EAST BAY MUNICIPAL UTILITY DISTRICT

Long-Term Financial Stability Workshop 6 Capstone

Board of Directors

January 13, 2015

Overview

- Introduction
- Review of key workshop topics
- Policy considerations and the upcoming budget

Introduction

Background

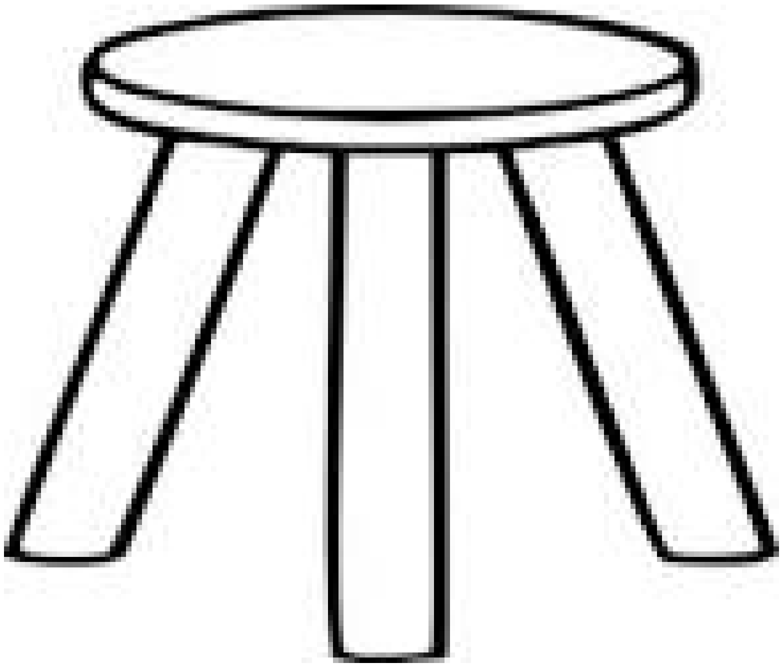
EBMUD

- Since 2007, supply conditions compounded by historic recession drove a focus on short-term cost containment
- FY14 & FY15 budget shifted focus to long-term needs
  - Invest in capital, restore O&M, base on more conservative assumptions
- Changing organizational focus
  - Prior two decades—investments in seismic reliability, supply diversification, and supplemental supply infrastructure
  - Next decade—investments in renewal/replacement of existing assets, and the integration, operation, and funding of supplemental supplies
- Re-evaluate strategic financial plans in light of changed conditions

Long-Term Financial Stability Workshop Objectives

- Update strategic plan goal—Long-Term Financial Stability
- Provide education and enhance transparency of financial issues
- Re-evaluate key financial policies
- Provide longer-term visibility into rates and charges
- Serve as a foundation for upcoming biennial budget

Long-Term Financial Stability



Revenue Requirement

- O&M costs
- Capital costs
- Debt service
- Financial policies

Cost of Service

- Allocate costs to customer classes based on usage characteristics

Rate Design

- Recovering costs from customers

Long Term Financial Stability Workshop Series

Workshop 1 *Introduction*	Workshop 2 *Reserves*	Workshop 3 *Drought Rates*	Workshop 4 *Capital Plan*	Workshop 5 *Rates*	Workshop 6 *Capstone*
• Strategic Plan Update • Review Financial Planning Model • How policies drive revenue requirements	• Demand projections and variability • Funding drought costs • Fixed/variable revenues • Review/evaluate reserve policies	• EBMUD drought rate history • Alternative drought rate structures • Pros/cons of alternative drought rate structures	• CIP Projections • Review/evaluate capital investment policies • CIP funding: debt vs. cash • Debt Service Coverage Ratios • Seismic Improvement program	• Develop Financial Forecast based on Workshops 1-3 • Review preliminary results of Cost of Service study	• Review key workshop topics • Sensitivity analyses – balancing policies and rates.

Review of key workshop topics

Strategic Plan

Goals
Long-Term Water Supply
Water Quality & Environmental Protection
Long-Term Infrastructure Investment
Long-Term Financial Stability
Customer Service
Workforce Planning & Development

- Initiated 2004
- Last updated 2014
- Next update 2017

Clarified and Consolidated Strategies

	Adopted	Former
Strategy 1	**Develop a Long-Range Financing Plan that sets forth the long-term funding needs of the District**	Ensure Sufficient Revenues to cover the District's needs
Strategy 2	**Implement water and wastewater rates and charges that are legal, fair, and equitable**	Maintain a strong financial position to meet short and long-term needs
Strategy 3	**Ensure Integrity, accountability and transparency in financial management**	Maintain the integrity of District financial systems
Strategy 4	**Implement new technologies that improve the efficiency and effectiveness of business processes**	Make the best use of every dollar spent
Strategy 5	**N/A**	Evaluate and implement technologies that lower cost and/or improve service

How the Financial Model Works

- Revenue Requirement from Rates & Charges based on assumptions and financial policies

\+ Operating Expenditures

\+ Debt Service Payments

\+ PAYGO Capital Expenditures

\- Non-Rate Revenues

= Revenue Requirement from Rates & Charges

Policies Drive Revenue Requirements

- Debt/PAYGO funding of capital plan
  - no more than 65% debt funding over 5-year period
- Debt Service Coverage Ratio (DSCR)
  - at least 1.60 x coverage
- Reserve level targets for each reserve type
  - working capital,
  - self-insurance,
  - workers compensation,
  - contingency/rate stabilization

Capital Financing Mix

	Debt Funding	"Pay-As You Go" or Cash Funding
Description	• Issue bonds to pay project costs and repay principal with interest over 30 years	• Pay project costs out of current year revenues
Typical use	• Large, "one-time" projects • Spread cost over current and future customers • Urgent project need	• Replacement and reconstruction costs are regular and predictable
Consider-ations	• Higher total cost; interest doubles the cost; mitigates near-term rate impact • Leverage reduces future financial flexibility	• Lower total cost; more funding for capital projects; near-term rate impact • PAYGO increases future financial flexibility

Revenue Requirement Impact

- Capital project costs increase Revenue Requirement differently, depending on funding—Debt (over time), PAYGO (current year)

$10 million Capital Project

	Total Cost	Recoverd Over	Annual Cost
PAYGO	$10 MM	1 year	$10 MM
Debt	$19 MM	30 years	$632,000

\+ Operating Expenditures

\+ Debt Service Payments ⟵ *$632,000*

\+ PAYGO Capital Expenditures ⟵ *$10 million*

\- Non-Rate Revenues

= Revenue Requirement from Rates & Charges

Debt Service Coverage Ratio (DSCR)

- Bond Indenture establishes a pledge of "Net Revenues" as security to bondholders and sets forth a priority of payments

+	Operating Revenues
-	Operating Expenditures
=	Net Revenues
-	Debt Service
-	Rate-Funded Capital*

DSCR Definition

$$\frac{\text{Net Revenues}}{\text{Debt Service}}$$

- Measures ability to meet debt service payments from current year revenues
- Primary financial metric and indicator of financial sustainability

*Or other legal use such as reserves

Reserves

- Unrestricted District cash is pooled by system
- Policy 4.02 allocates unrestricted cash to reserves
  - Established in 1984 revised in 1994, 2000, 2004
- Remainder is reserve for capital projects

