



**Wastewater and Water Advisory  
Committees' Presentation**

***FY17 Proposed  
Capital Improvement  
&  
Current Expense Budgets***

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Director, Finance

April 12, 2016



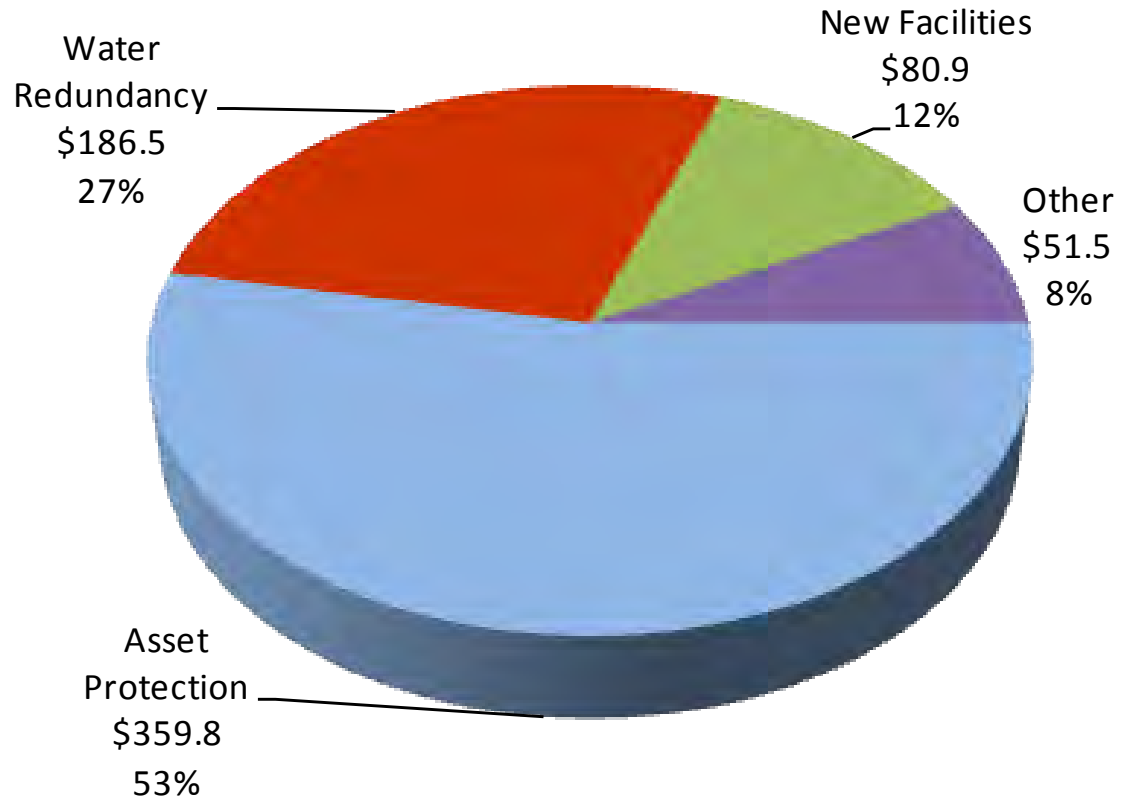
**MWRA Fiscal Year 2017  
Proposed  
Capital Improvement Budget**



- ✓ MWRA continues to focus on Asset Protection and Long Term Redundancy initiatives;
- ✓ MWRA continues to reduce debt levels; and
- ✓ FY17 Proposed CIP meets the overall 5-Year spending Cap requirement.



# FY14-FY18 Capital Expenditures – Fix it First





- ✓ City Tunnel Redundancy Decision Time;
- ✓ Acceleration of pipeline projects; and
- ✓ Acceleration of Shaft 12, Shaft 2, & Winsor Power Station.



# FY17 Proposed CIP

(000s)	FY16 Final	FY17 Proposed	\$ Change	% Change	FY16 Final FY14-18	FY17 Proposed FY14-18	FY14-18 \$ Change	FY14-18 % Change
<b>Total Wastewater</b>	\$ 2,974.6	\$3,062.3	\$ 87.7	2.9%	\$ 419.3	\$ 397.5	\$ (21.8)	-5.2%
<b>Total Waterworks</b>	\$ 2,909.4	\$3,790.6	\$ 881.1	30.3%	\$ 251.3	\$ 239.4	\$ (11.9)	-4.7%
<b>Business &amp; Operations Support</b>	\$ 128.4	\$ 134.7	\$ 6.3	4.9%	\$ 40.9	\$ 41.8	\$ 0.9	2.1%
<b>Total MWRA</b>	\$ 6,012.4	\$6,987.5	\$ 975.1	16.2%	\$ 711.5	\$ 678.7	\$ (32.8)	-4.6%

