


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 25, 2014
SUBJECT: FY15 Final Capital Improvement Program



COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE


Kathy Soni, Budget Director
David Whelan, Budget Manager
Preparer/Title


Rachel C. Madden
Director, Administration and Finance

The FY15 Capital Improvement Program projects \$137.6 million in spending for FY15, of which \$82.6 million supports Wastewater System Improvements, \$45.2 million supports Waterworks System Improvements, and \$9.8 million is for Business and Operations Support.

Some of the larger projects with spending in FY15 include Deer Island Asset Protection, Spot Pond Storage Facility, and Cambridge Sewer Separation.

It is important to note that based on the Advisory Board recommendation, two additional Inflow and Infiltration (I/I) Phases totaling \$160 million were added to the FY15 Final Budget. At \$80 million per phase, the new I/I phases are each double the traditional \$40.0 million per phase amount.

As recommended by the Advisory Board, the community managed financial assistance programs (both I/I and Local Water Pipeline) are excluded from the Cap calculation for the first time, preserving CIP spending capacity for all other projects.

FY15 is the second year of the FY14-18 Base-Line Cap which was set at \$791.7 million. Based on the FY15 Final Budget, the Cap for FY14-18 stands at \$765.1 million which is \$26.5 million or 3.4% lower than the Base-Line Cap. This lower Cap amount is the result of lower projected spending and the exclusion of the community assistance programs.

The FY15 Final CIP reaffirms that MWRA will be reducing its total bonded indebtedness over the Cap period by paying off more principal on debt than annual CIP spending.

RECOMMENDATION:

1. To approve the FY15 Capital Improvement Program (CIP), with \$145.1 million spending level, including contingency.
2. To approve the Responses to the Advisory Board's Comments and Recommendation on

MWRA's Fiscal Year 2015 Proposed Capital Improvement Program (Attachment D).

DISCUSSION:

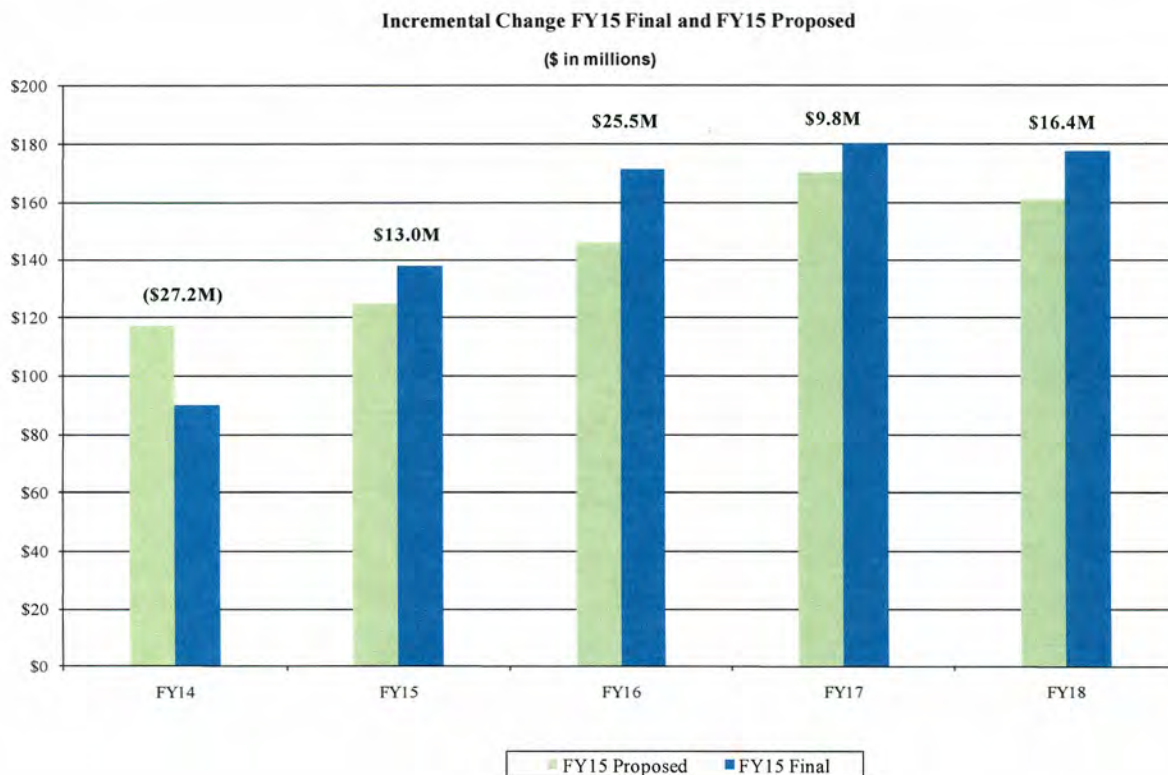
The FY15 Final Capital Improvement Program represents an update to the FY15 Proposed program presented to the Board in December 2013.

The spending projections put forth today are the result of prioritizing the projects driven by the Master Plan, establishing realistic estimates based on the latest information, striking a balance between maintenance and infrastructure improvements, and taking some risks while ensuring there is adequate support for the core operations and to meet all regulatory operating permit requirements.

In comparison with the FY15 Proposed CIP, the FY15 Final CIP increased at the overall program level by \$136.3 million, with a net \$37.4 million increase in the FY14-18 Cap period. The majority of the \$37.4 million increase during the FY14-18 Cap period was due to the following:

- Inflow and Infiltration (I/I) sub-phases 9 & 10 added \$50 million;
- Updated cost estimates and scope changes of \$8.7 million; and
- Revised schedules and cash flows.

The table below shows the incremental change by fiscal year between the FY15 Final and FY15 Proposed CIP.



The FY15 Final CIP reaffirms MWRA’s commitment to the Community Financial Assistance Programs, both for the Local Water Pipeline Assistance and the Inflow and Infiltration (I/I).

Furthermore, the structure of the I/I program was significantly enhanced at the recommendation of the Advisory Board based on requests from the communities. The table below compares the key elements of the prior and new program starting with Phases 9 & 10.

I/I phase 9 & 10	Prior	New
Amount per phase	\$40M	\$80M
Grant/Loan Split	45%/55%	75%/25%
Payback Period (loans only)	5 years	10 years

In addition to the above changes, the following safe-guards have been proposed for effective management:

- Communities will be required to provide three-year projected spending plan;
- Applications for draw downs over \$2 million are subject to 90 day advance notification;
- Phase 10 funds are automatically approved for local authorization when MWRA has distributed 50% of a communities Phase 9 allocation.

A separate staff summary will be presented to the Board today which describes the I/I program guidelines in more detail.

Spending Cap

The Base-Line Cap

The FY14 Final CIP established the FY14-18 Base-Line Cap at \$791.7 million. This is the third five-year Cap established by the Authority since FY04 and is significantly lower than the prior two five-year Cap periods which exceeded \$1.1 billion each. The following is a breakdown of the Cap components:

FY14-18 Base-Line Cap		FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures	\$142.5	\$147.6	\$149.3	\$141.8	\$136.8	\$718.0
Contingency	7.6	9.5	10.1	9.8	9.3	46.1	
Inflation on Unawarded Construction	0.8	4.2	8.4	11.1	13.5	37.9	
Less: Chicopee Valley Aqueduct Projects	(5.0)	(2.2)	(1.4)	(1.3)	(0.4)	(10.3)	
FY14-18 Base-Line Cap	\$145.8	\$159.1	\$166.4	\$161.3	\$159.1	\$791.7	

FY14-18 Cap Spending

The FY15 Final CIP budget anticipates capital expenditures in the FY14-18 timeframe to total \$756.3 million. Including contingency of \$40.1 million and inflation of \$27.5 million offset by

\$51.3 million in Community Loan Program Support and Chicopee Valley Aqueduct adjustments of \$7.5 million, the FY15 Final FY14-18 Cap totals \$765.1 million which is \$26.5 million or 3.4% less than the FY14 Final FY14-18 Base-Line Cap.

FY15 Final Cap FY14-18 Comparison

FY15 Draft Final	FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures	\$89.8	\$137.6	\$171.4	\$180.1	\$177.4
Contingency	0.0	7.5	10.0	11.4	11.2	40.1
Inflation on Unawarded Construction	0.0	0.7	4.4	9.5	12.8	27.5
Less: I/I Program	0.0	(11.2)	(13.4)	(15.5)	(14.7)	(54.8)
Less: Water Loan Program	0.0	1.3	1.4	1.7	(0.9)	3.5
Less: Chicopee Valley Aqueduct Projects	(6.2)	(0.7)	(0.2)	(0.2)	(0.2)	(7.5)
FY15 Draft Final FY14-18 Spending	\$83.5	\$135.3	\$173.6	\$187.0	\$185.7	\$765.1

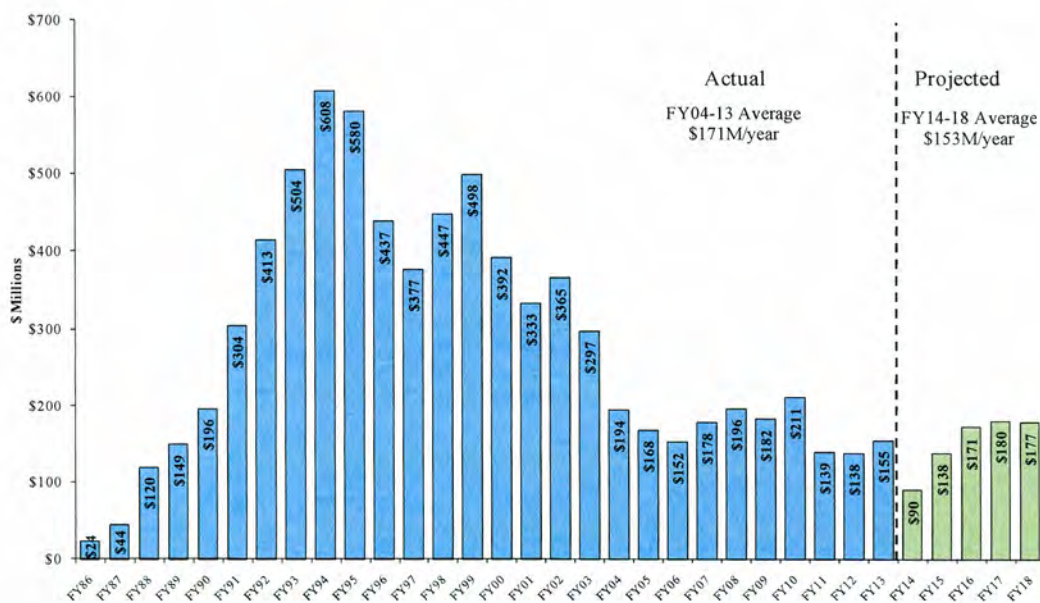
FY15 Draft Final vs FY14-18 Base-Line Cap	FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures	(\$52.7)	(\$10.0)	\$22.0	\$38.3	\$40.6
Contingency	(7.6)	(2.0)	(0.1)	1.6	2.0	(6.0)
Inflation on Unawarded Construction	(0.8)	(3.4)	(4.0)	(1.6)	(0.6)	(10.4)
Less: I/I Program	0.0	(11.2)	(13.4)	(15.5)	(14.7)	(54.8)
Less: Water Loan Program	0.0	1.3	1.4	1.7	(0.9)	3.5
Less: Chicopee Valley Aqueduct Projects	(1.2)	1.5	1.3	1.1	0.2	2.9
FY14-18 Cap (\$ Change)	(\$62.3)	(\$23.8)	\$7.3	\$25.7	\$26.6	(\$26.5)
FY14-18 Cap (% Change)	-42.7%	-15.0%	4.4%	15.9%	16.7%	-3.4%

It is important to note that the community managed financial assistance programs are for the first time excluded from the Cap calculation at the recommendation of the Authority’s Advisory Board.