Reserve	Definition
Working Capital	3 month's O&M
Self Insurance	125% estimated claims
Workers Compensation	Estimated annual claims
Contingency & Rate Stabilization • Water • Wastewater	 20% volume revenues 5% O&M expense
Capital Projects	Remaining Amount

Looked at Sizing Reserves based on Major Risk—Drought

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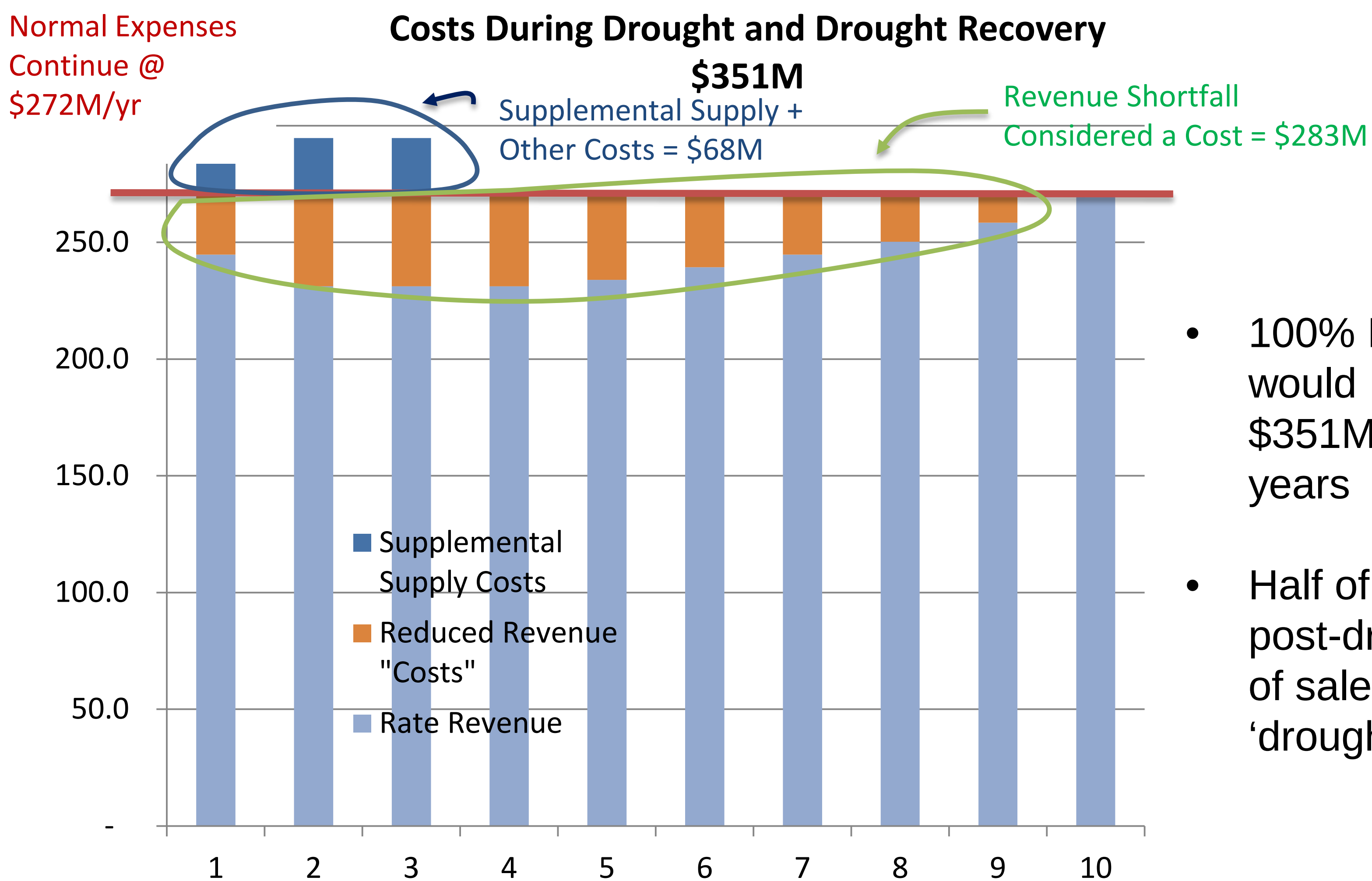
Drought Management Tools

Supply/Demand Tools	Financial Tools
• Voluntary conservation • Supplemental supplies (CVP, Placer, other) • Mandatory conservation	• Rate Stabilization Fund (RSF) • Rates -Supplemental Supply Surcharge -Drought rates

Financial Impact of Drought

Impact by Year



- 100% RSF funding would require $351M over 10 years
- Half of costs are post-drought loss of sales due to 'drought tail'

Financial Tools

Short-Term and Long-Term Considerations

Short-Term

- Depending on severity and duration of drought, current RSF may not be sufficient to meet needs
- Deploy additional tools
  - Supplemental Supply Surcharge in FY15
  - Develop drought rates for FY16 and FY17

Long-Term

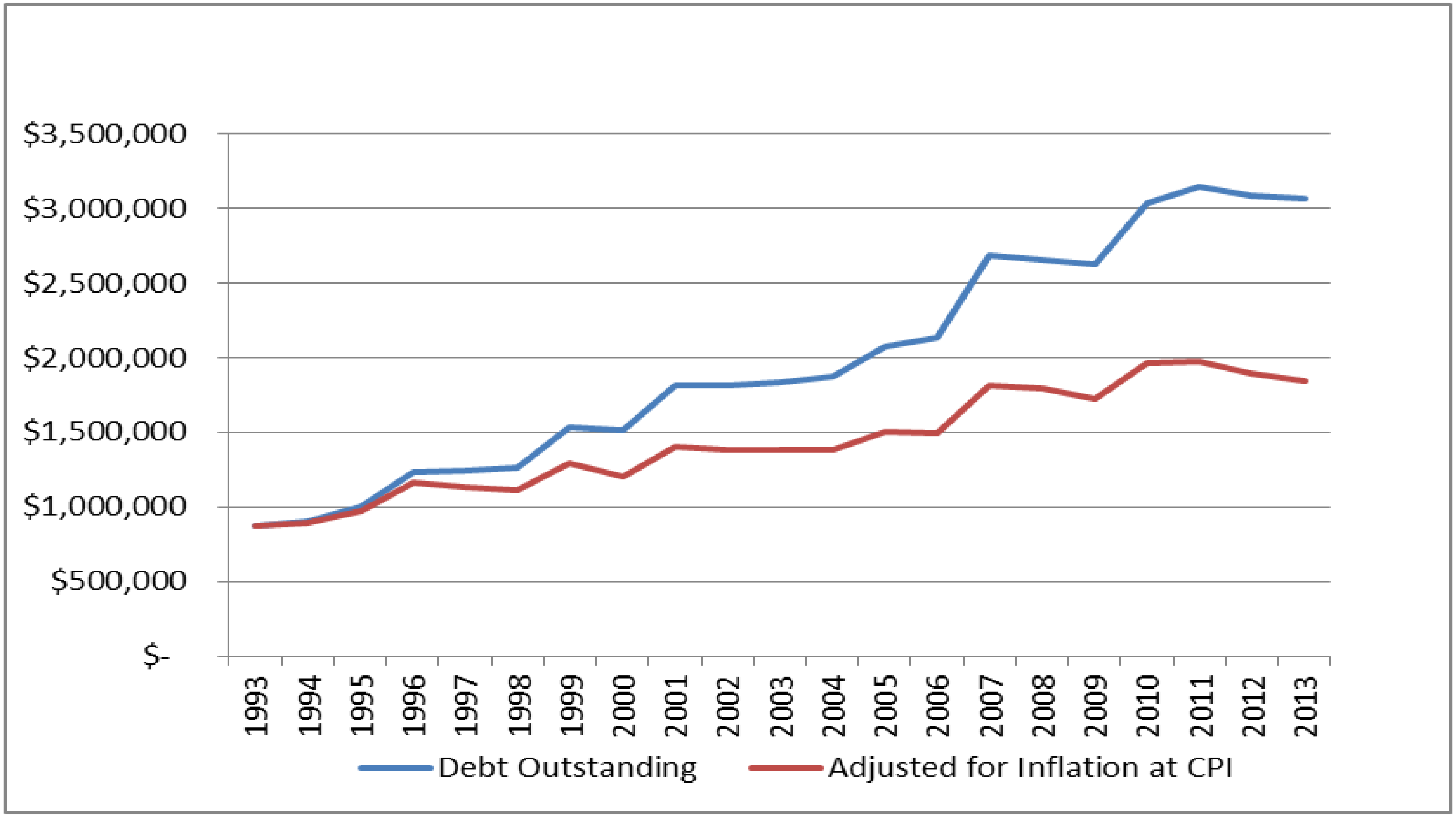
- RSF not sized to handle a multi-year drought event
- Supplemental Supply Surcharge may inhibit optimal water supply decisions
- A larger RSF could
  - Help manage through a multi-year event
  - Support optimal water supply decisions
  - Mitigate volatility in drought rates

