## NOTICE OF BOARD WORKSHOP

## OF THE

## **BOARD OF DIRECTORS**

**OF THE** 



## WILL BE HELD ON

## WEDNESDAY, SEPTEMBER 2, 2015

10:00 A.M.

AT THE OFFICE OF THE AGENCY 6075 KIMBALL AVENUE, BUILDING A, CHINO, CA 91761



## **AGENDA**

BOARD
WORKSHOP MEETING
OF THE
BOARD OF DIRECTORS

WEDNESDAY, SEPTEMBER 2, 2015 10:00 A.M.

INLAND EMPIRE UTILITIES AGENCY\*
AGENCY HEADQUARTERS
6075 KIMBALL AVENUE, BUILDING A
CHINO, CALIFORNIA 91710

## CALL TO ORDER OF THE INLAND EMPIRE UTILITIES AGENCY BOARD OF DIRECTORS MEETING

## **FLAG SALUTE**

## PUBLIC COMMENT

Members of the public may address the Board on any item that is within the jurisdiction of the Board; however, no action may be taken on any item not appearing on the agenda unless the action is otherwise authorized by Subdivision (b) of Section 54954.2 of the Government Code. Those persons wishing to address the Board on any matter, whether or not it appears on the agenda, are requested to complete and submit to the Board Secretary a "Request to Speak" form, which are available on the table in the Board Room. Comments will be limited to five minutes per speaker. Thank you.

## **ADDITIONS TO THE AGENDA**

In accordance with Section 54954.2 of the Government Code (Brown Act), additions to the agenda require two-thirds vote of the legislative body, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the local agency subsequent to the agenda being posted.

## 1. WORKSHOP

- A. ENERGY MANAGEMENT PLAN (EMP)
- B. LONG RANGE PLAN OF FINANCE (LRPF)

## ADJOURN

\*A Municipal Water District

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Board Secretary (909) 993-1736, 48 hours prior to the scheduled meeting so that the Agency can make reasonable arrangements.

Proofed by: <u>S</u>

## **Declaration of Posting**

I, April Woodruff, Board Secretary of the Inland Empire Utilities Agency\*, A Municipal Water District, hereby certify that a copy of this agenda has been posted by 5:30 p.m. at the Agency's main office, 6075 Kimball Avenue, Building A, Chino, CA on Thursday, August 27, 2015.

veril Woodruff

## **WORKSHOP**

## 1A





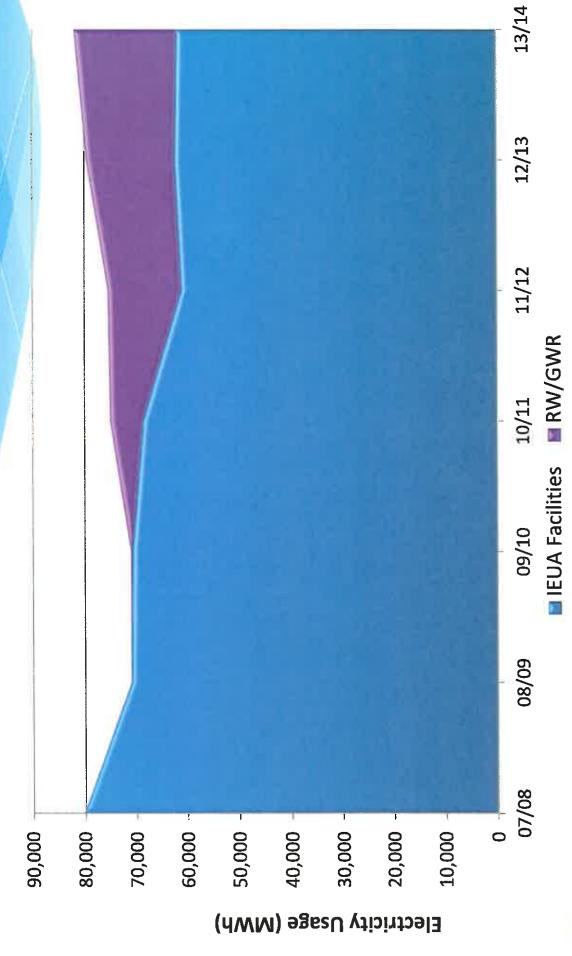
## **EMP Overview**

- Benchmark Current Performance
- Peak Power Independence Status
- Optimize Resources
- Improve Demand Side Management
- Forecast Facility Demands
- Mitigate Greenhouse Gas Impacts
- Identify Potential Energy Projects
- Track Energy Regulations
- Qualify for State/Federal Grants



