



Massachusetts Water Resources Authority

Presentation to the

Wastewater Advisory Committee
&
Water Supply Citizens Advisory Committee

Fiscal Year 2016
Proposed

Current Expense Budget and Capital Improvement

April 14, 2015



Fiscal Year 2016

Fiscal Year 2016 Year of Milestones

- Bond Resolution Changes become effective – Reserves Release
- Pension Fund achieves virtual Full Funding
- Other Post Employment Benefits (OPEB)
- New England Fertilizer Company (NEFCO)



Fiscal Year 2016 - Milestones

Bond Resolution changes become effective – Reserves Release

- Debt Service Reserves
- Community Obligation and Revenue Enhancement (CORE)
- Renewal and Replacement Reserve (RRR)



Fiscal Year 2016 - Milestones

Pension Fund achieves virtual Full Funding

- 95% Funded ratio 1/1/2015 anticipated
- Other Post Employment Benefits (OPEB)
 - Staff to recommend OPEB Trust
 - Shift to funding OPEB



Fiscal Year 2016 - Milestones

New England Fertilizer Company (NEFCO)

- Contract Expires December 2015
- Negotiations are complete
- Over the five-year term, expenses are expected to decrease by \$1.25M



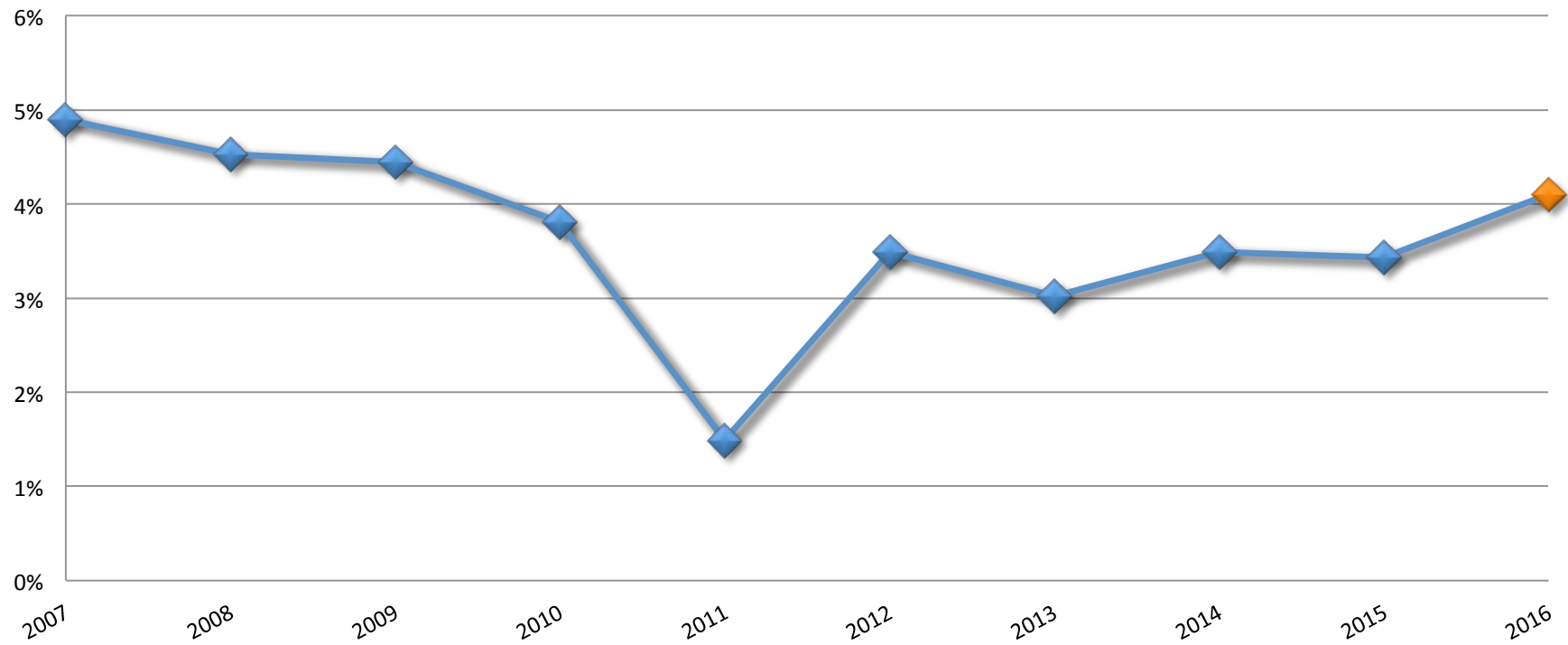
Mission

“Sustainable and Predictable”