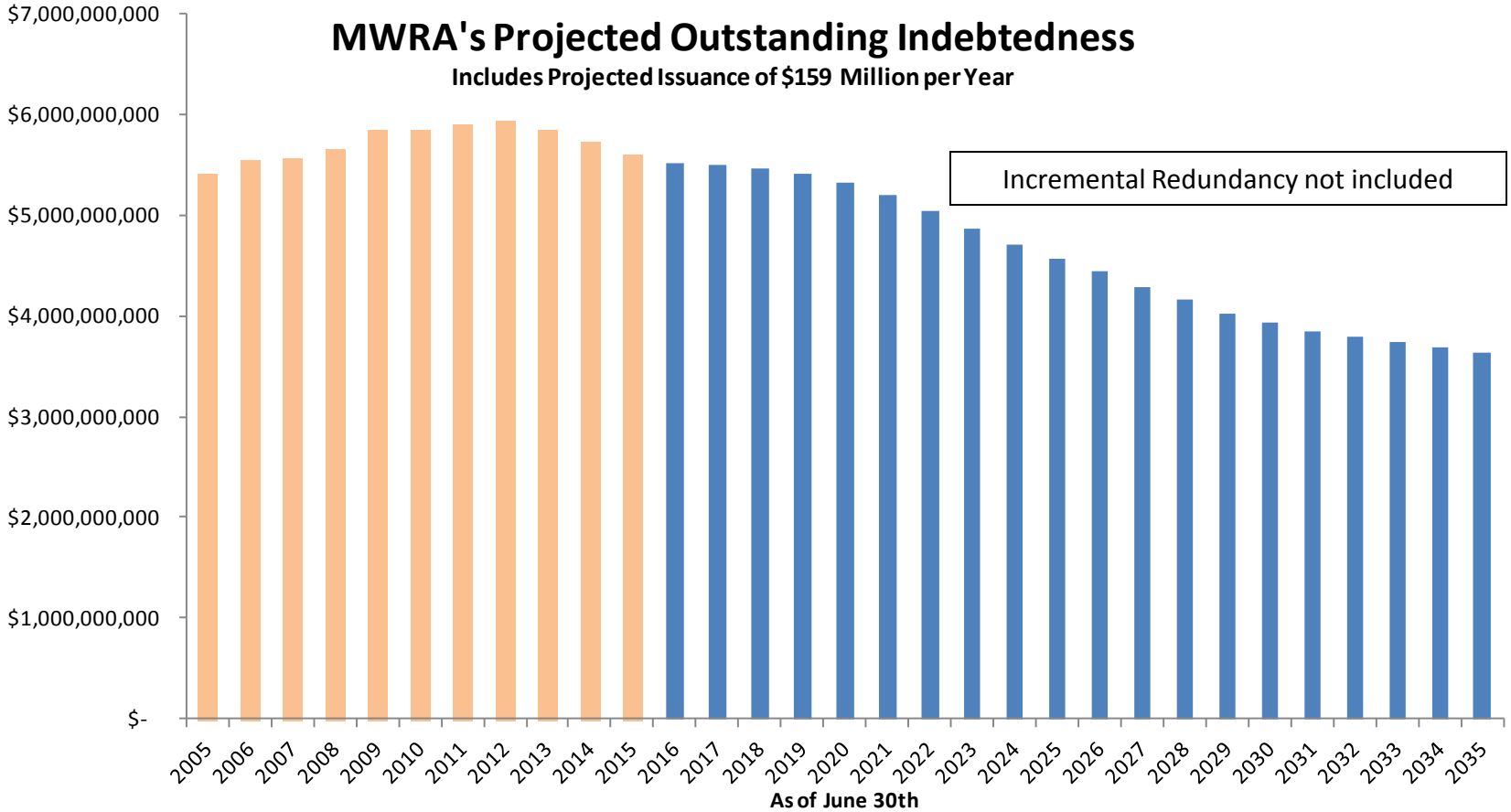


# Paying More Principal than Interest

## MWRA's Projected Outstanding Indebtedness

Includes Projected Issuance of \$159 Million per Year

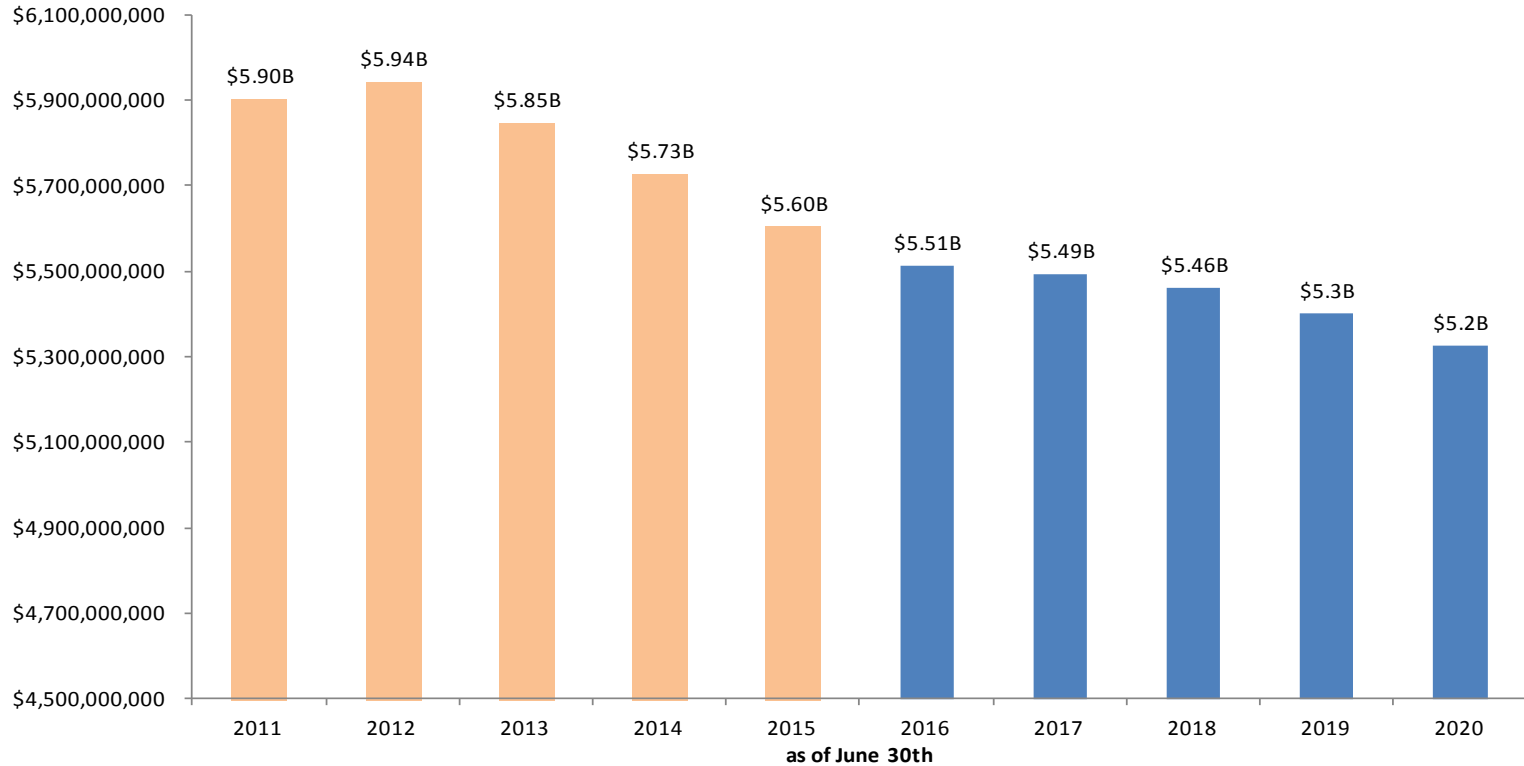
Incremental Redundancy not included





# Paying More Principal than Interest

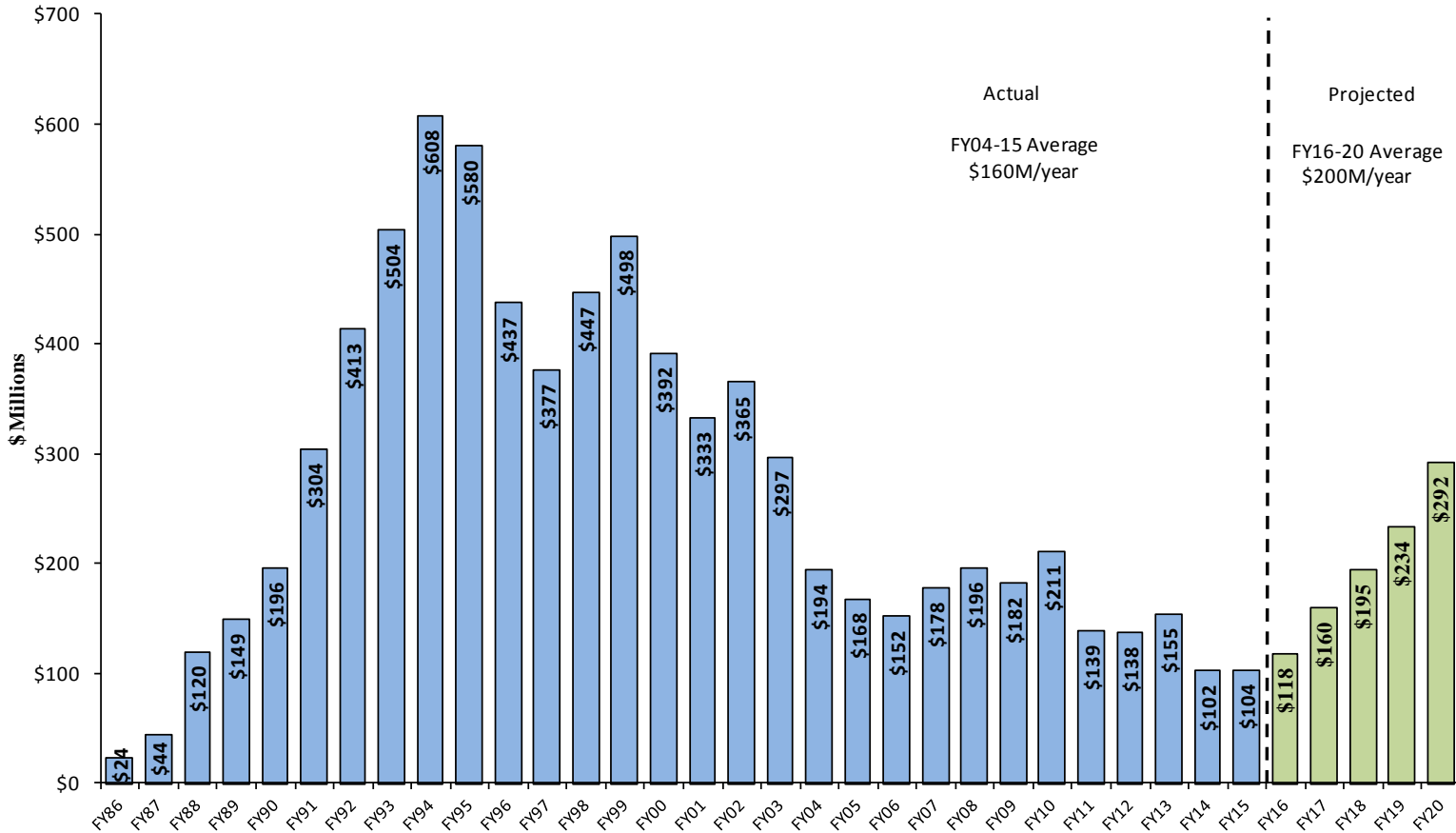
## Reduction to MWRA Projected Debt Between FY11 and FY20







# Historic and Projected Capital Improvement Spending





# FY14-18 Base-Line Cap as Compared with FY17 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)	
<b>FY14-18 Base-Line Cap</b>	<b>\$145.8</b>	<b>\$159.1</b>	<b>\$166.4</b>	<b>\$161.3</b>	<b>\$159.1</b>	<b>\$791.7</b>	