This Cap complies with both the annual and overall Cap requirements.

Historical Spending

The chart below captures the historical CIP spending through FY13 and projected spending to FY18 based on the FY15 Final CIP.



As referenced previously, the five-year cap concept was introduced in the FY04 budget development cycle and covered the FY04-08 period. The first cap level was established at \$1.134 billion.

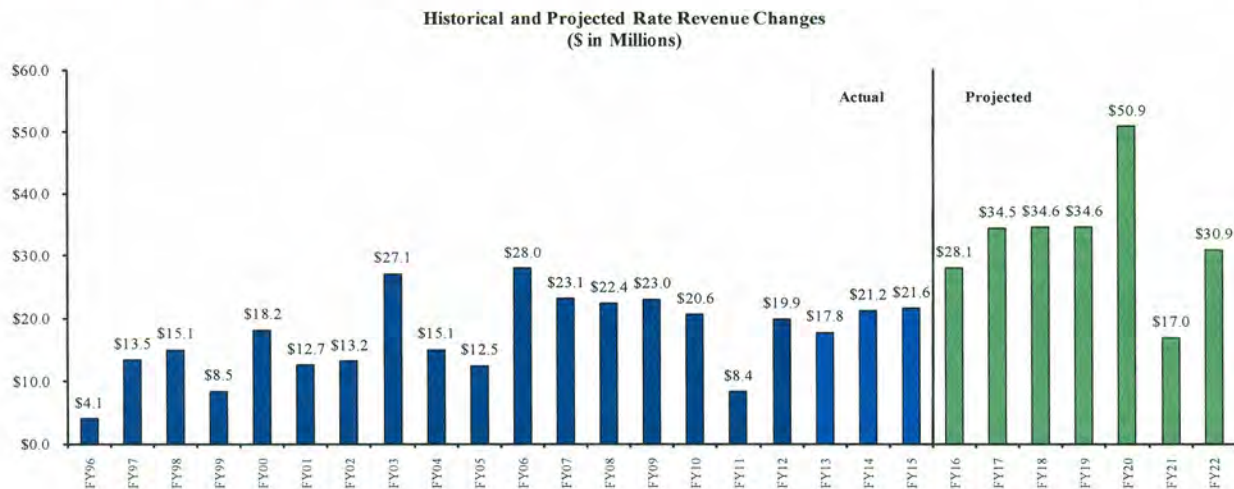
The average spending for FY04-13 timeframe was \$171 million per year and based on the FY15 Final CIP, we are currently projecting that average spending during the current FY14-18 Cap will be \$153 million.

MWRA Capital Improvement Spending versus Debt Service

As of June 30th, MWRA’s total debt will be \$5.8 billion which results in significant increases in debt service obligations in the upcoming years. The Authority’s debt service as a percent of total expenses has increased from 36% in 1990 to nearly 61% in the FY15 Final Current Expense Budget.

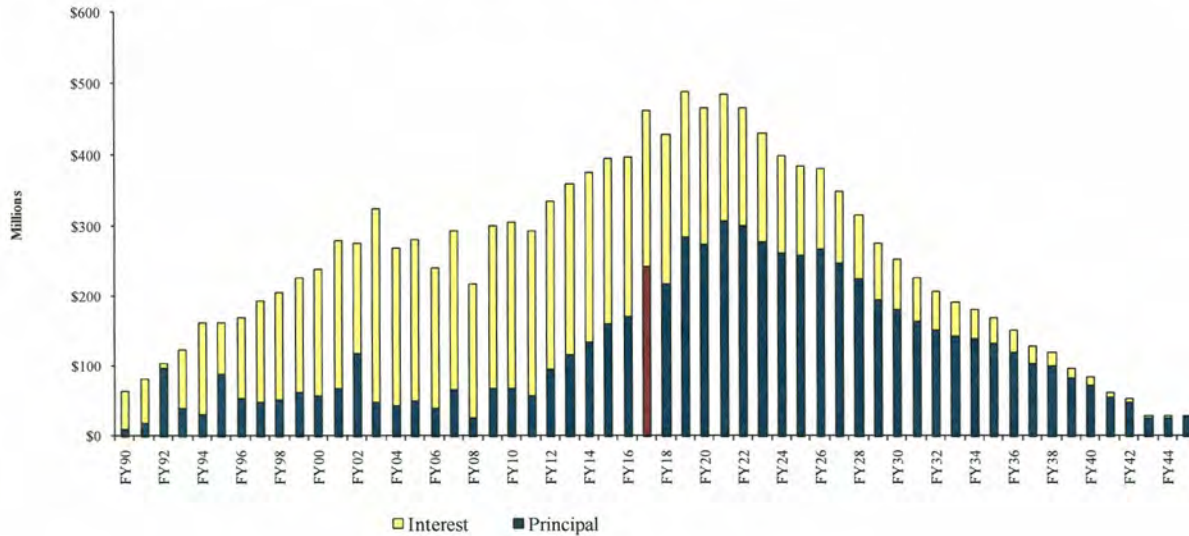
Through FY22, the Rate Revenue Requirement increases an average of \$32.9 million per year, mostly driven by Debt Service related expenses.

The graph below shows the projected Rate Revenue Requirement changes updated with the FY15 CIP spending and debt service projections.



For the first time, MWRA will be reducing its total bonded indebtedness during this Cap period as the Authority will be paying more principal than annual CIP spending. In addition, it is worthy of note that MWRA reaches another milestone during this Cap period and will begin paying more principal than interest on its debt during the FY14-18 timeframe.

**MWRA Principal and Interest
Payment History and Projections**



Future of the Capital Program - Shift from Mandated Projects

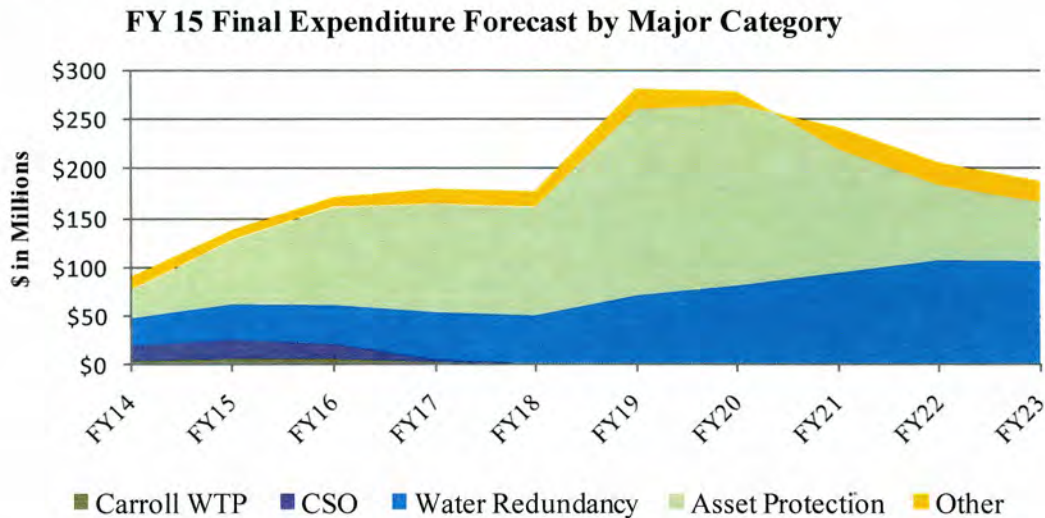
Since 1985, nearly 80% of the Authority’s spending has been on court mandated and regulatory required projects. Based on the FY15 Final CIP, mandated or regulatory related projects account for ~ 30% of spending - the majority of which will support Asset Protection, Water System Redundancy, Pipeline Replacement and Rehabilitation, and continued support for Community Assistance programs.

The table below captures the changing nature of the program in the future:

	Total Contract	FY09-13	FY14-18	FY19-23	Beyond 23
Asset Protection	\$ 2,145.5	\$ 252.0	\$ 416.7	\$ 699.0	\$ 146.2
Carroll WTP	\$ 433.7	\$ 39.4	\$ 20.6	\$ 1.9	\$ -
Water Redundancy	\$ 1,865.7	\$ 138.4	\$ 203.2	\$ 460.1	\$ 205.1
CSO	\$ 867.8	\$ 316.5	\$ 53.5	\$ 1.3	\$ -
Other	\$ 539.5	\$ 80.1	\$ 62.3	\$ (31.2)	\$ (74.6)
Total	\$5,852.2	\$ 826.4	\$ 756.3	\$1,131.1	\$ 276.7
Asset Protection	36.7%	30.5%	55.1%	61.8%	52.8%
Carroll WTP	7.4%	4.8%	2.7%	0.2%	0.0%
Water Redundancy	31.9%	16.7%	26.9%	40.7%	74.1%
CSO	14.8%	38.3%	7.1%	0.1%	0.0%
Other	9.2%	9.7%	8.2%	-2.8%	-27.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

As presented above, Asset Protection and Water Redundancy initiatives accounted for 30.5% and 16.7% of FY09-13 spending, respectively. Asset Protection and Water System Redundancy spending is projected to rise from past levels and currently accounts for 55.1% and 26.9% of FY14-18 capital expenditures respectively, a total of nearly \$619.9 million of the \$756.3 million, or 82% projected to be spent over the 5-year period.