Mission - *Sustainable and Predictable*

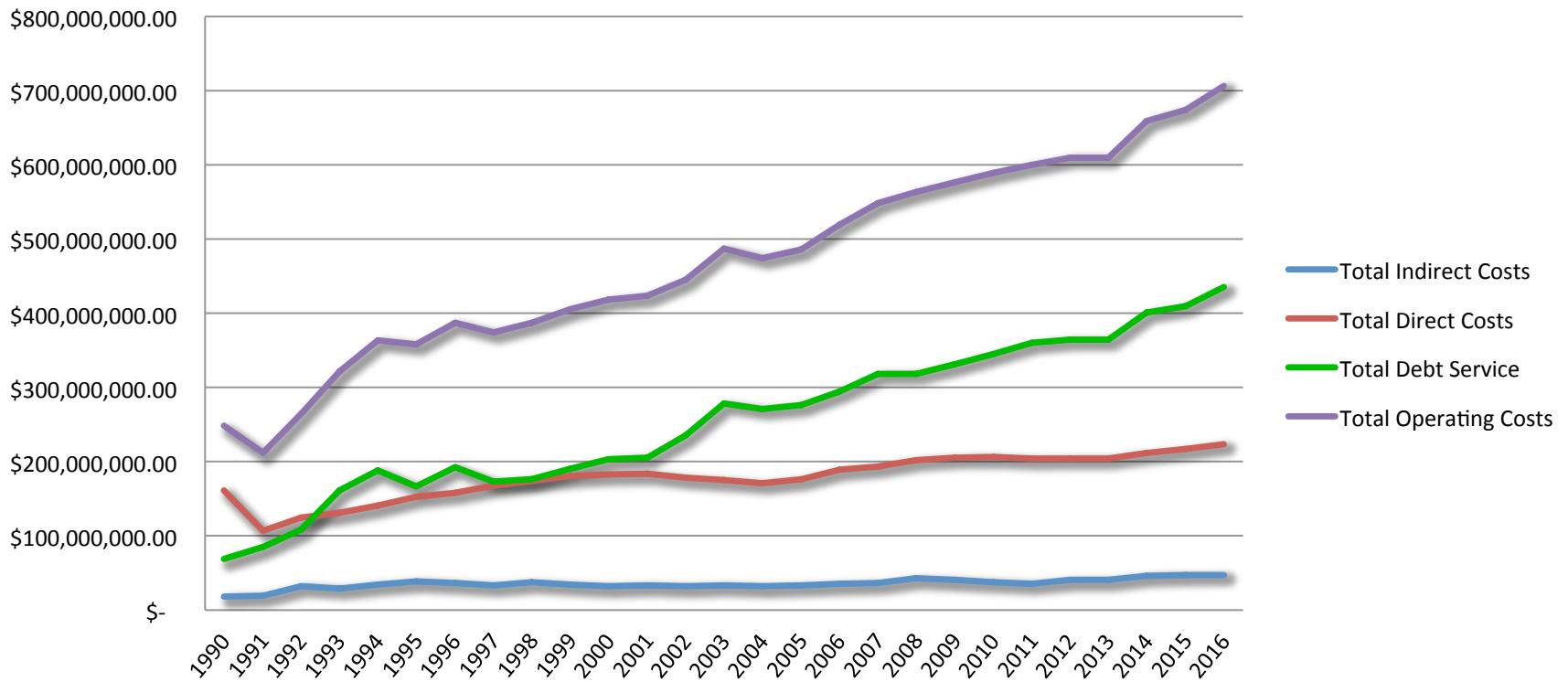
Assesment Increases





Historical Spending Chart

Major Budget Elements





Mission - *Sustainable and Predictable*

Causes of volatility

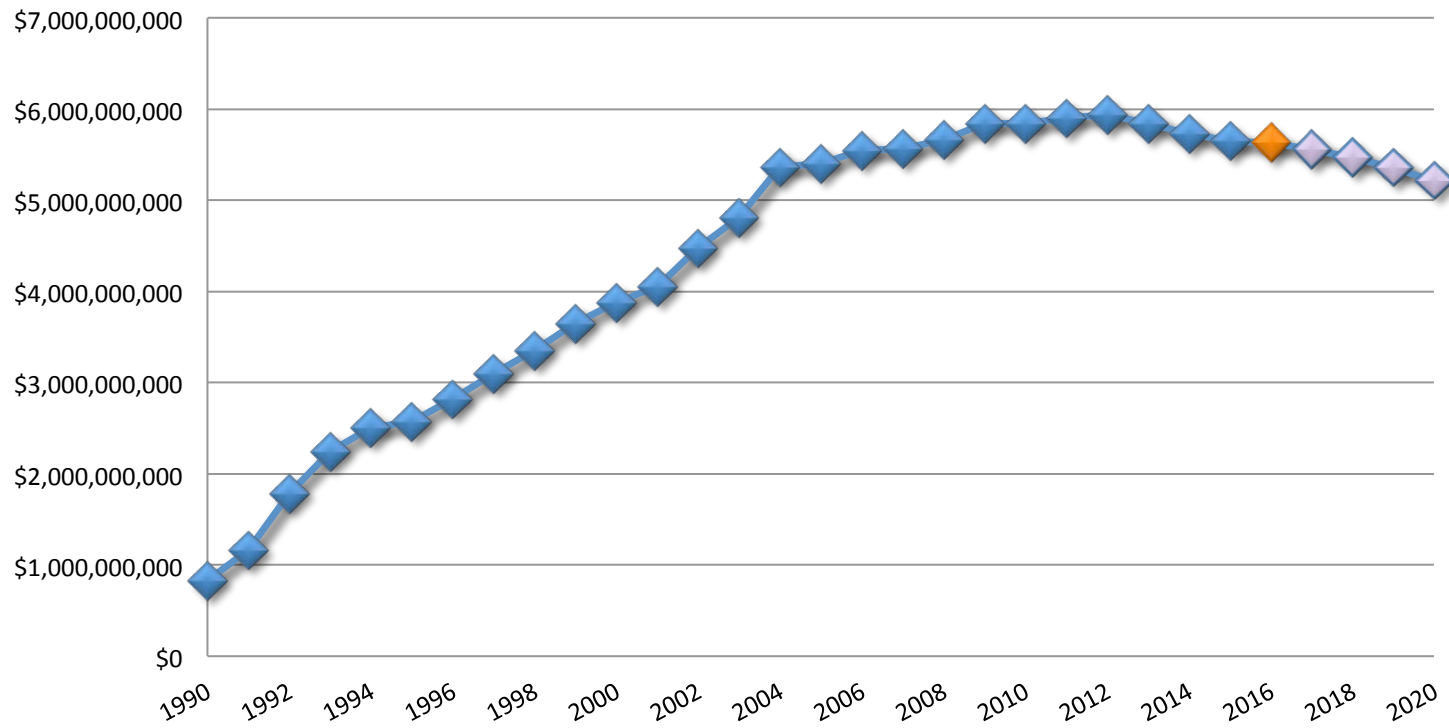
- Current Debt Profile
 - Repayment structure aligned with Debt Service Assistance
- Increasing Debt Service

“Debt Management Agency”



Outstanding Debt

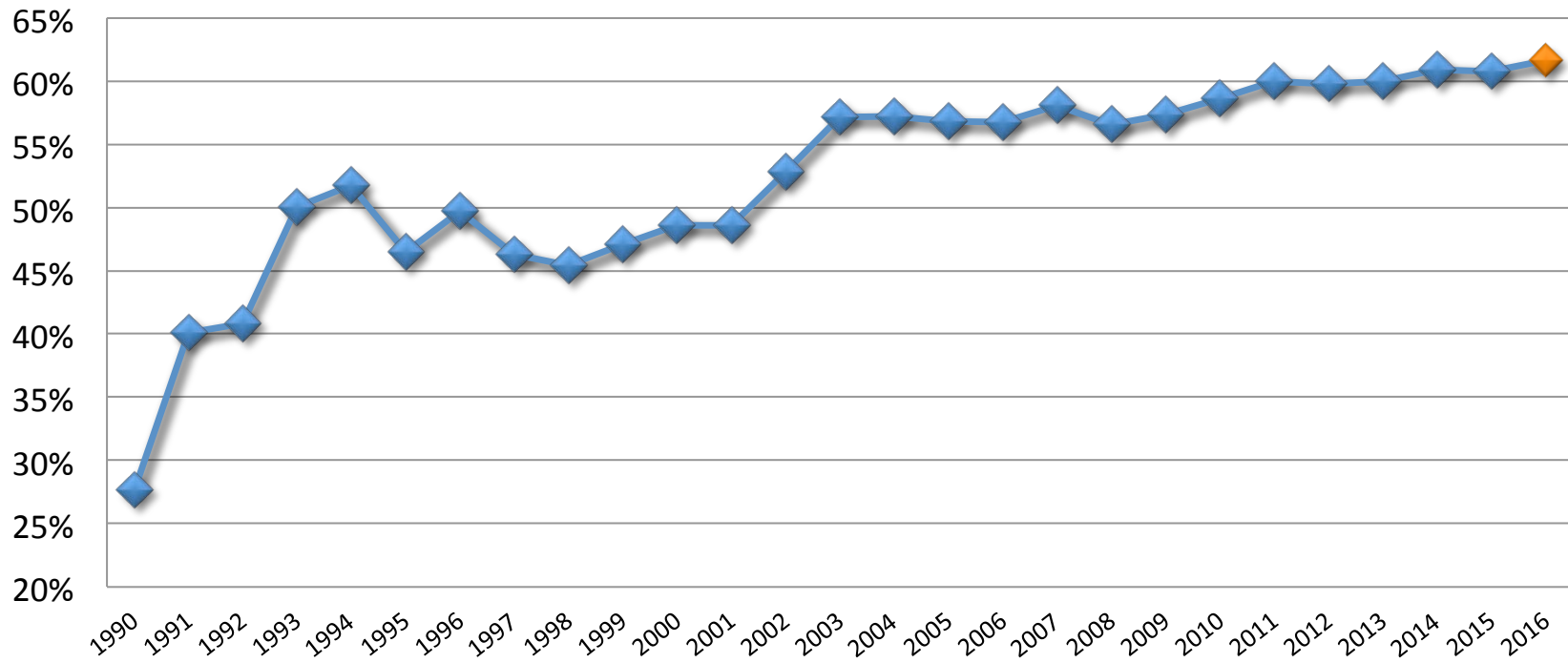
Outstanding Debt History





Debt % is growing

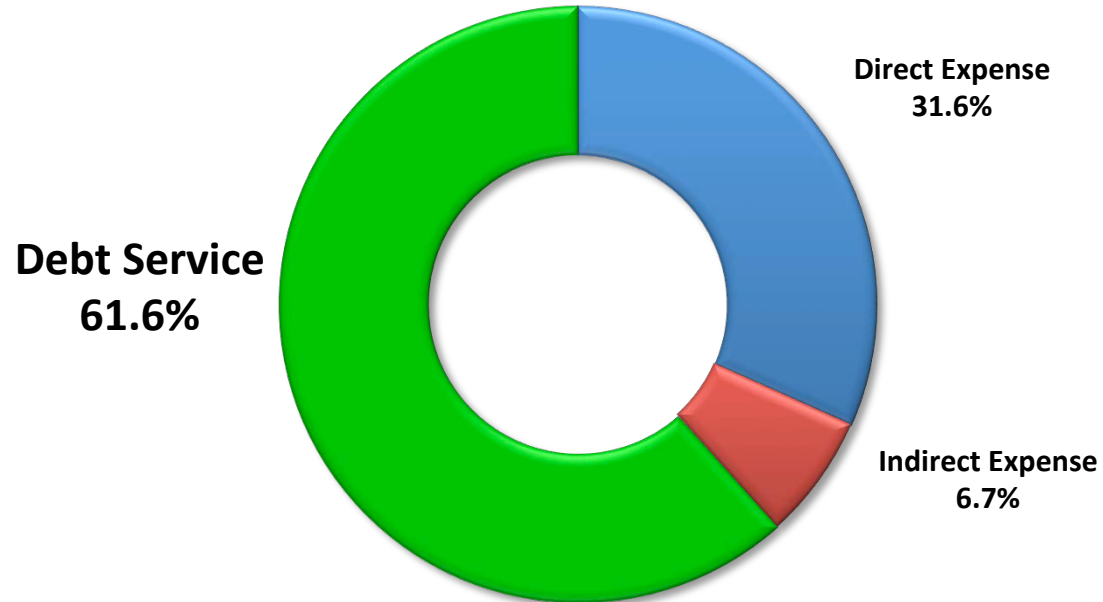
Debt Service as % of Total Budget





FY16 Proposed Current Expense Budget (CEB)

FY16 Current Expense Budget





Debt Challenge

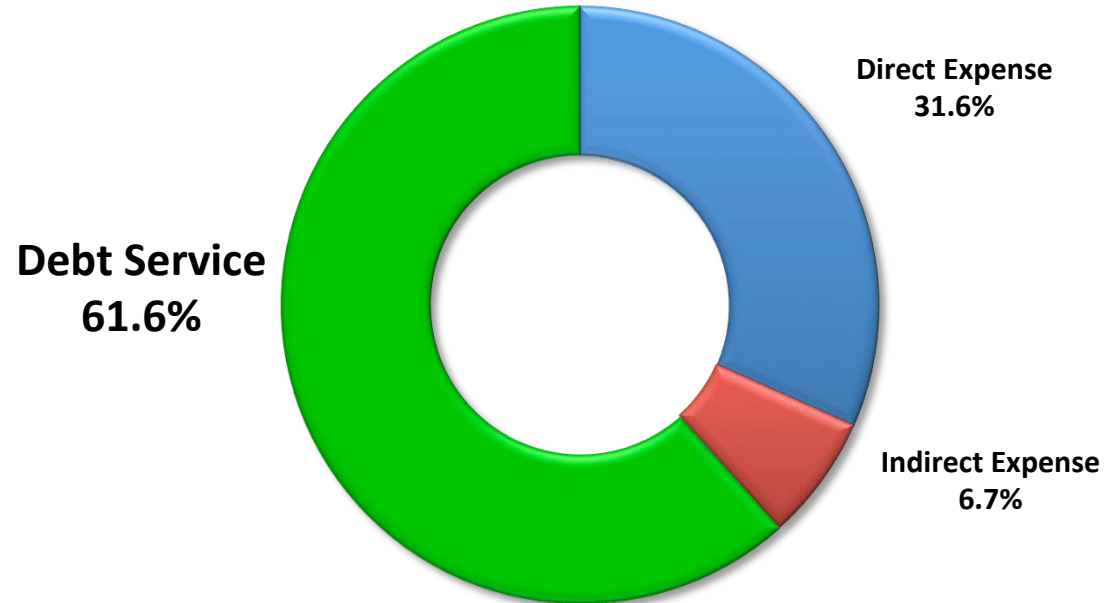
Ways to address the Debt Service challenge