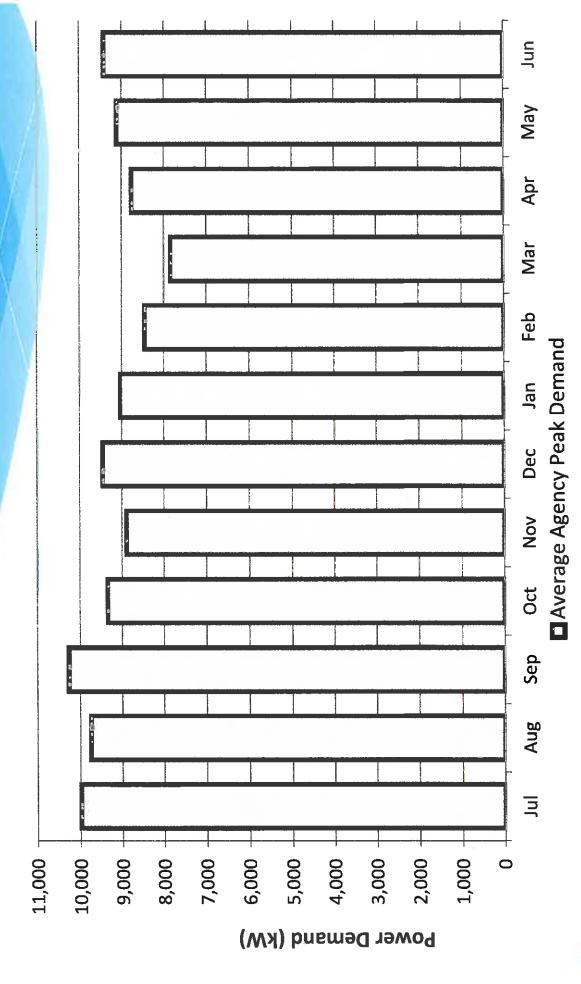


# **Energy Benchmarking**



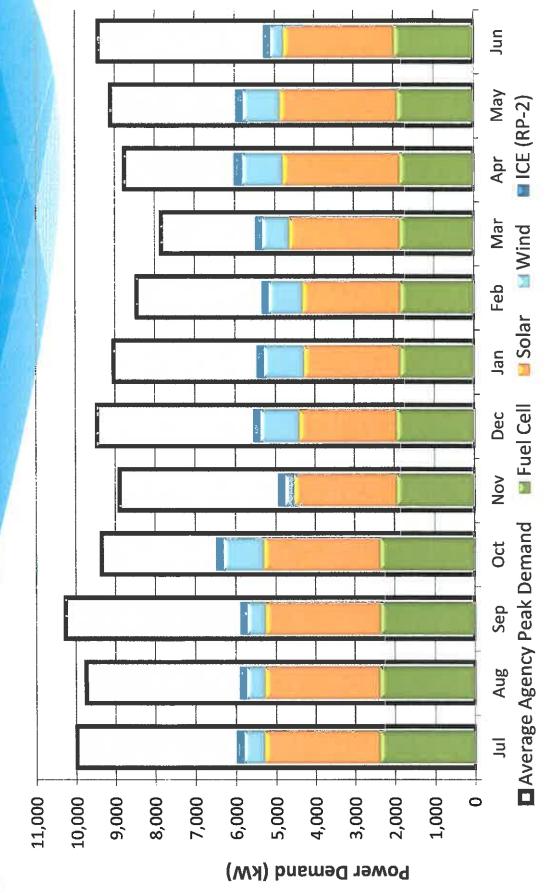


# Peak Power Benchmarking



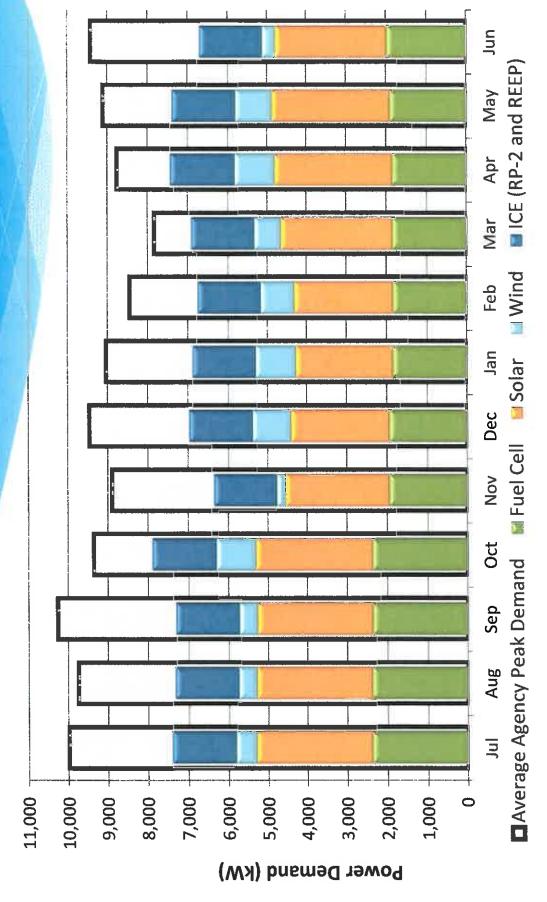


# Peak Power Benchmarking





# Peak Power Benchmarking

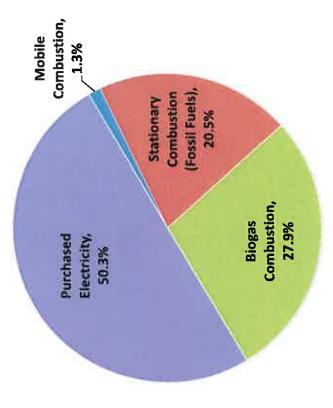




## **GHG Benchmarking**

2008 GHG Emissions	2013 GHG Emissions	Percent
(Metric Tons CO <sub>2</sub> e)	(Metric Tons CO <sub>2</sub> e)	Reduction
52,400	33,506	36.1%

- Registered Member of The Climate Registry
- Annual voluntary reporting of GHG emissions
- Verification by end of 2015
- To qualify for Cap-and Trade funding
- Establish current carbon footprint and track improvements





## Facility Assessments

- Available Resources
- On-site renewables
- Digester gas production
- Facility Load
- Seasonal variation
- Electricity Procurement Strategy
- Demand Response Capabilities
- 20-Year Energy Forecast
- Project Opportunities