The graph below displays the projected trend of expenditures by major category for the FY14-23 time period.



FY15 Final CIP Expenditures

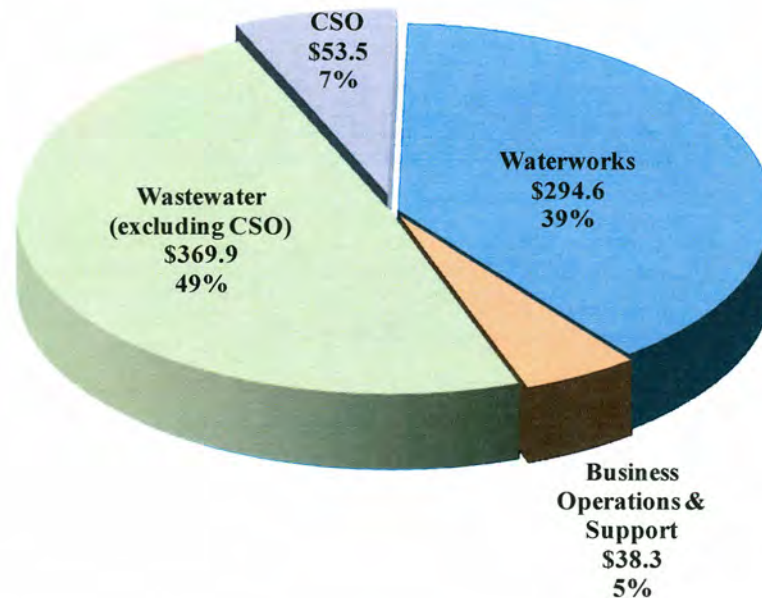
The FY15 Final CIP contains future spending estimated at \$2.2 billion. The FY15 Final CIP (without contingency) includes planned expenditures of \$137.6 million for FY15 and total projected expenditures of \$756.3 million for the FY14-18 timeframe.

The table below represents the projected spending by the major project categories:

	Total Contract Amount	Payments Thru FY13	Projected Spending	FY14	FY15	FY16	FY17	FY18	Total FY14-18
Wastewater System Improvements	\$2,885.8	\$1,736.0	\$1,149.8	\$42.2	\$82.6	\$105.4	\$99.3	\$93.8	\$423.4
Interception & Pumping	873.2	520.5	352.6	6.8	12.2	23.8	31.2	35.0	109.0
Treatment	709.4	184.7	524.7	15.1	39.4	51.3	47.1	38.6	191.5
Residuals	167.9	64.5	103.4	0.4	-	1.5	3.8	4.8	10.4
CSO	892.4	837.7	54.7	15.6	19.9	15.5	1.8	0.8	53.5
Other Wastewater	242.9	128.5	114.4	4.2	11.2	13.4	15.5	14.7	59.0
Waterworks System Improvements	\$2,843.7	\$1,874.7	\$969.0	\$41.4	\$45.2	\$57.2	\$73.0	\$77.9	\$294.6
Drinking Water Quality Improvements	659.9	595.2	64.7	28.9	23.0	6.8	3.3	0.8	62.8
Transmission	1,201.7	755.0	446.7	5.3	13.2	23.8	29.3	26.4	98.0
Distribution & Pumping	932.6	372.7	559.9	6.2	9.8	23.5	36.8	44.8	121.1
Other Waterworks	49.5	151.7	(102.2)	1.0	(0.8)	3.1	3.6	5.9	12.8
Business & Operations Support	122.7	77.4	45.2	6.2	9.8	8.8	7.8	5.7	\$38.3
Total MWRA	\$5,852.2	\$3,688.1	\$2,164.1	\$89.8	\$137.6	\$171.4	\$180.1	\$177.4	\$756.3

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

Please refer to Attachment B for a more detailed project listing and projected cash flows.



Contingency

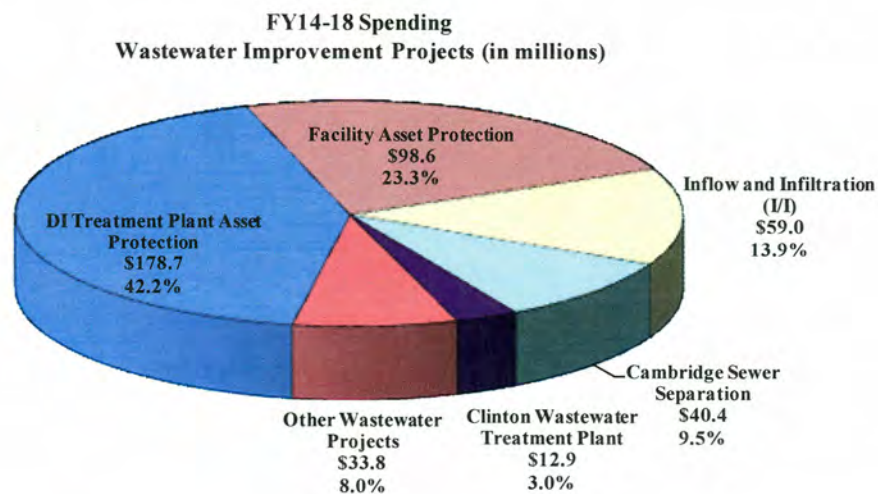
Contingency for each fiscal year is incorporated into the CIP to fund the uncertainties inherent to construction. The contingency budget is calculated as a percentage of budgeted expenditure outlays. Specifically, contingency is 7% for non-tunnel projects and 15% for tunnel projects. The contingency budget is \$7.5 million for FY15 and \$40.1 million for the FY14-18 timeframe.

Top 10 Projects – FY14-18 Cap Period

It is important to emphasize that the majority of spending within the Wastewater and Water Capital programs is concentrated in several larger projects with significant spending in the FY14-18 timeframe. These projects are either currently under construction or soon to be awarded. The top five projects for the Wastewater program total \$389.6 million for the FY14-18 period and represent 92.0% of the \$423.4 million total program.

Wastewater Improvement Projects	Total Contract Amount	FY14-18 Spending	% of Program
DI Treatment Plant Asset Protection	\$655.6	\$178.7	42.2%
Facility Asset Protection	\$306.8	\$98.6	23.3%
Inflow and Infiltration (I/I)	\$242.6	\$59.0	13.9%
Cambridge Sewer Separation	\$90.8	\$40.4	9.5%
Clinton Wastewater Treatment Plant	\$19.2	\$12.9	3.0%
Top 5 Wastewater Improvement Projects	\$1,315.0	\$389.6	92.0%
Other Wasterwater Projects	\$1,570.9	\$33.8	8.0%
Total Wastewater Program Spending	\$2,885.8	\$423.4	100.0%

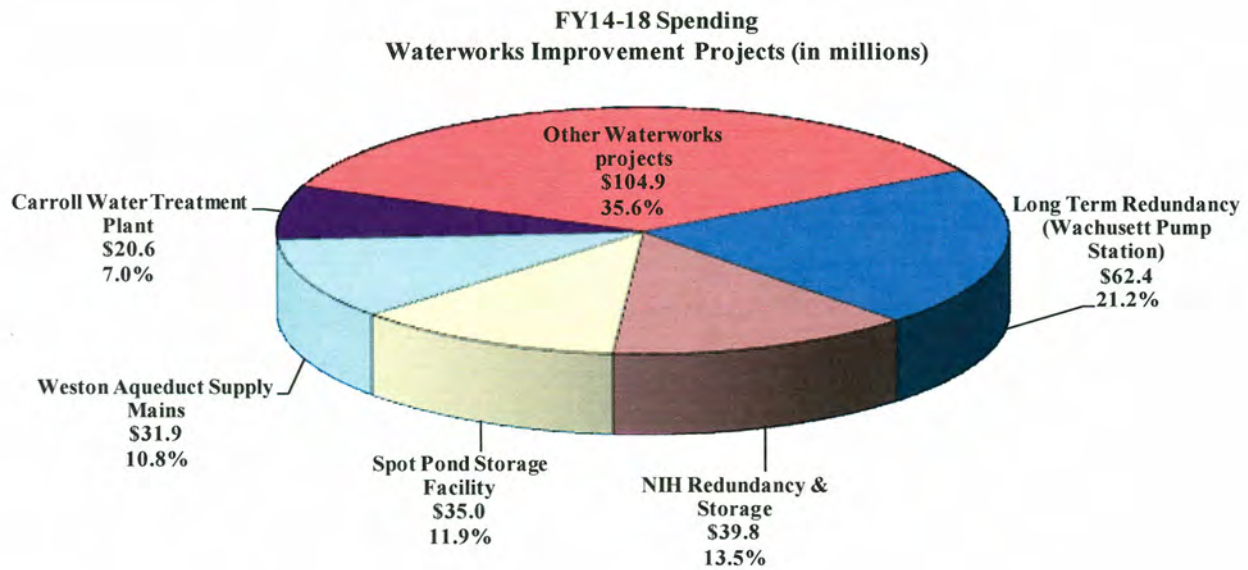
The breakdown of the \$423.4 million program by the major projects is illustrated below:



Similarly, the top five projects for the Waterworks program total \$189.8 million for FY14-18 and represent 64.4% of the \$294.6 million total program.