- Defeasance
- Use of Bond Resolution Reserves Release
- Use of Reserves
 - Rate Stabilization Fund
 - Bond Redemption Fund
- Tactical Issuance – Repayment Structure
- Control Capital Spending



FY16 Proposed Current Expense Budget (CEB)

FY16 Current Expense Budget





CEB Budget Structure

- Direct Expenses
- Indirect Expenses
- Debt Service Expenses

ATTACHMENT A
FY 16 Proposed vs FY 15 Budget

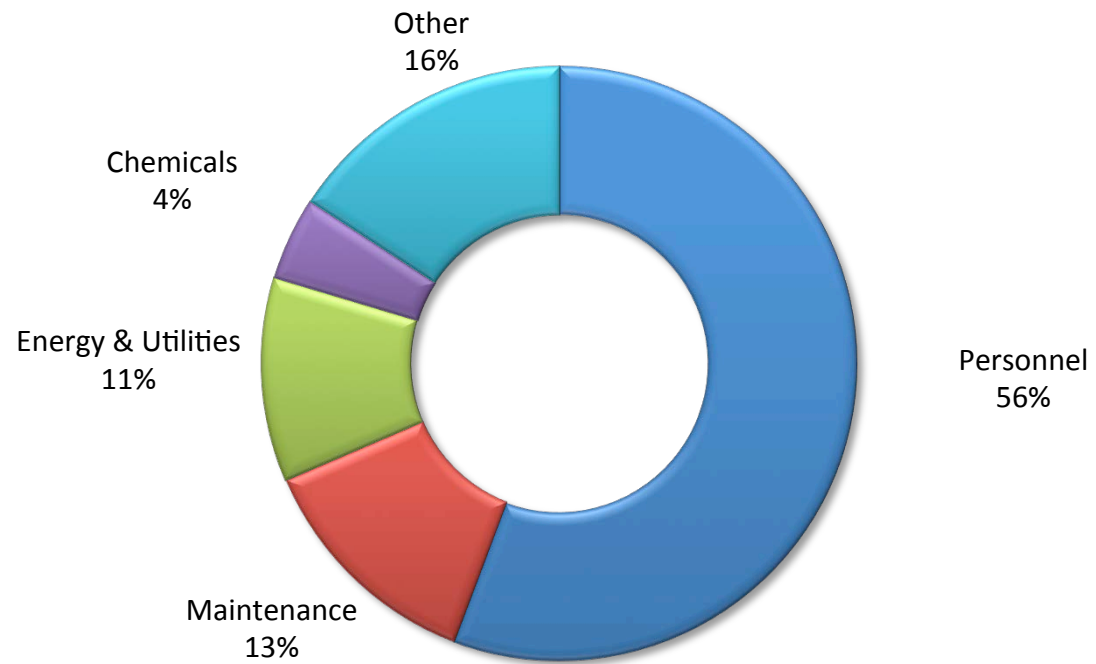
TOTAL MWRA	FY 15 Budget	FY 16 Proposed	Change FY 16 Proposed vs FY 15 Budget	
			\$	%
EXPENSES				
WAGES AND SALARIES	\$ 96,554,749	\$ 99,185,938	2,631,189	2.7%
OVERTIME	3,020,000	4,219,293	998,093	33.4%
FRENCH BENEFITS	18,299,405	19,006,475	707,070	3.9%
WORKERS COMPENSATION	2,200,000	2,343,000	143,000	6.5%
CHEMICALS	10,219,980	10,149,913	(69,669)	-0.7%
ENERGY AND UTILITIES	23,472,354	24,861,554	1,392,200	5.9%
MAINTENANCE	361,019	28,611,968	28,250,949	7825.3%
TRAINING AND MEETINGS	5,957,201	413,714	(275,697)	-4.6%
PROFESSIONAL SERVICES	5,957,279	5,681,554	(275,725)	-4.6%
OTHER MATERIALS	22,538,498	23,308,351	769,853	3.4%
OTHER SERVICES				
TOTAL DIRECT EXPENSES	\$ 217,148,742	\$ 231,786,261	\$ 14,637,519	6.7%
INSURANCE	\$ 2,128,155	\$ 2,168,797	\$ 40,642	1.9%
WATERSHED PILOT	27,466,790	28,061,183	594,393	2.2%
HEEC PAYMENT	3,198,174	1,946,137	(1,252,037)	-39.2%
MITIGATION	1,695,967	1,400,000	(295,967)	-17.5%
ADDITIONS TO RESERVES *	7,888,155	8,139,521	251,366	3.2%
RETIREMENT FUND	4,821,220	5,062,470	241,250	5.0%
POSTEMPLOYMENT BENEFITS/				
ADDITIONAL PENSION DEPOSIT	\$ 47,511,214	\$ 47,522,576	\$ 11,362	0.0%
TOTAL INDIRECT EXPENSES	\$ 78,460,637	\$ 81,365,088	\$ 2,904,451	3.7%
STATE REVOLVING FUND	220,855,020	283,413,656	62,558,636	28.3%
SENIOR DEBT	99,686,105	49,222,442	(50,463,663)	-50.6%
SUBORDINATE MWRA DEBT	4,148,453	4,149,242	789	0.0%
LOCAL WATER PIPELINE CP	10,200,000	11,200,000	1,000,000	9.8%
CURRENT REVENUE/CAPITAL	3,217,000	3,217,000	-	0.0%
CAPITAL LEASE	876,507	6,603,000	5,726,493	653.2%
CORE FUND DEFICIT	(6,745,598)	(3,546,084)	3,199,514	-47.4%
BOND REDEMPTION	-	-	-	-
VARIABLE RATE DEBT SAVINGS	-	-	853,600	-100.0%
DEFERRED ACCOUNT	(853,600)	-	853,600	6.3%
DEBT SERVICE ASSISTANCE				
TOTAL DEBT SERVICE	\$ 489,825,128	\$ 415,684,430	\$ 25,859,306	4.8%
TOTAL EXPENSES	\$ 674,485,304	\$ 707,193,272	\$ 32,707,888	4.8%
REVENUE & INCOME				
RATE REVENUE	\$ 650,315,782	\$ 676,995,000	\$ 26,679,218	4.1%
OTHER USER CHARGES	8,299,693	8,751,391	451,698	5.4%
OTHER REVENUE	6,180,451	11,950,563	5,770,112	93.4%
RATE STABILIZATION	-	-	-	-
INVESTMENT INCOME	6,229,158	9,496,318	3,267,160	52.5%
TOTAL REVENUE & INCOME	\$ 674,485,304	\$ 707,193,272	\$ 32,707,888	4.8%

