



Massachusetts Water Resources Authority

*Presentation to the*

**Advisory Board**

***Fiscal Year 2014***

**Proposed**

***Capital Improvement and Current Expense Budget***

***Overviews***

**March 21, 2013**



## FY14 Proposed CEB & CIP Budgets

FY14 represents a significant milestone for both the CIP and CEB programs.

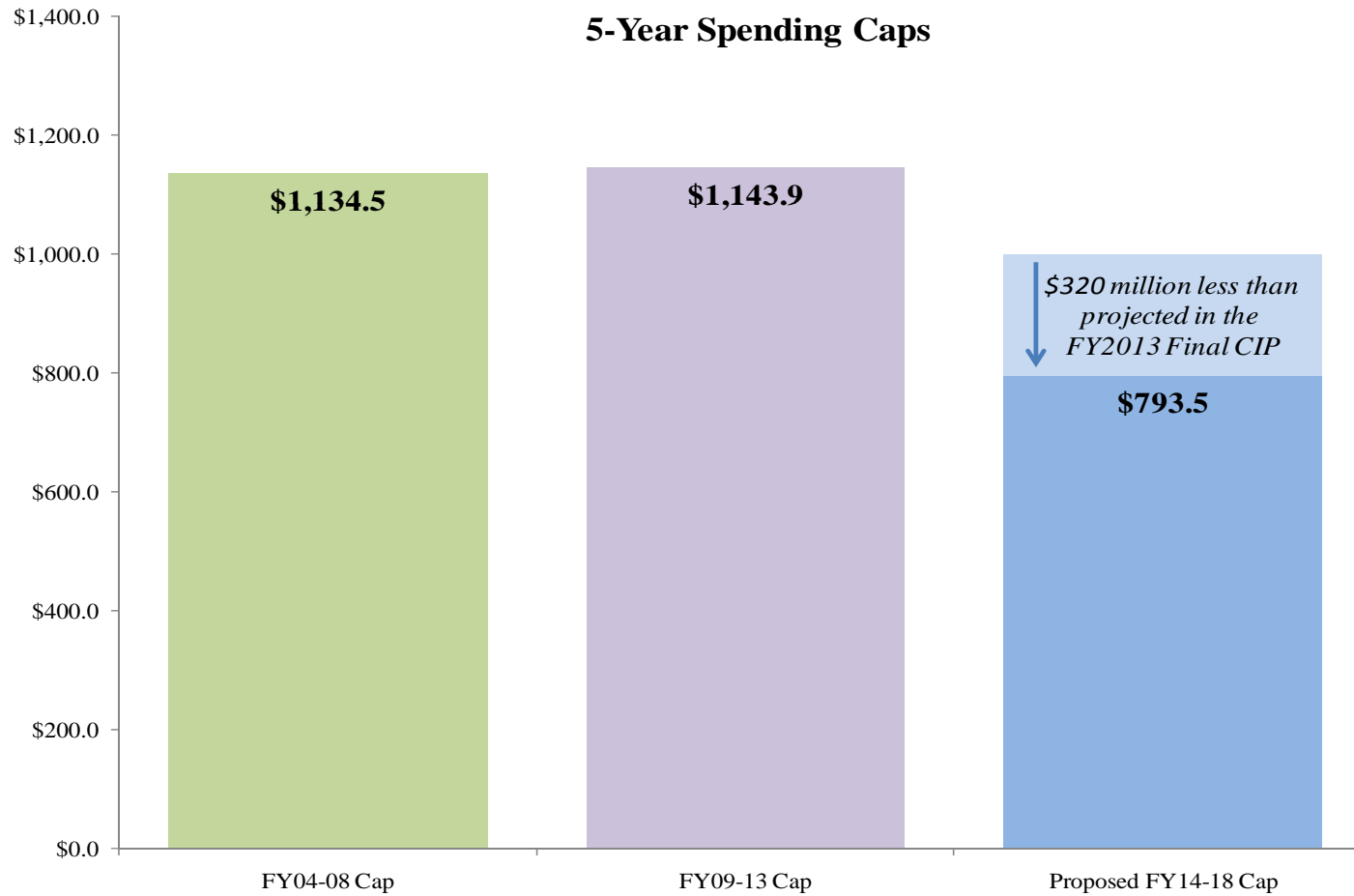
The FY14 Proposed Budgets:

- Presents the next five-year Cap;
- Projects the lowest five-year spending to date;
- Recommends a 3.9% combined rate increase;
- See debt burden reduced; and
- Begins a new era of paying more principal than interest.



## Historical Five-Year Cap Periods

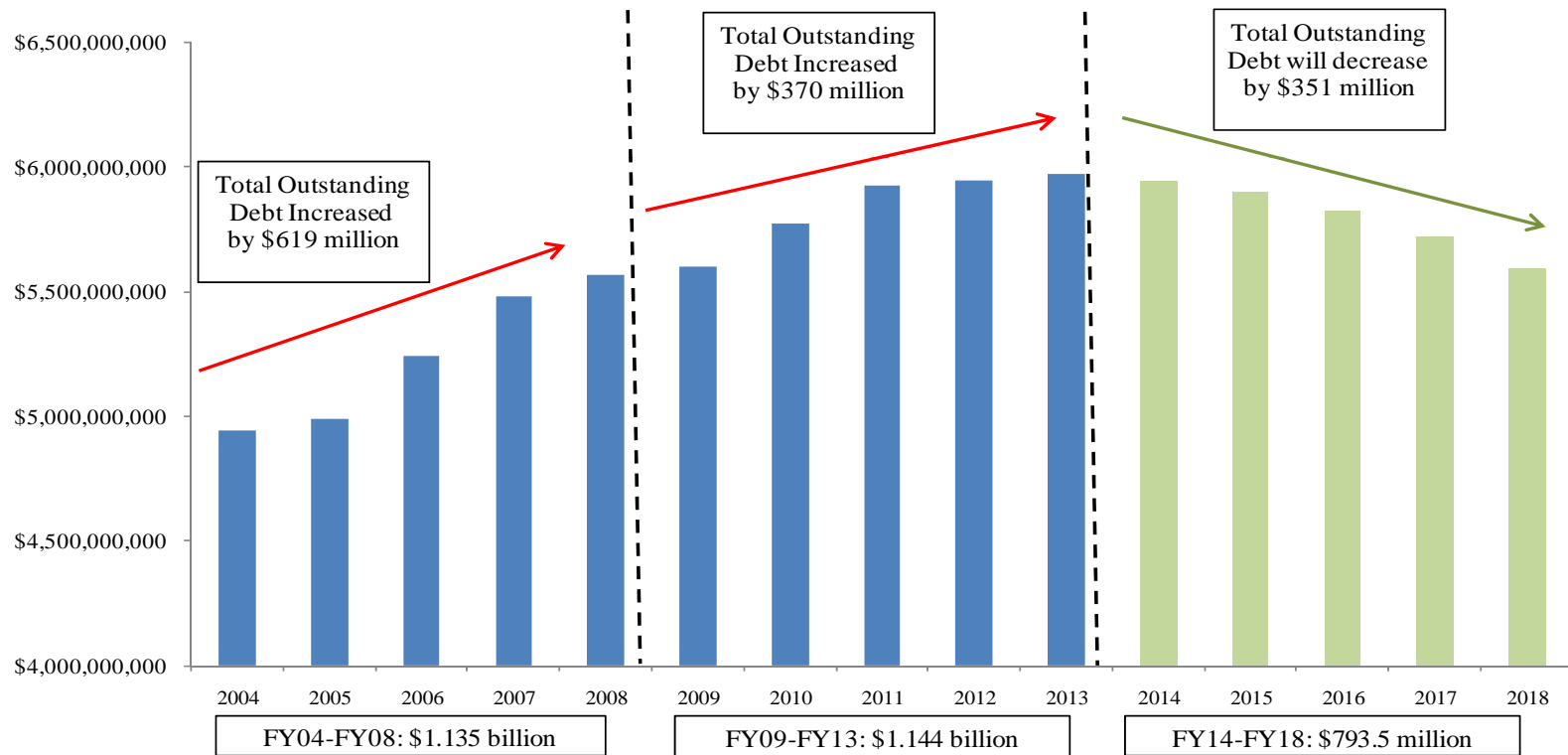
The Proposed FY14-18 Cap shows significant reduction from previous Caps