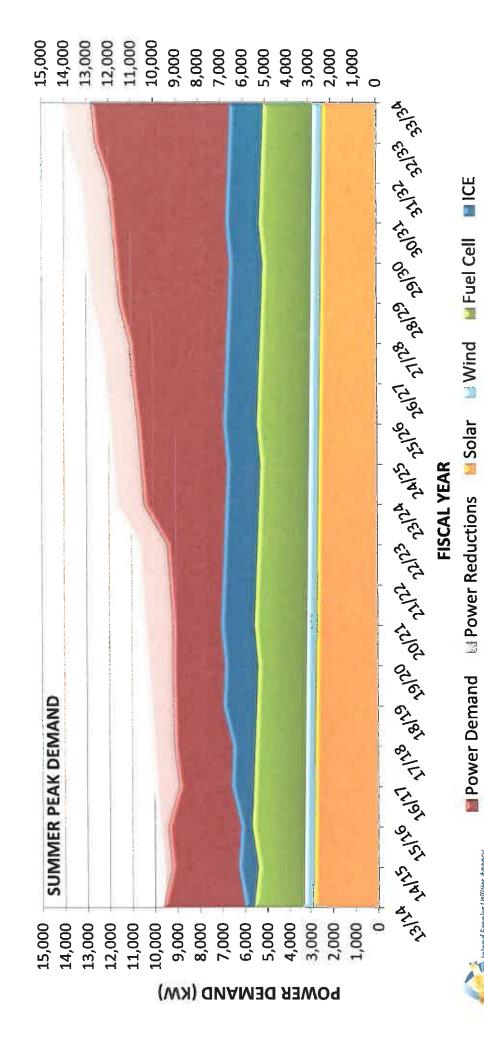
## Short-Term Goals

Project	Implementation Timeline	Anticipated Capital	Funding Assistance
Retrofit Lighting at IEUA Facilities	2015	\$1,000,000	SCE
Pump Optimization	2015	\$1,500,000	SCE
Provide Energy Management Training to Staff	2015	r	r
ncorporate Efficiency and GHG Targets into Project Solicitation	2015	ı	ì
Install Energy Storage	End of 2016	t	
Phase   Efficiency Measures at RP-1	2016 – 2017	\$200,000	SCE
HVAC Controls and Upgrades	2016 - 2018	\$125,000	
Total		\$2,825,000	



# Forecasting Demands

# Information from TYCIP, WFMPs, and Short-Term Goals



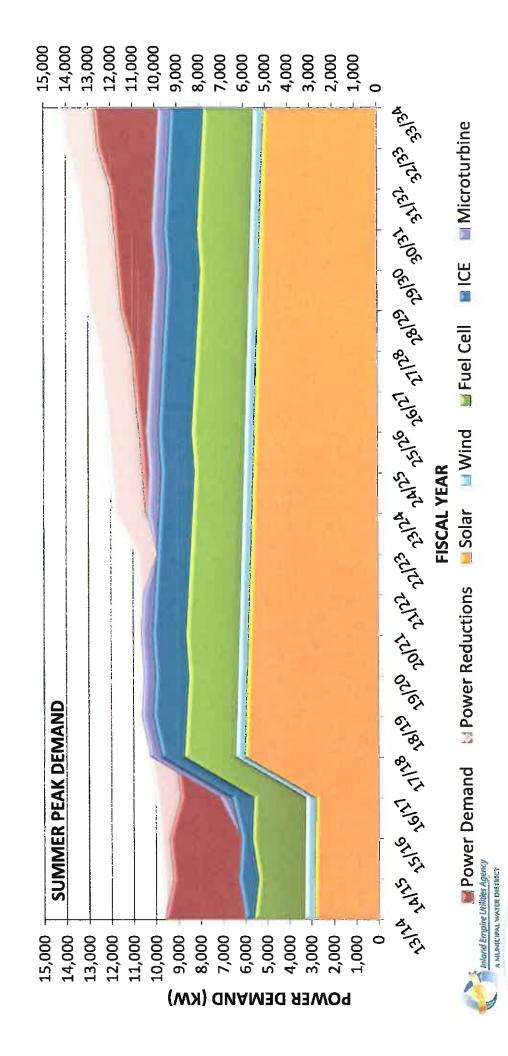
## Long-Term Goals

Project	Implementation Timeline	Anticipated Capital	Funding Assistance
Expand Solar at RP-4	2016 - 2017	\$4,000,000	PPA Option
Install Microturbine at RP-2	2017	\$3,000,000	SGIP
Purchase Existing Solar Installations	2016 - 2019	\$7,500,000	1
Digester Gas Mixing at RP-1	2016 – 2020	\$1,500,000	SCG
Implement Phase II and III Efficiency Measures from Audits	2017 – 2020	TBD	TBD
Reduce Flaring by 50%	2019	ı	ľ
Install Additional 3 – 5 MW of Solar	2016 - 2020	\$20,000,000	PPA Option
Peak Power Independence	2020	TBD	TBD
Carbon Neutral by 2030	2030	TBD	TBD
Total		\$36,000,000	