* Reserves estimated based on OFEB being deposited into the Pension fund



CEB Budget Structure

Direct Expenses

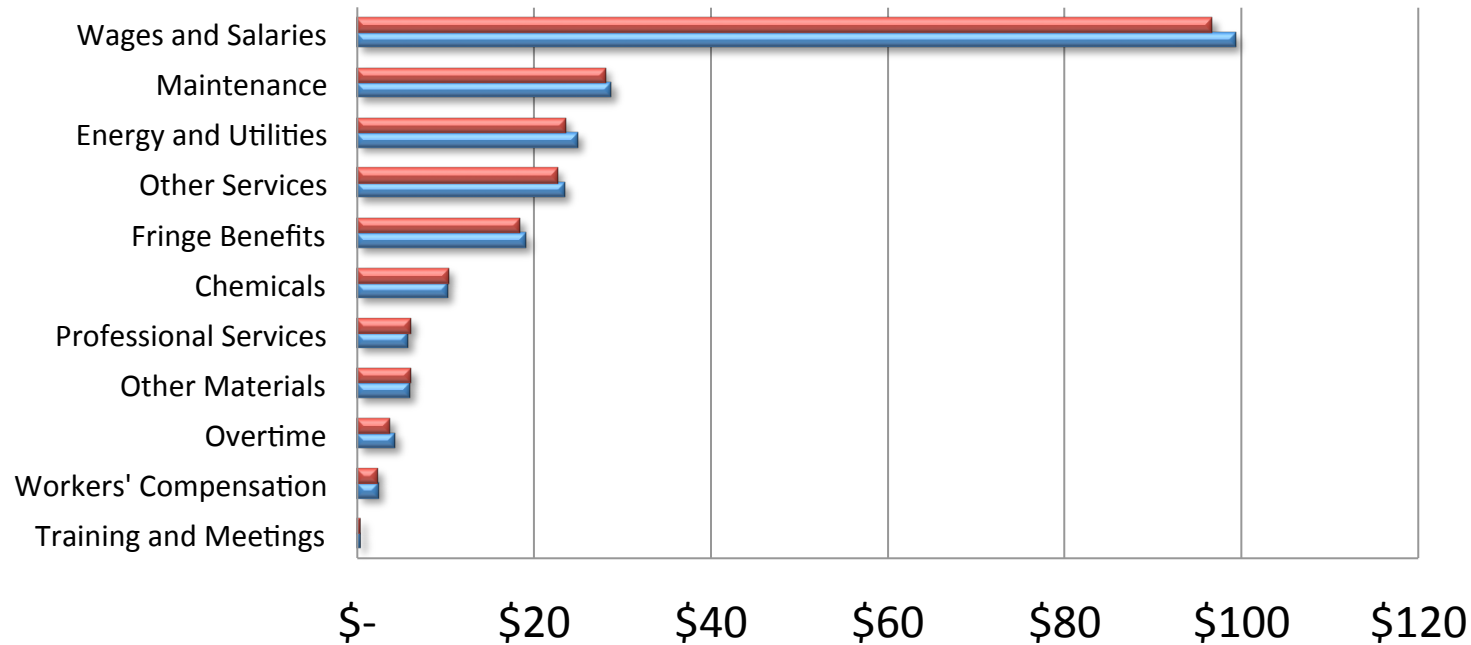




Direct Expenses Comparison

Direct Expenses Comparison FY15 -FY16

\$ in Millions





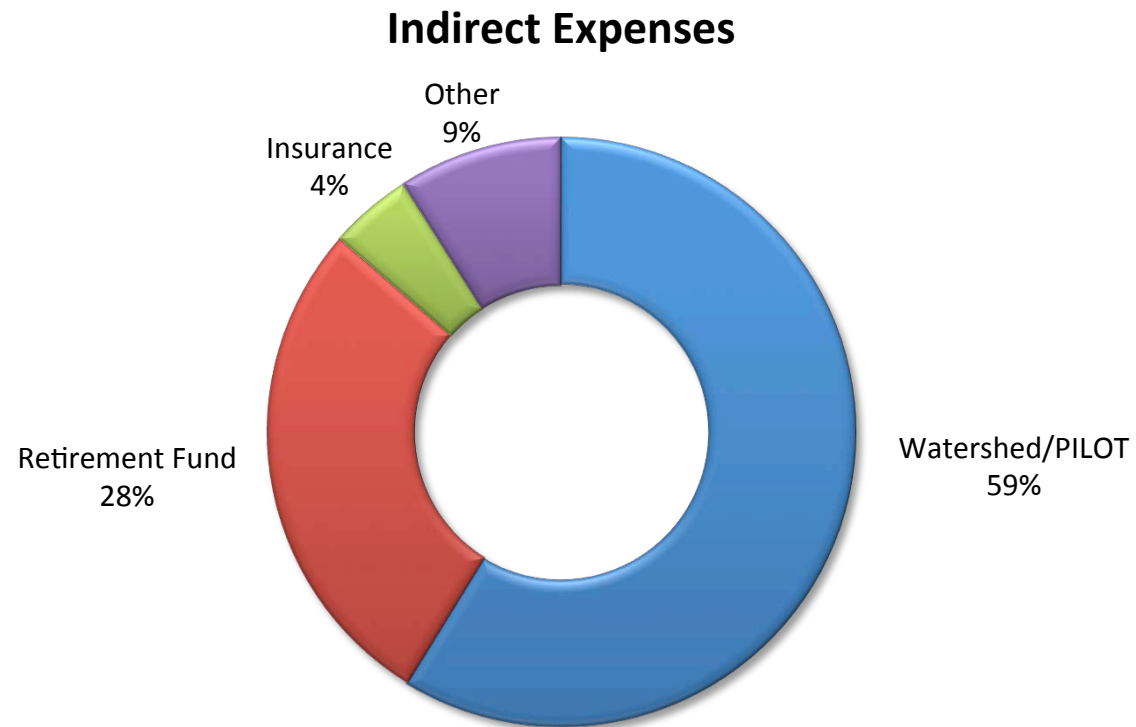
FY16 Proposed Current Expense Budget (CEB)

Highlights – Direct Expenses

- Wages and Salaries \$99.2M – Budgeted Positions: 1,170; 5 fewer than FY15;
- Maintenance \$28.6M – in line with FY14 Actual Spending;
- Utilities - \$24.9M – increases for electricity pricing;
- Other Services - \$23.4M – mainly for NEFCo contract and Leases; and
- Fringe Benefits of \$19.0M – mainly for Health Insurance.



CEB Budget Structure – Indirect Expenses

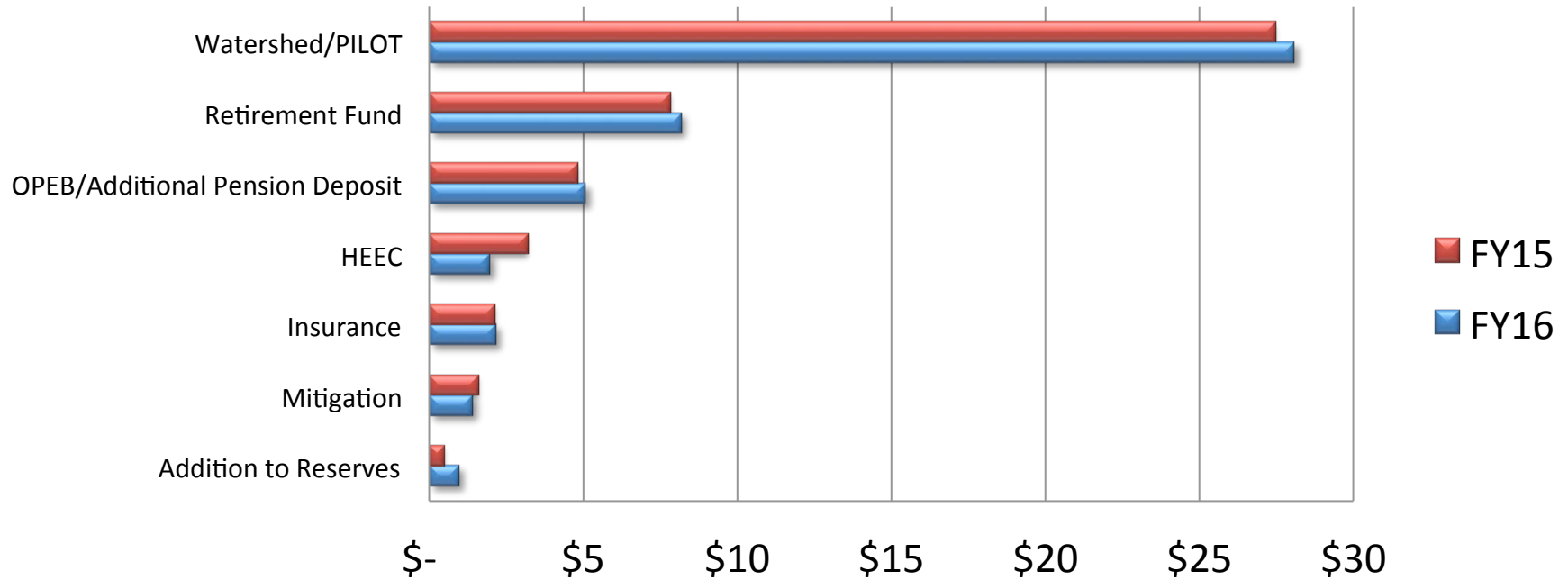




Indirect Expenses Comparison

Indirect Expenses Comparison FY15 -FY16

\$ in Millions





FY16 Proposed Current Expense Budget (CEB)

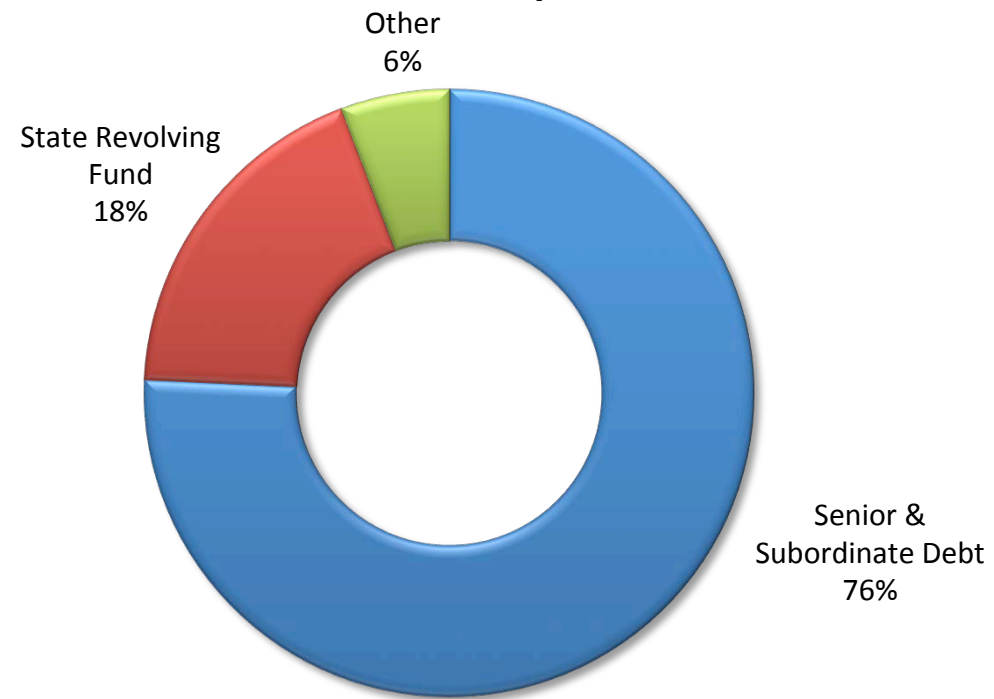
Highlights – Indirect Expenses

- Watershed Program for operating, PILOT and debt \$28.1M;
- Pension Fund required contribution \$8.2M;
- Additional Payment to Pension (OPEB) \$5.1M;
- HEEC contract \$1.9M; and
- Addition to Operating Reserve Fund \$962K.