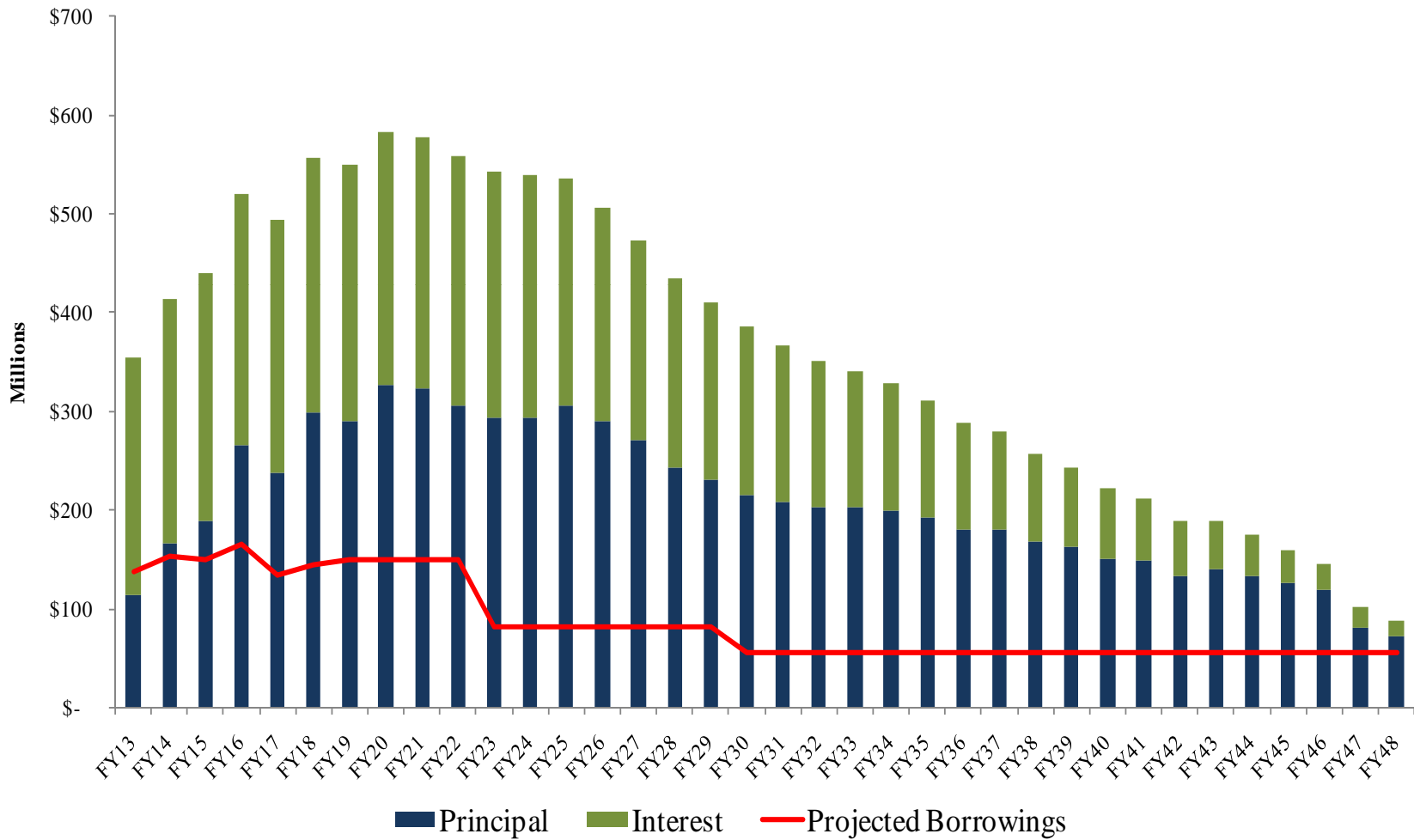
# Total Outstanding Debt

## MWRA's Outstanding Debt





# MWRA's Projected Debt Service and Projected Borrowings





## Authority's Continued Strategy

- Support the core operations and insure meeting the operating permits;
- Continue the Authority's long standing multi-year assessment strategy;  
and
- Paying off the daunting debt of \$5.8 billion.



## Staff Took Into Consideration

- Acknowledgement of tough economic times;
- Management of all expenses, with focus on controllable costs;
- Long-term effect of capital borrowing;
- Advisory Board recommendations;
- Recognition of the changing nature of the capital program; and
- Reevaluation of planning estimate assumptions.



## FY14 Proposed CEB & CIP Budget Summaries

### FY14 Proposed CEB (in millions)

Rate Revenue Requirement	\$631.2	3.9% increase from FY13	
Direct Expenses	\$214.8	Rate Revenue	\$631.2
Indirect Expenses	\$47.7	Investment Income	\$11.8
Capital Financing (net)	<u>\$398.0</u>	Other Revenue	<u>\$17.6</u>
<b>Total Expenses</b>	<b>\$660.6</b>	<b>Total Revenue</b>	<b>\$660.6</b>

### FY14 Proposed CIP

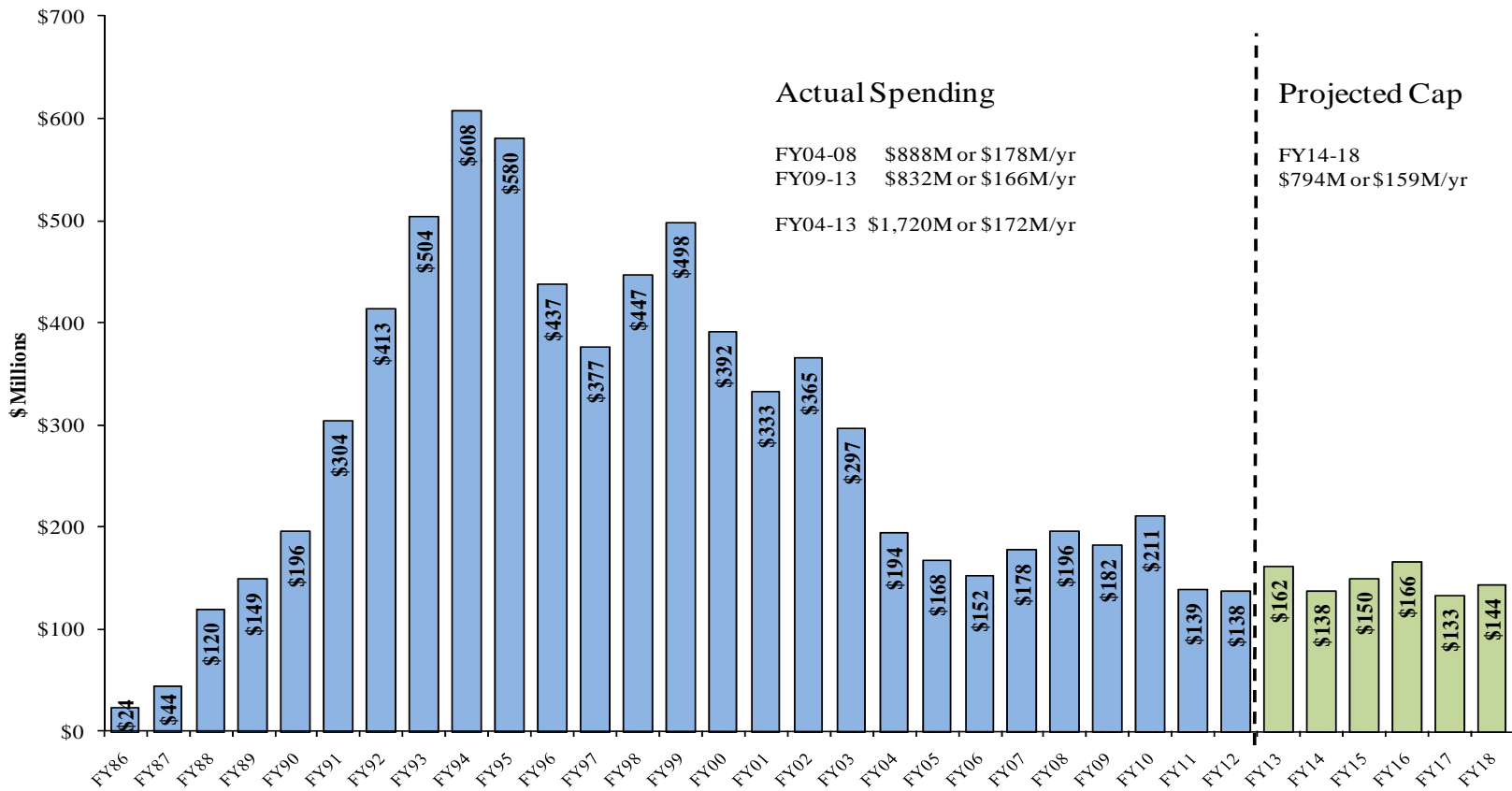
FY14-18 spending cap	\$793.5 million
FY14 spending	\$138.2 million





