Cambridge Floatables Controls	3,886	922	268	1,097	1,181	417		**2,963**
S.356 Fort Point Channel Sewer Separation	11,285	8,291	1,057	1,310	627			**2,994**
S.358 Morrissey Boulevard Drain	36,860	14,676	19,195	2,937	52			**22,184**
S.359 Reserved Channel Sewer Separation	113,336	2,717	1,205	14,257	29,221	20,125	16,122	**80,930**
S.360 Brookline Sewer Separation	23,999	1,272	1,603	9,149	5,560	5,560	855	**22,727**
S.361 Bulfinch Triangle Sewer Separation	9,626	497	2,470	4,810	1,834	15		**9,129**
S.324 CSO Support	50,191	45,088	2,307	1,107	1,078	120	57	**4,669**

Appendix F
Proposed FY10 Capital Improvement Program

Program / Project	Total Contract Amount	Payments Through FY08	FY09	FY10	FY11	FY12	FY13	FY09-13
S.14 Other	**86,875**	**91,027**	**1,037**	**-1,109**	**-2,318**	**-654**	**-594**	**-3,638**
S.128 I/I Local Financial Assistance	86,594	90,746	1,037	-1,109	-2,318	-654	-594	**-3,638**
S.138 Sewerage System Mapping Upgrade	281	281	completed project					
S.2 Waterworks System Improvements	**2,415,586**	**1,598,891**	**64,804**	**58,084**	**49,990**	**74,065**	**103,658**	**350,601**
S.16 Drinking Water Quality Improvements	**641,774**	**508,513**	**19,880**	**12,322**	**4,870**	**16,267**	**17,954**	**71,293**
S.542 John J. Carroll Water Treatment Plant	430,216	372,675	3,433	6,598	4,233	11,005	15,865	**41,134**
S.543 Quabbin Water Treatment Plant	17,329	10,144	187	598	402	4,613	1,385	**7,185**
S.544 Norumbega Covered Storage	106,674	106,572	102					**102**
S.545 Blue Hills Covered Storage	40,746	18,889	16,158	5,126	235	299	10	**21,828**
S.550 Low Service Storage Near Spot Pond	46,810	233				350	695	**1,045**
S.17 Transmission	**994,057**	**672,884**	**12,602**	**18,795**	**21,022**	**29,855**	**31,655**	**113,929**
S.604 MetroWest Tunnel	703,393	633,801	2,232	10,562	13,377	18,008	18,503	**62,682**
S.601 Sluice Gate Rehabilitation	9,158	9,158	completed project					
S.615 Chicopee Valley Aqued. Redundancy	8,778	8,572	206					**206**
S.597 Winsor Dam Hydroelectric/Pipeline Replace	15,365	38	513	468	764	3,948	4,668	**10,361**
S.616 Quabbin Transmission System	8,810	4,423	9	225	810	1,660	473	**3,177**
S.617 Sudbury / Weston Aqueduct Repairs	3,192	635	13		2,544			**2,557**
S.620 Wachusetts Res Spill Impr/Winsor Dam Repairs	15,434	8,050	4,870	2,514				**7,384**
S.621 Watershed Land	19,000	8,207	4,566	3,800	1,000	850	577	**10,793**
S.623 Dam Projects	7509	0		225	300	2389	3434	**6348**
S.625 Long Term Redundancy	203,419	0	192	1,000	2,227	3,000	4,000	**10,419**