CEB Budget Structure

Debt Service Expenses

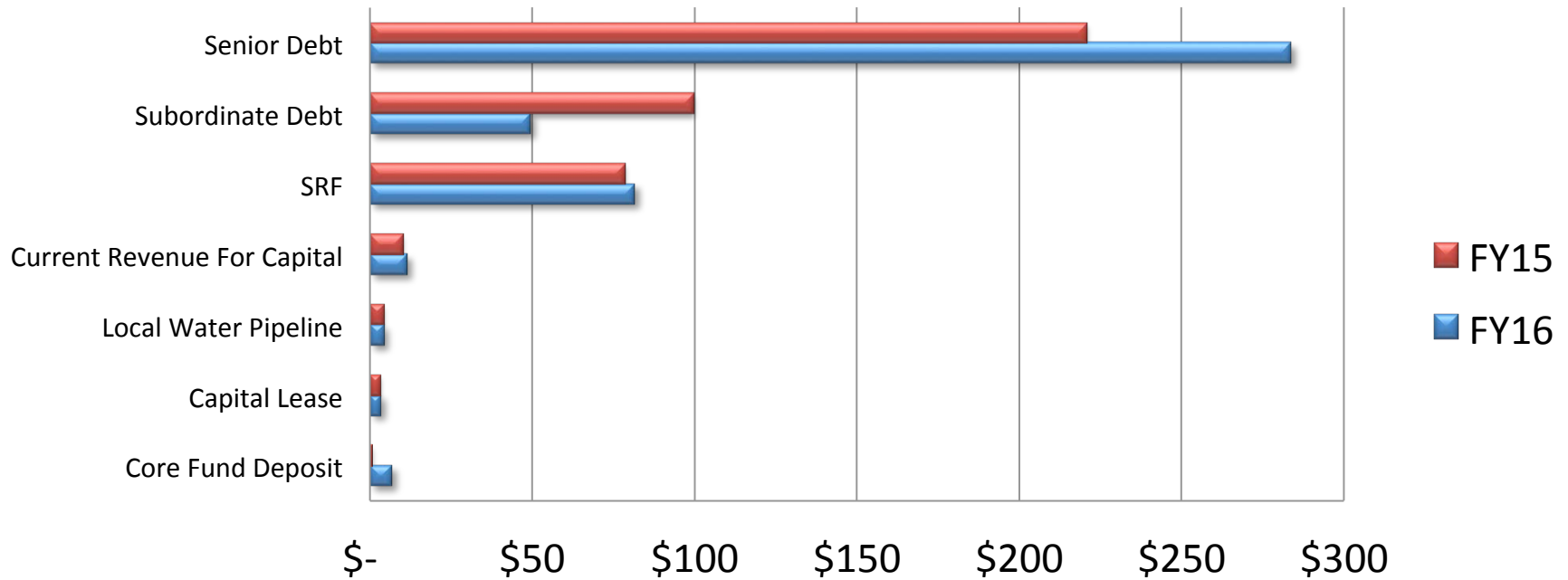




Debt Service Expenses Comparison

Debt Services Expenses Comparison FY15 -FY16

\$ in Millions





FY16 Proposed Current Expense Budget (CEB)

Highlights – Debt Service Expenses

- Variable Rate Debt Assumption 3.25%;
- Required CORE Fund Deposit \$6.7M;
- Bond Redemption \$3.5M; and
- No Debt Service Assistance.



FY16 Proposed Current Expense Budget (CEB)

Revenue

- Non Rate Revenue
- Investment Income
- Rate Revenue Requirement (Assessments)



Planning Estimate Assumptions

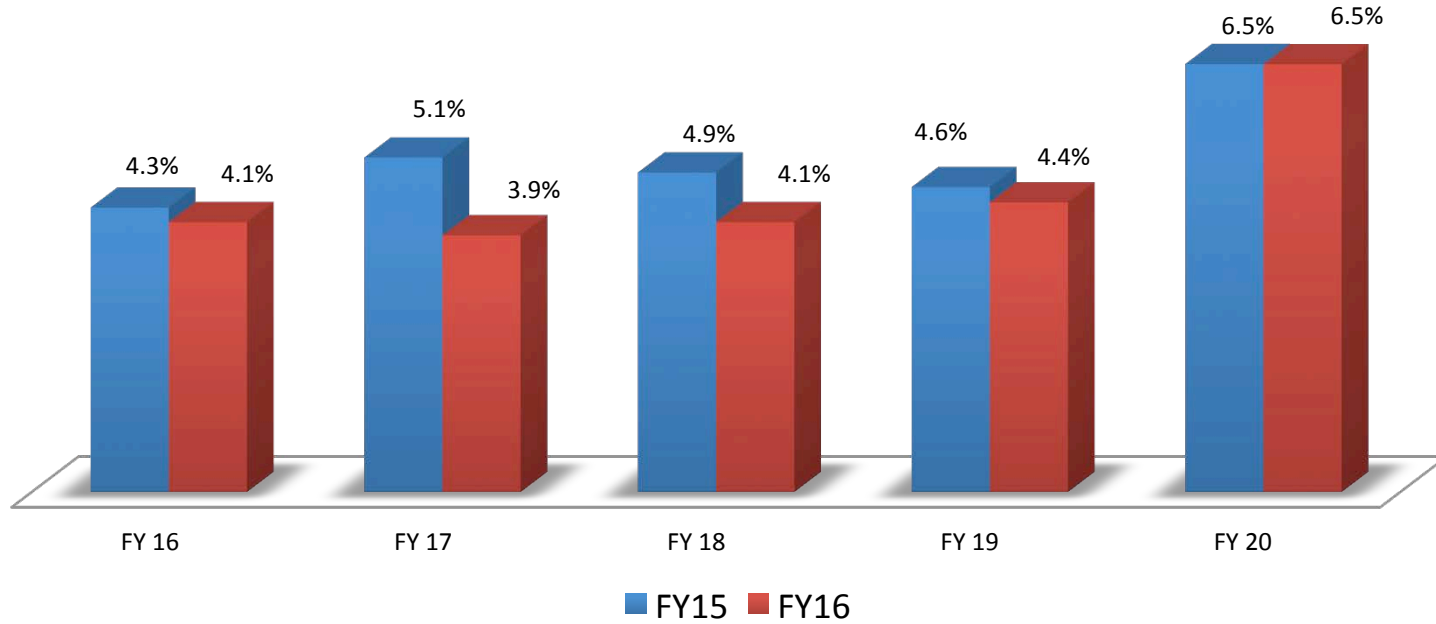
Assumptions

- Direct Expenses Inflation
- Indirect Expenses Inflation
- Capital Spending Levels
- Variable and Fixed Debt Interest Rates
- Investment Income Interest Rates
- Level of Pension/OPEB Funding
- Use of Reserves



Effects on Assessments

Assessment Increase Forecast Comparison





FY16 Proposed Current Expense Budget (CEB)

Challenges / Opportunities

- Short-Term Market Rates
 - Variable Rate Debt
 - Investments
- Regulatory Changes
- System Expansion
- Utility Pricing



FY16 Current Expense Budget Next Steps

- Transmit Proposed Budget to Advisory Board for 60 day review
- Reconvene Long-Term Rates Management Committee
- Public Hearings
- Staff will present Draft Final Budget in June