# Historical CIP Spending

## MWRA Capital Spending





Massachusetts Water Resources Authority

## **Fiscal Year 2014 Proposed Capital Improvement Program**





## Proposed FY14-18 Base-Line Cap

Recap per year of the prior two Caps and the Proposed FY14-18 Cap

FY04-08 Baseline Cap	FY04	FY05	FY06	FY07	FY08	Total FY04-08
	\$ 250.9	\$ 203.5	\$ 215.2	\$ 250.1	\$ 214.8	\$ 1,134.5

FY09-13 Baseline Cap	FY09	FY10	FY11	FY12	FY13	Total FY09-13
	\$ 244.4	\$ 264.1	\$ 230.0	\$ 207.0	\$ 198.4	\$ 1,143.8

FY14 Proposed		FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures	\$138.2	\$150.1	\$166.2	\$133.4	\$144.1	\$732.0
	Contingency	8.4	10.0	11.2	9.2	9.8	48.6
	Inflation on Unawarded Construction	1.3	4.4	9.1	10.3	13.8	38.9
	Less: Chicopee Valley Aqueduct Projects	(4.9)	(4.9)	(8.0)	(7.8)	(0.4)	(26.1)
	<b>FY14 Proposed FY09-13 Cap</b>	<b>\$ 143.0</b>	<b>\$ 159.6</b>	<b>\$ 178.5</b>	<b>\$ 145.1</b>	<b>\$ 167.3</b>	<b>\$ 793.5</b>

- ✓ The spending Cap at \$794 million – below the \$800 million recommended by the Advisory Board.



## Capital Improvement Program – Shift from Mandated Projects

Approximately 80% of the spending to date has been for mandated projects, most notably the Combined Sewer Overflow (CSO) program.

Having nearly completed the first phase of its mission, the Authority now must preserve its operating assets and establish redundancy to ensure continuous operations.

Going forward the majority of spending will support the following:

Asset Protection

Water Redundancy

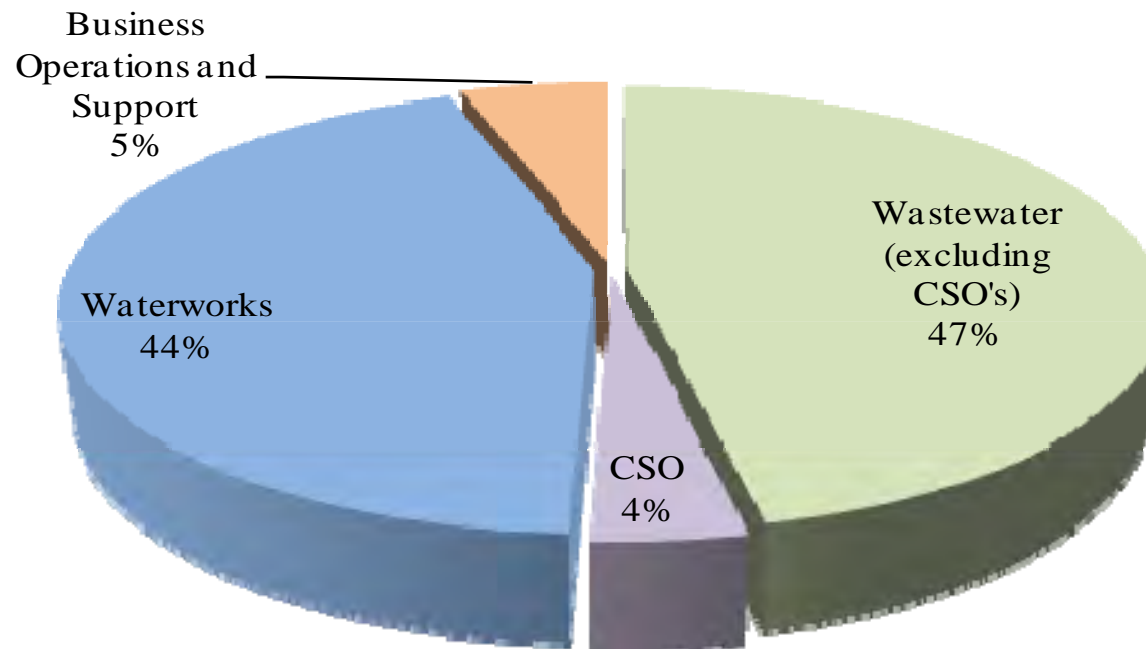
Pipeline Replacement and Rehabilitation

Energy Initiatives



## FY14-18 Proposed CIP Expenditures

During the FY14-18 timeframe, Wastewater and Waterworks are at approximately the same level





## Capital Improvement Program – Shift from Mandated Projects

	<b>Total Contract</b>	<b>FY09-13</b>	<b>FY14-18</b>	<b>Beyond 18</b>
Asset Protection	\$ 1,934.3	\$ 250.6	\$ 384.2	\$ 664.1
Carroll WTP	\$ 432.3	\$ 39.1	\$ 20.4	\$ 0.1
Water Redundancy	\$ 1,853.6	\$ 141.2	\$ 243.5	\$ 606.2
CSO	\$ 842.3	\$ 315.7	\$ 28.8	\$ 0.3
Other	\$ 535.5	\$ 85.8	\$ 55.1	\$ (100.1)
<b>Total</b>	<b>\$ 5,598.0</b>	<b>\$ 832.5</b>	<b>\$ 732.0</b>	<b>\$ 1,170.6</b>

<b>Asset Protection</b>	<b>34.6%</b>	<b>30.1%</b>	<b>52.5%</b>	<b>56.7%</b>
Carroll WTP	7.7%	4.7%	2.8%	0.0%
<b>Water Redundancy</b>	<b>33.1%</b>	<b>17.0%</b>	<b>33.3%</b>	<b>51.8%</b>
CSO	15.0%	37.9%	3.9%	0.0%
Other	9.6%	10.3%	7.5%	-8.5%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Striking a balance between maintenance and infrastructure improvements



# **On-Going Capital Projects**





# Lower Hultman Aqueduct Rehabilitation



River Road Blue Dye Test

NTP September 2009  
Total Contract: \$52.9M  
FY09-13: \$52.2M  
FY14-18: \$ 0.7M



River Road 60-inch WASM 4 Connection





# Upper Hultman Aqueduct Rehabilitation

NTP April 2012

Total Contract: \$5.8M

FY09-13: \$5.6M

FY14-18: \$0.1M



Load Testing of Hoist



Removing 72-inch Spool Piece



## Carroll Water Treatment Plant UV



B Side UV Train Installed

NTP May 2011  
Total Contract: \$30.8M  
FY09-13: \$28.0M  
FY14-18: \$ 2.6M



A Side Grounding Rods and Wiring





## Spot Pond Covered Storage Facility and Pump Station

NTP November 2011

Total Contract: \$49.8M

FY09-13: \$21.1M

FY14-18: \$28.7M





## Oakdale Electrical Upgrade – Phase 1



New Switchgear

NTP April 2012

Total Contract: \$2.2M

FY09-13: \$2.1M

FY14-18: \$0.1M



Oakdale Power Facility, West Boylston





## Clinton Treatment Plant Aeration



Leak Testing

NTP April 2012

Total Contract: \$2.0M

FY09-13: \$2.0M



Diffuser Bubblers



## Deer Island: North Main Pump Station Motors and VFDs

VFDs:

NTP December 2011

Total Contract \$24.1M

FY09-13: \$ 4.2M

FY14-18: \$19.9M



Motors:

NTP January 2012

Total Cost: \$0.9M

FY09-13: \$0.9M



## Upcoming Capital Projects

- Headworks Upgrades
- Wachusett Aqueduct Pump Station
- Northern Intermediate High
- Southern Extra High Redundancy