Waterworks Improvement Projects	Total Contract Amount	FY14-18 Spending	% of Program
Long-Term Redundancy (Wachusett Pump Station)	\$390.6	\$62.4	21.2%
NIH Redundancy & Storage	\$88.7	\$39.8	13.5%
Spot Pond Storage Facility	\$59.6	\$35.0	11.9%
Weston Aqueduct Supply Mains	\$276.5	\$31.9	10.8%
Carroll Water Treatment Plant	\$433.7	\$20.6	7.0%
Top 5 Waterworks Improvement Projects	\$1,249.1	\$189.8	64.4%
Other Waterworks projects	\$1,594.6	\$104.9	35.6%
Total Waterworks Program Spending	\$2,843.7	\$294.6	100.0%

The breakdown of the \$294.6 million program by the major projects is illustrated below:



Major Planned Contract Awards for Fiscal Year 2015:

In Fiscal Year 2015, 33 contracts totaling \$128.6 million are projected to be awarded. The largest ten projected contract awards are listed below and account for 80% of expected awards:

Project	Subphase	FY15 Budget Amount
Long Term Redundancy	Wachusett Aqueduct Pump Station Construction	\$ 50.6
Weston Aqueduct Supply Mains	Sect 36/W11/S 9-All Valve	10.5
Facility Asset Protection	Alewife Brook Pump Station Rehabilitation Construction	10.4
Carroll Water Treatment Plant	Existing Facilities Modications - CP7	6.3
DI Treatment Plant Asset Protection	Gravity Thickener Rehabilitation	5.8
DI Treatment Plant Asset Protection	Digester Sludge Pump Replacement Phase 2	4.7
Carroll Water Treatment Plant	Carroll Water Treatment Plant Storage Tank Roof Drainage	4.2
DI Treatment Plant Asset Protection	Winthrop Terminal Facility Variable Frequency Drive	4.1
Facility Asset Protection	Chelsea Screenhouse Upgrades	3.3
DI Treatment Plant Asset Protection	Fuel System Modifications	3.0
FY15 Top Ten Awards		\$ 102.9

Future Risks and Opportunities

There are still potential projects or required spending increases which are not yet funded as part of the FY15 Final CIP which are highlighted below:

- Cross Harbor Cable
- Co-Digestion
- System Expansion
- Efficiency Improvements
- Shaft 7 Tunnel Junction
- Sudbury Aqueduct

CIP Review and Adoption Process

In December, the MWRA transmitted the FY15 Proposed Capital Improvement Program to the Advisory Board for its review and comment. The Advisory Board issued their Integrated Comments and Recommendations in May. Please refer to Attachment D for the Authority's responses to the Advisory Boards Comments and Recommendations.

ATTACHMENT A
New Capital Projects Added to the FY15 CIP

Program	Project	Subphase	Total Contract Amount	FY14-18	FY19-23	Total Expenditures
Treatment	DITP Asset Protection	DI Gas Distribution System Modifications Design	\$2,000,000	\$1,083,333	\$916,667	\$2,000,000
	DITP Asset Protection	DI Gas Distribution System Modifications Construction	\$8,000,000	\$666,667	\$7,333,333	\$8,000,000
	DITP Asset Protection	Combined Heat and Power Facility Design	\$4,000,000	\$2,000,000	\$2,000,000	\$4,000,000
	DITP Asset Protection	Combined Heat and Power Facility Construction	\$21,000,000	\$0	\$21,000,000	\$21,000,000
	DITP Asset Protection	Co-Digestion Design/ESDC/REI - Pilot	\$750,000	\$600,000	\$150,000	\$750,000
	DITP Asset Protection	Co-Digestion Construction - Pilot	\$2,500,000	\$1,667,000	\$833,000	\$2,500,000
Interception & Pumping	Facility Asset Protection	Prison Point Rehabilitation Construction	\$5,463,120	\$1,966,722	\$3,496,398	\$5,463,120
	Facility Asset Protection	Cottage Farm Construction 1 (PCB Abatement)	\$2,101,200	\$2,101,200	\$0	\$2,101,200
	Facility Asset Protection	Cottage Farm Construction 2	\$7,354,200	\$2,647,512	\$4,706,688	\$7,354,200
Transmission	Sudbury/Weston Aqueduct Repairs	Rosemary Brook Building Repairs	\$1,527,450	\$1,527,450	\$0	\$1,527,450
	Sudbury/Weston Aqueduct Repairs	Farm Pond Buildings & Waban Arches Evaluation	\$101,493	\$101,493	\$0	\$101,493

ATTACHMENT A
New Capital Projects Added to the FY15 CIP

Program	Project	Subphase	Total Contract Amount	FY14-18	FY19-23	Total Expenditures
Business & Operations Support	Alternative Energy Initiatives	Shaft E Hydro In-Conduit Design/ESDC	\$120,000	\$120,000	\$0	\$120,000
	Alternative Energy Initiatives	Shaft E Hydro In-Conduit Construction	\$580,000	\$580,000	\$0	\$580,000
SUMMARY:						
Total Wastewater Projects			\$53,168,520	\$12,732,434	\$40,436,086	\$53,168,520
Total Waterworks Projects			\$1,628,943	\$1,628,943	\$0	\$1,628,943
Total Business & Operations Support Projects			\$700,000	\$700,000	\$0	\$700,000
Total Projects			\$55,497,463	\$15,061,377	\$40,436,086	\$55,497,463

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
Total MWRA	5,852,184,626	3,688,124,865	2,164,059,761	89,765,732	137,600,315	171,388,670	180,103,299	177,421,356	756,279,372	1,131,089,958	276,690,431
Wastewater	2,885,827,597	1,736,000,644	1,149,826,953	42,210,371	82,639,383	105,360,846	99,340,561	93,839,167	423,390,327	620,567,089	105,869,534
Interception & Pumping	873,172,101	520,540,063	352,632,038	6,805,721	12,223,772	23,750,110	31,236,640	34,953,537	108,969,781	213,926,377	29,735,882
102 Quincy Pump Facilities	25,907,202	25,907,202	-								
104 Braintree-Weymouth Relief Facilities	232,453,359	227,703,932	4,749,427	(573)				309,146	308,573	4,440,854	
105 New Neponset Valley Relief Sewer	30,300,303	30,300,303	-								
106 Wellesley Extension Replacement Sewer	64,358,543	64,358,543	-								
107 Framingham Extension Relief Sewer	47,855,986	47,855,986	-								
127 Cummingsville Replacement Sewer	8,998,768	8,998,768	-								
130 Siphon Structure Rehabilitation	6,519,979	939,770	5,580,209							5,580,209	
131 Upper Neponset Valley Sewer System	54,174,078	54,174,078	-								
132 Corrosion & Odor Control	16,345,847	3,001,406	13,344,441			360,000	480,000	160,000	1,000,000	12,344,442	
136 West Roxbury Tunnel	11,313,573	10,313,573	1,000,000							1,000,000	
137 Wastewater Central Monitoring	20,482,036	19,782,201	699,835	(165)			140,001	186,667	326,503	373,332	
139 South System Relief Project	4,939,244	3,439,244	1,500,000							1,500,000	
141 Wastewater Process Optimization	10,359,951	1,205,179	9,154,772	98,869	197,737		218,883	875,532	1,391,021	5,793,803	1,969,948
142 Wastewater Meter System - Equip. Replace.	26,437,912	5,137,912	21,300,000		75,000	225,000	3,000,000	4,000,000	7,300,000	3,000,000	11,000,000
143 Regional I/I Management Planning	168,987	168,987	-								
145 Facility Asset Protection	306,806,333	17,252,979	289,553,354	6,707,590	11,951,035	23,165,110	27,397,756	29,422,192	98,643,683	174,143,737	16,765,934
146 D.I. Cross Harbor Tunnel	5,000,000	-	5,000,000							5,000,000	

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
147 Randolph Trunk Sewer Relief	750,000	-	750,000							750,000	
Treatment	709,420,104	184,722,770	524,697,333	15,131,738	39,354,182	51,286,042	47,135,070	38,628,221	191,535,253	282,291,760	50,870,318
182 DI Primary and Secondary Treatment	(957,878)	(957,878)	-								
200 DI Plant Optimization	33,426,679	33,426,679	-								
206 DI Treatment Plant Asset Protection	655,557,962	147,500,575	508,057,387	14,944,972	36,863,245	47,916,846	42,383,435	36,554,703	178,663,201	278,523,865	50,870,318
210 Clinton Wastewater Treatment Plant	19,165,667	2,525,720	16,639,947	186,765	2,490,937	3,369,196	4,751,635	2,073,518	12,872,051	3,767,895	
211 Laboratory Services	2,227,674	2,227,674	-								
Residuals	167,920,224	64,535,816	103,384,409	384,409		1,500,000	3,750,000	4,750,000	10,384,409	58,916,667	34,083,333
261 Residuals	63,810,848	63,810,848	-								
271 Residuals Asset Protection	104,109,377	724,968	103,384,409	384,409		1,500,000	3,750,000	4,750,000	10,384,409	58,916,667	34,083,333
CSO	892,449,306	837,706,314	54,742,992	15,641,349	19,849,696	15,468,518	1,760,900	760,863	53,481,326	1,261,665	
CSO MWRA Managed	432,923,225	429,878,466	3,044,759	748,921	1,784,576	508,648	2,613		3,044,758		
339 North Dorchester Bay	221,606,137	221,620,594	(14,457)	(14,458)					(14,458)		
347 East Boston Branch Sewer Relief	85,638,310	85,645,995	(7,685)	(7,685)					(7,685)		
348 BOS019 Storage Conduit	14,287,581	14,287,581	-								
349 Chelsea Trunk Sewer	29,779,319	29,779,319	-								
350 Union Park Detention Treatment Facility	49,583,406	49,583,406	-								
353 Upgrade Existing CSO Facilities	22,385,200	22,385,200	-								
354 Hydraulic Relief Projects	2,294,549	2,294,549	-								
355 MWR003 Gate & Siphon	3,715,646	648,745	3,066,901	771,064	1,784,576	508,648	2,613		3,066,901		

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
357 Charles River CSO Controls	3,633,077	3,633,077	-								
CSO Community Managed	409,261,592	358,463,436	50,798,156	16,056,879	18,047,120	14,941,870	1,752,287		50,798,156		
340 Dorch. Bay Sewer Separation (Fox Point)	54,625,833	54,152,295	473,538	473,538					473,538		
341 Dorch Bay Sewer Sep. (Commercial Pt.)	64,173,625	61,147,150	3,026,475	(824,582)	249,000	1,849,770	1,752,287		3,026,475		
342 Neponset River Sewer Separation	2,549,086	2,444,394	104,692	104,692					104,692		
343 Constitution Beach Sewer Separation	3,731,315	3,768,888	(37,573)	(37,573)					(37,573)		
344 Stony Brook Sewer Separation	44,246,639	44,198,384	48,255	48,255					48,255		
346 Cambridge Sewer Separation	90,847,137	50,484,204	40,362,933	12,969,598	14,927,000	12,466,335			40,362,933		
351 BWSC Floatables Controls	945,936	932,979	12,957	12,957					12,957		
352 Cambridge Floatables Control	1,126,708	1,086,925	39,783	39,783					39,783		
356 Fort Point Channel Sewer Separation	11,917,090	12,006,708	(89,618)	(89,617)					(89,617)		
358 Morrissey Boulevard Drain	32,339,111	32,346,787	(7,676)	(158,525)		150,849			(7,676)		
359 Reserved Channel Sewer Separation	68,902,222	60,039,901	8,862,321	4,321,405	4,066,000	474,916			8,862,321		
360 Brookline Sewer Separation	24,802,483	25,997,364	(1,194,880)		(1,194,880)				(1,194,880)		
361 Bulfinch Triangle Sewer Separation	9,054,405	9,857,456	(803,051)	(803,052)					(803,052)		
CSO Planning & Support	50,264,489	49,364,412	900,077	(1,164,451)	18,000	18,000	6,000	760,863	(361,588)	1,261,665	
Other Wastewater	242,865,861	128,495,680	114,370,181	4,247,154	11,211,733	13,356,175	15,457,951	14,746,546	59,019,558	64,170,620	(8,819,999)
128 I/I Local Financial Assistance	242,584,985	128,214,804	114,370,181	4,247,154	11,211,733	13,356,175	15,457,951	14,746,546	59,019,558	64,170,620	(8,819,999)
138 Sewerage System Mapping Upgrades	280,876	280,876	-								