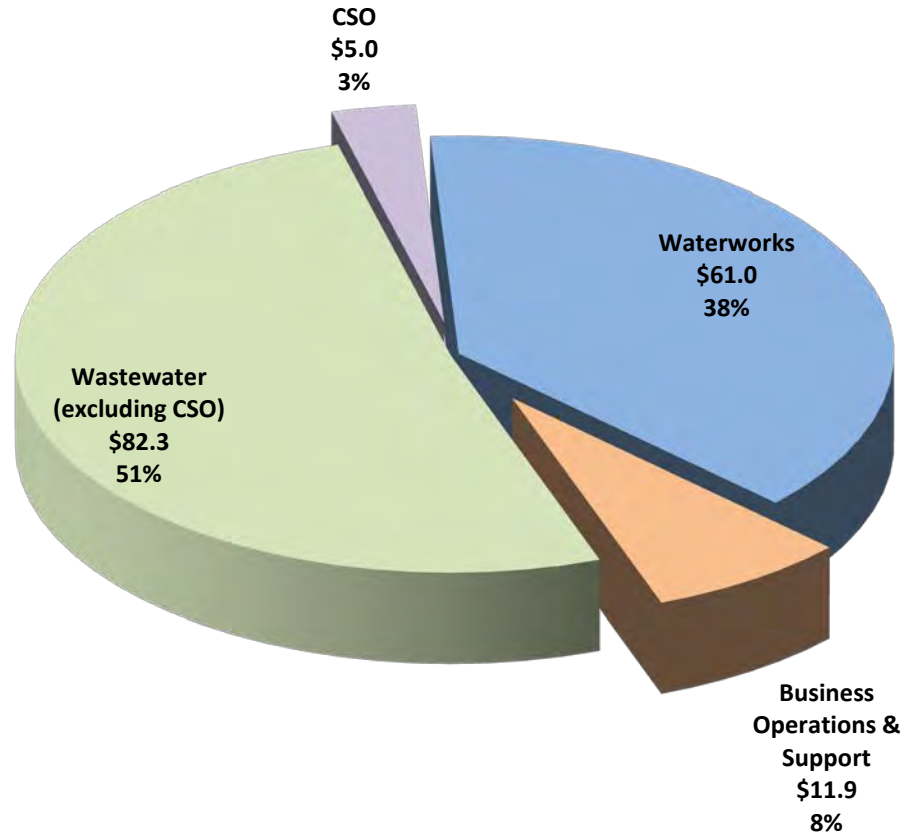
FY17 Proposed		FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures	\$102.2	\$103.6	\$118.3	\$160.1	\$194.6	\$678.7
Contingency	0.0	0.0	5.6	9.5	12.0	27.0	
Inflation on Unawarded Construction	0.0	0.0	2.1	5.3	11.1	18.5	
Less: I/I Program	0.0	(17.5)	(19.4)	(19.0)	(17.3)	(73.1)	
Less: Water Loan Program	0.0	1.4	1.4	2.0	(0.6)	4.3	
Less: Chicopee Valley Aqueduct Projects	(5.6)	(1.2)	(0.5)	(0.1)	(0.0)	(7.4)	
<b>FY17 Proposed FY14-18 Spending</b>	<b>\$96.6</b>	<b>\$86.3</b>	<b>\$107.5</b>	<b>\$157.9</b>	<b>\$199.7</b>	<b>\$648.0</b>	

FY17 Proposed vs. FY14-18 Base-Line Cap		FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures	(\$40.3)	(\$43.9)	(\$31.1)	\$18.3	\$57.8	(\$39.3)
Contingency	(7.6)	(9.5)	(4.5)	(0.3)	2.7	(19.1)	
Inflation on Unawarded Construction	(0.8)	(4.2)	(6.2)	(5.8)	(2.4)	(19.4)	
Less: I/I Program	0.0	(17.5)	(19.4)	(19.0)	(17.3)	(73.1)	
Less: Water Loan Program	0.0	1.4	1.4	2.0	(0.6)	4.3	
Less: Chicopee Valley Aqueduct Projects	(0.6)	0.9	0.9	1.2	0.4	2.9	
<b>FY14-18 Cap (\$ Change)</b>	<b>(\$49.2)</b>	<b>(\$72.7)</b>	<b>(\$58.9)</b>	<b>(\$3.4)</b>	<b>\$40.6</b>	<b>(\$143.7)</b>	



# FY17 Proposed CIP Expenditures by Major Programs for 2017





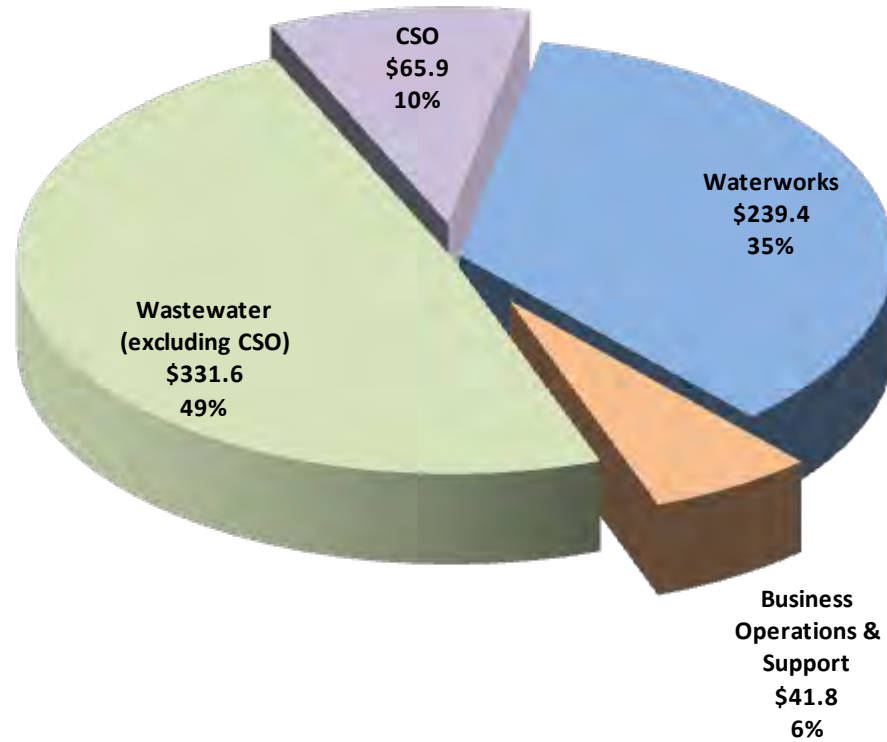
## FY17 Big Spenders

Subphases	FY17 Spending
Community Financial Assistance Programs	\$30.3
Section 89/29 Redundancy	\$16.1
Chelsea Creek Upgrade Construction	\$15.2
Wachusett Aqueduct PS Construction	\$15.0
Alewife Brook PS Construction	\$5.3
NMPS & WTF Butterfly Valve Replacement	\$4.5
<b>Top Spenders in FY17</b>	<b>\$86.3</b>
<b>Total Projected FY17 Spending</b>	<b>\$160.1</b>

The top spenders account for 54% of FY17 planned spending.



# FY14-18 Proposed CIP Expenditures by Major Programs





## FY17 Proposed CIP Expenditures by Major Initiatives

	FY09-13	FY14-18	FY19-23
Asset Protection	\$248.0	\$359.8	\$760.7
Carroll WTP	38.5	15.0	11.2
Water Redundancy	134.7	186.5	431.8
CSO	315.5	65.9	3.0
Other	88.4	51.5	-6.3
<b>Total</b>	<b>\$825.1</b>	<b>\$678.7</b>	<b>\$1,200.4</b>
<b>Asset Protection</b>	<b>30.1%</b>	<b>53.0%</b>	<b>63.4%</b>
Carroll WTP	4.7%	2.2%	0.9%
<b>Water Redundancy</b>	<b>16.3%</b>	<b>27.5%</b>	<b>36.0%</b>
CSO	38.2%	9.7%	0.2%
Other	10.7%	7.6%	-0.5%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

- Asset Protection and Redundancy are the principle drivers of future capital expenditures.



## FY17 Projected Contract Awards (\$ in millions)

Project	Subphase	NTP	FY17 Proposed
NIH Redundancy & Storage	Sec 89 & 29 Redundancy Construction Phase 2	Jul-16	\$21.4
Central Monitoring System	Waterworks SCADA/PLC Upgrades	Oct-16	\$18.5
SEH Redundancy & Storage	Redundancy Pipeline Section III Construction 2	Jul-16	\$10.8
Residuals Asset Protection	Residuals Facility Upgrade-Construction	Jul-16	\$10.0
SEH Redundancy & Storage	Redundancy Pipeline Section III Construction 3	Oct-16	\$7.4
DI Treatment Plant Asset Protection	Future Miscellaneous VFD Replacements-Construction	May-17	\$5.3
Facility Asset Protection	IR-Construction 1 Reading Extension Sewer	Mar-17	\$4.3
Applicat Improvement Program	Enterprise Content Management	Aug-16	\$4.0
<b>Top Awards for FY17</b>			\$81.6
<b>27 Contract Awards Planned for FY17</b>			\$101.7

The top awards account for over 80% of FY17 planned awards.