# Chelsea Headworks Rehabilitation

Notice to proceed: Feb. 2015

Total Contract: \$52.1M

FY14-18 Spending: \$46.2M



Mechanical Screen



Grit Collector Drive





## Wachusett Aqueduct Pump Station

Notice to proceed: April 2014

Total Contract: \$45.6M

FY14-18 Spending: \$45.6M





# Northern Intermediate High Redundancy

## Section 89&29 - Phase 1

Notice to proceed: July 2014

Total Contract: \$21.3M

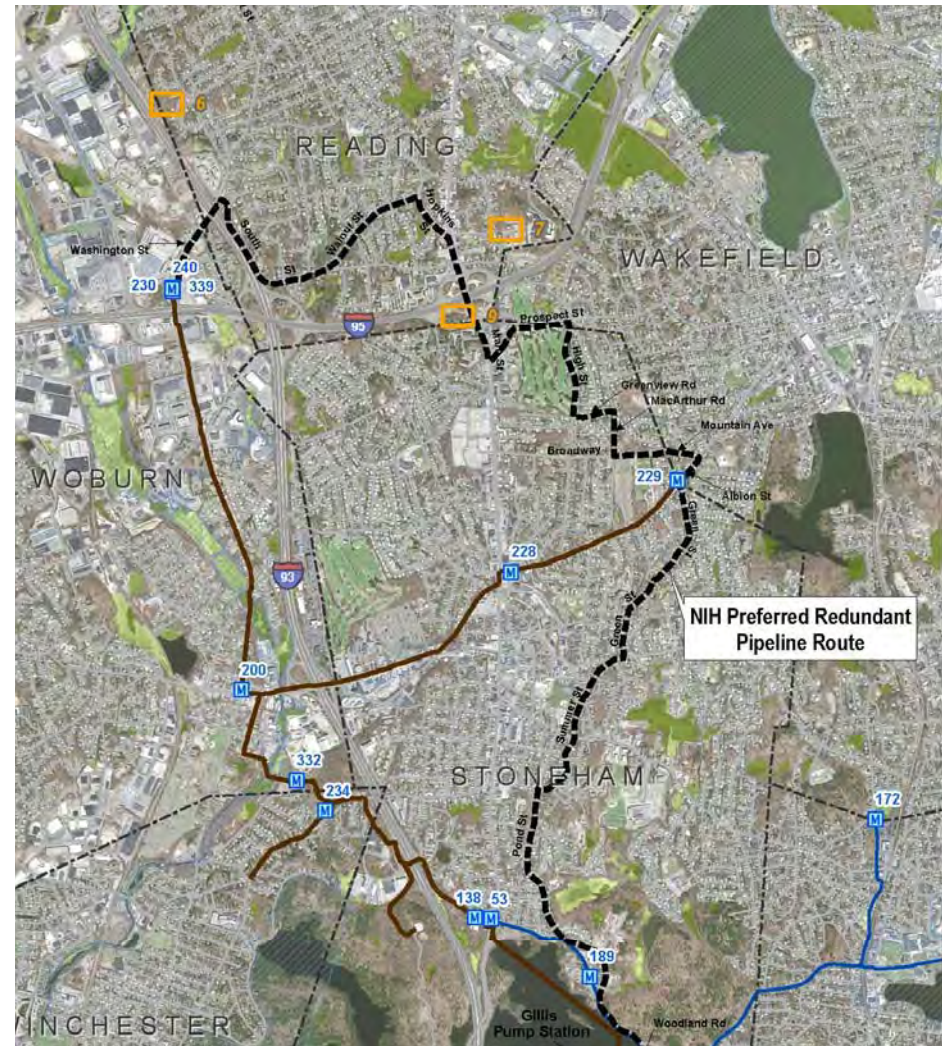
FY14-18 Spending: \$21.3M

## Section 89&29 - Phase 2

Notice to proceed: Sept. 2014

Total Contract: \$21.7M

FY14-18 Spending: \$21.7M





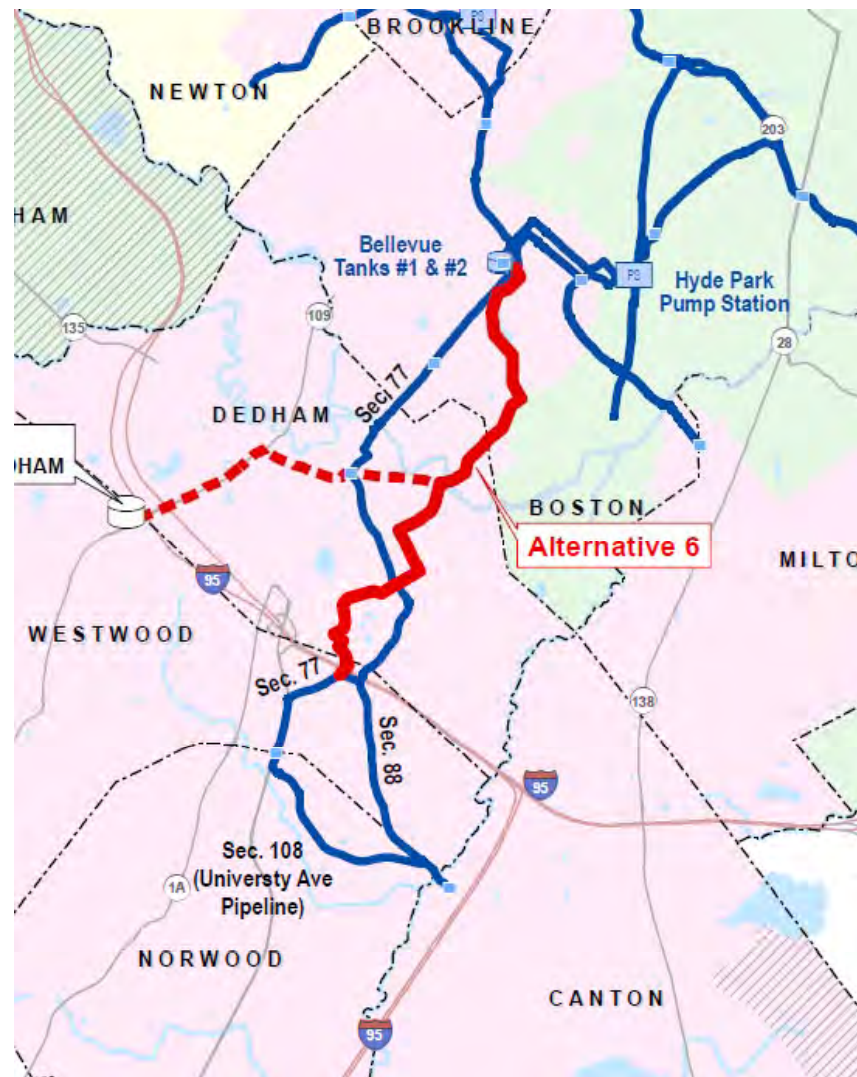


## Southern Extra High Redundancy

Notice to proceed: Jan. 2016

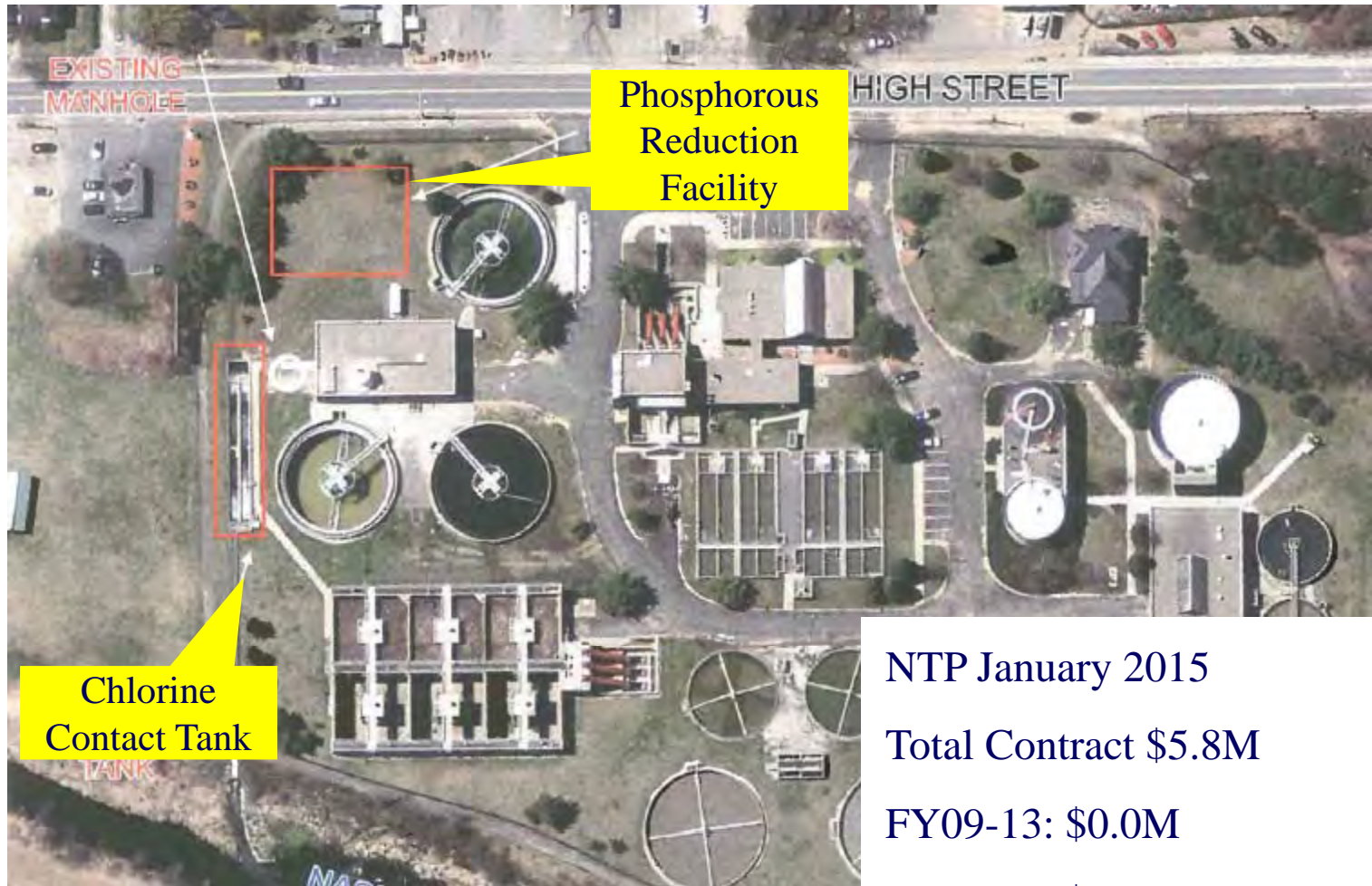
Total Contract: \$28.3M

FY14-18 Spending: \$21.2M





## Clinton Treatment Plant Phosphorous Removal



NTP January 2015