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
Waterworks	2,843,684,257	1,874,682,379	969,001,878	41,406,666	45,168,322	57,220,529	72,956,092	77,871,618	294,623,228	503,557,758	170,820,897
Drinking Water Quality Improvements	659,860,721	595,207,527	64,653,194	28,881,296	23,004,912	6,758,953	3,332,388	783,647	62,761,196	1,892,000	
542 Carroll Water Treatment Plant	433,711,709	411,208,515	22,503,194	4,198,306	6,294,015	6,389,072	3,302,397	427,404	20,611,194	1,892,000	
543 Quabbin Water Treatment Plant	19,304,604	12,768,242	6,536,362	5,816,538	616,712	103,113			6,536,363		
544 Norumbega Covered Storage	106,674,146	106,674,146	-								
545 Blue Hills Covered Storage	40,546,671	39,962,823	583,848	143,891	53,723		29,991	356,243	583,848		
550 Spot Pond Storage Facility	59,623,592	24,593,801	35,029,790	18,722,561	16,040,462	266,768			35,029,791		
Transmission	1,201,724,132	755,038,156	446,685,976	5,344,307	13,164,070	23,848,036	29,290,800	26,399,395	98,046,607	236,780,432	111,858,935
597 Winsor Station Pipeline	27,433,503	1,395,591	26,037,912	389,962	568,857	1,593,834	7,073,950	7,555,508	17,182,111	8,855,801	
601 Sluice Gate Rehabilitation	9,158,411	9,158,411	-								
604 MetroWest Tunnel	708,489,952	695,398,508	13,091,444	1,211,957	383,469	1,038,000	1,013,000	1,335,000	4,981,426	8,110,019	
615 Chicopee Valley Aqueduct Redundancy	8,666,292	8,666,292	-								
616 Quabbin Transmission System	13,591,994	7,202,464	6,389,530	289,530		300,000	650,000	1,000,000	2,239,530	4,150,000	
617 Sudbury/Weston Aqueduct Repairs	5,968,491	659,948	5,308,542			1,471,708	1,480,935	257,899	3,210,542	2,098,000	
620 Wachusett Reservoir Spillway Improvements	9,287,460	9,287,460	-								
621 Watershed Land	24,000,000	17,342,400	6,657,600	1,040,000	1,500,000	1,500,000	1,500,000	1,117,600	6,657,600		
623 Dam Projects	4,540,300	3,085,182	1,455,118	257,187	247,719	43,070	432,143	432,144	1,412,263	42,855	
625 Long Term Redundancy	390,587,728	2,841,899	387,745,829	2,155,672	10,464,025	17,901,424	17,140,772	14,701,244	62,363,137	213,523,757	111,858,935

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
Distribution And Pumping	932,592,302	372,703,577	559,888,725	6,215,836	9,767,692	23,540,137	36,778,119	44,761,812	121,063,595	306,096,409	132,728,726
618 Northern High NW Transmission Section 70	1,000,000	-	1,000,000			750,000	250,000		1,000,000		
677 Valve Replacement	22,540,300	12,016,378	10,523,922	162,553	650,192	681,851	776,826	1,139,461	3,410,883	7,113,040	
678 Boston Low Service-Pipe & Valve Rehabilitation	23,690,864	23,690,863	-								
683 Heath Hill Road Pipe Replacement	19,358,036	19,358,036	-								
689 James L. Gillis Pump Station	33,419,006	33,419,007	-								
692 Northern High Service - Section 27 Improve.	1,071,382	123,646	947,736	820	1,180	4,000	12,000	159,506	177,506	770,230	
693 NHS - Revere & Malden Pipeline Improve.	48,987,955	26,832,740	22,155,215		175,000	789,333	3,609,333	8,239,868	12,813,534	9,341,682	
702 New Connecting Mains - Shaft 7 to WASM 3	33,901,772	10,960,807	22,940,965			500,000	1,516,000	4,089,000	6,105,000	16,835,965	
704 Rehabilitation of Other Pump Stations	55,057,852	30,057,852	25,000,000							18,750,000	6,250,000
706 NHS - Connecting Mains from Section 91	2,360,194	2,360,194	-								
708 Northern Extra High Service - New Pipelines	7,776,433	3,632,119	4,144,314	5,300	17,701	134,000	131,000	918,114	1,206,115	2,938,200	
712 Cathodic Protection Of Distribution Mains	1,635,971	140,913	1,495,058			249,177	249,177		498,353	747,530	249,177
713 Spot Pond Supply Mains Rehabilitation	66,469,835	60,982,000	5,487,835	122,753	230,000	1,030,000	1,077,783	800,000	3,260,536	2,227,299	
714 Southern Extra High Sections 41 & 42	3,657,243	3,657,243	-								
719 Chestnut Hill Connecting Mains	31,731,335	17,486,675	14,244,660				345,000	460,000	805,000	8,031,454	5,408,206
720 Warren Cottage Line Rehabilitation	1,204,822	1,204,821	-								
721 South Spine Distribution Mains	74,073,052	36,691,648	37,381,404	14,772				375,000	389,772	4,000,371	32,991,261
722 NIH Redundancy & Storage	88,723,293	5,974,364	82,748,929	2,701,474	2,513,000	6,183,776	12,488,000	15,935,000	39,821,250	42,927,680	
723 Northern Low Service Rehabilitation - Section 8	22,963,857	2,320,986	20,642,871		4,000	14,000	214,000	522,088	754,088	15,768,783	
725 Hydraulic Model Update	598,358	598,358	-								

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
727 SEH Redundancy & Storage	97,773,753	6,756,970	91,016,783	308,168	1,826,833	1,822,000	5,721,000	8,452,000	18,130,001	19,731,154	53,155,628
730 Weston Aqueduct Supply Mains	276,474,923	66,043,294	210,431,629	2,803,022	4,349,786	11,382,000	10,257,000	3,146,775	31,938,583	143,818,591	34,674,454
731 Lynnfield Pipeline	5,774,496	5,677,522	96,975	96,975					96,975		
732 Walnut St. & Fisher Hill Pipeline Rehabilitation	2,717,140	2,717,140	-								
735 Section 80 Rehabilitation	9,630,430	-	9,630,430				131,000	525,000	656,000	8,974,430	
Other Waterworks	49,507,102	151,733,119	(102,226,017)	965,227	(768,352)	3,073,404	3,554,786	5,926,764	12,751,829	(41,211,082)	(73,766,764)
753 Central Monitoring System	19,592,423	15,803,729	3,788,694		360,123	1,628,572	1,628,570	171,429	3,788,694		
763 Distribution Systems Facilities Mapping	1,798,919	1,036,368	762,551			228,765	305,020	228,766	762,551		
764 Local Water Infrastructure Rehabilitation	7,487,762	7,487,762	-								
765 Local Water System Assistance Program	-	126,859,241	(126,859,241)	965,227	(1,308,475)	(1,380,934)	(1,721,988)	865,569	(2,580,600)	(49,646,877)	(74,631,764)
766 Waterworks Facility Asset Protection	20,627,998	546,018	20,081,979		180,000	2,597,000	3,343,184	4,661,000	10,781,184	8,435,795	865,000
Business & Operations Support	122,672,772	77,441,842	45,230,930	6,148,695	9,792,610	8,807,295	7,806,646	5,710,571	38,265,817	6,965,111	
881 Equipment Purchase	20,490,931	12,107,328	8,383,602	1,640,875	3,119,664	913,064	988,000	798,000	7,459,603	924,000	
925 Technical Assistance	1,125,000	-	1,125,000		375,000	375,000	375,000		1,125,000		
930 MWRA Facility - Chelsea	9,813,633	9,813,633	-								
931 Business Systems Plan	24,534,959	24,451,230	83,729	83,729					83,729		
932 Environmental Remediation	1,478,602	1,478,802	(200)	(200)					(200)		
933 Capital Maintenance Planning & Develop.	13,970,759	10,124,225	3,846,535	1,268,581	1,470,258	1,107,695			3,846,534		
934 MWRA Facilities Management	2,150,535	370,533	1,780,002							1,780,002	
935 Alternative Energy Initiatives	26,521,763	17,196,804	9,324,958	274,009	653,333	1,452,018	1,379,236	1,948,000	5,706,596	3,618,360	
940 Application Improvement Program	10,050,000	73,125	9,976,875	195,924	2,079,108	2,707,836	3,000,533	1,811,308	9,794,708	182,166	

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
942 Information Security Program (ISP)	1,342,950	535,190	807,760	371,174	203,253	200,000	33,333		807,760		
944 Information Technology Management Prog.	922,640	-	922,640	150,783	259,185	249,460	210,572	52,641	922,641		
946 IT Infrastructure Program	10,271,000	1,290,971	8,980,029	2,163,821	1,632,809	1,802,222	1,819,972	1,100,622	8,519,446	460,583	