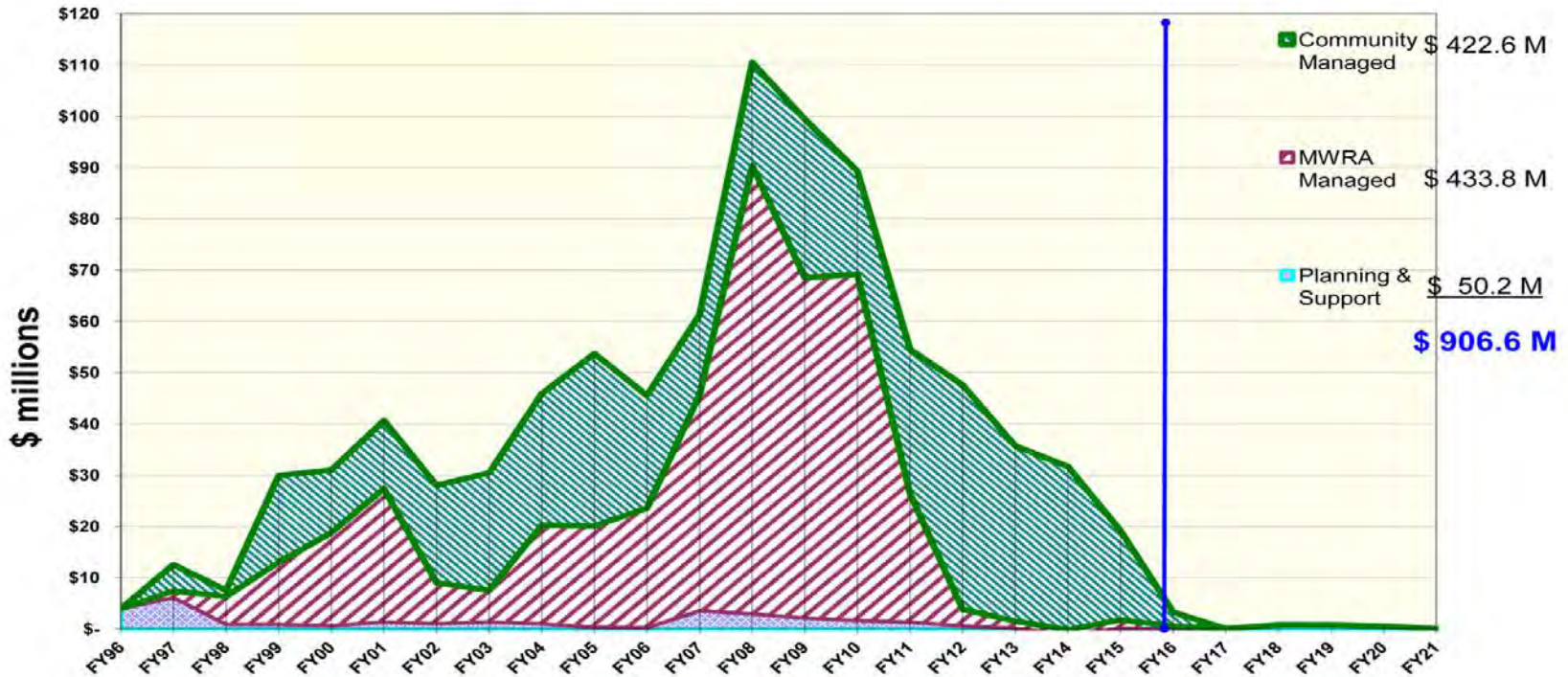
# Completed Projects





# MWRA CSO Capital Spending

## MWRA CSO Program Capital Budget



**\$891.2 million spent to date. Remaining spending of \$15.4 million for surface restorations, contract close-outs and CSO performance assessment thru 2020.**



# Spot Pond Covered Storage Facility and Pump Station





# Deer Island – North Main Pump Station VFDs and Motors





# FY17 Big Spenders



# Big Spenders in FY17

- ✓ Section 89/29
- ✓ North Main Valve Replacement
- ✓ Wachusett PS
- ✓ Alewife Brook PS
- ✓ Chelsea Creek





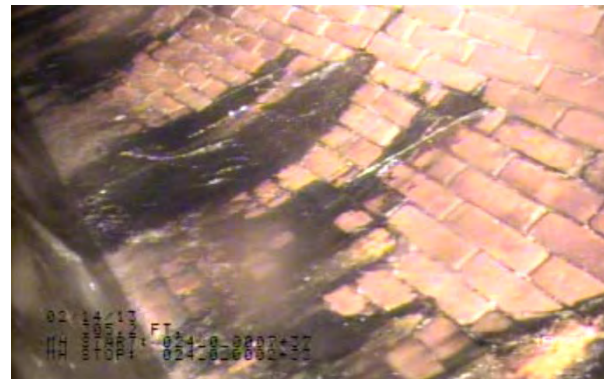
# FY17 Proposed CIP – What is New?



## Southern Extra High



## Cambridge Sewer Branch





# Acceleration of Shaft 12, Shaft 2 and Winsor Power Station







- ✓ Further presentations to the Board on Redundancy options;
- ✓ Work with the Advisory Board;
- ✓ Affordability; and
- ✓ Reach a decision by June 2016.



**MWRA Fiscal Year 2017  
Proposed  
Current Expense Budget**



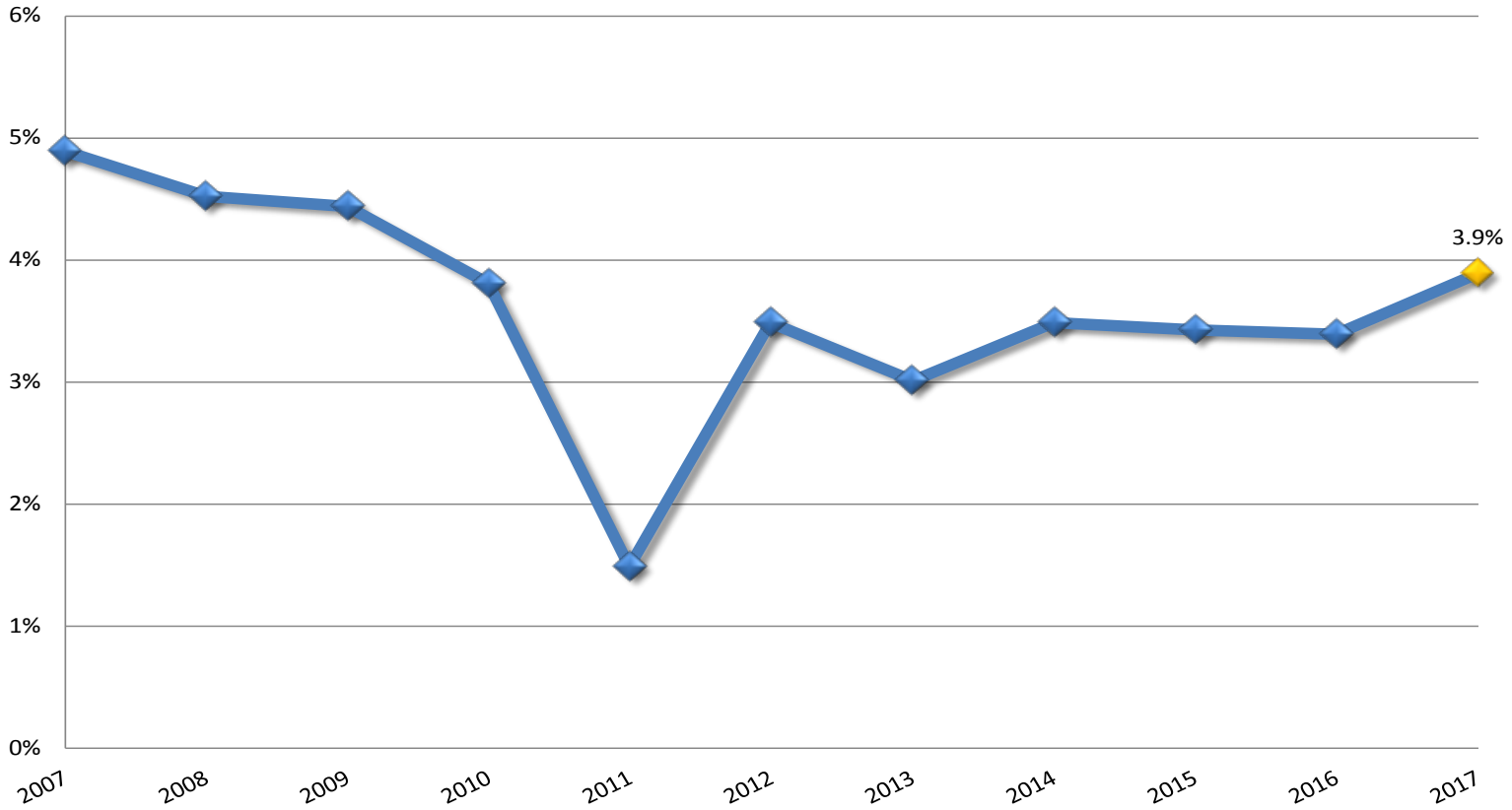
***“Sustainable and Predictable”***



- Continue to deliver on the mission;
- Manage long-term goals; and
- Address for the first time smoothing of assessments at the utility level