Total Contract \$5.8M

FY09-13: \$0.0M

FY14-18: \$5.8M



## Deer Island: Scum Skimmer Replacement



Notice to proceed: April 2013

Total Contract: \$20.0M

FY14-18 Spending: \$20.0M



## Future Risk Factors

- Timing and cost of Cambridge CSO project
- Pelletizing Facility rehabilitation or replacement
- Sudbury Aqueduct – tunnel v. surface pipeline
- New regulatory mandates



Massachusetts Water Resources Authority

**MWRA Fiscal Year 2014**

*Proposed*

**Current Expense Budget**





## FY14 Proposed Current Expense Budget (CEB)

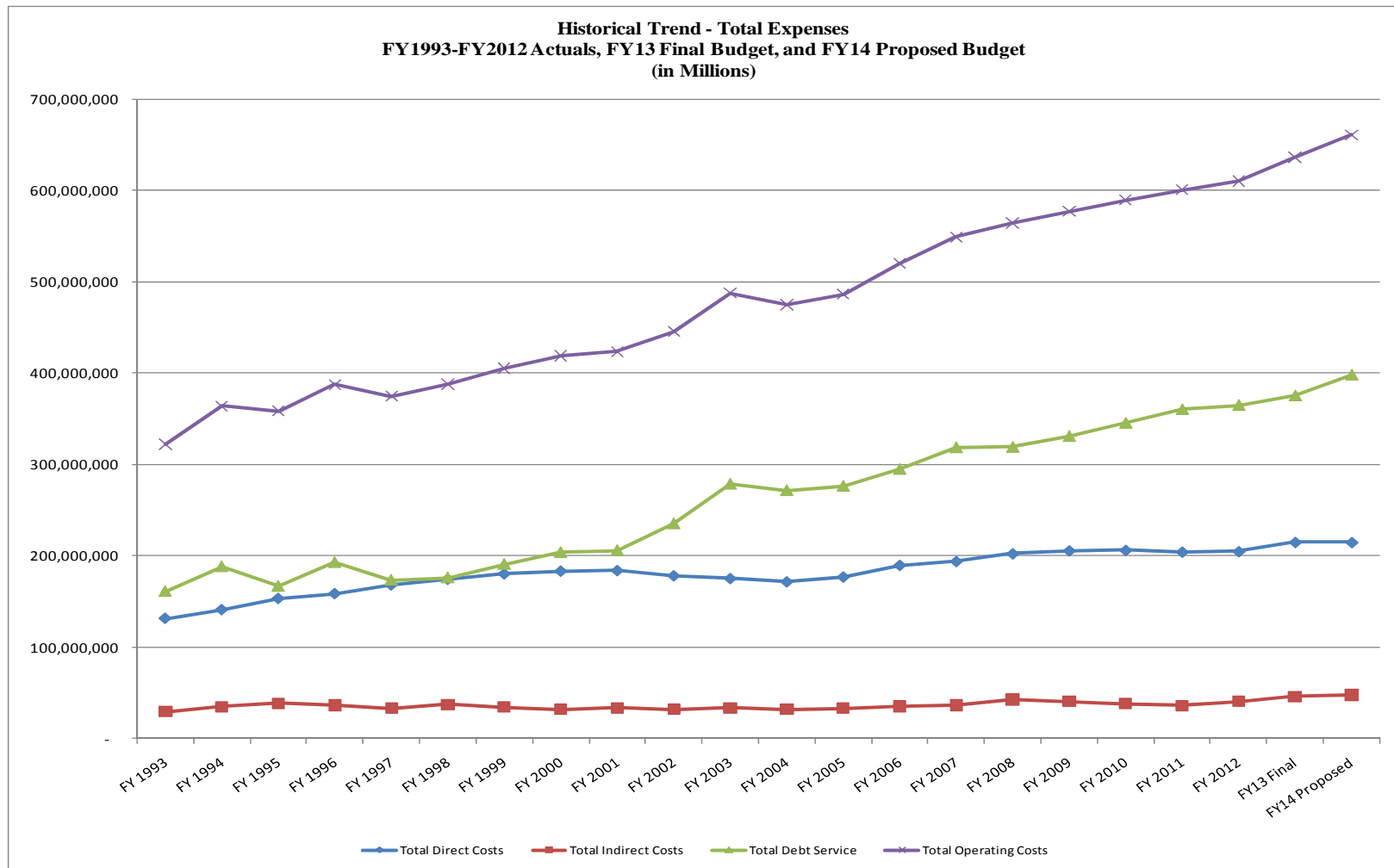
The FY14 Proposed CEB:

- The MWRA has a multi-year rates management strategy of providing predictable and reasonable rate increases to our member communities.
- The FY14 Proposed Budget puts forth a 3.9% combined rate increase, which is lower than the 4.4% increase projected last year.