ATTACHMENT C
Comparison of the FY15 Final CIP and the FY14 Final CIP

Program and Project	FY14 Final			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23
Total MWRA	5,628,539	717,958	1,072,185	149,016
Wastewater	2,685,135	368,930	500,147	74,374
Interception & Pumping	846,541	118,371	180,439	26,816
102 Quincy Pump Facilities	25,907	-	-	-
104 Braintree-Weymouth Relief Facilities	233,869	1,364	4,441	-
105 New Neponset Valley Relief Sewer	30,300	-	-	-
106 Wellesley Extension Replacement Sewer	64,359	-	-	-
107 Framingham Extension Relief Sewer	47,856	-	-	-
127 Cummingsville Replacement Sewer	8,999	-	-	-
130 Siphon Structure Rehabilitation	5,603	4,581	82	-
131 Upper Neponset Valley Sewer	54,174	-	-	-
132 Corrosion & Odor Control	16,260	1,000	12,259	-
134 Ashland Extension Sewer	-	-	-	-
135 System Master Plan Interceptors	-	-	-	-
136 West Roxbury Tunnel	11,314	-	1,000	-
137 Wastewater Central Monitoring	20,482	700	-	-
139 South System Relief Project	4,939	-	1,500	-
140 Neponset Valley Relief Sewer	-	-	-	-
141 Wastewater Process Optimization	10,328	2,542	5,845	698
142 Wastewater Meter System-Equipment	26,438	5,531	7,692	8,077
143 Regional I/I Management Planning	169	-	-	-
145 Facility Asset Protection	279,794	102,653	141,870	18,042
146 D.I. Cross Harbor Tunnel Inspection	5,000	-	5,000	-
147 Randolph Trunk Sewer Relief	750	-	750	-
Treatment	659,597	199,138	225,271	46,757
182 DI Primary and Secondary	-	-	-	-
200 DI Plant Optimization	33,456	-	-	-
206 DI Treatment Plant Asset Protection	606,848	188,385	221,677	46,757
210 Clinton Wastewater Treat Plant	17,059	10,753	3,594	-
211 Laboratory Services	2,235	-	-	-
Residuals	168,020	1,549	98,237	3,672
261 Residuals	63,811	-	-	-
271 Residuals Asset Protection	104,209	1,549	98,237	3,672

FY15 Final			
Total Budget Amount	FY14-18	FY19-23	Beyond 23
5,852,185	756,279	1,131,090	276,690
2,885,828	423,390	620,567	105,870
873,171	108,971	213,927	29,735
25,907	-	-	-
232,453	309	4,441	-
30,300	-	-	-
64,359	-	-	-
47,856	-	-	-
8,999	-	-	-
6,520	-	5,580	-
54,174	-	-	-
16,346	1,000	12,344	-
-	-	-	-
-	-	-	-
11,314	-	1,000	-
20,482	327	373	-
4,939	-	1,500	-
-	-	-	-
10,360	1,391	5,794	1,970
26,438	7,300	3,000	11,000
169	-	-	-
306,806	98,644	174,144	16,766
5,000	-	5,000	-
750	-	750	-
709,421	191,535	282,292	50,871
(958)	-	-	-
33,427	-	-	-
655,558	178,663	278,524	50,871
19,166	12,872	3,768	-
2,228	-	-	-
167,920	10,384	58,917	34,083
63,811	-	-	-
104,109	10,384	58,917	34,083

Change from FY14 Final			
Total Budget Amount	FY14-18	FY19-23	Beyond 23
223,644	38,322	58,907	127,674
200,691	54,461	120,421	31,496
26,631	(9,400)	33,487	2,919
-	-	-	-
(1,416)	(1,055)	-	-
-	-	-	-
-	-	-	-
-	-	-	-
917	(4,581)	5,498	-
-	-	-	-
86	-	85	-
-	-	-	-
-	-	-	-
-	-	-	-
-	(373)	373	-
-	-	-	-
-	-	-	-
32	(1,151)	(51)	1,272
-	1,769	(4,692)	2,923
-	-	-	-
27,012	(4,009)	32,274	(1,276)
-	-	-	-
-	-	-	-
49,824	(7,603)	57,021	4,114
(958)	-	-	-
(29)	-	-	-
48,710	(9,722)	56,847	4,114
2,107	2,119	174	-
(7)	-	-	-
(100)	8,836	(39,320)	30,411
-	-	-	-
(100)	8,835	(39,320)	30,411

ATTACHMENT C
Comparison of the FY15 Final CIP and the FY14 Final CIP

Program and Project	FY14 Final			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23
CSO	888,111	48,066	1,271	63
340 Dorchester Bay Sewer Separation (Fox Point)	54,169	16	-	-
341 Dorchester Bay Sewer Separation (Commercial Point)	64,776	3,628	-	-
342 Neponset River Sewer Separation	2,444	-	-	-
343 Constitution Beach Sewer Separation	3,769	-	-	-
344 Stony Brook Sewer Separation	44,333	-	-	-
346 Cambridge Sewer Separation	85,834	35,349	-	-
351 BWSC Floatables Controls	933	-	-	-
352 Cambridge Floatables Control	1,087	-	-	-
356 Fort Point Channel Sewer Separation	12,007	-	-	-
358 Morrissey Boulevard Drain	32,815	468	-	-
359 Reserved Channel Sewer Separation	64,809	4,769	-	-
360 Brookline Sewer Separation	25,977	(20)	-	-
361 Bulfinch Triangle Sewer Separation	9,944	86	-	-
339 North Dorchester Bay	223,060	807	250	63
347 East Boston Branch Sewer Relief	85,874	-	-	-
348 BOS019 Storage Conduit	14,288	-	-	-
349 Chelsea Trunk Sewer	29,779	-	-	-
350 Union Park Detention Treatment Facility	49,583	-	-	-
353 Upgrade Existing CSO Facilities	22,385	-	-	-
354 Hydraulic Relief Projects	2,295	-	-	-
355 MWR003 Gate & Siphon	4,005	3,278	-	-
357 Charles River CSO Controls	3,633	-	-	-
324 CSO Support	50,315	(315)	1,021	-
Other Wastewater	122,866	1,806	(5,072)	(2,934)
128 I/I Local Financial Assistance	122,585	1,806	(5,072)	(2,934)
138 Sewerage System Mapping Upgrade	281	-	-	-
Total Waterworks	2,820,956	307,134	568,048	74,642
Drinking Water Quality	657,172	57,311	79	-
542 Carroll Water Treatment Plant	433,253	21,026	79	-
543 Quabbin Water Treatment Plant	17,393	5,035	-	-
544 Norumbega Covered Storage	106,674	-	-	-
545 Blue Hills Covered Storage	40,704	600	-	-
550 Spot Pond Storage Facility	59,149	30,650	-	-

Total Budget Amount	FY15 Final		
	FY14-18	FY19-23	Beyond 23
892,447	53,481	1,262	-
54,626	474	-	-
64,174	3,026	-	-
2,549	105	-	-
3,731	(38)	-	-
44,247	48	-	-
90,847	40,363	-	-
946	13	-	-
1,127	40	-	-
11,917	(90)	-	-
32,339	(8)	-	-
68,902	8,862	-	-
24,802	(1,195)	-	-
9,054	(803)	-	-
221,606	(14)	-	-
85,638	(8)	-	-
14,288	-	-	-
29,779	-	-	-
49,583	-	-	-
22,385	-	-	-
2,295	-	-	-
3,716	3,067	-	-
3,633	-	-	-
50,264	(362)	1,262	-
242,866	59,020	64,171	(8,820)
242,585	59,020	64,171	(8,820)
281	-	-	-
2,843,684	294,623	503,558	170,821
659,862	62,761	1,892	-
433,712	20,611	1,892	-
19,305	6,536	-	-
106,674	-	-	-
40,547	584	-	-
59,624	35,030	-	-

Total Budget Amount	Change from FY14 Final		
	FY14-18	FY19-23	Beyond 23
4,336	5,415	(10)	(63)
457	458	-	-
(602)	(602)	-	-
105	105	-	-
(38)	(38)	-	-
(86)	48	-	-
5,013	5,014	-	-
13	13	-	-
40	40	-	-
(90)	(90)	-	-
(476)	(476)	-	-
4,093	4,093	-	-
(1,175)	(1,175)	-	-
(890)	(889)	-	-
(1,454)	(821)	(250)	(63)
(236)	(8)	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
(289)	(211)	-	-
-	-	-	-
(51)	(47)	241	-
120,000	57,215	69,243	(5,886)
120,000	57,214	69,243	(5,886)
-	-	-	-
22,728	(12,511)	(64,490)	96,180
2,690	5,450	1,813	-
459	(415)	1,813	-
1,912	1,501	-	-
-	-	-	-
(157)	(16)	-	-
475	4,380	-	-

ATTACHMENT C
Comparison of the FY15 Final CIP and the FY14 Final CIP

Program and Project	FY14 Final			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23
Transmission	1,185,972	80,007	231,353	118,737
597 Winsor Station Pipeline	27,256	5,007	20,778	-
601 Sluice Gate Rehabilitation	9,158	-	-	-
604 MetroWest Tunnel	708,786	7,697	5,660	-
615 Chicopee Valley Aqueduct Redundancy	8,666	-	-	-
616 Quabbin Transmission System	13,516	3,261	3,130	-
617 Sudbury/Weston Aqueduct Repairs	4,327	3,667	-	-
620 Wachusett Reservoir Spillway Improvement	9,287	-	-	-
621 Watershed Land	24,000	6,000	-	-
622 Cosgrove/Wachusett Redundancy	-	-	-	-
623 Dam Projects	5,540	2,328	43	-
625 Long Term Redundancy	375,435	52,047	201,742	118,737
Distribution & Pumping	931,433	153,475	296,471	108,726
618 Northern High NW Tran Sections 70 & 71	1,000	1,000	-	-
677 Valve Replacement	22,311	3,131	7,163	-
678 Boston Low Service-Pipe & Valve Rehabilitation	23,691	-	-	-
683 Heath Hill Road Pipe Replacement	19,358	-	-	-
689 James L. Gillis Pump Station Rehabilitation	33,419	-	-	-
692 NHS - Section 27 Improvements	1,043	178	742	-
693 NHS - Revere & Malden Pipeline Improvement	48,622	12,604	9,185	-
702 New Connect Mains-Shaft 7 to WASM 3	33,351	10,824	11,559	-
704 Rehabilitation of Other Pump Stations	55,058	-	15,073	9,927
706 NHS-Connecting Mains from Section 91	2,360	-	-	-
708 Northern Extra High Service New Pipelines	7,653	1,198	2,815	-
712 Cathodic Protection Of Distribution Mains	1,591	725	725	-
713 Spot Pond Supply Mains Rehabilitation	66,243	2,975	2,288	-
714 Southern Extra High Sections 41 & 42	3,657	-	-	-
719 Chestnut Hill Connecting Mains	31,301	837	7,701	5,277
720 Warren Cottage Line Rehabilitation	1,205	-	-	-
721 South Spine Distribution Mains	73,568	1,158	12,137	23,333
722 NIH Redundancy & Storage	84,956	42,079	36,748	-
723 Northern Low Service Rehabilitation Section 8	22,440	754	19,365	-
724 Northern High Service - Pipeline Rehabilitation	-	-	-	-
725 Hydraulic Model Update	598	-	-	-
727 Southern Extra High Redundancy & Storage	93,460	26,521	8,566	51,550
730 Weston Aqueduct Supply Mains	286,418	48,742	153,700	18,640
731 Lynnfield Pipeline	6,073	113	-	-