Looked at Debt-Related Policies

- Debt/PAYGO funding of capital plan
  - No more than 65% debt funding over 5-year period
- Debt Service Coverage Ratio (DSCR)
  - At least 1.60 x coverage

History of EBMUD Outstanding Debt

Total District debt has grown over the past 20 years from $0.8 billion to $3.1 billion



Debt-Related Financial Ratios

	Debt Ratio	Debt Service Coverage Ratio	Debt Per Capita
Definition	Outstanding Debt / Net Capital Assets	Net Revenue / Senior Debt Service	Outstanding Debt / Service Area Population
Indicates	Degree of leverage	Revenue available to pay debt service	Debt affordability
AAA Median*	25%	2.75	$393
EBMUD Water	69%	1.71	$1,907**
EBMUD Wastewater	61%	1.59	$743**

**Median Debt Ratio and DSCR, Moody's FY13, Median Debt per Capita FY12 Fitch*
***EBMUD Debt per Capita from Fitch FY12 report*

Debt-Related Financial Ratios—Water Agencies

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	Debt Ratio	Debt Service Coverage Ratio	Debt Per Capita
EBMUD—Water	**69%**	**1.71**	**$1,907**
SFPUC Water Enterprise	82%	2.14	$1,780
San Diego Co Water	62%	1.69	$770
LADWP	61%	2.11	$852
Metropolitan Water District	44%	2.71	$249
CCWD	37%	1.34	$1,229
Santa Clara Valley Water	22%	3.68	$202
ACWD	14%	4.19	$187
Median – Aaa	**25%**	**2.75**	**$393**
Median – Aa1	**33%**	**1.99**	**$691**

Source - Median Debt Ratio and DSCR, Moody's FY13, Median Debt per Capita FY12 Fitch or Agency CAFR

Debt-Related Policy Considerations

- Financial metrics require context
  - District ratings higher than metrics would indicate
  - Not unlike other large urban agencies
- No “right answer” for debt policies
- Future CIP suggests higher PAYGO funding and higher DSCR
  - Focus on replacement and rehabilitation
  - District costs are a large share of capital spending
- Phase in policy targets over time

Sunset of Seismic Improvement Program Charge

- 1994 SIP charge will collect sufficient revenue and ahead of schedule - FY16
- Sunset of fixed SIP charge ($25M/yr) impacts fixed/variable water revenue mix

Alternative	Description/Impacts
Continue SIP surcharge	• Add more projects to SIP • Continue to collect SIP surcharge until cost of additional projects is recovered
Replace SIP surcharge	• Sunset SIP surcharge • As part of FY16 COS update propose a fixed Infrastructure Renewal Charge to fund increased infrastructure rehab spending • Maintain or increase level of fixed revenues
Build revenues into future rates	• SIP discontinued and revenue loss replaced in future rates • Percent of revenue collected on fixed/variable is significant

Water Cost of Service Study

- Modified private fire cost allocation
- Confirmed elevation charge
- Established recycled water cost allocation
- Confirmed SFR tier break points
- Established cost of service basis for SFR tiered rates
- Sunset of SIP - reviewed three fixed revenue alternatives
  - 20%
  - 26% - current
  - 30%

Comparative Residential Water Charges: Current, COS 26% Fixed, COS 30% Fixed

Annual Charges for 10CCF/Mo – Effective 12/1/14

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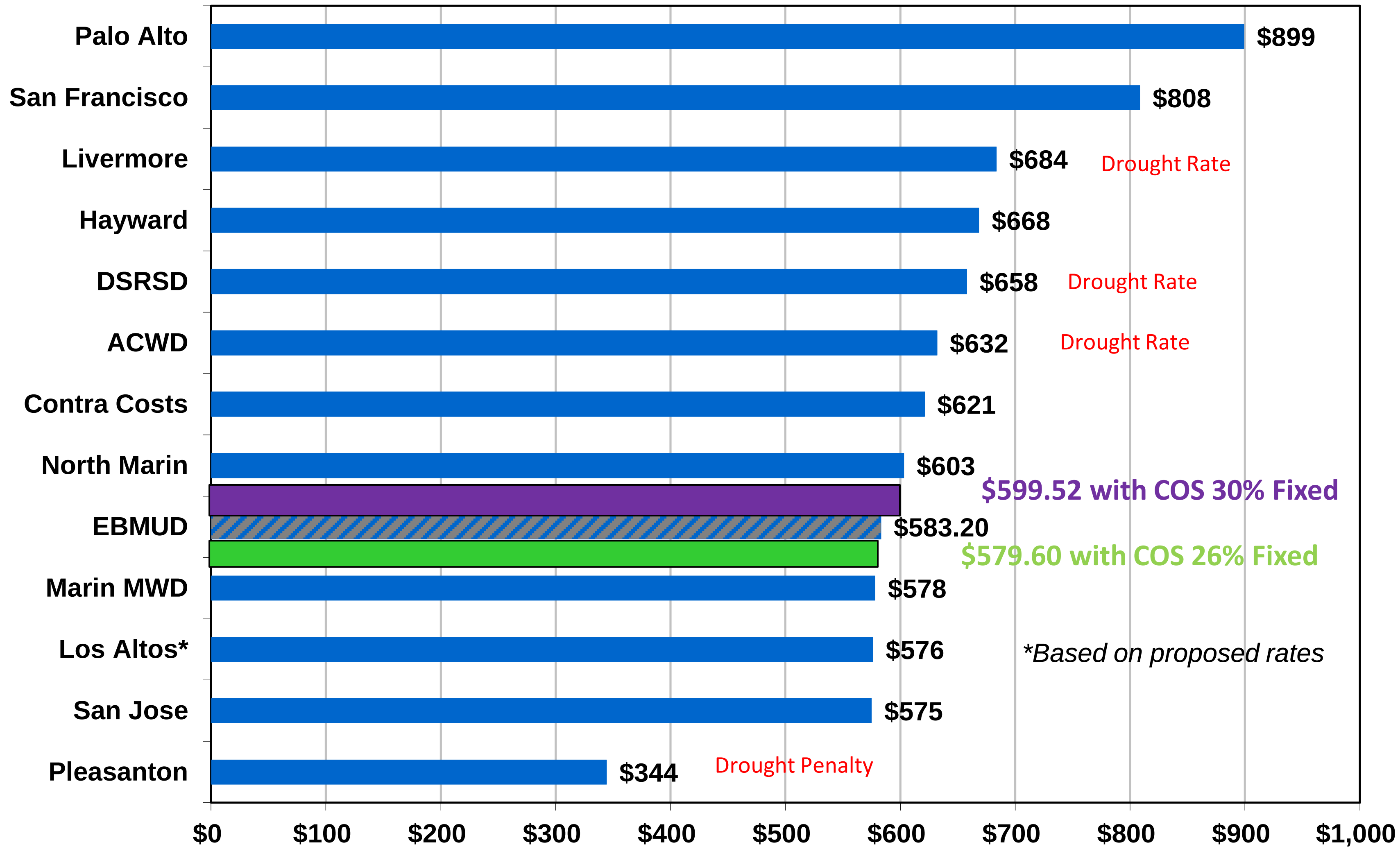