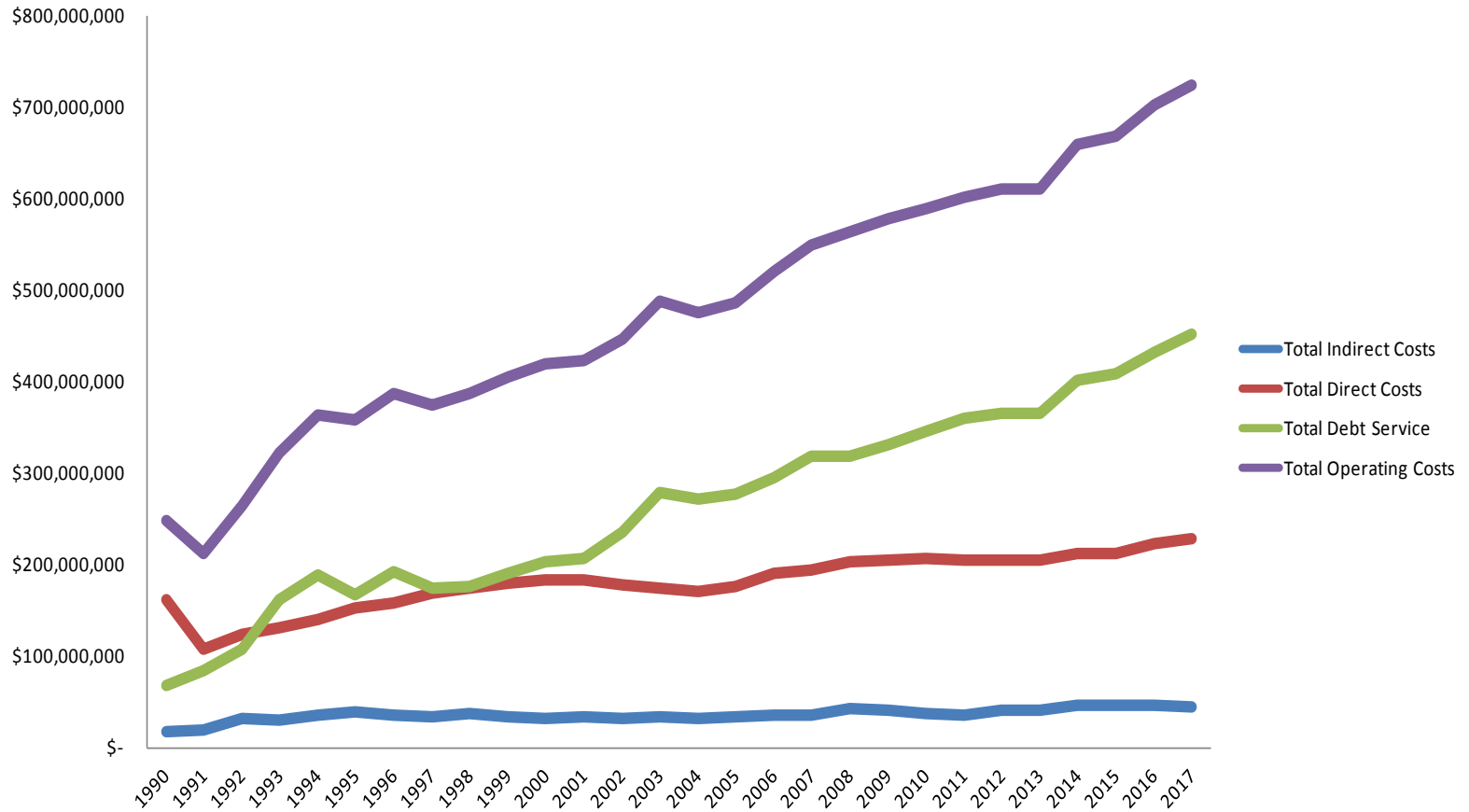
**Assessment History  
2007 - 2017**





# Historical Spending Chart

## Major Budget Elements



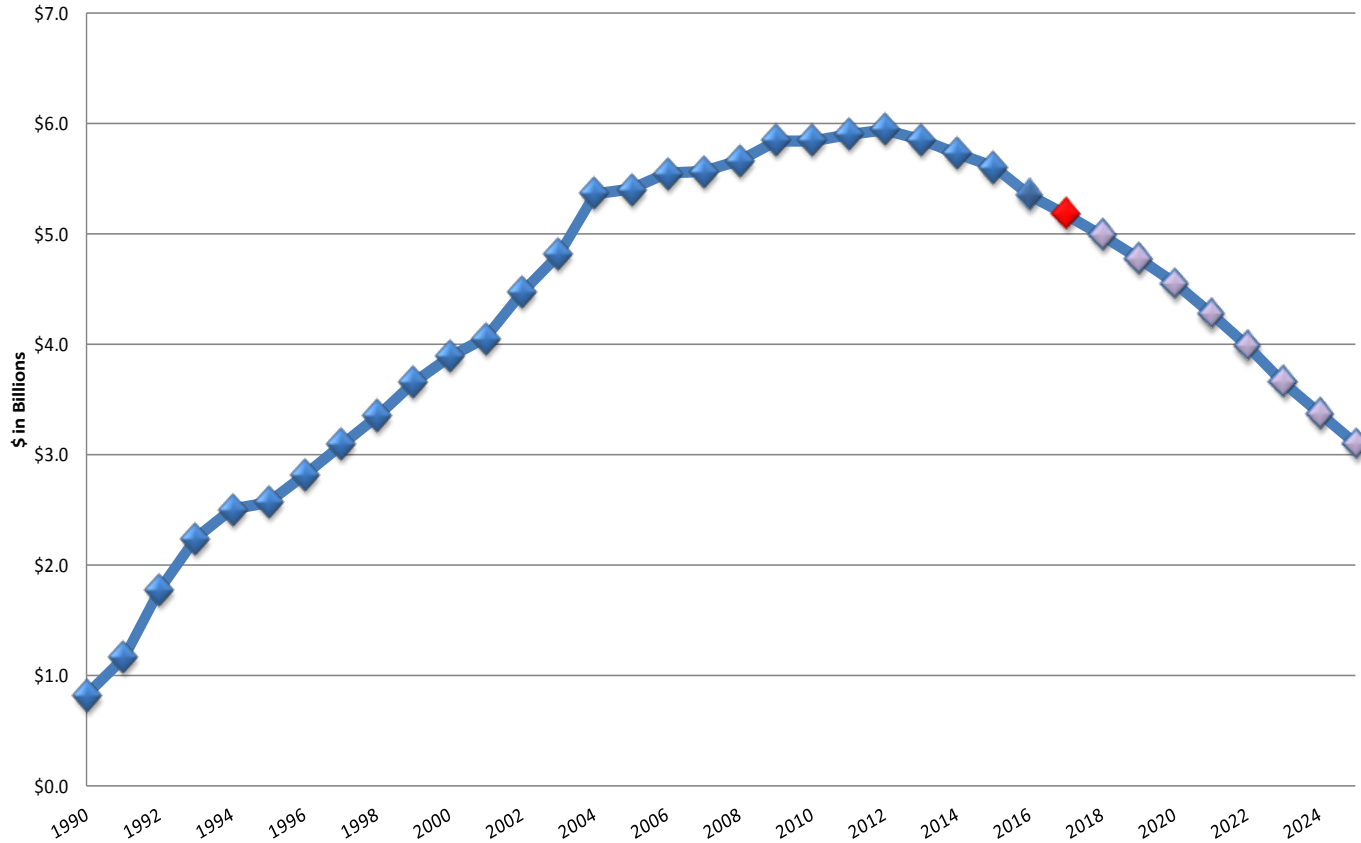


- Manage Debt;
- Continue to address major liabilities;
- Changing market conditions;
- Controlling expenses; and,
- System expansion