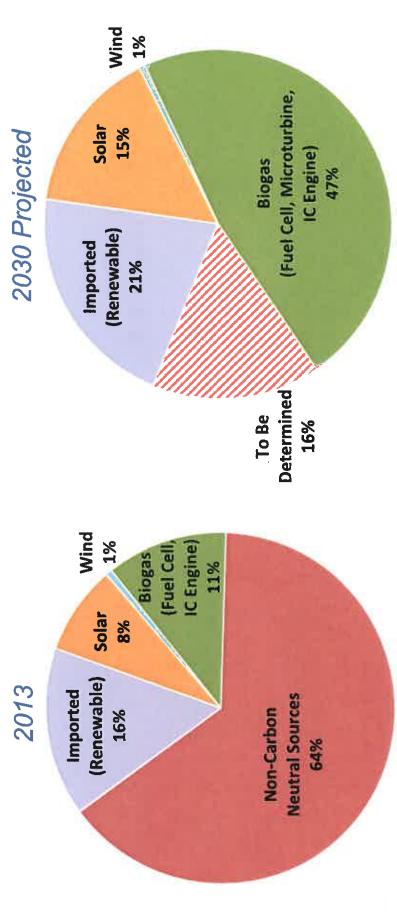
# Forecasting Demands

# Information from TYCIP, WFMPs, Short-Term and Long-Term Goals



# Carbon Neutral by 2030

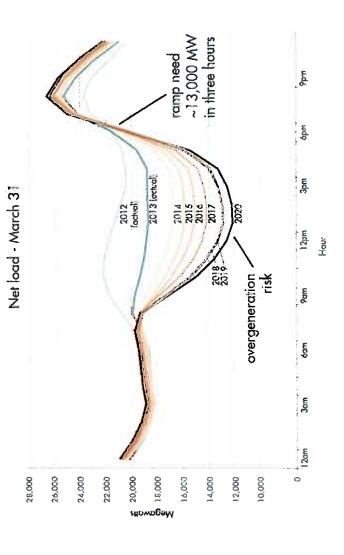
- Current planning efforts expected to achieve 84% neutrality
- Combination of efficiency measures and new renewable
- Future EMPs to identify opportunities to bridge gap





## **Policy Tracking**

- Partner with Organizations that Track, Impact Regulations
- Incorporate Anticipated Policy Changes into Analysis
- Pavley SB 471
- Air Resource Board Short Lived Climate Pollutants
- CPUC Water/Energy Cost Calculator
- Duck Curve





## Recent Efforts

- Energy Audits Completed and Efficiency Measures Identified
- Lighting retrofit to begin in Fall 2015
- Pump optimization to begin in Fall 2015
- Energy Storage Agreement in development
- RP-5 installation to be completed by end of 2015
- Microturbine Project Under Evaluation



## **Next Steps**

- Implement Goals and Strategies Identified
- Complete Programmatic EIR Summer 2016
- Update the EMP every two years 2017

This project meets the Agency's Business Goal of Energy Management and Wastewater Management by optimizing facility energy use and effectively managing renewable resources.



## Questions



## **WORKSHOP**

## **1B**



Date:

September 2, 2015

To:

The Honorable Board of Directors

From:

P. Joseph Grindstaff

General Manager

Submitted by:

Christina Valencia

Chief Financial Officer/Assistant General Manager

JUNEZ

Javier Chagoyen-Lazaro

Manager of Finance and Accounting

Subject:

2016 Long Range Plan of Finance Workshop #1

## RECOMMENDATION

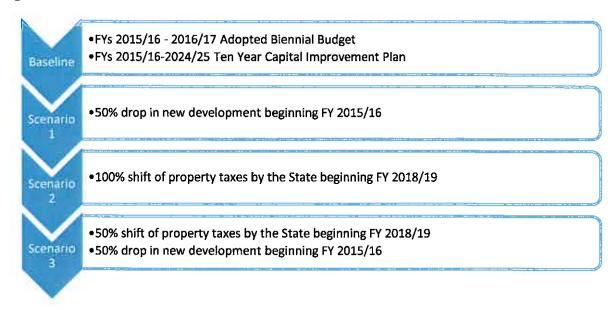
This is an informational item for the Board of Directors to review.

## BACKGROUND

An important element of long term financial planning is identifying and planning for potential changes in economic or environmental conditions that may negatively impact the Agency's financial stability. The focus of this workshop is to "stress test" the Agency's financial strength against various scenarios over the next ten fiscal years (FYs) 2015/16 through 2024/25.

The following sections present the stress testing of the Agency's long term financial plan with different scenarios and assumptions. The adopted Biennial Budget and Ten Year Capital Improvement Plan (TYCIP) serves as the "Baseline" for comparing three different scenarios that highlight significant changes in some of the Agency's major funding sources. For each scenario, the fiscal impact on the Agency's program fund reserves and total debt coverage ratio is identified, along with some of the potential remedies for recovering the projected funding shortfalls.

The key objective of the remedies is to bring fund reserves to the Baseline level by FY 2024/25. Restoring reserve levels is essential to ensure adequate funding is available for the rehabilitation of Regional Recycling Water Plant No. 1 (RP-1) and the future decommission of the Regional Plan No. 2 (RP-2). Preliminary estimates indicate costs for these two projects to be over \$200 million.



## Baseline: FY 2015/16-2016/17 Biennial Budget and FYs 2016-2025 TYCIP

The adopted FYs 2015/16 & 2016/17 Biennial Budget and the FYs 2015/16 – 2024/25 TYCIP demonstrates the IEUA Board and staff's steadfastness to deliver high quality and reliable services to its customers in a regionally planned, cost-effective manner, consistent with the IEUA Business Goals. The adoption of five-year rates that achieve full cost of service for the Agency's Regional Wastewater and Recycled Water programs and implementation of a new water connection fee provide the Agency and its member agencies a stable financial plan to more effectively meet the committed level of service.

The Baseline scenario supports the following key Agency business goals of Fiscal Responsibility and Strategic Plan:

- Full Cost Recovery Achieve full cost of service recovery as demonstrated in the adoption of five year rates for monthly volumetric EDUs, Wastewater and new Water Connection Fees, and Recycled Water rates. The approved 5 year rates and the estimated rates for to build the ten year forecast are included in Appendix A.
- Financing Strategy Leveraging the low interest rate state loans and grants to support the TYCIP and early retirement of the 2008A Revenue Bonds (2008A Bonds) beginning FY 2017/18 to leverage savings of approximately \$60 million in avoided interest costs.