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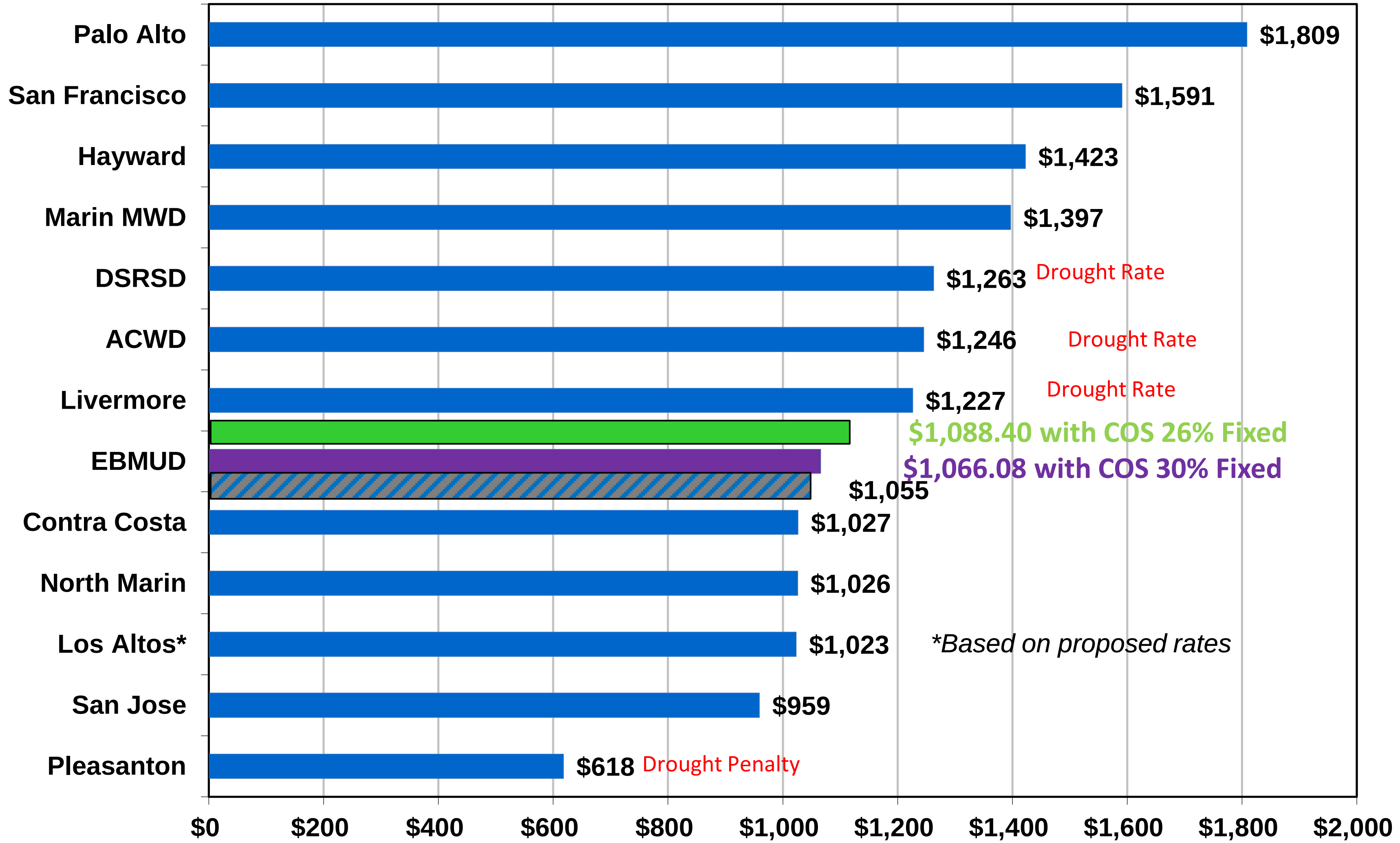
Annual Charges for 20CCF/Mo – Effective 12/1/14



Wastewater Cost of Service Study

- Treatment Charge
  - Modified domestic strength (residential and commercial) concentrations and average SFR wastewater flow to reflect reductions in flow seen at the plant
- Wet Weather Charge
  - Modified allocation of wet weather charge given program has shifted towards Infiltration/Inflow

Long Term Financial Stability Accomplishments

- Enhanced transparency and understanding of key financial issues
- Revised strategic plan to include (LRFP, COS, Transparency)
- Improved RSF mechanics to mitigate drought financial impact
- Developed a staged system of drought rates
- Decision regarding sunset of seismic charge
- Conducted and reviewed findings of two COS studies

Long Term Financial Stability—Open Issues

- Policy 4.02
  - Maximum 65% debt funding of capital plan
  - Minimum DSCR of 1.6x
  - Minimum reserve levels

    Rate Stabilization Funds

    - Water – 20% of annual volumetric revenue
    - Wastewater – 5% of annual O&M

Policy considerations and the upcoming budget

Where We Were—Prior Budget Financial Projections

	Adopted		Projected		
	FY14	FY15	FY16	FY17	FY18
Water	9.75%	9.5%	8.0%	7.0%	5.0%
Wastewater	9.0%	8.5%	5.0%	5.0%	5.0%

- Reduced water sales forecast
- Funded 47 additional positions in FY14
- Increased capital funding by $150M over 5 years
- Reduced debt funding of capital to 40% over 5 years
- Achieved 1.8 x DSCR by 2018

Where We Are Now—Balancing Changed Conditions

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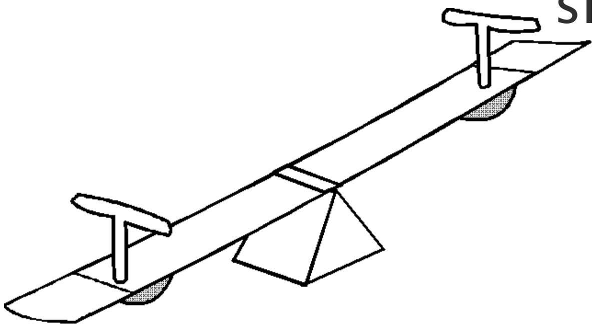
Upward Pressure

- Drought impacts
  - Reduced consumption
  - Supplemental supplies
- More information on infrastructure replacement
  - Distribution pipeline (10 to 40)
  - Other asset classes
- Address wastewater program requirements
  - Consent decree
  - Food waste
  - Nutrient regulation
- Address deferred IT investments

Downward Pressure

- Rate increases of past two years
- Debt refinancing has reduced out-year debt service
- Increased R2 revenues
- Economic growth in the service area
- Benefit cost increases slower than projected



Policy Considerations

Adopting more conservative policies such as:

- Increased levels of cash funding of capital
- Higher DSCR
- Higher reserve levels

can have significant rate impacts.