Appendix F

Proposed FY10 Capital Improvement Program

Program / Project	Total Contract Amount	Payments Through FY08	FY09	FY10	FY11	FY12	FY13	FY09-13
S.18 Distribution And Pumping	**748,993**	**302,005**	**22,973**	**21,103**	**19,684**	**24,421**	**44,646**	**132,827**
S.677 Valve Replacement	19,884	8,579	478	403	1,163	1,926	916	**4,886**
S.712 Cathodic Protection Of Distr.Mains	1684	141						
S.678 Boston Low Serv.-Pipe & Valve Rehab	23,691	23,691	completed project					
S.730 Weston Aqueduct Supply Mains (WASMs)	128,330	60,901	696	2,472	305	2,388	2,575	**8,436**
S.720 Warren Cottage Line Rehab	1,205	1,205	completed project					
S.732 Walnut St. & Fisher Hill Pipeline Rehab.	2,825	2,154	671					**671**
S.683 Heath Hill Road Pipe Replacement	19,365	19,368	completed project					
S.721 Southern Spine Distribution Mains	74,425	17,610	2,788	5,796	6,626	6,752	3,974	**25,936**
S.714 South. Extra High Sects 41,42 & 74	3,657	3,657	completed project					
S.727 SEH Redundancy & Storage	92,552	1,667	6,112	118	199	1,498	1,625	**9,552**
S.719 Chestnut Hill Connecting Mains	25,378	17,462			352	356	3,563	**4,271**
S.704 Rehab of Other Pumping Stations	29,707	14,539	6,355	6,595	2,068	150		**15,168**
S.722 NIH Redundancy & Covered Storage	88,988	634	681	312	3,080	5,153	13,810	**23,036**
S.689 James L. Gillis Pump Station Rehab.	33,419	33,419	completed project					
S.713 Spot Pond Supply Mains - Rehab	62,479	60,478	924					**924**
S.723 Nor Low Service Rehab Secs. 8	19130	58	1153	747	30	40	1440	**3410**
S.702 New Connecting Mains - Shaft 7 to WASM 3	62,266	5,319	1,284	3,508	2,460	3,950	15,950	**27,152**
S.706 NHS - Con. Mains from Sec. 91	2,360	2,360	completed project					
S.692 NHS - Section 27 Improvements	3,110	124						
S.693 NHS - Revere & Malden Pipeline Impr	32,018	23,895	1,750	909			7	**2,666**
S.731 Lynnfield Pipeline	6,373	513	40	200	3,400	1,950	270	**5,860**
S.708 Nor Extra High Serv - New Pipelines	6,504	3,632				8	15	**23**
S.725 Hydraulic Model Update	686	598	45	43				**88**
S.735 Section 80 Rehabilitation	7,959	0						
S.618 Northern High NW Trans Sect 70-71	1,000	0				250	500	**750**
S.19 Other	**30,761**	**115,489**	**9,349**	**5,864**	**4,415**	**3,522**	**9,403**	**32,553**
S.753 Central Monitoring System	15,992	15,667	50	50	75	75	75	**325**
S.763 Distribution Systems Facs. Mapping	2,506	1,036			460	550	460	**1,470**
S.764 Local Water Infrastr Rehab Ast Progr	7,488	7,488	completed project					
S.765 Local Water Pipeline Imp. Loan Program	0	91,076	9,275	5,664	3,464	2,761	7,778	**28,942**
S.766 Waterworks Facility Asset Protection	4775	221	24	150	416	136	1089	**1815**

Appendix F

Proposed FY10 Capital Improvement Program

Program / Project	Total Contract Amount	Payments Through FY08	FY09	FY10	FY11	FY12	FY13	FY09-13
S.3 Business & Operations Support	**86,243**	**42,932**	**8,572**	**9,614**	**8,337**	**7,595**	**3,227**	**37,345**
S.933 Capital Maintenance Planning/Development	7,128	3,719	872	537	693	864	444	**3,410**
S.930 MWRA Facility - Chelsea	9,887	9,887	completed project					
S.925 Technical Assistance	1,800	0		600	600	600		**1,800**
S.931 Business Systems Plan	36,700	22,008	2,495	1,491	2,137	2,069	900	**9,092**
S.932 Environmental Remediation	1,805	1,468	46	80	50	50	75	**301**
S.934 MWRA Facilities Management & Planning	7,666	0	191	1,659	2,311	2,168	1,337	**7,666**
S.935 Alternative Energy Initiatives	9,067	592	2,268	3,068	1,811	1,328		**8,475**

Appendix G

FINAL FY09 CIP TO PROPOSED FY10 CIP INCREMENTAL BUDGET CHANGES ($000s)

Part A - Budget by Program Category

Program/Project	Final FY09	Proposed FY10	Incremental Change	% Change	Explanation
Total MWRA	$4,981,009	$5,060,933	$79,924	1.6%	Wastewater +$44.7M, Water +$36.9M, Business & Operations Support +$6.6M
Wastewater	$2,409,393	$2,454,118	$44,725	1.9%	
Interception & Pumping	$702,643	$717,408	$14,765	2.1%	I&P Facility Asset Protection +$17.1M, Braintree-Weymouth Relief Facilities +$9.4M, West Roxbury Tunnel ($9.8M)
Treatment	$482,917	$510,128	$27,211	5.6%	DI FAMP +$21.9M. Revised cost/scope for NMPS VFD Replacement Construction +$11.8M, Prim and Secondary Clarifier Rehab Constr +$13.2M, NMPS VFD Replacment Construction +$3.5M, NMPS Motor Control Ctr Construction +$1M, DI Switchgear Replacement Construction +$750K, Power System Impr Construction +$535K, TPP Fuel & Steam Mods-REI +$505K Primary & Secondary Clarifier Rehab Design ($951K) Actual bid amount received. DI Plant Optimization +$2.1M.
Residuals	$212,381	$212,381	$0	0.0%	
CSO	$924,578	$927,326	$2,749	0.3%	
MWRA Managed	$449,581	$451,729	$2,148	0.5%	North Dorchester Bay +$3.7M, East Boston Branch Sewer Relief ($1.7M)
Community Managed	$424,805	$425,406	$601	0.1%	Cambridge Sewer Separation +$1.7M, Stony Brook Sewer Separation ($1.2M), Bulfinch Triangle Sewer Separation ($610K), Brookline Sewer Separation +$516K, Cambridge Floatables Controls +$509, Reserved Channel Sewer Separation ($499K).
CSO Support	$50,191	$50,191	$0	0.0%	
Other	$86,875	$86,875	$0	0.0%	
Waterworks System Improvements	$2,378,620	$2,415,586	$36,966	1.6%	
Drinking Water Quality Improvements	$641,094	$641,774	$680	0.1%	Low Service Storage Near Spot Pond +$1.9M, John J. Carroll Water Treatment Plant ($870K), Quabbin Water Treatment Plant ($401K).
Transmission	$989,554	$994,057	$4,503	0.5%	MetroWest Tunnel Supply +$3.3M, Quabbin Transmission System +$1M.