FY15 Final			
Total Budget Amount	FY14-18	FY19-23	Beyond 23
1,201,724	98,047	236,780	111,859
27,434	17,182	8,856	-
9,158	-	-	-
708,490	4,981	8,110	-
8,666	-	-	-
13,592	2,240	4,150	-
5,968	3,211	2,098	-
9,287	-	-	-
24,000	6,658	-	-
-	-	-	-
4,540	1,412	43	-
390,588	62,363	213,524	111,859
932,592	121,064	306,097	132,730
1,000	1,000	-	-
22,540	3,411	7,113	-
23,691	-	-	-
19,358	-	-	-
33,419	-	-	-
1,071	178	770	-
48,988	12,814	9,342	-
33,902	6,105	16,836	-
55,058	-	18,750	6,250
2,360	-	-	-
7,776	1,206	2,938	-
1,636	498	748	249
66,470	3,261	2,227	-
3,657	-	-	-
31,731	805	8,031	5,408
1,205	-	-	-
74,073	390	4,000	32,992
88,723	39,821	42,928	-
22,964	754	19,889	-
-	-	-	-
598	-	-	-
97,774	18,130	19,731	53,156
276,475	31,939	143,819	34,675
5,774	97	-	-

Change from FY14 Final			
Total Budget Amount	FY14-18	FY19-23	Beyond 23
15,752	18,040	5,427	(6,878)
-178	12,175	(11,922)	-
-	-	-	-
(296)	(2,716)	2,450	-
-	-	-	-
76	(1,021)	1,020	-
1,641	(456)	2,098	-
-	-	-	-
-	658	-	-
-	-	-	-
(1,000)	(916)	-	-
15,153	10,316	11,782	(6,878)
1,159	(32,411)	9,626	24,003
-	-	-	-
229	280	(50)	-
-	-	-	-
-	-	-	-
-	-	-	-
28	-	28	-
366	210	157	-
551	(4,719)	5,277	-
-	-	3,677	(3,677)
-	-	-	-
123	8	123	-
45	(227)	23	249
227	286	(61)	-
-	-	-	-
430	(32)	330	131
-	-	-	-
505	(768)	(8,137)	9,659
3,767	(2,258)	6,180	-
524	-	524	-
-	-	-	-
-	-	-	-
4,314	(8,391)	11,165	1,606
(9,943)	(16,803)	(9,881)	16,035
(299)	(16)	-	-

ATTACHMENT C
Comparison of the FY15 Final CIP and the FY14 Final CIP

Program and Project	FY14 Final			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23
732 Walnut St. & Fisher Hill Pipeline Rehabilitation	2,717	-	-	-
733 NHS Pipeline Rehabilitation 13-18 & 48	-	-	-	-
734 Southern Extra High Pipelines-Sections 30, 39,40, & 44	-	-	-	-
735 Section 80 Rehabilitation	9,340	636	8,704	-
Other	46,380	16,341	40,145	(152,822)
753 Central Monitoring System	16,992	1,129	-	-
763 Distribution Systems Facilities Mapping	1,799	763	-	-
764 Local Water Infrastructure Rehabilitation Assistance Program	7,488	-	-	-
765 Local Water Pipeline Improvement Loan Program	-	2,927	32,969	(153,687)
766 Waterworks Facility Asset Protection	20,101	11,522	7,176	865
Business & Operations Support	122,448	41,895	3,990	-
881 Equipment Purchase	18,483	7,019	-	-
925 Technical Assistance	1,200	1,200	-	-
930 MWRA Facility - Chelsea	9,814	-	-	-
931 Business Systems Plan	24,475	12	-	-
932 Environmental Remediation	1,479	-	-	-
933 Capital Maintenance Planning	15,701	5,646	-	-
934 MWRA Facilities Management	2,151	1,780	-	-
935 Alternative Energy Initiatives	28,230	6,965	3,652	-
940 Applicat Improv Program	9,150	8,986	159	-
942 Info Security Program ISP	1,293	792	-	-
944 Info Tech Mgmt Program	1,493	1,493	-	-
946 IT Infrastructure Program	8,980	8,002	179	-

Total Budget Amount	FY15 Final		
	FY14-18	FY19-23	Beyond 23
2,717	-	-	-
-	-	-	-
-	-	-	-
9,630	656	8,974	-
49,507	12,751	(41,211)	(73,767)
19,592	3,789	-	-
1,799	763	-	-
7,488	-	-	-
-	(2,581)	(49,647)	(74,632)
20,628	10,781	8,436	865
122,673	38,266	6,965	-
20,491	7,460	924	-
1,125	1,125	-	-
9,814	-	-	-
24,535	84	-	-
1,479	-	-	-
13,971	3,847	-	-
2,151	-	1,780	-
26,522	5,707	3,618	-
10,050	9,795	182	-
1,343	808	-	-
923	923	-	-
10,271	8,519	461	-

Total Budget Amount	Change from FY14 Final		
	FY14-18	FY19-23	Beyond 23
-	-	-	-
-	-	-	-
-	-	-	-
290	20	270	-
3,127	(3,590)	(81,356)	79,056
2,600	2,660	-	-
-	-	-	-
-	-	-	-
-	(5,508)	(82,616)	79,055
527	(741)	1,260	-
225	(3,629)	2,975	-
2,008	441	924	-
(75)	(75)	-	-
-	-	-	-
60	72	-	-
-	-	-	-
(1,730)	(1,799)	-	-
-	(1,780)	1,780	-
(1,708)	(1,258)	(34)	-
900	809	23	-
50	16	-	-
(570)	(570)	-	-
1,291	517	282	-