Understanding the Balancing Act

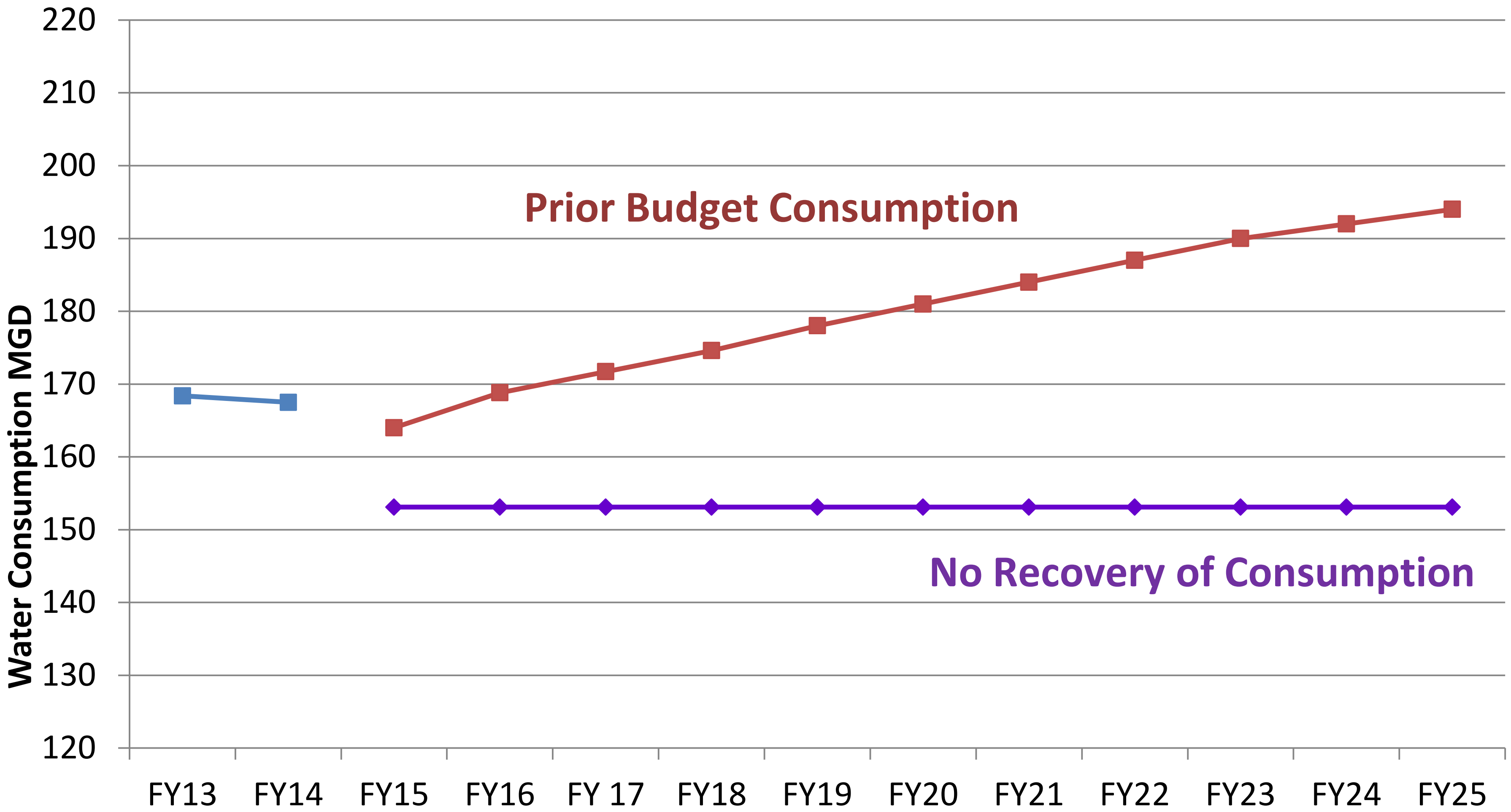
- In context of a significant reduction in water consumption from drought response
  - Continue to address operational needs and increased infrastructure investment; and
  - Make progress on financial policy goals

Sensitivity Analysis

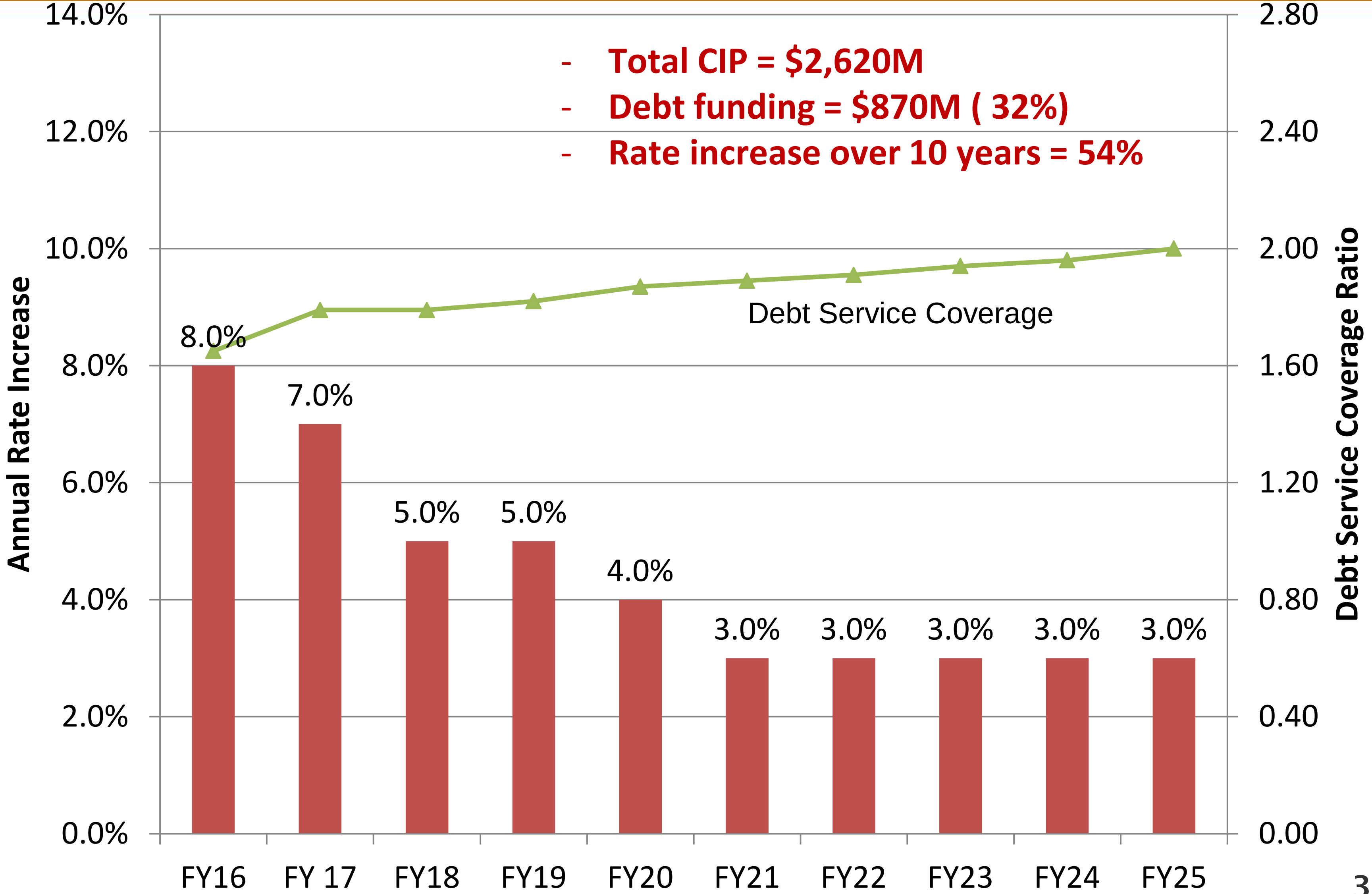
- Start with FY14/15 budget projections and extend to 10-years
- Review how rates and policy objectives are impacted by changing two key assumptions:
  - Water consumption
  - Increased capital spending