Appendix G

FINAL FY09 CIP TO PROPOSED FY10 CIP INCREMENTAL BUDGET CHANGES ($000s)

Program/Project	Final FY09	Proposed FY10	Incremental Change	% Change	Explanation
Distribution And Pumping	$717,243	$748,993	$31,751	4.4%	SEH Redundancy & Storage +$14.6M, New Connecting Mains-Shaft 7 to WASM 3 +$5.3M, NIH Redundancy & Covered Storage +$4.1M, Southern Spine Distribution Mains +$3.4M, Weston Aqueduct Supply Mains +$2.7M, Rehab of Other Pump Stations +$1.1M, NHS Revere & Malden Pipeline Impr. ($1M).
Other	$30,729	$30,761	$32	0.1%	
Business & Operations Support	$79,657	$86,243	$6,586	8.3%	Business Systems Plan +$4.1M, Alternative Energy Initiatives +$2.1M, MWRA Facilities Mgmt & Planning +$738K, Capital Maintenance Planning/Development ($560K), Equipment Purchase +$212K.
Part B Total with Contingency					
Total MWRA without contingency	$4,867,670	$4,955,947	$88,277	1.8%	
Contingency	$113,339	$104,986	-$8,353	-7.4%	
Total CIP	$4,981,009	$5,060,933	$79,924	1.6%	

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RANDOLPH	Paul J. Connors	Paul J. Connors/William Alexopoulos
READING	Stephen Goldy	Edward McIntire, Jr.*
REVERE	Hon. Thomas G. Ambrosino	Sam MacDonald/Donald Goodwin
SAUGUS	Donald Wong	Joseph Attubato
SOMERVILLE	Hon. Joseph A. Curtatone	Carol Antonelli*
SOUTH HADLEY	Gregory R. Sheehan	John Mikuszewski
SOUTHBOROUGH	William J. Boland	Karen Galligan
STONEHAM	John DePinto	Jeffrey Oxman
STOUGHTON	Steven Anastos	Mark Stankiewicz
SWAMPSCOTT	Eric A. Walker	Gino A. Cresta, Jr.
WAKEFIELD	Betsy Sheeran	Richard Stinson
WALPOLE	Catherine E. Winston	Patrick Fasanello
WALTHAM	Hon. Jeannette A. McCarthy	
WATERTOWN	Clyde L. Younger	Gerald Mee
WELLESLEY	Gregory B. Mills	Walter Woods*
WESTON	Douglas Gillespie	Earl J. Forman
WESTWOOD	Patrick J. Ahearn	Robert Angelo/J. Timothy Walsh
WEYMOUTH	Hon. Susan M. Kay	Michael L.J. Chiasson
WILBRAHAM	Patrick J. Brady	Zigmund A. Peret*
WILMINGTON	Michael Newhouse	Michael Woods/Robert Antico
WINCHESTER	Brian O'Connor	Stephen Swymer
WINTHROP	Thomas E. Reilly	
WOBURN	Hon. Thomas McLaughlin	Anthony Blazejowski
WORCESTER	Hon. Konstantina B. Lukes	Robert Moylan, Jr.

**Member of Executive Committee*
***Chairman of Executive Committee*

Gubernatorial Appointees:

Quabbin and Ware Watershed - J.R. Greene
Wachusett Watershed - Barbara Wyatt
Environmental Protection - Vacant
Boston Harbor - Vacant
Boston Harbor - Vacant
Connecticut River Basin - Vacant

MAPC Appointee:

Edward G. Bates

Advisory Board Designees to the MWRA Board of Directors:

John Carroll – *Norwood*
Andrew Pappastergion – *Brookline*
Joseph Foti – *Chelsea*