A summary of the major funding sources and uses of funds included in the Baseline scenario are listed in Table 1:

Table 1: Baseline Major Funding Sources and Uses of Funds FYs 2016-2025

Major Funding Sources	(SMillion)	Major Uses of Funds	(SMillion)
Service charges Recycled water sales Potable water sales	\$883 223 444	O&M expenses and non-capital project costs	\$1,588
Wastewater and water connection fees	245	Ten Year Capital Improvement Plan	581
SRF loan proceeds Grant receipts	314 39	Debt service costs (includes early retirement of 2008A Bonds)	385
Property tax receipts	458	Support TYCIP & debt service costs	
Other revenues (JPA reimbursements for O&M and capital, interest revenue)	204		
Total	\$2,810	Total	\$2,554

Over the next ten years, a combination of multi-year rates, continual steady growth in property tax receipts, and stronger pace in new development resulting in a higher number of new wastewater and water connections, help to improve the Agency's reserve balances and debt coverage ratios (DCR), as indicated in Figure 1 and Table 2 below.

Figure 1: Baseline Projected Reserve Balance

Included in the Baseline is the early retirement of the 2008A Bonds beginning in FY 2017/18 through FY2021/22. Reserve balances start to ramp up starting in FY 2022/23 and DCR remains favorably above the Fitch AA credit rating medium of 1.90x. In August 2015 Standard and Poor's upgraded the Agency's long term credit rating from AA- to AA. The enhanced credit rating will help the Agency secure lower cost financing in the future.

Table 2: Baseline DCR Trend

	FY									
	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Baseline DCR	2.35	3.27	3.40	3.35	3.55	3.58	3.63	4.25	2.63	2.36

## **O&M** and **TYCIP** Costs

In the following three scenario analysis, no changes in either operations and maintenance (O&M) expenses or TYCIP expenditures are assumed as part of the potential remedies. As indicated in the adopted Biennial Budget, the Agency has been effectively adhering to a Cost Containment Plan since FY 2008/09 in response to the economic downturn of 2008. Through the deferral of non-critical projects, diligent budget monitoring, and maintaining an assertive vacancy factor well above the budgeted rate; the Agency has achieved estimated cumulative cost savings of \$245 million through FY 2012/13. This reduced O&M expense level is the basis for the adopted Biennial Budget.

Projects included in the TYCIP align with the facility and infrastructure rehabilitation needs as identified in the Agency's Asset Management Plan (AMP), as well as expansion projects needed to meet anticipated growth, primarily in the southern sector of Agency's the service area, as identified in the recently updated Wastewater Facilities Master Plan.

Nevertheless, in the event the Agency is faced with a significant loss of revenue, a more comprehensive analysis will be undertaken to examine all potential remedies to safeguard the Agency's financial viability, including deferral of non-critical projects and additional temporary reductions in O&M costs.

## Scenario 1: 50% reduction in growth beginning FY 2015/16

In recent years, improvement in the economy has begun to revitalize new development across IEUA's service area, as exemplified by the member agencies' projection of 40,523 new connections over the next 10 fiscal years. Based on actual historical trends, the Agency's ten year forecast is more conservative at 30,000 new connections through FY 2024/25.

Scenario 1 assumes an economic downturn which results in a slowdown in new development and a reduction of 50% in the number of new connections for both wastewater and water over the Agency's ten year forecast.

As we recall, the great recession of 2008 significantly impacted the Inland Empire region, bringing new development to almost a complete halt. The number of new wastewater connections tumbled to a low of 1,116 units in 2011. Property values also fell by over 6% in 2010 and 2011, decreasing the Agency's property tax receipts from \$36 million in 2009 to \$32 million in 2012. As illustrated in Figure 2, the number of new connections declined to a very low level for four years after 2008.

2016 Long Range Plan of Finance Workshop #1 September 2, 2015 Page 5 of 18

Average annual connection fees revenue between FY 2003/04 to FY 2006/07 of \$25 million significantly dropped to \$7 million annual average between FY 2008/09 to FY 2011/12.

Figure 2: Historical Actual EDU Connection FY 2003/04 to FY 2014/15 9,000 7,668 7,160 7,500 economic downturn 5,907 6,000 4,884 3,785 4,500 2,977 2,953 3,000 1,969 1,767 1,614 1,231 1,116 1,500 ۵ 2010 2004 2005 2006 2007 2008 2009 2011 2012 2013 2014 2015

## Fiscal Impact

A 50% reduction in the number of new connections (total drop of 15,000 EDUs for wastewater connections and 12,118 MEUs for water connections over the ten year period) equals a loss of approximately \$123 million in new wastewater and water connection fees based on the current multi-year adopted rates and future projected rates increasing by inflation (Baseline rates). The loss of connection fee revenue will adversely impact all of the Agency's program funds reserves, including minor funds such as, the Non-Reclaimable Wastewater (NRW), Administrative Service (GG), and the Water Resources (WW) funds which also receive a portion of wastewater connection fees from Regional Wastewater Capital (RC) fund and water connection fees from the Recycled Water (WC) fund. Under this scenario the allocation of connection fees will be cut in half, as reported in Table 3.