# Outstanding Debt

## Outstanding Debt History 1990 - 2025

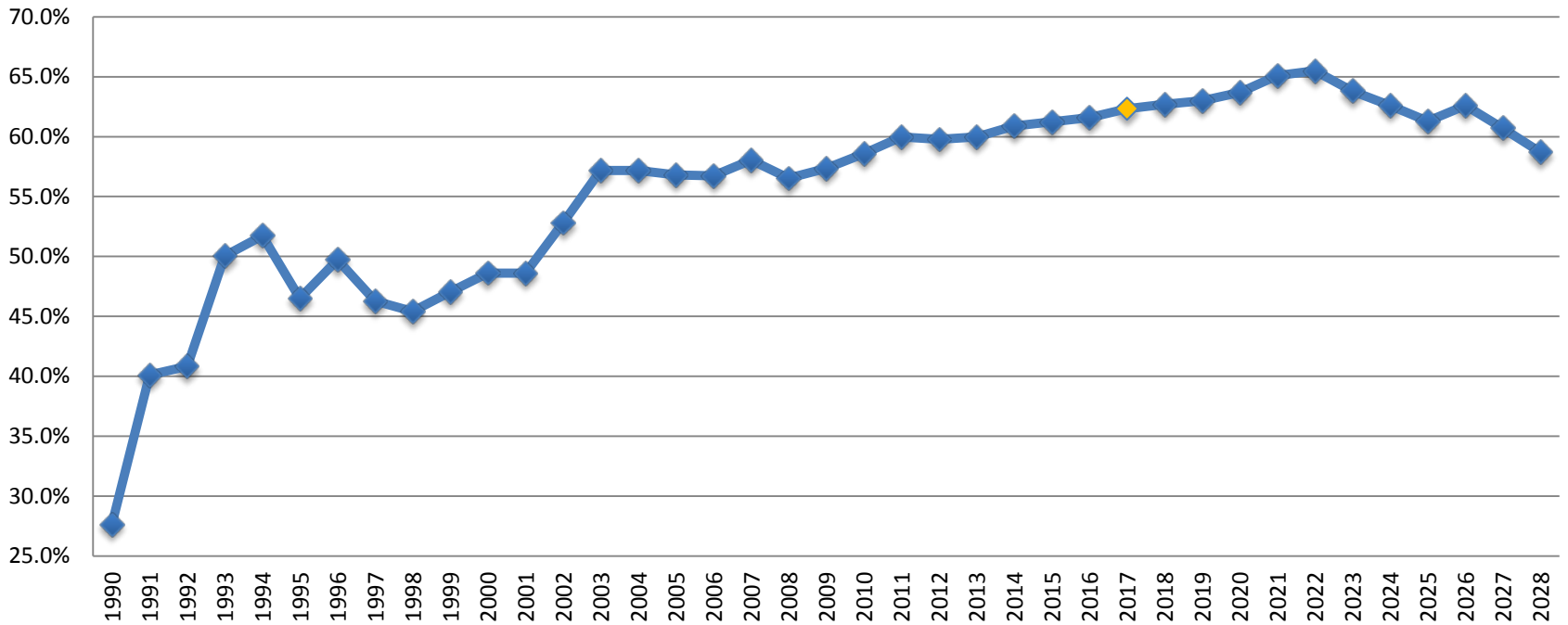






# Debt % is growing – peaking in 2022

## Debt Service as % of Total Budget





### Ways to address the Debt Service challenge

- Defeasance
- Use of Reserves
  - Rate Stabilization Fund
  - Bond Redemption Fund
- Tactical Issuance – Repayment Structure
- Control Capital Spending
- Strategic use of Current Revenue/Capital funding



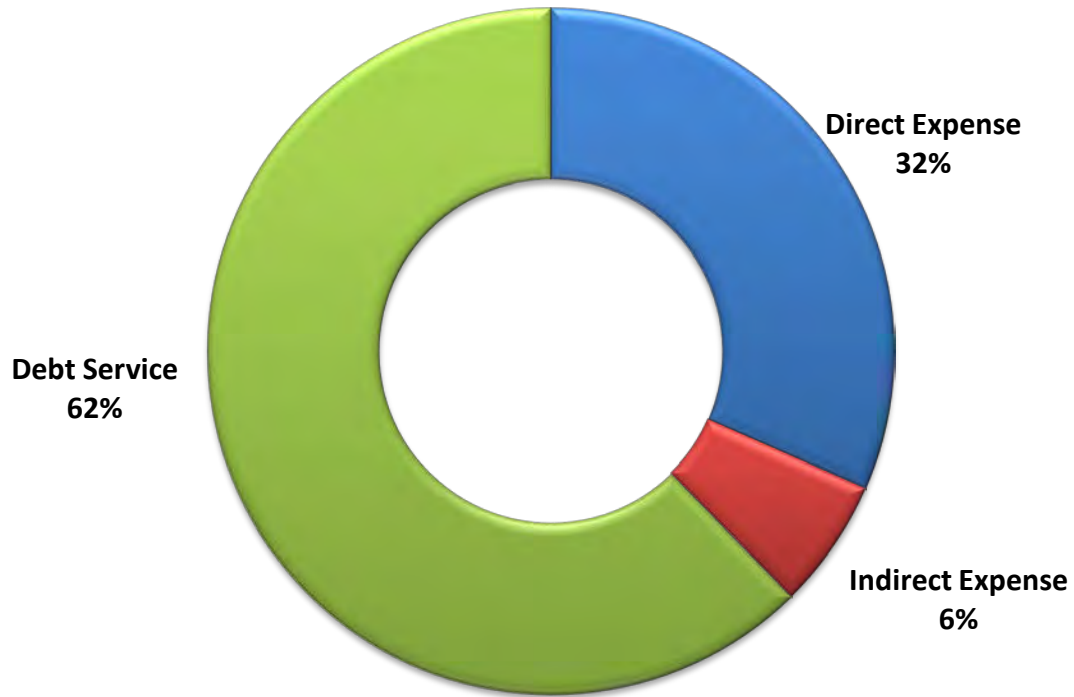


## CEB Budget Structure - continued

Direct Expense	\$228.6 M
Indirect Expense	\$44.2 M
Debt Service	\$451.4 M
Non-Rate Revenue	(\$25.50) M
Rate Revenue Requirement	<hr/> <u>\$698.7 M</u>