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>1. The Advisory Board recommends that the Authority review and update the Business Plan and present a document for the next five-year period, FY2015-FY2019, no later than September 2014.</p>	<p>The Authority will strive to update the Business plan for the FY15-19 timeframe to be presented to the Board in December 2014.</p>
<p>2. The Advisory Board recommends that Phase 9 and Phase 10 of the I/I Local Financial Assistance Program be increased to \$80 million per phase to be distributed to eligible communities.</p>	<p>Agree. The expansion of this program and the more favorable terms is a major positive development for the communities. Having more funds available will enhance the communities ability to make needed local improvements to their sewer system.</p>
<p>3. The Advisory Board recommends that an automatic "trigger," the exact mechanism of which is to be determined by the Authority, be incorporated into the I/I Program to make Phase 10 funds available to communities.</p>	<p>Based on discussions with the AB it was determined that some safety features will be built into the structure of the new program starting with Phase 9. These will include that the Communities will provide a three year spending projection starting in March of 2015 for the FY16 cycle, and every budget year following FY16, and a 90 day advance notice for any distribution exceeding \$2 million. Also, it was decided, that in order to ensure that the Phase 10 funds included in the capital program will be available to the Communities a "trigger" point for the eligibility was agreed upon: when MWRA has distributed 50% of the Phase 9 funds allocation for a community, their Phase 10 distribution automatically becomes approved for local authorization. Phase 10 funds will be available at the beginning of the fiscal year after the Phase 10 trigger has been met.</p>
<p>4. The Advisory Board recommends that the award for construction of the Hatchery Pipeline project be placed on hold until the Commonwealth confirms its method of reimbursing the Authority for the electricity savings it will receive as an ancillary benefit to this project.</p>	<p>MWRA is continuing the design effort, while at the same time seeking additional grants for the construction phase of the project. Last year, MWRA indicated it had received one grant from the Massachusetts Clean Energy Center for 50% of the hydropower facility's cost, and had applied for a second grant from the Executive Office of Energy and Environmental Affairs Leading By Example program to cover the other 50% of the hydropower facility's project cost. MWRA subsequently received the second grant. Both grants have milestones associated with them. Failure to move ahead with this project on a timely basis could result in loss of grant funding.</p>
<p>5. The Advisory Board recommends that the community assistance programs be exempt from the capital spending cap calculation.</p>	<p>Agree.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>The Advisory Board recommends that the Authority identify "standalone" projects in both the wastewater and water capital programs and bring them to a level of design to allow them to proceed with short notice. The Advisory Board further recommends that this "pool" of projects be substituted to continue work on the capital program when other capital spending "slips" due to unforeseen circumstances.</p> <p>6.</p>	<p>The Authority will consider this recommendation going forward. The Authority budgets capital projects based on priority and once the design phase for a project is completed, the project is bid for construction as soon as possible. If a project were to be designed and then shelved it could not necessarily be bid quickly once needed. There are items in a design contract such as: electrical/plumbing codes, building codes, environmental requirements and permitting, to name a few, that frequently change. If a project were to be designed and then shelved, once needed, would have to be revised to account for any changes. Doing so, would potentially be time- consuming and may result in higher costs, especially if the contract with the original design engineering firm has expired. In that case it would be necessary to re-bid the contract, which would not guarantee that the original design firm would receive the award. This situation would further complicate the process, because the newly selected firm would essentially be re-designing the project. However, the Authority will evaluate and identify projects where it would be beneficial and feasible to implement this recommendation.</p>
<p>7. The Advisory Board challenges the Authority to the long-term goal of reducing wholesale assessment increases from FY16-20 to less than 4.0%.</p>	<p>The Authority will strive to achieve assessment increases less than 4% annually. So far, based on the current projection the average increase for the FY16-20 period is 5%.</p>
<p>8. The Advisory Board recommends that the Authority reduces the rate revenue requirement for the FY15 Current Expense Budget by \$853,660, resulting in a 3.43% wholesale rate increase.</p>	<p>Agree.</p>
<p>9. The Advisory Board recommends that any additional reductions the Authority makes beyond \$853,660 are accounted for via a reduction in the use of rate stabilization funds for FY15.</p>	<p>Agree. Due to additional savings identified during the Draft Final process the Authority was able to reduce the use of reserves by \$2.4 million in FY15, thus increasing the available reserve funds to be used in future years.</p>
<p>10. The Advisory Board recommends that the Authority use the \$4,645,464 dedicated for water quality improvements relating to the Town of Clinton as part of the "current revenue for the capital program" line item to fund this project as expenditures occur in future years.</p>	<p>Partially agree. When these funds were originally set aside, there were a few watershed protection/water quality initiatives identified for their application. MWRA can use this \$4.7M for the Clinton project specifically (like current revenue for capital and lower its borrowing), but it cannot use these funds in lieu of the Current Revenue for Capital budgeted for FY15 and beyond. The Current Revenue for Capital line item is budgeted (at increasing levels annually) to ensure MWRA is able to meet its coverage requirement per the Bond Resolution. Since this \$4.7M was already recognized for year-end coverage purposes in the year that it was set aside (FY11), it cannot be re-applied for coverage purposes in the future.</p>
<p>11. The Advisory Board recommends that the Long-Term Rates Management Committee be reconvened with updated membership according to the original makeup present on the committee, and that meetings begin in September 2014.</p>	<p>Agree. Staff recommend that this forum be used to develop a recommendation to the Board of Directors for the application of the cash reserves (Community Obligation and Revenue Enhancement (CORE) and Renewal and Replacement Reserve (RRR) funds) to be released upon adoption of the revisions to the Bond Indenture.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>12. The Advisory Board recommends that the Authority adjusts its attrition/vacancy rate assumptions upward by the average value of three positions, for a reduction of \$300,000 (including associated fringe benefits).</p>	<p>The Authority reduced the Proposed FY15 CEB Regular Pay line item by \$274,000 to reflect the financial impact of hiring delays. The associated fringe benefits, coupled with lower health insurance premium rates, resulted in an additional reduction of \$240,000.</p>
<p>13. The Advisory Board reaffirms its support of the current approach toward the combined pension/OPEB liability, and further recommends that 100% funding of the retirement fund be used as the specific "trigger" to begin the process of establishing an irrevocable trust for its OPEB liability.</p>	<p>Agree to establish an OPEB irrevocable trust and to begin funding this OPEB trust upon reaching full funding of the retirement fund. However, staff recommend that the process for establishing the trust be commenced in advance of reaching full funding of the pension fund as important decisions regarding the administration of the OPEB trust need to be made and the development of the legal documentation will take some time to complete. Thus, the process to establish the trust should commence in advance but no funding need be directed to such a trust until reaching full funding of the retirement fund as currently planned.</p>
<p>14. The Advisory Board recommends that in the event the amount budgeted for the retirement fund deposit would exceed the amount needed for full funding, that any excess funds be placed in a dedicated reserve account that is exempt from any Operating Reserve requirement until an irrevocable trust is established.</p>	<p>Staff agrees that amounts budgeted in excess of the amount needed for full pension funding should be directed to OPEB funding and placed in a dedicated reserve account which is not subject to Operating Reserve requirement, until an irrevocable trust is established.</p>
<p>15. The Advisory Board recommends that the Authority create a working committee, including representatives from the Advisory Board, to discuss the schedule, structure, and management of funding the Authority's OPEB liability and make a recommendation to the MWRA Board of Directors.</p>	<p>Agree.</p>
<p>16. The Advisory Board recommends that the Authority reduce its assumption for average quantity from 104 tons per day to 103 tons per day, thereby reducing sludge pelletization by \$99,000.</p>	<p>Agree with the recommendation of reducing the average sludge quantity from 104 tons per day to 103 tons per day.</p>
<p>17. The Advisory Board recommends reducing budgeted amounts for chemical use by \$650,000 to reflect no increased costs associated with regulatory changes to the National Pollutant Discharge Elimination System (NPDES) permit at the Deer Island Wastewater Treatment Plant.</p>	<p>MWRA partially agrees with this recommendation. The Operations Division agrees to amend the Proposed FY15 CEB to reflect a three month delay in the start-up of the new NPDES Permit at the Deer Island Wastewater Treatment Plant. The revised budget will reflect start-up in April 2015 instead of January 2015, thus resulting in a reduction of \$330,000 for less chemical use for enterococcus treatment at DITP.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>18. The Advisory Board recommends that the Authority contribute no more than 40% to the costs for the Mystic River modeling - no more than \$150,000 per year, with an overall spending cap of \$350,000 contingent upon demonstrated commitment from DEP, EPA, local entities, and the Mystic River Watershed Association to fund the remaining 60%.</p>	<p>MWRA is working cooperatively with the Mystic River Watershed Association (MyRWA), EPA, DEP, USGS and other potential partners to establish a higher level of baseline information on the Mystic River with the intent of making more informed long-term decisions about water quality. This benefits MWRA relative to understanding the benefits associated with the Authority's Long Term CSO Control Plan and with MWRA's more focused efforts such as the North System Study and projects such as assisting MyRWA with ongoing efforts to reduce nuisance vegetation in the River. Scope development for the project is not yet complete. MWRA is working with MyRWA and the other parties to develop a scope, schedule and funding mix that will be the most beneficial. MWRA has been adamant in all discussions that cost sharing between interested parties is critical to MWRA's involvement and to the success of the project. In addition to making use of watershed association funds, MyRWA has made progress in preparing grant applications and obtaining financial commitments from both public and private entities. Additional grant applications are currently outstanding and others will be developed over time as opportunities arise. MWRA will continue to work with MyRWA and other parties to ensure the broadest possible financial participation. MWRA does concur with the Advisory Board's concept of proportionate funding shared by multiple stakeholders. If the cost and scope of the project increases and MyRWA is successful in raising additional funding for costs from other interested parties, MWRA staff would make a recommendation for a proportional increase in the total contribution above the \$350,000. If that were to occur, MWRA staff would seek specific Board approval.</p>
<p>19. The Advisory Board recommends that the Authority update assumptions for the schedule for an undated Local Limits Study during FY15 and reduce budgeted amounts by at least \$125,000 to reflect a start date in the spring of 2015.</p>	<p>The Operations Division agrees to reduce the Proposed FY15 CEB for the Local Limits Study by \$125,000, leaving a remaining budget of \$125,000 for three months of work in FY15 to coincide with the start-up of the new NPDES Permit for DITP.</p>
<p>20. The Advisory Board recommends that the Authority review its assumptions for conducting of a Deer Island beach erosion study during FY15 and reduce amounts budgeted by \$50,000.</p>	<p>Agree.</p>
<p>21. The Advisory Board recommends that the planned purchase of a piece of Laboratory equipment for \$150,000 be classified as a capital expense.</p>	<p>MWRA does not agree to shift the funds for this item to the CIP. This is a relatively small amount which the Central Laboratory carries historically as a placeholder in the CEB which may include funding for one or a number of instruments. Actual purchases are based on the latest emerging needs and staff evaluates all purchases before any commitment is made as to the funding.</p>
<p>22. The Advisory Board recommends that other items that meet the capitalization policy should be revisited.</p>	<p>MWRA's staff evaluates each project on it's own merit and determines if they meet the capitalization criteria.</p>

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>23. The Advisory Board recommends that the co-digestion pilot program should not be resumed until an updated estimate on the costs required to resume the pilot program are detailed and the Commonwealth provides the Authority with its plans for substantial financial support for the increased costs associated with the pilot program.</p>	<p>Staff currently considering alternative options, such as barging and updates the Board monthly on the progress. The pursuit of additional funding is part of the considerations. Also, staff is continuing to assess and refine the capital and operating costs associated with the pilot program.</p>
<p>24. The Advisory Board recommends that the Authority clearly identify and share with member communities what steps it can take to directly control the diversion of additional organic food waste into the wastewater stream.</p>	<p>Staff will review its sewer use regulations, education, and outreach programs and other practices of POTW's nationwide to determine if additional steps must be taken and will work closely with the Advisory Board on the issue.</p>
<p>25. The Advisory Board is recommending that the sunset provision on its proposed entrance fee payment schedule be extended one full year to June 30, 2015.</p>	<p>MWRA staff do not object to this recommendation. In 2012, the MWRA Advisory Board adopted recommendations to revise the terms of entrance fee payment for water system expansion to allow new water served communities to pay the entrance fee over 25 years, with no interest assessed, and to allow payment to start in the fourth year. In discussions with prospective communities, allowing payment of the entrance fee over 25 years appeared to be well received. MWRA staff urge that MWRA and the MWRA Advisory Board continue to keep open the possibility of payment of the entrance fee over 25 years with no interest. As experience has indicated, the process to become an MWRA water community may take a while, as communities weigh options very carefully, various Town meeting or City Council votes may be required, and there are regulatory processes that must be completed prior to application to MWRA. MWRA staff believe that if the Community is taking concrete steps to join MWRA, such as a Town Meeting vote, or submission of MEPA documentation indicating MWRA is the preferred option, these actions should be considered actions that satisfy the sunset provision's deadline.</p>
<p>26. The Advisory Board recommends that the payback period for Phase 9 and Phase 10 of the Inflow/Infiltration Local Financial Assistance Program be extended to ten years.</p>	<p>Agree.</p>
<p>27. The Advisory Board recommends that Phase 9 and Phase 10 of the Inflow/Infiltration Local Financial Assistance Program be reconfigured to allow for a grant/loan ratio of 75% grants and 25% interest-free loans.</p>	<p>Agree. Although, doubling of the traditional amounts per phase and changing the grant/loan ratio, specifically the grants from 45% to 75% will result in higher borrowing cost for the Authority, the higher cost will be repaid by the communities through assessments over time.</p>
<p>28. Formally, the Advisory Board recommends that in FY15 and all future years, any Debt Service Assistance received from the Commonwealth be utilized in the fiscal year immediately following its receipt in the form of a direct reduction to the rate revenue requirement.</p>	<p>Agree. If in the future years the Commonwealth were to appropriate funds at expected levels for Debt Service Assistance, this recommendation might be revisited.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>29. The Advisory Board recommends that the Authority begin immediately to address molybdenum limits found in its biosolids with the goal of ensuring its processed pellets can be placed in-state throughout the entire year, using any of the methods discussed and present a specific and detailed plan to do so to the MWRA Board of Directors by October 2014.</p>	<p>Staff concur with the Advisory Board's goal of placing more pellets in the Commonwealth of Massachusetts. MWRA staff are continuing to evaluate options, including revisions to the DEP regulatory limits, to ensure its pellets can be placed in-state throughout the year and agree to return to the Board with recommendations.</p>