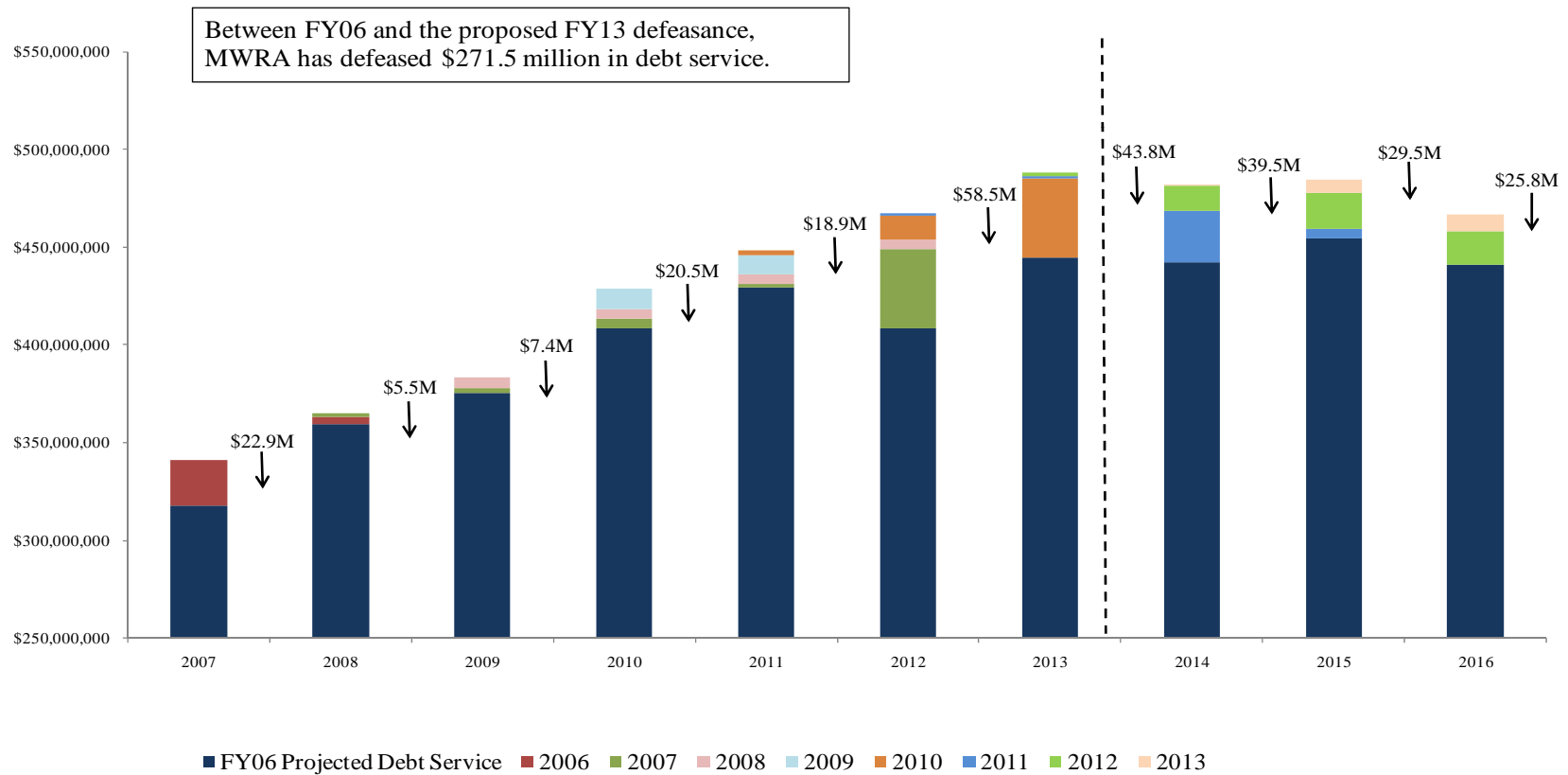
# Historical Spending Chart





# Impact of Defeasances Since FY06

## Impact of Defeasances FY06 - Proposed FY13



Since FY06 MWRA has used defeasances to reduce future years debt service by \$271.5M



## FY13 Defeasance Account

- At the January 2012 Board meeting, an account was established to collect all surplus debt service funds each month, this continues in 2013.
- As of the end of February 2013, there was a balance of \$8.5 million in this designated defeasance account.
- These funds will be used in June 2013 to execute a defeasance to provide targeted rate relief in FY15-16.
- Until the actual execution of the defeasance at the end of the fiscal year, these funds remain available for other uses should conditions change.



## Use of Reserves in Long-Term Rates Management Strategy

The MWRA has a total of \$72.9 million in Rate Stabilization and Bond Redemption funds.

\$40.0 million in Rate Stabilization

\$32.9 million in Bond Redemption Fund

Fiscal Year	Rate Stabilization	Bond Redemption	Fiscal Year-End Balance
2013			\$ 72,866
2014	\$ 3,500	\$ -	\$ 69,366
2015	\$ 8,089	\$ 3,911	\$ 57,366
2016	\$ 8,848	\$ 3,152	\$ 45,366
2017	\$ 6,217	\$ 5,783	\$ 33,366
2018	\$ -	\$ 4,740	\$ 28,626
2019	\$ 2,448	\$ 2,177	\$ 24,001
2020	\$ 9,121	\$ 2,880	\$ 12,000
2021	\$ -	\$ -	\$ 12,000
2022	\$ 1,789	\$ 10,211	\$ -
2023	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 40,012</b>	<b>\$ 32,854</b>	



## Indenture Change - Release of Reserves

- Indenture change will release over \$100 million in reserve funds.
- The Planning Estimates reflect the application of over \$75 million from the Debt Service Reserve Release over 14 years.
- The reserve release will make a significant impact in mitigating rate increases in some of the most challenging years.



## Major FY14 Proposed Budget Assumptions

- Reduction of 20 positions to a funded headcount of 1,175 in line with the Staffing Study;
- Use of \$3.5 million use of Rate Stabilization funds;
- Over \$500,000 of debt service savings in FY14 from a proposed \$15 million defeasance targeting FY15 and FY16;
- The projected Release of Debt Service Reserves related to the upcoming amendments to the Bond Indenture in the planning estimates for the first time;
- Variable rate debt budgeted at 3.25% - same level as FY13;
- Investment Income budgeted at .20% versus .40% in FY13;



## Major FY14 Proposed Budget Assumptions (cont.)

- Pension funding based on latest actuarial evaluation and revised mortality tables;
- Inclusion of \$5.0 million additional pension deposit;
- No Debt Service Assistance is included as no funds are included in the Governor's budget; and
- Tightening of certain planning estimate assumptions for future years and limiting annual capital improvement spending to \$160 million.



## FY14 Proposed CEB

As shown below, 60% of the Authority's FY14 CEB is related to its debt obligations.

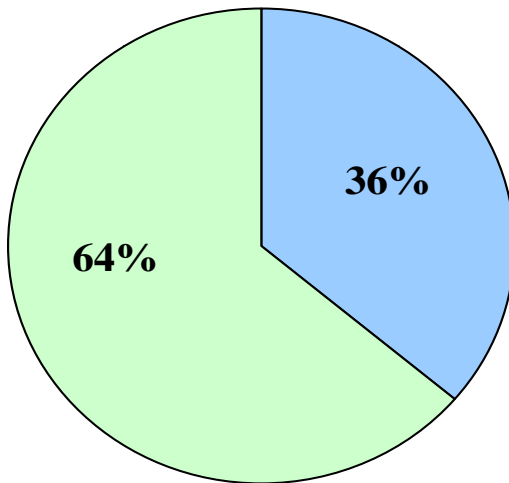
	<b>FY14 Proposed Budget</b>	<b>% of Total Budget</b>
<b>Direct Expenses</b>	\$ 214,845,904	33%
<b>Indirect Expenses</b>	\$ 47,706,703	7%
<b>Total Debt Service (after offsets)</b>	\$ 398,010,515	<b>60%</b>
<b>Total Expense</b>	\$ 660,563,123	
<b>Rate Revenue</b>	\$ 631,233,000	96%
<b>Non-Rate Revenue</b>	\$ 29,330,123	4%
<b>Total Revenue</b>	\$ 660,563,123	



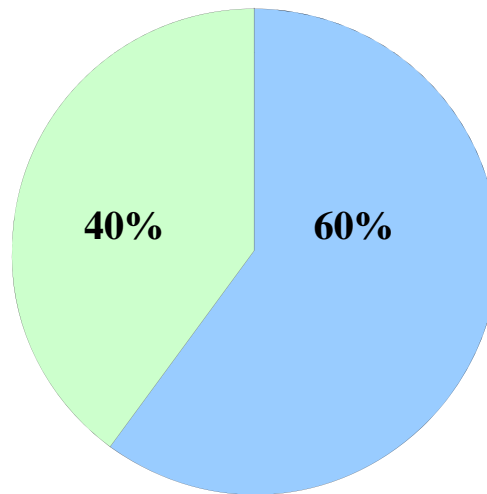


## Debt Service is the Largest Portion of CEB

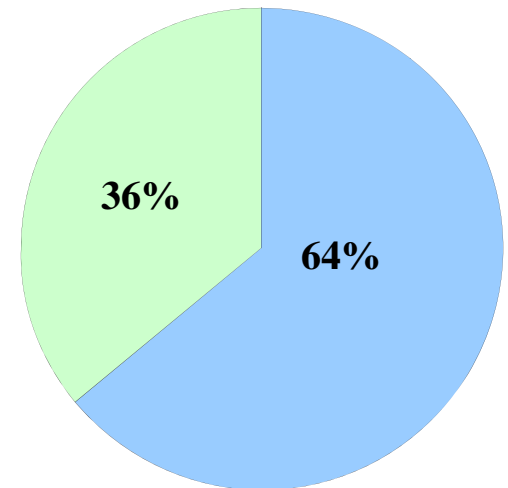
**FY1990**



**FY2014**



**FY2017**





## FY14 Proposed CEB – Direct Expenses

Direct Expenses \$ in Millions	FY13 Budget	FY14 Proposed Budget	\$ Change	% Change
Wages and Salaries	\$ 94.1	\$ 94.6	\$ 0.6	0.6%
Overtime	3.6	3.6	0.0	0.2%
Fringe Benefits	18.2	17.6	(0.6)	-3.4%
Workers' Compensation	2.1	2.0	(0.1)	-3.6%
Chemicals	10.0	10.7	0.7	6.9%
Energy and Utilities	23.1	23.0	(0.1)	-0.6%
Maintenance	28.2	28.0	(0.3)	-0.9%
Training and Meetings	0.4	0.4	(0.0)	-7.8%
Professional Services	5.9	5.9	(0.0)	-0.5%
Other Materials	5.6	6.0	0.5	8.1%
Other Services	23.7	23.1	(0.6)	-2.6%
<b>TOTAL DIRECT EXPENSES</b>	<b>\$ 214.9</b>	<b>\$ 214.8</b>	<b>\$ (0.1)</b>	<b>0.0%</b>



## FY14 Direct Expenses

Direct Expenses are level funded for the fifth time in six years.