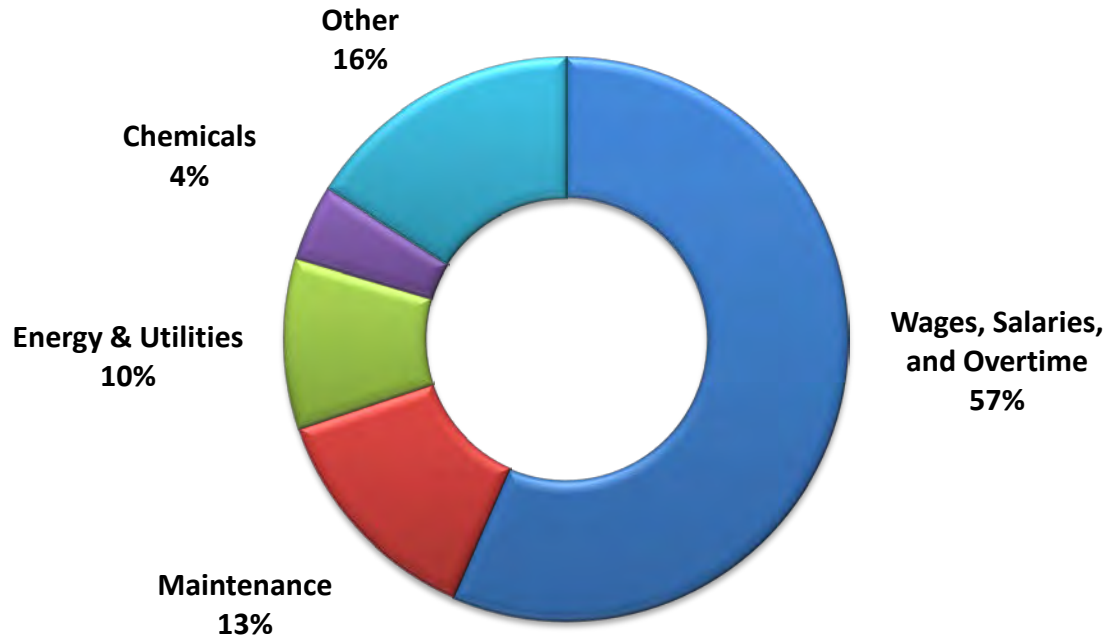


## FY17 Current Expense Budget





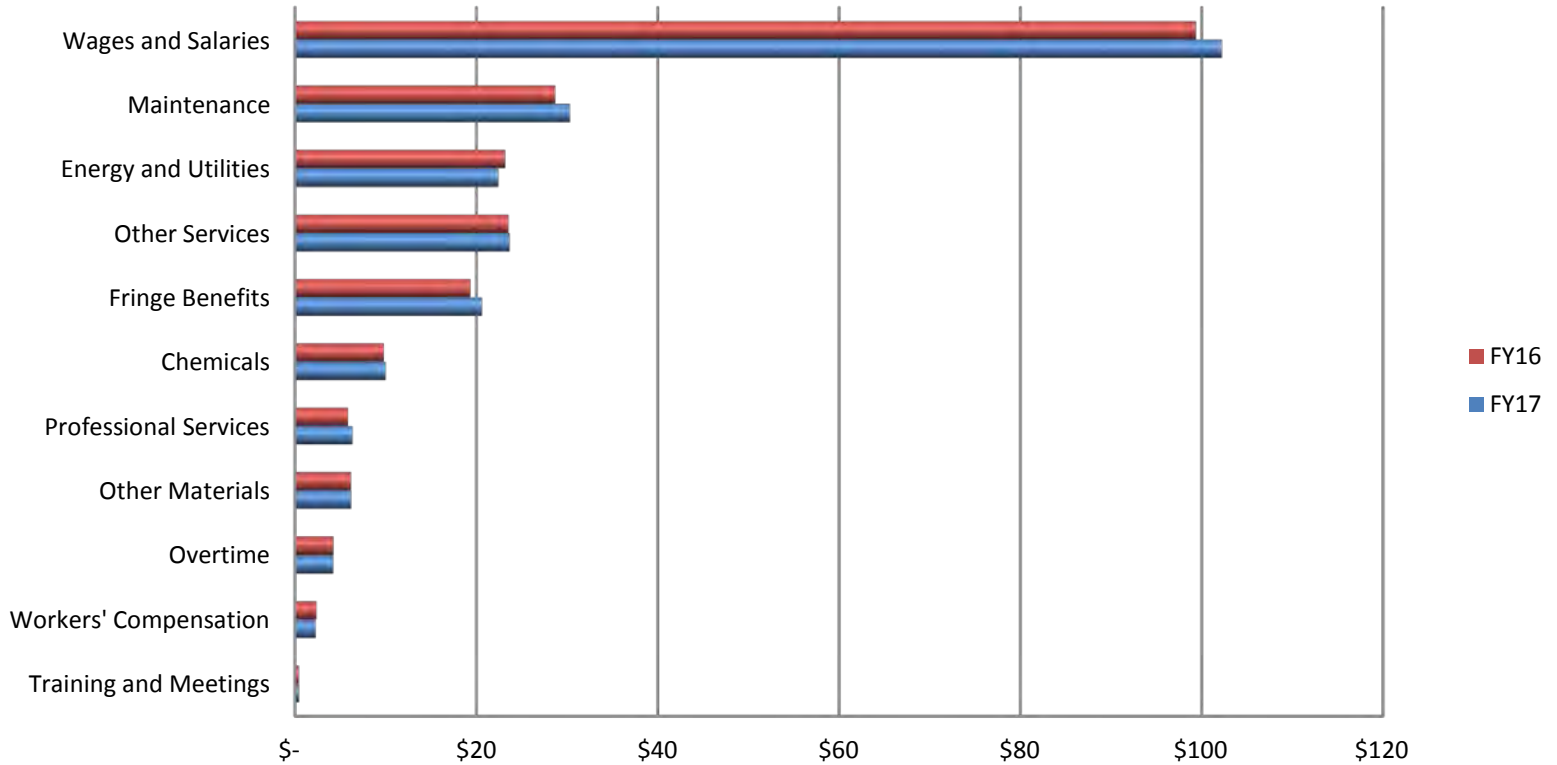
## Direct Expenses





# Direct Expenses Comparison

## Direct Expenses Comparison FY16 -FY17





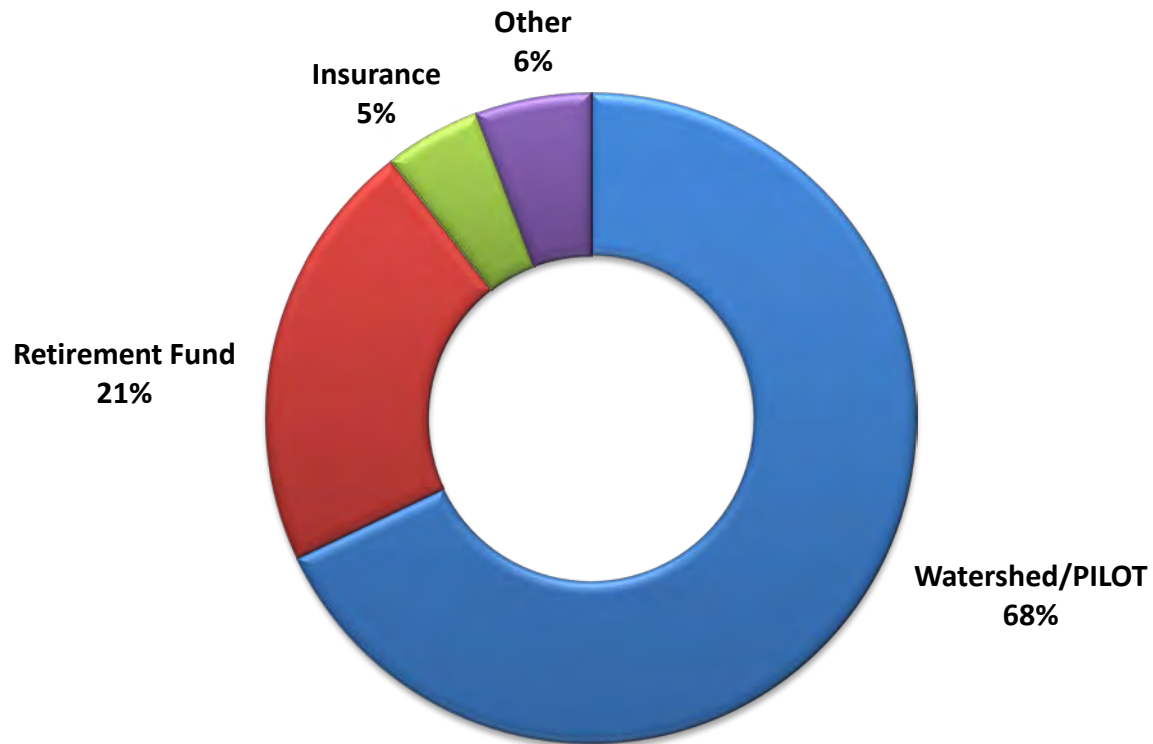
### Highlights – Direct Expenses

- Wages and Salaries \$102.2M – Budgeted FTE's: 1,155; 5 fewer than FY16;
- Maintenance \$30.3M – \$1.6 million above FY16;
- Utilities - \$22.4M – \$747,000;
- Other Services - \$23.7M – basically level funded to FY16; and
- Fringe Benefits of \$20.6M – \$1.3 million higher.