Massachusetts Water Resources Authority

***FY16 Proposed
Capital Improvement Budget***



March 2015



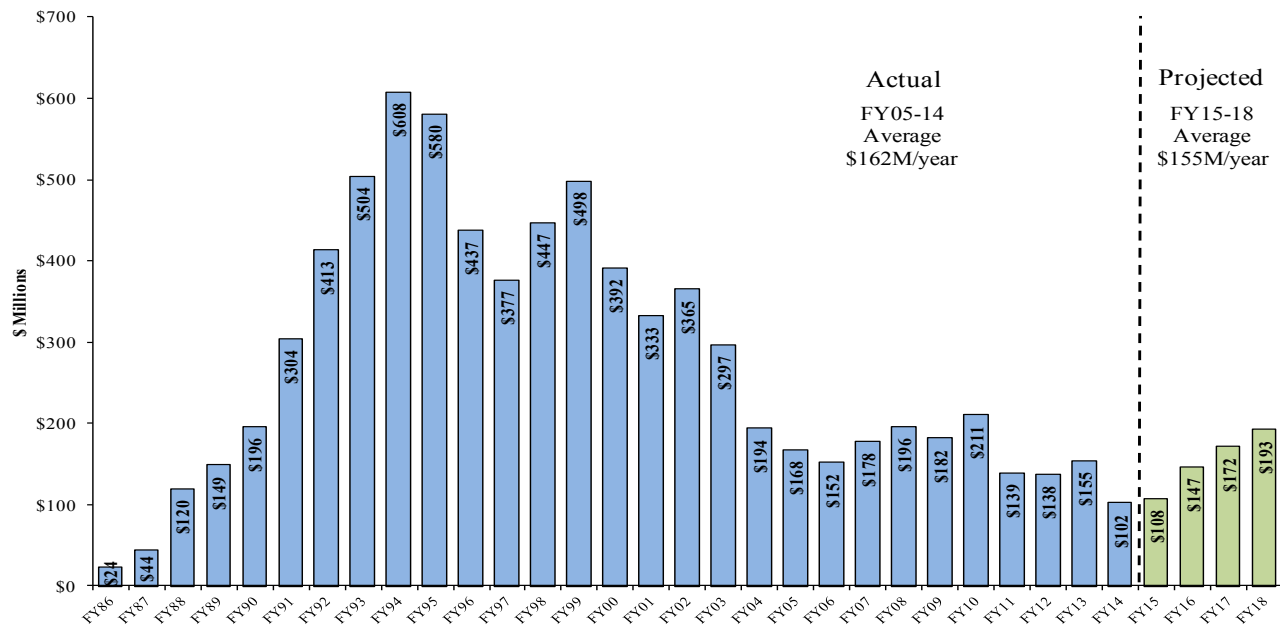
FY16 Proposed CIP

- ✓ MWRA continues to focus on Asset Protection and Long Term Redundancy initiatives;
- ✓ MWRA continues to reduce debt levels, paying more principal than the projected borrowings; and
- ✓ FY16 Proposed CIP meets all Cap requirements.



Historic and Projected Capital Improvement Spending

CIP Historical and Projected Spending



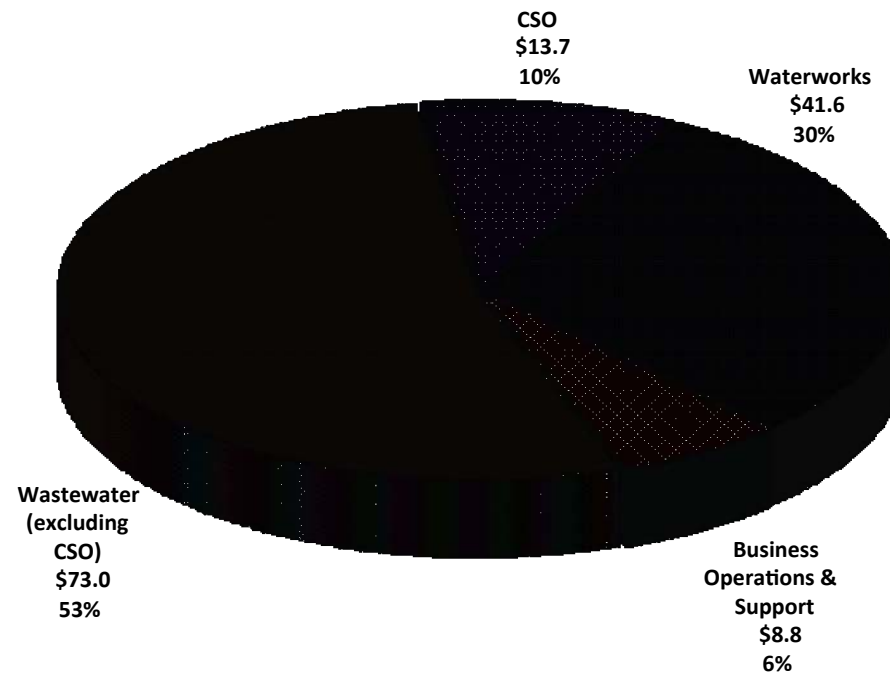


FY14-18 Base-Line Cap as Compared with FY16 Proposed Spending

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	
FY16 Proposed		FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures	\$102.2	\$108.1	\$147.1	\$177.6	\$186.8	\$721.8
Contingency	0.0	5.3	8.2	10.8	11.6	35.9	
Inflation on Unawarded Construction	0.0	0.0	1.4	5.5	9.2	16.1	
Less: I/I Program	0.0	(11.2)	(16.9)	(18.9)	(18.1)	(65.1)	
Less: Water Loan Program	0.0	1.6	2.2	2.5	(0.1)	6.1	
Less: Chicopee Valley Aqueduct Projects	(5.6)	(1.5)	(0.0)	(0.1)	(0.2)	(7.3)	
FY16 Proposed FY14-18 Spending	\$96.6	\$102.3	\$141.9	\$177.5	\$189.2	\$707.5	
FY16 Proposed vs FY14-18 Base-Line Cap		FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures	(\$40.3)	(\$39.4)	(\$2.2)	\$35.8	\$50.0	\$3.8
Contingency	(7.6)	(4.2)	(1.9)	1.1	2.3	(10.2)	
Inflation on Unawarded Construction	(0.8)	(4.2)	(7.0)	(5.6)	(4.2)	(21.8)	
Less: I/I Program	0.0	(11.2)	(16.9)	(18.9)	(18.1)	(65.1)	
Less: Water Loan Program	0.0	1.6	2.2	2.5	(0.1)	6.1	
Less: Chicopee Valley Aqueduct Projects	(0.6)	0.7	1.4	1.3	0.2	3.0	
FY14-18 Cap (\$ Change)	(\$49.2)	(\$56.7)	(\$24.5)	\$16.1	\$30.1	(\$84.2)	
FY14-18 Cap (% Change)	-33.8%	-35.7%	-14.7%	10.0%	18.9%	-10.6%	



FY16 Proposed CIP Expenditures by Major Programs





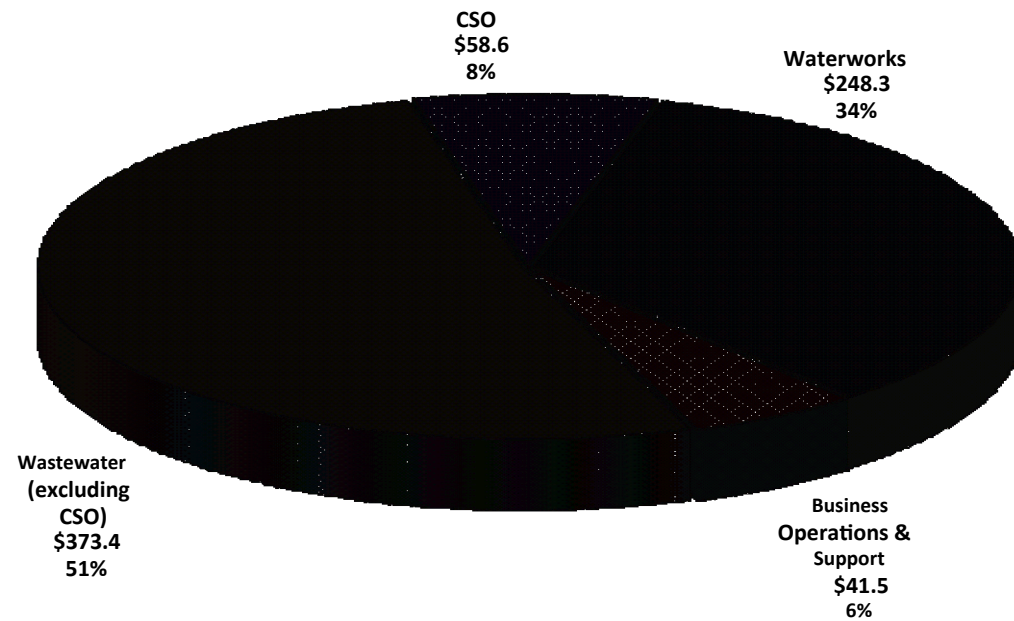
FY16 Big Spenders

	FY16 Planned Spending
DI Treatment Plant Asset Protection	\$ 45.2
Long-Term Redundancy	18.3
Facility Asset Protection	17.1
I/I Local Financial Assistance	16.9
Cambridge Sewer Separation	11.9
Weston Aqueduct Supply Mains	6.1
NIH Redundancy and Storage	5.5
Clinton Wastewater Treatment Plant	2.6
Applications Improvement Program	2.3
Central Monitoring System	2.3
Top 10 Spending in FY15	\$ 128.2
FY16 Spending	\$ 147.1

The top ten projects account for 87.1% of FY16 planned spending.