Note: Assumptions other than water consumption and capital spending remain the same as prior budget forecast.

Water Consumption – Most Significant Budget Variable



FY14/15 Budget Projections (Water)
Extended to 10 Years



FY14/15 Budget Projections (Water)
+ 25% Higher CIP

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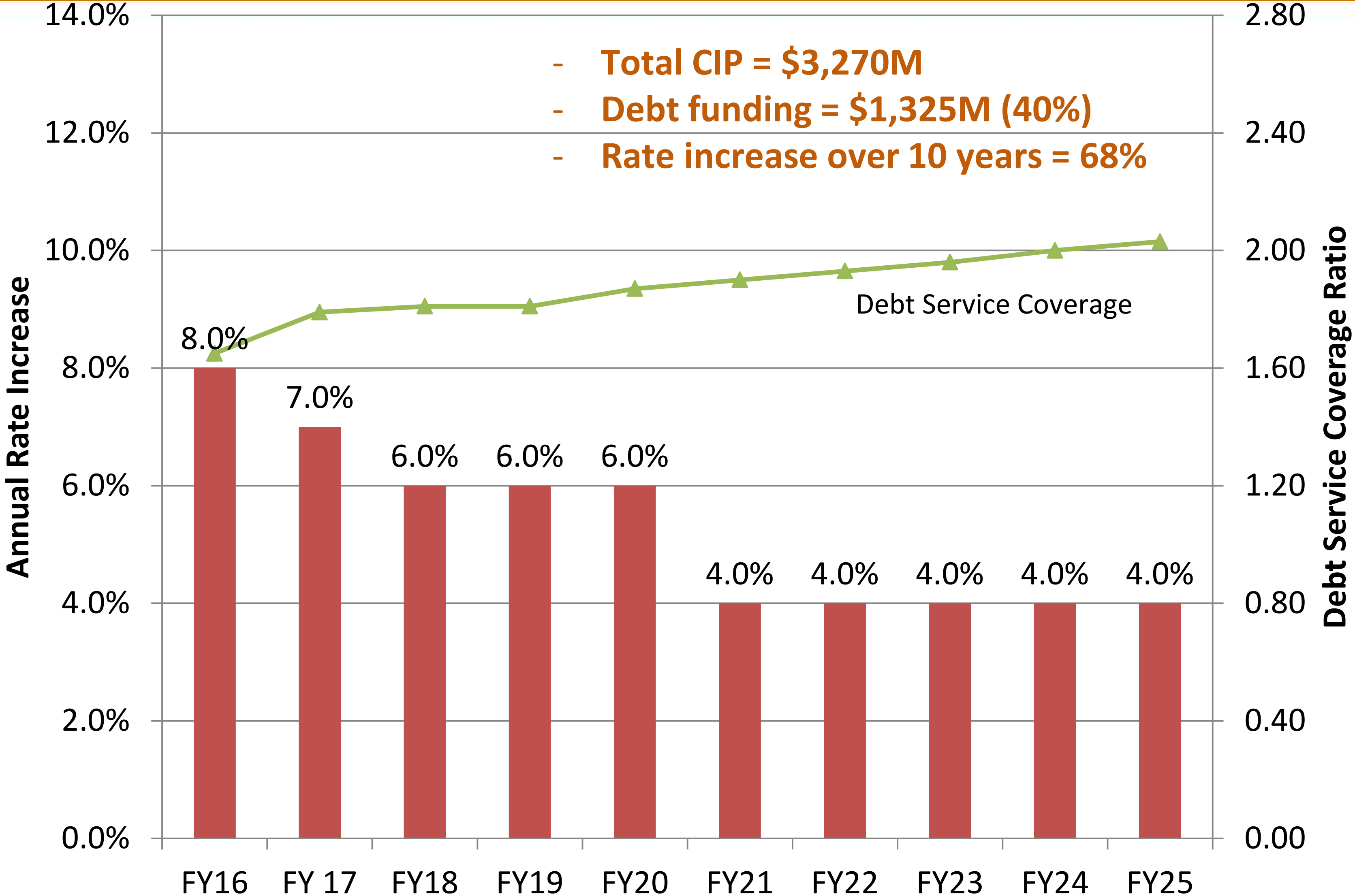
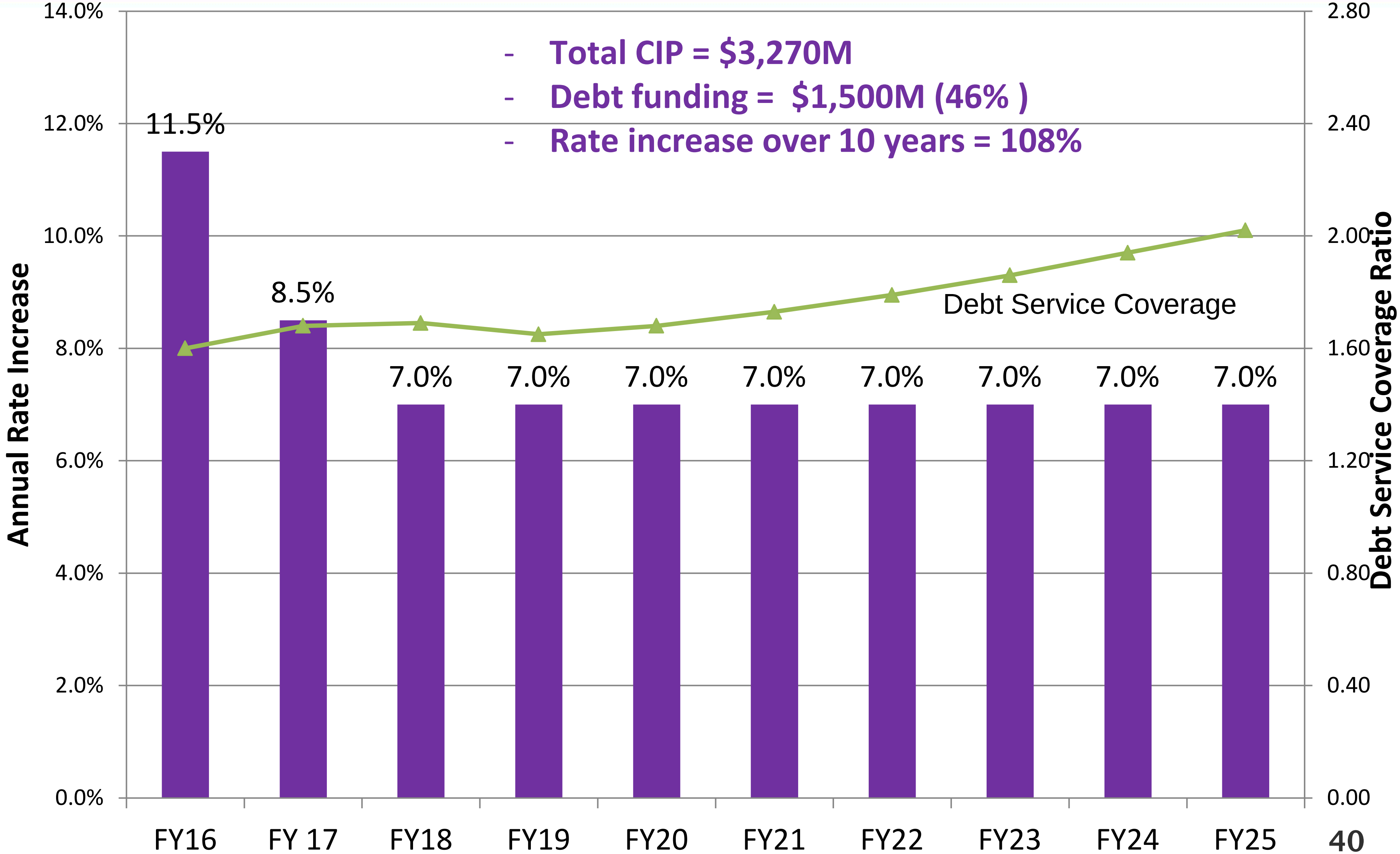