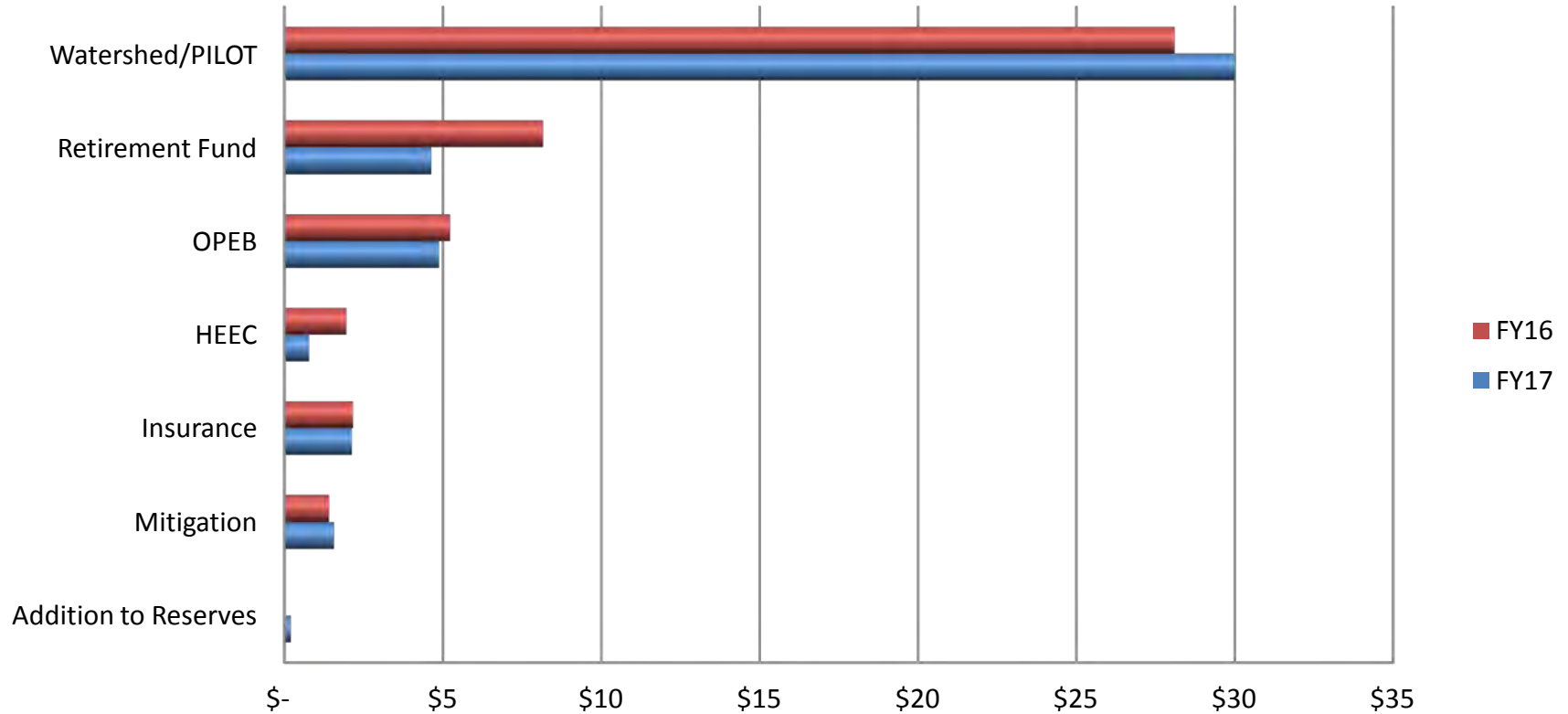
## Indirect Expenses





# Indirect Expenses Comparison

## Indirect Expenses Comparison FY16 -FY17



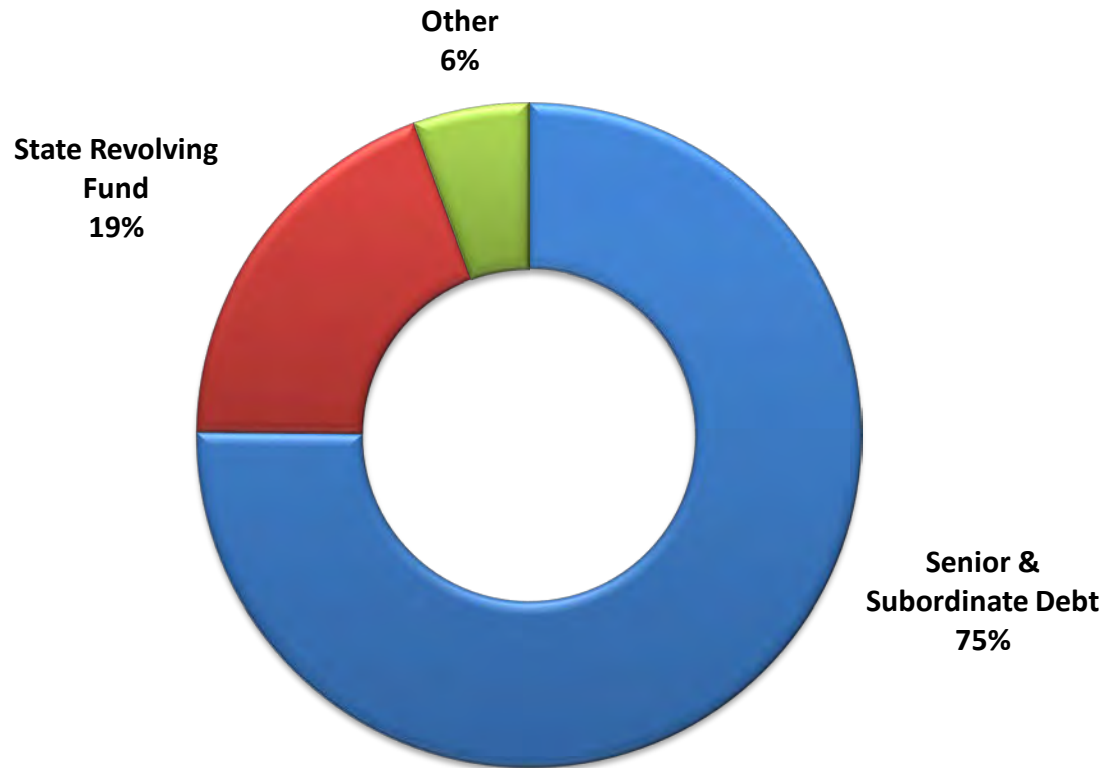


## Highlights – Indirect Expenses

- Watershed Program for operating, PILOT and debt \$30.0M;
- Pension Fund required contribution \$3.1M plus an additional \$1.5M contribution;
- OPEB \$4.9M;
- Insurance, level funded at \$2.2M;
- Mitigation \$1.6M; and
- HEEC contract \$0.8M.



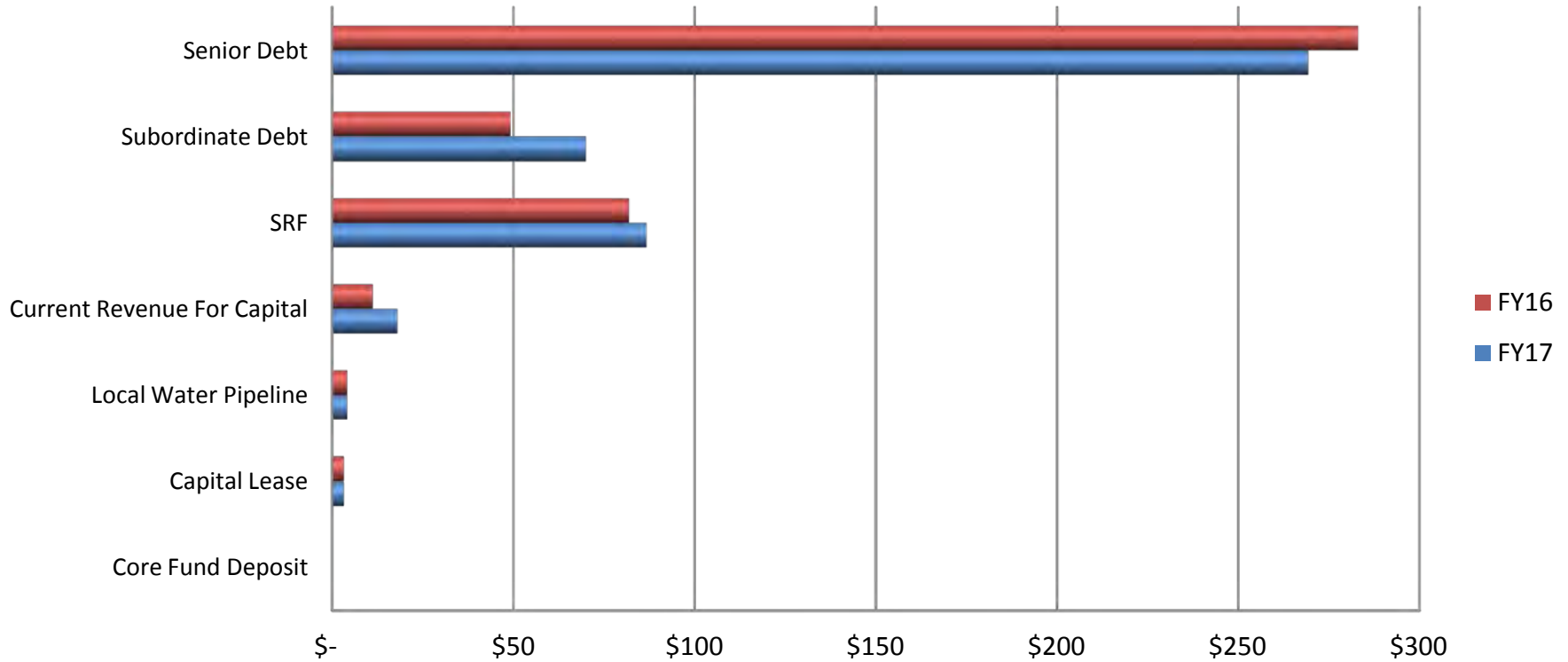
## Debt Service Expenses





# Debt Service Expenses Comparison

## Debt Services Expenses Comparison FY16 -FY17





## Highlights – Debt Service Expenses

- Variable Rate Debt Assumption 3.25%;
- \$25M defeasance built into the FY17 Budget;
- Increase commitment to Current Revenue for Capital; and
- No Debt Service Assistance.



## Revenue

- Non-Rate Revenue
  - Other User Charges
  - Other Revenue
- Investment Income



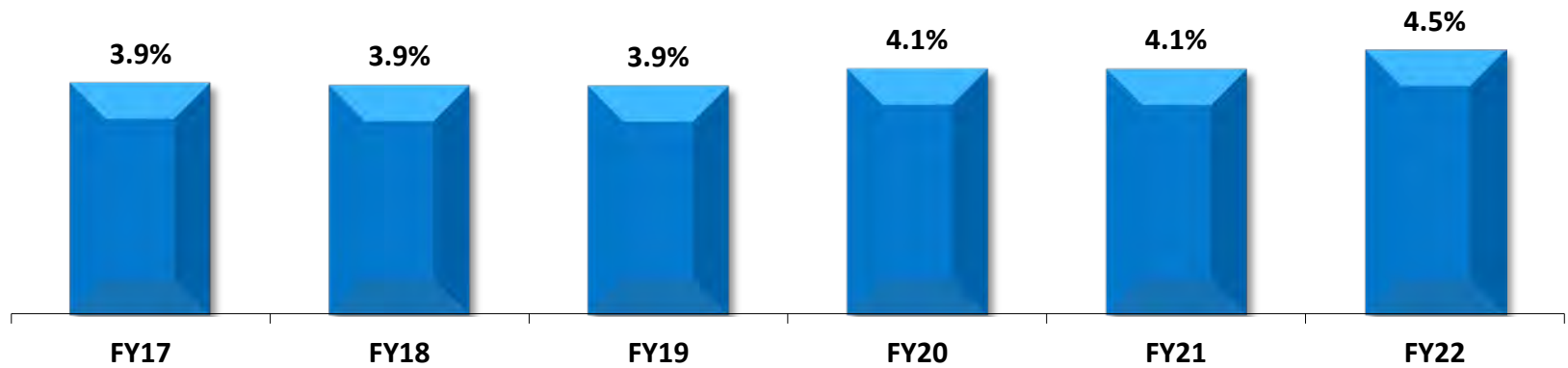
## Assumptions

- 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





## Forecasted Assessment Changes





## FY17 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