Some of the changes are represented below:

### *Increases*

- Increase for Chemicals of \$690,000 mainly for anticipated price increases;
- Increase for Wages and Salaries of \$553,000 mainly for cost of living increases offset by lower funded headcount;
- Increase for Other Materials of \$453,000 mainly for increased vehicle replacement requests;



## FY14 Direct Expenses (continued)

### *Decreases*

- Decrease for Fringe Benefits of \$628,000 due to lower headcount and that new employees contribute at a higher rate; and
- Decrease for Other Services of \$609,000 mainly for lower Sludge Pelletization expenses based on reduced utility indices.



## FY14 Proposed CEB – Indirect Expenses

Indirect Expenses \$ in Millions	FY13 Budget	FY14 Proposed Budget	\$ Change	% Change
Insurance	\$ 2.1	\$ 2.1	\$ 0.0	2.2%
Watershed/PILOT	26.4	27.2	0.8	3.0%
HEEC	3.7	3.4	(0.4)	-9.5%
Mitigation	1.6	1.6	(0.0)	0.0%
Addition to Reserves	1.4	0.4	(1.0)	-74.0%
Retirement Fund	5.8	8.1	2.3	40.1%
OPEB/Additional Pension Deposit	4.7	5.0	0.3	5.3%
<b>TOTAL</b>	<b>\$ 45.7</b>	<b>\$ 47.7</b>	<b>\$ 2.0</b>	<b>4.4%</b>



## Indirect Expenses

- Higher Pension Fund expense of \$2.3 million mainly for recognition of the revised mortality tables which account for \$2.2 million of the increase;
- Watershed expenses of \$802,000 mainly due to increased Payment in Lieu of Taxes (PILOT);
- Additional Pension Deposit of \$5.0 million; and
- Offset by lower Operating Reserve requirement of \$1.0 million.



## MWRA Retirement System and Other Post Employment Benefits

- As of 1/1/2011, MWRA's Retirement System was **87.6%** funded. The unfunded liability stands at **\$42.2** million
- Current schedule has Retirement System fully funded by 2024
- Optional payment to Retirement System – since FY08, MWRA has made optional payments of \$17.0 million to the Retirement System.
- MWRA's Other Post Employment Benefits balance sheet liability at the end of FY12 was **\$75.4** million.



## FY14 Proposed CEB – Debt Service Expenses

Debt Service \$ in Millions	FY13 Budget	FY14 Proposed Budget	\$ Change	% Change
Senior	\$ 193.4	\$ 202.8	\$ 9.4	4.9%
Subordinate	93.3	102.7	9.4	10.1%
SRF	73.8	76.0	2.2	2.9%
Commercial Paper	3.6	4.1	0.5	14.7%
Capital Lease	3.2	3.2	0.0	0.5%
Current Revenue	8.2	9.2	1.0	12.2%
<b>Total Debt Service (before offsets)</b>	<b>\$ 375.6</b>	<b>\$ 398.0</b>	<b>\$ 22.4</b>	<b>6.0%</b>
Bond Redemption	-	-	-	-
Debt Service Assistance	\$ (0.4)	-	\$ 0.4	-100.0%
<b>TOTAL</b>	<b>\$ 375.3</b>	<b>\$ 398.0</b>	<b>\$ 22.8</b>	<b>6.1%</b>





## FY13 Defeasance Effect

### Massachusetts Water Resources Authority \$15 million Defeasance

	Par	Defeasance Cost	Debt Service Savings		
			2014	2015	2016
<b>Total Senior Candidates</b>	\$ 4,175,000	\$ 7,546,950	\$ 284,600	\$ 6,154,600	\$ 1,107,750
<b>Total Subordinated Candidates</b>	\$ 7,030,000	\$ 7,030,000	\$ 228,475	\$ 228,475	\$ 7,258,475
<b>Total Defeasance Candidates</b>	<b>\$ 11,205,000</b>	<b>\$ 14,576,950</b>	<b>\$ 513,075</b>	<b>\$ 6,383,075</b>	<b>\$ 8,366,225</b>



## FY14 Proposed CEB – Revenue

Revenue	FY13 Budget	FY14 Proposed Budget	\$ Change	% Change
Rate Revenue	\$ 607.5	\$ 631.2	\$ 23.7	3.9%
Other User Charges	7.8	8.2	0.4	5.6%
Other Revenue	6.1	5.9	(0.3)	-4.3%
Rate Stabilization	-	3.5	3.5	
Investment Income	14.5	11.8	(2.7)	-18.5%
<b>TOTAL</b>	<b>\$ 635.9</b>	<b>\$ 660.6</b>	<b>\$ 24.7</b>	<b>3.9%</b>



# Longer Range View

## Final FY2013 Budget

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Total Rate Revenue (\$ in Mil)	\$ 607,512	\$ 634,426	\$ 681,237	\$ 725,991	\$ 790,699	\$ 803,707	\$ 836,790	\$ 885,216	\$ 923,702	\$ 967,157	\$ 932,391
Rate Revenue Change (\$ in Mil)	\$ 17,812	\$ 26,914	\$ 46,811	\$ 44,754	\$ 64,707	\$ 13,008	\$ 33,084	\$ 48,426	\$ 38,486	\$ 43,456	\$ (34,767)
<b>4.4%</b> Rate Revenue Change	<b>3.02%</b>	<b>4.4%</b>	<b>7.4%</b>	<b>6.6%</b>	<b>8.9%</b>	<b>1.6%</b>	<b>4.1%</b>	<b>5.8%</b>	<b>4.3%</b>	<b>4.7%</b>	<b>-3.6%</b>
Use of Rate Stabilization & Bond Redemption	\$ -	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ -	\$ 12,000	\$ 12,000	\$ 866	\$ -	\$ -
Rate Stabilization & Bond Redemption Balance	\$ 72,866	\$ 60,866	\$ 48,866	\$ 36,866	\$ 24,866	\$ 24,866	\$ 12,866	\$ 866	\$ 0	\$ 0	\$ 0