FY14-18 Proposed CIP Expenditures by Major Programs





On-Going Capital Projects



Deer Island Asset Protection



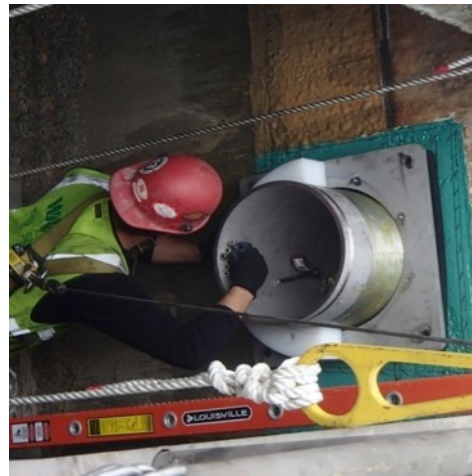
Total Budget	\$720.9M
Spending Through FY14	<u>\$176.3M</u>
Remaining Spending:	\$544.6M
FY14-18 Spending:	\$182.0M
FY16 Spending:	\$ 45.2M



Deer Island: Scum Skimmer Replacement

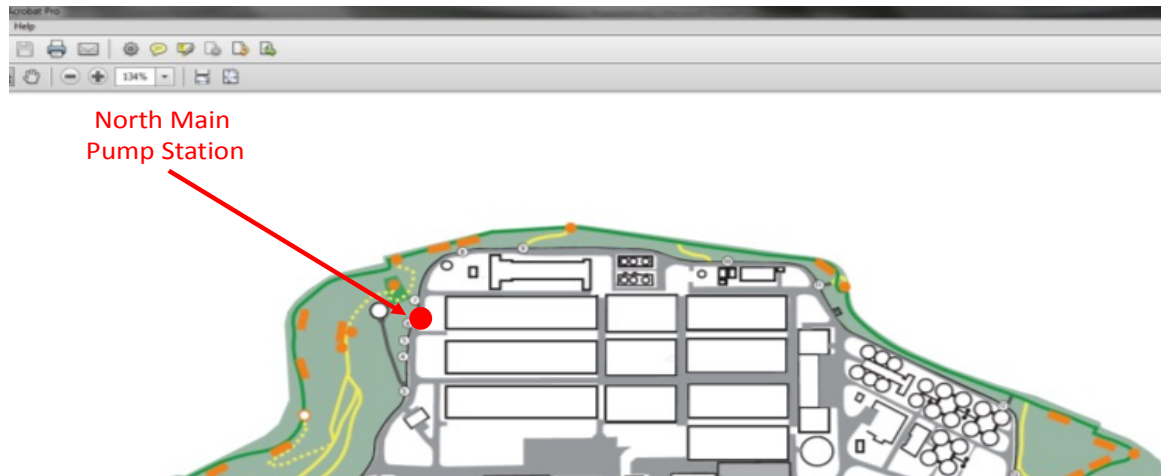
NTP: October 2013
SC : October 2016

Total Contract: \$20.2M
FY14-18 Spending: \$20.2M
FY16 Spending: \$ 6.0M





Deer Island North Main Pump Station





Deer Island: North Main Pump Station Motors/VFDs



NTP: December 2011
SC : March 2016

Total Contract:	\$24.3M
FY14-18 Spending:	\$17.8M
FY16 Spending:	\$ 4.2M





North Main Pump Station & Winthrop Terminal Facility Valve Replacements



NTP: June 2014
SC : June 2017



Total Contract: \$17.0M
FY14-18 Spending: \$17.0M
FY16 Spending: \$ 5.7M



Deer Island Electrical Upgrades - Construction 4

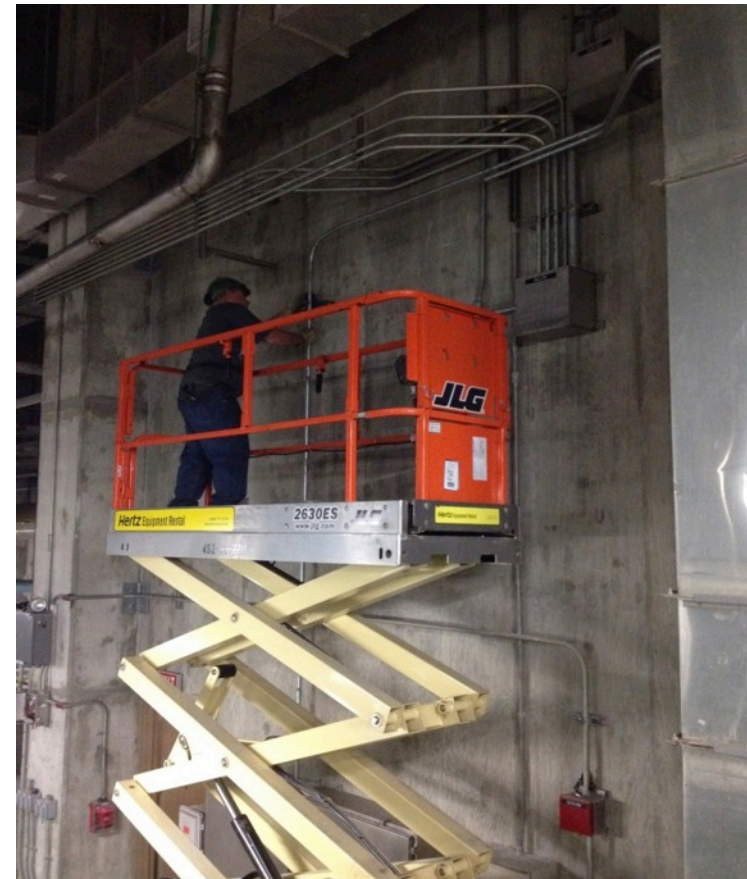
NTP: May 2013

SC : May 2016

Total Contract: \$10.9M

FY14-18 Spending: \$10.9M

FY16 Spending: \$ 4.5M





Spot Pond Covered Storage Facility and Pump Station

NTP: November 2011

SC : May 2015



Total Contract:	\$51.4M
FY14-18 Spending:	\$33.8M
FY16 Spending:	\$ 1.5M



Cambridge Sewer Separation



Contract 9

NTP: July 1998
SC : December 2015

Total Contract:	\$92.1M
FY14-18 Spending:	\$41.7M
FY16 Spending:	\$11.9M



Contract 8B - Concord Avenue



Clinton Treatment Plant Phosphorous Removal



Design & Construction

NTP: November 2013

SC : August 2018

Total Contract: \$8.3M

FY14-18 Spending: \$8.3M

FY16 Spending: \$0.7M





Upcoming Capital Projects



Chelsea Headworks Rehabilitation

Design

NTP: July 2010

SC : June 2020

Total Contract: \$7.9M

FY14-18 Spending: \$5.2M

FY16 Spending: \$0.1M



Construction

NTP: December 2015

SC : June 2019

Total Contract: \$54.8M

FY14-18 Spending: \$35.7M

FY16 Spending: \$ 5.1M



Wachusett Aqueduct Pump Station

NTP: April 2015

SC : November 2018



Total Contract:	\$60.5M
FY14-18 Spending:	\$49.5M
FY16 Spending:	\$16.5M



Southern Extra High Redundancy – Section 111

Design

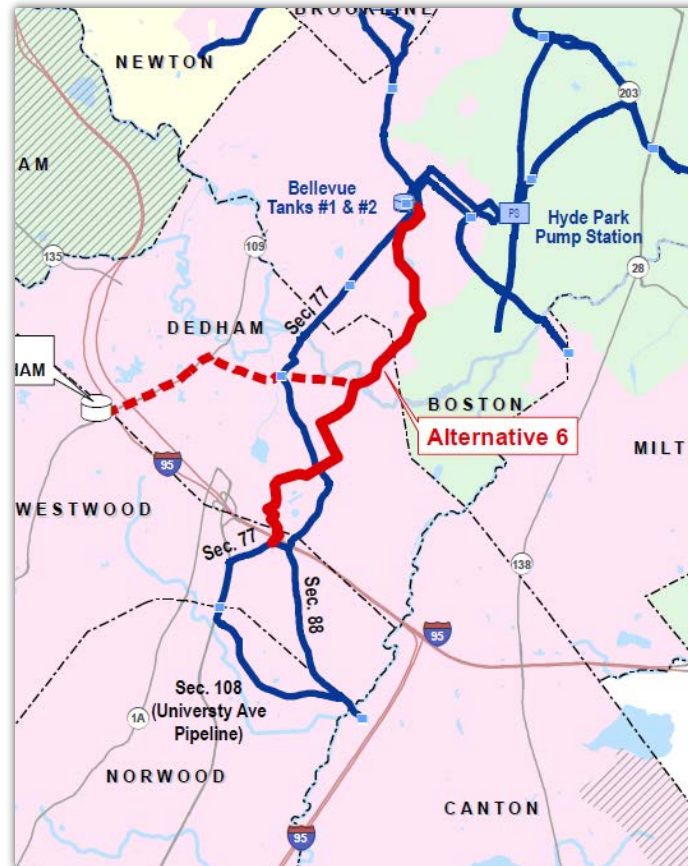
NTP: February 2014

SC : August 2021

Total Contract: \$7.7M

FY14-18 Spending: \$4.7M

FY16 Spending: \$1.2M



Construction

NTP: August 2016

SC: June 2020

Total Contract: \$29.8M

FY14-18 Spending: \$12.3M

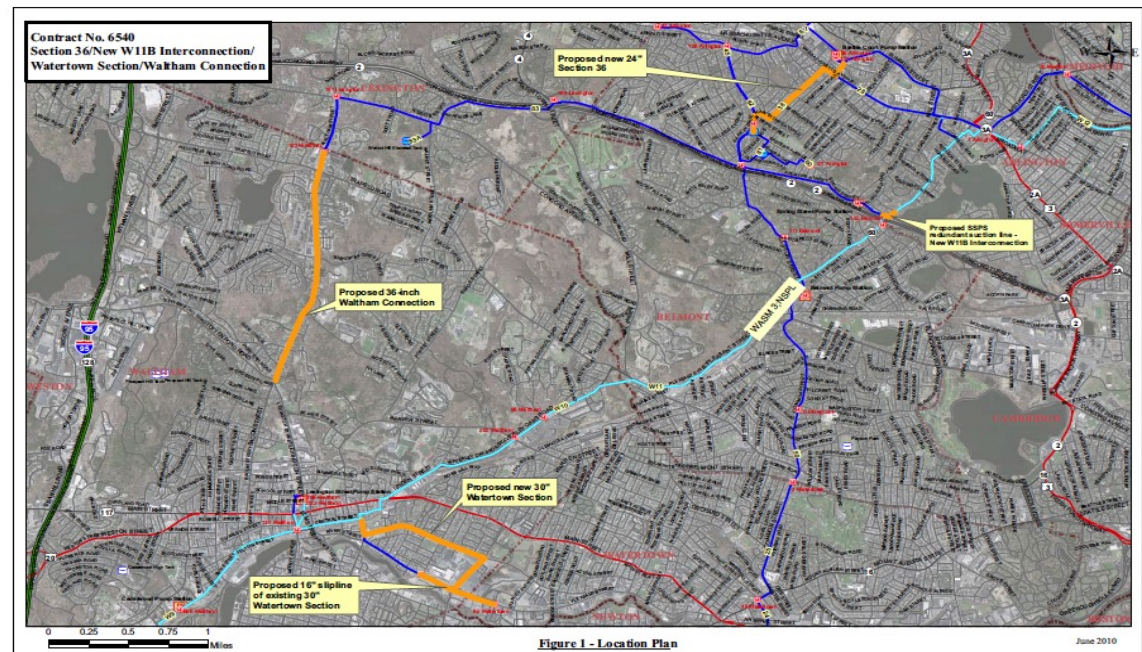
FY16 Spending: \$ 0.0M



Weston Aqueduct Supply Mains (WASM) – Section 36

NTP: October 2014