Table 3: Scenario 1 Estimated Impact on Program Fund Balances by FY 2024/25

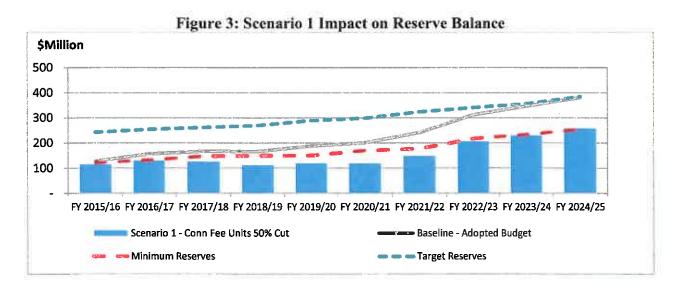
(\$Millions)	Regional Wastewater Programs	Recycled Water and Groundwater	Water Resources	Other Minor Funds	TOTAL
Baseline ending fund balance	\$267	\$40	\$17	\$57	\$381
50% reduction in connection fees	(101)	(18)	(1)	(3)	(123)
Adjusted ending fund balance	\$166	\$23	\$16	\$54	\$259
Minimum fund balance	\$186	\$20	\$28	\$20	\$254

<sup>\*</sup>Other minor funds include Non-Reclaimable Wastewater (NRW) and Administrative Service (GG) funds.

As reported in Table 4, the most significant impact to total DCR is projected in FY 2015/16. Thereafter, the total DCR is projected to trend upward as revenues from service charges and recycled water sales increase due to a combination of higher volumes and the adopted multi-year rates.

Table 4: Scenario 1 DCR Trend (without Remedies)

	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24	FY 24/25
Baseline DCR	2 35	3 27	3 40	3.35	3 55	3 58	3 63	4 25	2.63	2 36
Scenario 1 DCR	1.82	2.60	2.78	2 80	2 99	3.07	3 15	3 67	2 28	2 19



## Potential remedies

As aforementioned, no reduction in the adopted TYCIP or O&M costs is assumed. Since, rehabilitation and replacement (R&R) and expansion and improvement are the key drivers for the majority of the projects, deferral of some of these critical projects may not be feasible. For example, with pre-design of the RP-5 expansion already underway, even if the pace of new development is slower than anticipated, halting the project may not be possible (e.g. construction is in progress), or make economic sense if construction costs also decline, as seen in prior economic downturns.

Also included in this scenario is the early retirement of the 2008A Bonds beginning FY 2017/18 through FY 2021/22. Annual payments of \$25 million over this five year period will effectively retire \$125 million in high interest (5%) outstanding debt resulting in approximately \$60 million in avoided interest costs. Assuming no changes to the adopted TYCIP or O&M budget, to mitigate the 50% reduction in the number of new connections, the following remedies, or some combination, may be considered to recover the estimated shortfall in connection fees;

• Grant receipts – only \$39 million in grant receipts over the next ten years is included in the adopted Biennial Budget and ensuring year forecasts; a very conservative estimate. The Agency will actively pursue all grant opportunities available to support projects included in the TYCIP. Any grant receipts above the budgeted amount of \$39 million will help to offset the impact to additional rate increases or demand deficit capital calls.

• Higher wastewater connection fees – additional annual rate increase of \$6,000 to \$9,000 per EDU beginning FY 2017/18 to recover approximately \$75 million to support critical expansion of the system. Grant receipts above the \$39 million forecast will reduce the estimated increase.

Table 5: Scenario 1 Wastewater Connection Fees Additional Rate Increase

	FY 2015/16	FY 2016/17	FY 2017/18	"IFY 2018/19"	FY 2019/20	FY 2020/21	-:FY 2021/221	FY 2022/23	FY 2023/24	FY 2024/25	TOTAL
Estimated Wastewater Connection units	2,165	2,290	1,868	1,655	1,648	1,368	1,225	1,130	1,133	520	15,000
Estimated additional fees \$/EDU			6,002	6,300	6,617	7,279	7,895	6,132	5,379	8,626	
Estimated additional revenue (\$Million)			11 21	10 43	10,90	9 95	9 67	9 19	9 49	4 49	75 32

Higher water connection fees - additional annual rate increase of \$1,900 to \$2,400 per MEU starting in FY 2017/18 to recover approximately \$20 million to support planned enhancement and expansion of the distribution and groundwater recharge facilities. Grant receipts above the \$39 million forecast will reduce the estimated increase.

Table 6: Scenario 1 Water Connection Fees Additional Rate Increase

	FY 2016/16	FY 2016/17	ΓΥ 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	TOTAL
Estimated Water Connection units	985	2,083	1,699	1,50€	1,500	1,231	1,101	1,017	1,019	469	12,611
Estimated additional fees \$/EDU			1,905	1,984	2,067	2,118	2,172	2,228	2,284	2,343	
Estimated additional revenue (\$Million)		7.9	3 24	2 99	3 10	2.61	2.39	2 26	2 33	1.10	20 02

• Surcharge on the monthly volumetric EDU rate –a surcharge of approximately \$2 per EDU will be added to recover approximately \$19 million in reduced connections fees. The surcharge will fund the relocation of the RP-2 solids handling facility to the RP-5 site, and rehabilitation of the RP-1 facility. Grant receipts above the \$39 million forecast will reduce the estimated surcharge.

Table 7: Scenario 1 Volumetric EDU Surcharges

	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	TOTAL
Estimated Wastewater annual EDUs	3,218,034	3,226,080	3,234,145	3,242,230	3,250,336	3,258,462	3,266,608	-
Estimated additional fees \$/EDU	-	-	0.40	0.80	1.20	1.58	1.96	
Estimated additional revenue (\$Million)		-	1 29	2 59	3.90	5 15	6.40	19.34

• Demand deficit call – possible capital call from member agencies to support critical construction projects. Under the Regional Sewage Service Contract (Section E6 Capital Capacity Reimbursement Account (CCRA) and Allocation of Supplemental Capital Outlay Fund Shortages), if CCRA funds are not sufficient to support capital requirements, the Agency can demand member agencies pay the full amount required based on the proportionate share of CCRA balances. Use of a demand deficit will reduce the increase to new wastewater connections and lessen the impact on new development. Grant receipts above the \$39 million forecast will reduce the estimated call.