FY14/15 Budget Projections (Water)
+25% Higher CIP, No Consumption Recovery

EBMUD



FY14/15 Budget Projections (Wastewater)

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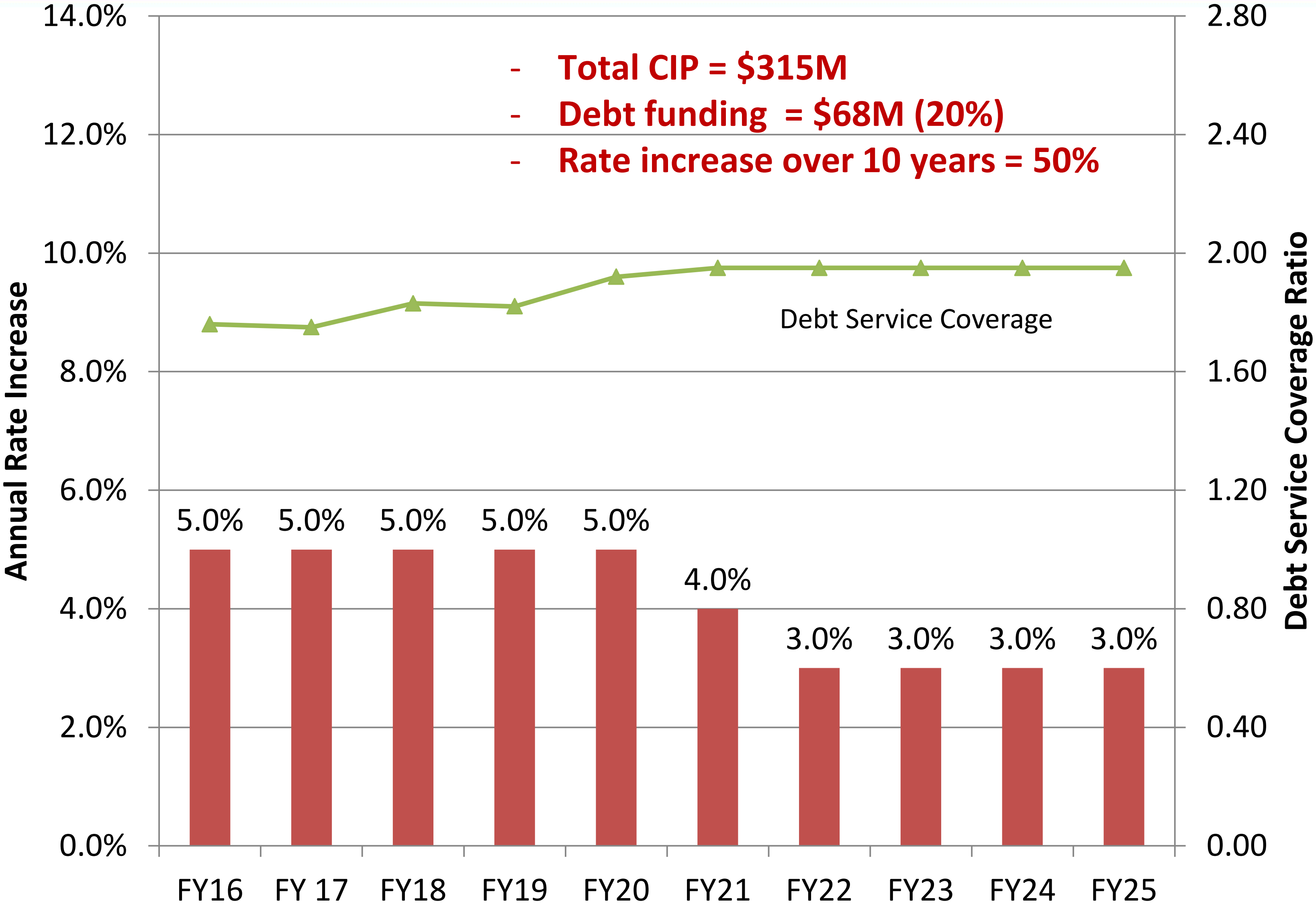