SC : March 2017

Total Contract: \$11.2M
Fy14-18 Spending: \$11.2M
FY16 Spending: \$ 4.5M





Alewife Brook Pump Station Rehabilitation

NTP: March 2015
SC : July 2017



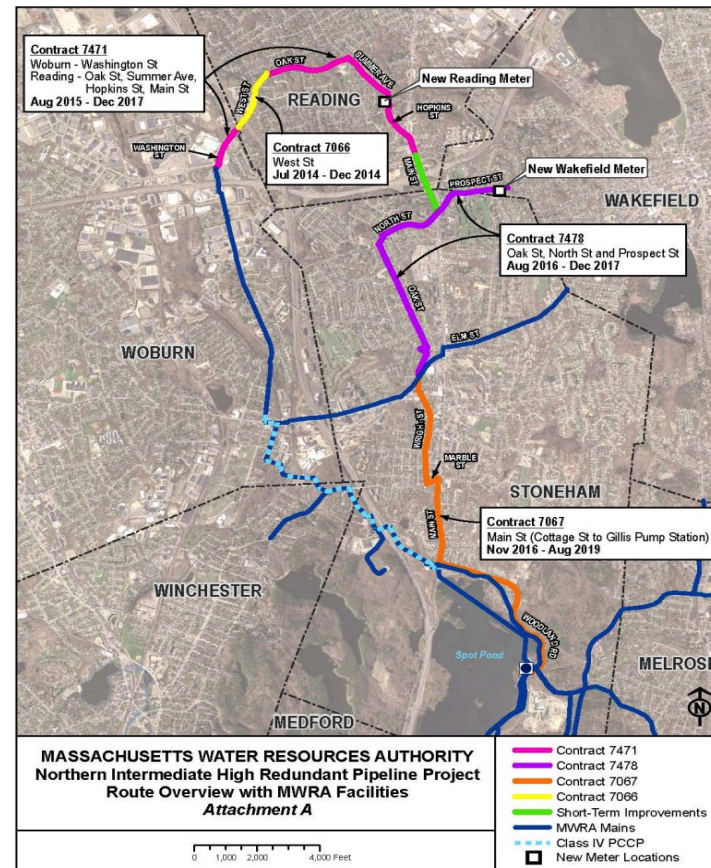
Total Contract:	\$10.4M
Fy14-18 Spending:	\$10.4M
FY16 Spending:	\$ 2.4M



Northern Intermediate High – Section 89 Phase 1B

NTP: August 2015
SC : December 2017

Total Contract: \$20.2M
FY14-18 Spending: \$17.5M
FY16 Spending: \$ 4.4M





Deer Island Combined Heat and Power

Design

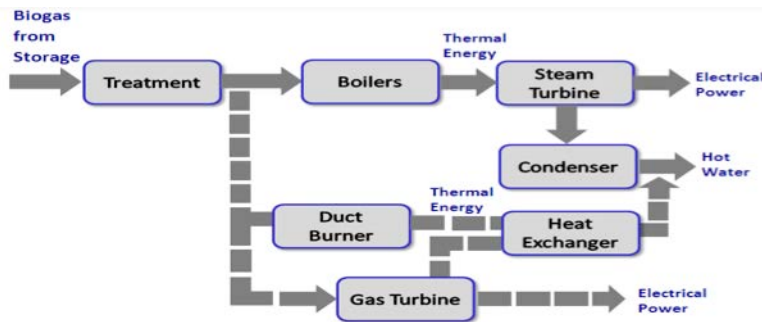
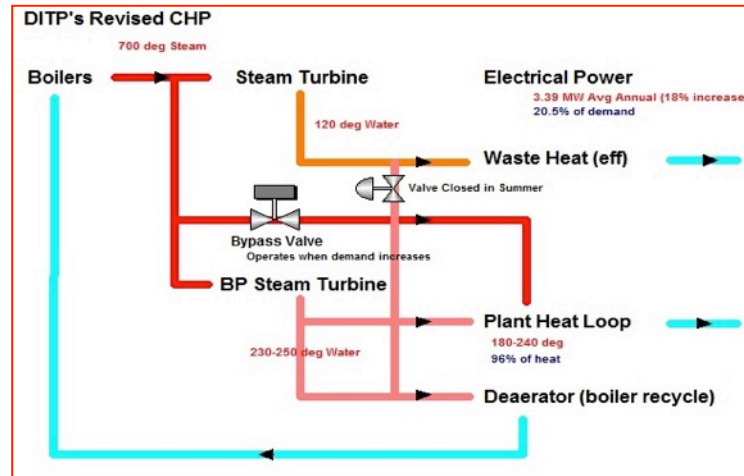
NTP: January 2016

SC : July 2022

Total Contract: \$6.0M

FY14-18 Spending: \$3.0M

FY16 Spending: \$0.1M



Construction

NTP: July 2018

SC : July 2022

Total Contract: \$83.0M

FY14-18 Spending: \$ 0.0M

FY16 Spending: \$ 0.0M



FY16 Proposed CIP Summary

Total CIP increased \$157.0 million over FY15 Final CIP.

4 Projects account for over \$106 million, or 68% of the increase.

Project	FY16 Proposed Increase	Effect on increase on FY14-18 Cap
Deer Island Treatment Plant Asset Protection	\$ 63.0	\$ 1.0
Central Monitoring System	18.6	1.7
Long-Term Redundancy	18.3	(0.1)
Northern High Service - Revere and Malden Pipe	<u>6.2</u>	<u>(1.6)</u>
	\$ 106.1	\$ 1.0



FY16 Projected Contract Awards (\$ in millions)

Project	Subphase	NTP	FY16 Proposed
Facility Asset Protection	Chelsea Creek Upgrade Construction	Dec-15	Budget \$54.8
NIH Redundancy & Storage	Sec 89/29 Redundancy Construction Phase 1B	Aug-15	20.2
DI Treatment Plant Asset Protection	HVAC Equipment Replacement - Construction	Mar-16	17.1
Clinton Wastewater Treatment Plant	Phosphorus Reduction Construction	Feb-16	7.1
DI Treatment Plant Asset Protection	Sodium Bisulf & Hypochlorite Tank Rehabilitation	Mar-16	6.6
DI Treatment Plant Asset Protection	Combined Heat & Power Design	Jan-16	6.0
Carroll Water Treatment Plant	Existing Facilities Modifications - CP7	Jul-15	5.5
DI Treatment Plant Asset Protection	Ancillary Modifications - Final Design 4	Jan-16	4.3
Applications Improvements Program	Enterprise Content Management	Sep-15	4.0
Central Monitoring System	Quabbin Power Communications & Security	Oct-15	2.8
Top 10 Awards for FY16			\$128.4
45 Contract Awards Planned for FY16			\$166.5

The top ten awards account for over 77% of FY16 planned awards.



Future Risks/Uncertainties

- Co-Digestion Deer Island Receiving Facilities
- Fish Hatchery Pipeline/Hydro
- Sudbury Aqueduct – tunnel vs. surface pipeline;
- Residual Processing/Asset Management; and
- New regulatory mandates.