Under Scenario 1, both the fund reserve level and total DCR are restored to Baseline levels, as shown in Table 8 and 9.

Table 8: Scenario 1: Impact of Potential Remedies by FY 2024/25

(\$Millions)	Regional Wastewater Programs	Recycled Water and Groundwater	Water Resources	Other Minor Funds	TOTAL
Baseline ending fund balance	\$267	\$40	\$17	\$57	\$381
50% Reduction in connection fees	(101)	(18)	(1)	(3)	(123)
Adjusted ending balance	\$166	\$23	\$16	\$54	\$259
POTENTIAL REMEDIES:					
Higher connection fees and/or demand deficit	75	20	-	=	95
EDU volumetric rate surcharge	19	-		_	19
Total adjustments	\$95	\$20		-	\$115
Ending balance with remedies	\$261	\$43	\$16	\$53	\$373
Minimum reserve balance	\$186	\$20	\$28	\$20	\$254

<sup>\*</sup>Other minor funds include Non-Reclaimable Wastewater (NRW) and Administrative Service (GG) funds.

Table 9: Scenario 1 DCR Trend (with Remedies)

					•					
	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY-22/23	FY 23/24	FY 24/25
Baseline DCR	2.35	3.27	3.40	3.35	3.55	3.58	3.63	4.25	2.63	2.36
Scenario 2 DCR (with remedies)	1.82	2.74	3.38	3.33	3.53	3.61	3.72	4.42	2.77	2.54

## Scenario 2: 100% shift of property taxes by the State beginning FY 2018/19

Property tax receipts are one of the Agency's key revenue sources supporting the Agency's capital improvement plan (CIP) and debt service costs. However, property taxes can also be the most uncertain given the State's past actions in shifting property taxes and other local agency revenue to meet budget deficits. Although the State's current financial position has greatly improved and legislation is now in place to safeguard local agency revenues; property tax allocations to enterprise special districts remain vulnerable.

Under this scenario a shift of 100% property taxes is assumed beginning FY 2018/19 when the temporary state tax increases approved under Proposition 30 are set to expire and the next cyclical economic downturn may possibly occur. Together, these can negatively impact the State's fiscal position. This scenario only considers the loss of approximately \$331 million in property taxes through FY 2024/25and not the compounding impact of an economic downturn to other major funding sources, such as new connection fees. No changes to the Agency's adopted TYCIP and O&M budget are also included. The only exception is the early retirement of the \$125 million 2008A Bonds that will be included as one of the potential remedies to mitigate the estimated loss.

## Fiscal Impact

As reported in Table 10, the Agency funds with the highest allocation of property taxes are the hardest hit under this scenario.

Table 10: Estimated Loss of Property Taxes by Fund through FY 2014/15

Fund	Allocation Percentage	Total Estimated Loss (\$Millions)
Regional Wastewater Capital Improvement (RC)	65%	\$215
Regional Wastewater O&M (RO)	22%	\$73
Recycled Water (WC)	5%	\$17
Water Resources (WW)	3%	\$11
Other Minor Funds*	5%	\$15
Total	100%	\$331

<sup>\*</sup>Other minor funds include Non-Reclaimable Wastewater (NRW) and Administrative Service (GG) funds.

Due to the loss of property taxes, Regional Wastewater and Water Programs are not projected to meet their respective minimum reserve balances established by Agency's Reserve Policy. Table 11 indicates the reserve position by program as of FY2025/25.

Table 11: Scenario 2 Estimated Impact on Fund Balances by FY 2024/25

(\$Millions)	Regional Wastewater Programs	Recycled Water and Groundwater	Water Resources	Other Minor Funds*	TOTAL
Baseline ending balance	\$267	\$40	\$17	\$57	\$381
Property tax loss (7 years)	(288)	(17)	(11)	(15)	(331)
Adjusted ending balance	(\$21)	\$24	\$7	\$40	\$50
Minimum reserve balance	\$186	\$20	\$28	\$21	\$254

<sup>\*</sup>Other minor funds include Non-Reclaimable Wastewater (NRW) and Administrative Service (GG) funds.

Shortfall in property tax receipts will disrupt the financial strategy of the Regional Wastewater program aimed at building reserves to fund future major capital projects not supported by connections fees, including the rehabilitation the Agency's oldest facility (RP-1) scheduled to begin around 2025, and the ultimate decommissioning of the RP-2 solids handling facility prior the expiration of the site lease in 2035.

\$ Million \$500 \$400 \$300 \$200 \$100 \$0 FY 2015/16 FY 2016/17 FY 2017/18 FY 2018/19 FY 2019/20 FY 2020/21 FY 2021/22 FY 2022/23 FY 2023/24 FY 2024/25 Scenario 2 - Prop Tax 100% Cut Baseline - Adopted Budget Minimum Reserves Target Reserves

Figure 4: Scenario 2 Impact on Reserve Balance (without remedies)

The assumed property tax shift also propels the total DCR downward to a low of 0.90x in FY 2024/25; significantly below the minimum requirement, as illustrated on Table 12.