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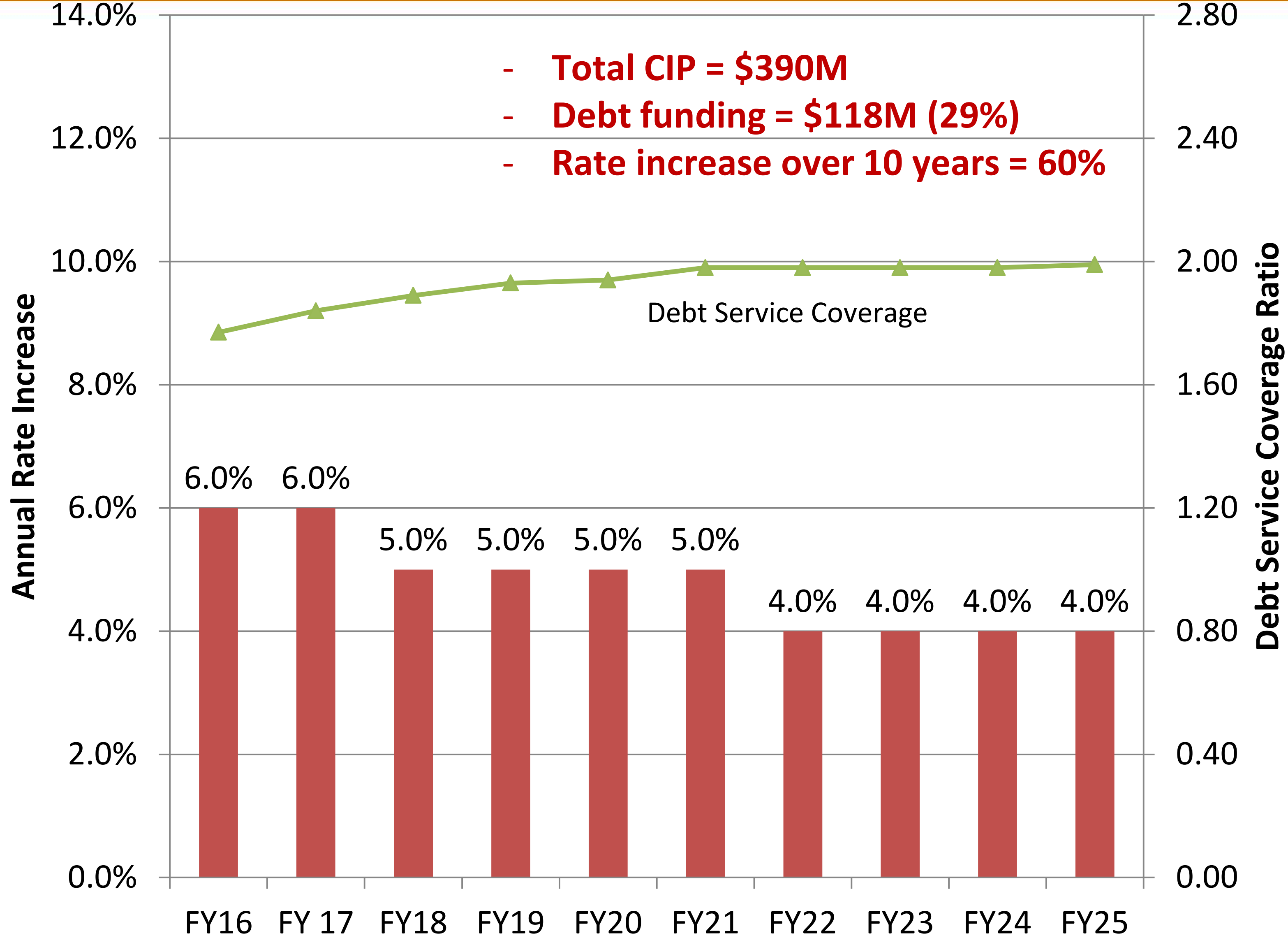
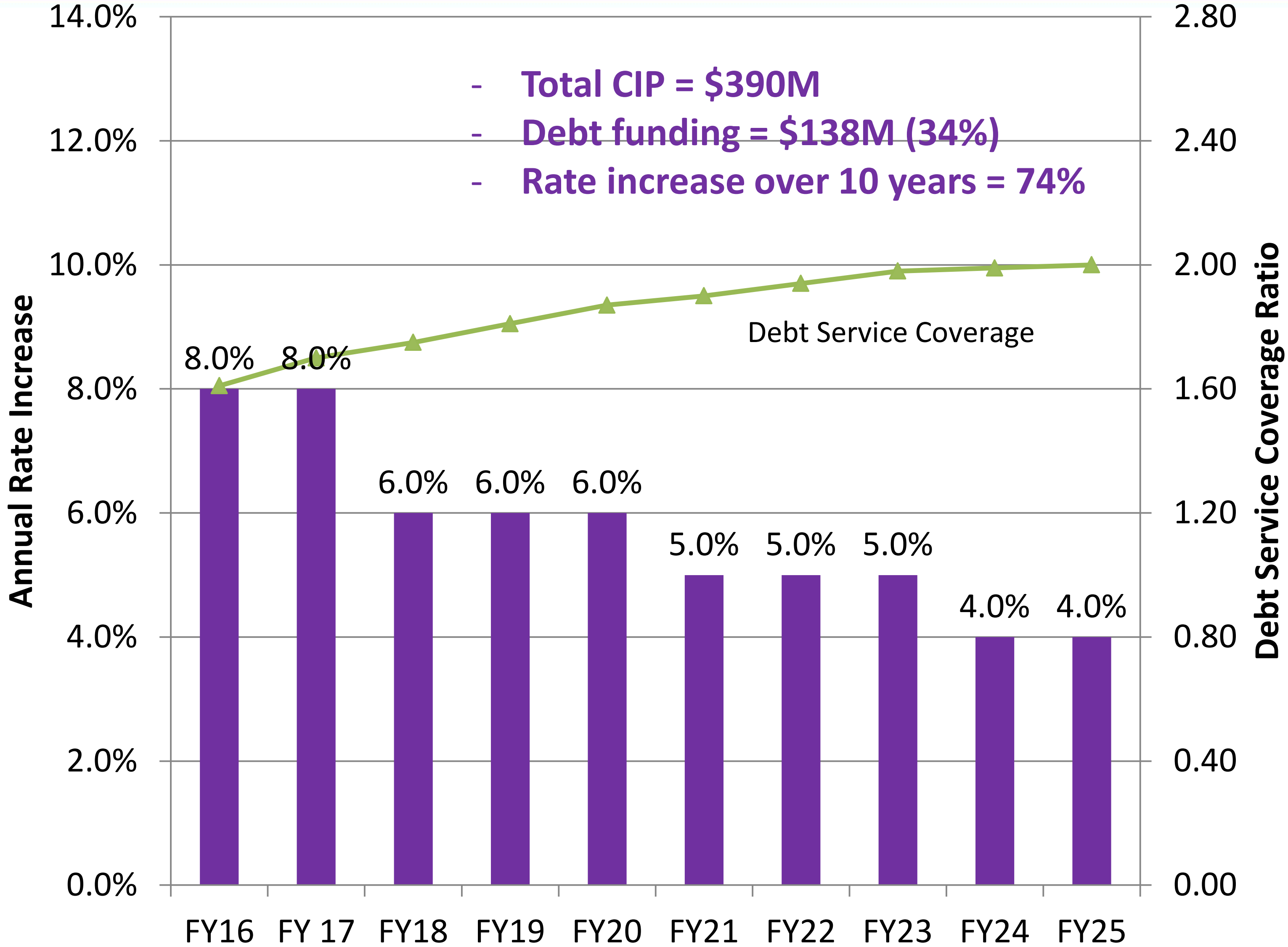


FY14/15 Budget Projections (Wastewater)
+25% Higher CIP, No Consumption Recovery



Sensitivity Analysis Conclusions

- Water consumption significantly impacts long term rates and charges
- Impact of capital spending can be mitigated by debt, but:
  - Requires higher long term rate increases
  - Leverage is an on-going credit consideration
- It is possible to achieve stronger financial metrics over time, but at a slower pace

Capstone Conclusions

- Have made significant progress on Long Term Financial Stability goals
- Existing financial policies allow for flexibility in addressing uncertainty
- Continue to plan for improving financial policy metrics over 10-year period
  - 2.0x coverage
  - 50% debt funding
  - Opportunistic deposits to RSF

Discussion