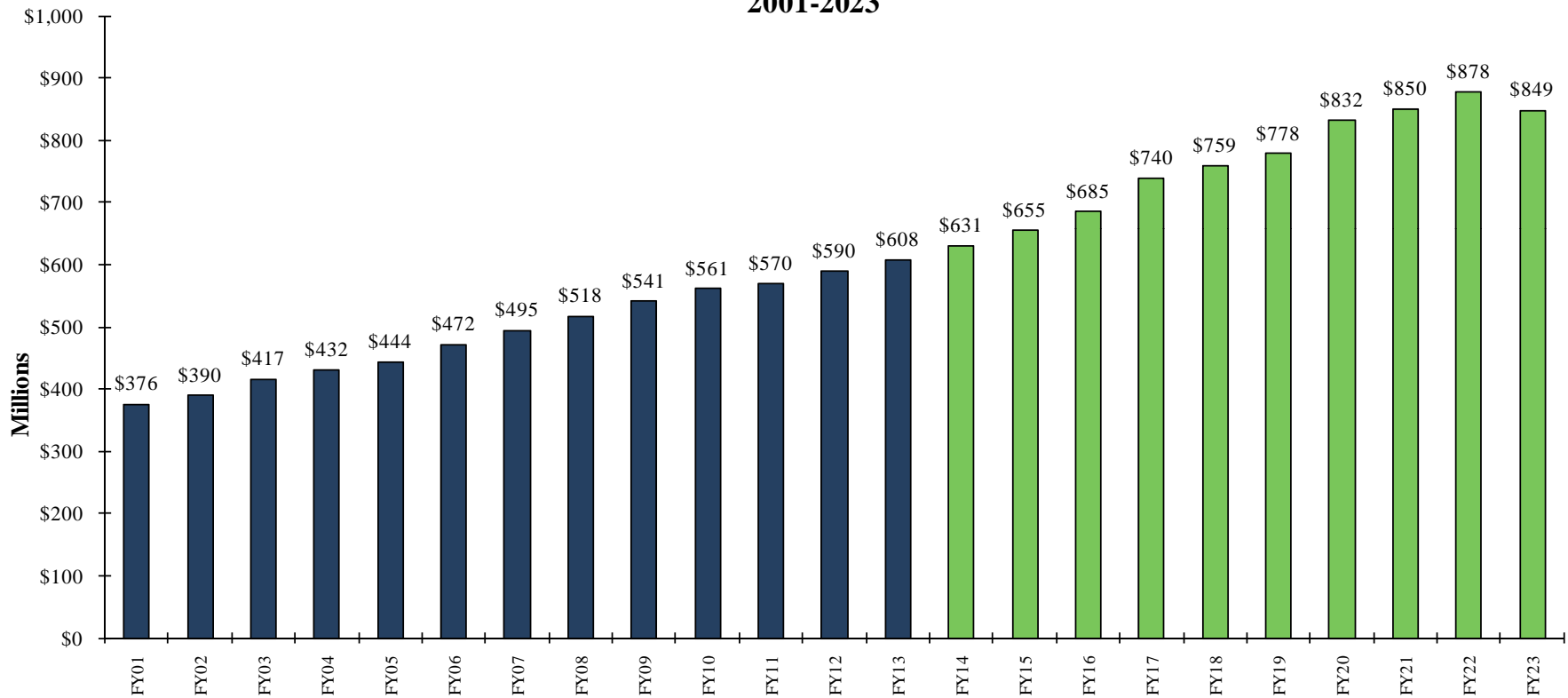
## Proposed FY14 Budget

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Total Rate Revenue (\$ in Mil)	\$ 607,512	\$ 631,233	\$ 654,623	\$ 685,381	\$ 739,623	\$ 758,675	\$ 778,235	\$ 832,077	\$ 850,460	\$ 878,470	\$ 848,678
Rate Revenue Change (\$ in Mil)	\$ 17,812	\$ 23,721	\$ 23,390	\$ 30,758	\$ 54,243	\$ 19,051	\$ 19,561	\$ 53,842	\$ 18,383	\$ 28,010	\$ (29,792)
<b>3.9%</b> Rate Revenue Change	<b>3.02%</b>	<b>3.9%</b>	<b>3.7%</b>	<b>4.7%</b>	<b>7.9%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>6.9%</b>	<b>2.2%</b>	<b>3.3%</b>	<b>-3.4%</b>
Use of Rate Stabilization & Bond Redemption	\$ -	\$ 3,500	\$ 12,000	\$ 12,000	\$ 12,000	\$ 4,740	\$ 4,626	\$ 12,000	\$ -	\$ 12,000	\$ -
Rate Stabilization & Bond Redemption Balance	\$ 72,866	\$ 69,366	\$ 57,366	\$ 45,366	\$ 33,366	\$ 28,626	\$ 24,000	\$ 12,000	\$ 12,000	\$ -	\$ -



# FY01-23 Rate Revenue Requirement

**MWRA Rate Revenue Requirement  
2001-2023**

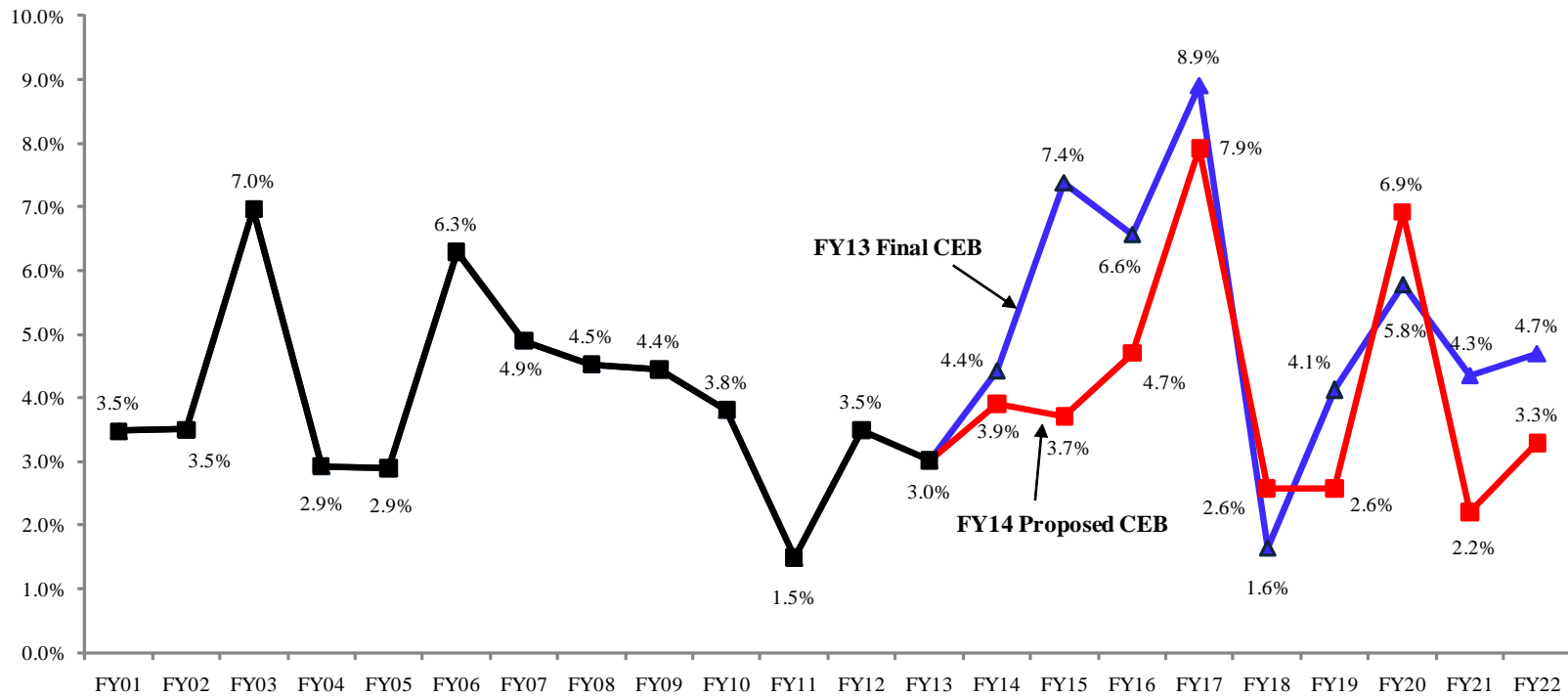


From FY14-FY23, the average yearly Rate Revenue Requirement increases by \$24.1M



## Longer Range View (continued)

### Rate Revenue Requirement Changes Final FY13 CEB vs. Proposed FY14 CEB







## FY06-14 Assessment Increases vs. Household Wholesale Rate Increases

<b>Historical Household Wholesale rate increase based on annual average water use of 61,000 gallons</b>		
<b>Fiscal Year</b>	<b>MWRA Assessment Change</b>	<b>Household \$ Increase</b>
FY06	4.2%	\$19
FY07	4.9%	\$20
FY08	4.5%	\$22
FY09	4.5%	\$16
FY10	3.8%	\$10
FY11	1.5%	\$5
FY12	3.5%	\$12
FY13	3.0%	\$14
PFY14	3.9%	\$15
Average FY06-14	3.8%	\$15



## Challenges

- Short-term rate market conditions;
- Regulatory requirements;
- OPEB and Pension obligations;
- Limited restructuring opportunities in the near term;
- Uncertainty of Health Insurance premiums;



## Challenges (continued)

- Limited system expansion opportunities;
- Continued prioritization of CIP projects;
- Inflationary pressures as economy improves;
- Availability of Debt Service Assistance; and
- Federal budget cuts will lower SRF funding.



## FY13 Current Expense Budget Closing

**QUESTIONS?**