FY FY FΥ FY FY FY 21/22 22/23 15/16 16/17 17/18 18/19 19/20 20/21 23/24 24/25 Baseline DCR 2.35 3.40 3:35 3.27 3 55 3.58 3.63 4.25 2 63 2.36 3.40 Scenario 1 DCR 2.35 3.27 1,51 1.74 1.73 1.75 1.83 0.90 1.21

Table 12: Scenario 2 DCR Trend

## Potential remedies

To recover the estimated loss of \$331 million in property taxes, a few alternatives can be explored to remedy the negative impact to the Regional Wastewater and Recycled water programs:

- Grant receipts only \$39 million in grant receipts over the next ten years is included in the adopted Biennial Budget and ensuring year forecasts; a very conservative estimate. The Agency will actively pursue all grant opportunities available to support projects included in the TYCIP. Any grant receipts above the budgeted amount of \$39 million will help to offset the impact to additional rate increases or demand deficit capital calls.
- No early repayment of the \$125 million 2008A Bonds will provide favorable cash flow of approximately \$88 (net of ongoing annual debt service costs). Grant receipts above the \$39 million forecast may allow for the early retirement of a portion of the outstanding amount.

• Higher wastewater connection fees –additional annual rate increase of \$4,500 to \$8,000 per EDU beginning FY 2018/19 to recover approximately \$103 million to support critical expansion capital projects. Grant receipts above the \$39 million forecast will reduce the estimated increase.

Table 13: Scenario	o 2 Wastowater	Connection Fee	s Additional	Data Increase
Table 15: Scenari	O Z VVANIEVVALET	Commecuou rec	S Addilional	rate increase

	_FY 2015/16	FY 2016/17	T 4FY 2017/18	:: FY 2015/10 <sup>11</sup>	: FY,2019/201⊈	FY 2020/21	F* 2021/22 %	-: FY 2022/23	FY 2023/24	FY 2024/25 1	TOTAL
Esimated Wastewater Connection units	4,330	4,580	3,735	3,310	3,295	2,735	2,450	2,260	2 265	1,040	30,000
Estimated additional fees \$/EDU				4,479	4,840	5,737	6,542	7,026	7,763	6,424	
Estimated additional revenue (\$Million)				14 83	15-95	15.69	16.03	15.88	17.58	88.8	102.64

- Demand deficit call possible capital call from member agencies to support critical construction projects. Under the Regional Sewage Service Contract (Section E6 Capital Capacity Reimbursement Account (CCRA) and Allocation of Supplemental Capital Outlay Fund Shortages), if CCRA funds are not sufficient to support capital requirements, the Agency can demand member agencies pay the full amount required based on the proportionate share of CCRA balances. Use of a demand deficit will reduce the increase to new wastewater connections and lessen the impact on new development. Grant receipts above the \$39 million forecast will reduce the estimated call.
- Increase the Monthly Volumetric EDU rate –additional rate from \$0.81 to \$9.16 per EDU annually starting in FY 2018/19 to recover approximately \$122 million to support capital R&R requirements. Assuming no change in the volumetric EDU based on conservative growth forecast, estimated surcharge rate reaches \$31.00 per EDU by FY 2024/25 (Table 11). Grant receipts above the \$39 million forecast will reduce the estimated increase.

Table 14: Scenario 2 Volumetric EDU Surcharges

	FY 2018/19	FT 2510/20	#Y 2H20021	FY 2021/22	FY 2021(2)	TY 2020/24	FY 2034/25	TOTAL
Estimated Wastewater annual EDUs	3,218,034	3,226,086	3,234,145	3,242,230	3,250,336	3,258,462	3,266,608	
Estimated additional fees \$/EDU	0.81	2.41	4.00	5.60	7 20	8.38	9.16	
Estimated additional revenue (\$Million)	2.61	7.77	12.94	18.16	23 40	27.31	29.92	122 10

Increase the Water (meter unit equivalent) rates - an additional increase of \$0.50 per meter unit equivalent (MEU) will help to generate \$23 million for recovering the loss of \$11 million in property tax shift while maintaining the minimum reserve balance. Grant receipts above the \$39 million forecast will reduce the estimated increase.

**Table 15: Scenario 2 Volumetric MEU Surcharges** 

	FY 2018/19	FY 2019/20		FY 2021/22		FY 2023/24	FY 2024/25	TOTAL
Estimated Volumetric Annual MEUs	4,893,912	4 929 912	4,965,912	5,002,175	5,038,703	5,075,497	5,112,560	
Estimated additional fees \$/EDU	0.50	0.50	0.50	0.50	0.50	1.00	1.00	
Estimated additional revenue (\$Million)	2 45	2 46	2 48	2 50	2 52	5 07	5 10	22 58

By applying the above remedies, the reserve balances for all program funds and the DCR improve and recover to the level close to the Baseline scenarios as indicated in Table 16 and Table 17.

Table 16: Scenario 2: Impact of Potential Remedies by FY 2024/25

(In Millions)	Regional Wastewater Programs	Recycled Water and Groundwater	Water Resources	Other Minor Funds	TOTAL
Baseline ending balance	\$267	\$40	\$17	\$57	\$381
Property tax loss (7 years)	(288)	(17)	(11)	(15)	(331)
Adjusted ending balance	(21)	24	7	40	50
POTENTIAL REMEDIES:					
No early repayment 2008A Bonds	63	21	*	4	88
Connection fees/Demand deficit	153	¥	2	-	153
EDU rate surcharge	71		-	- 1	71
MEU rate surcharge	-	22	23	-	23
Total adjustments	286	21	23	5	335
Ending balance with remedies	\$265	\$45	\$30	\$45	\$385
Minimum reserve balance	\$186	\$20	\$28	\$21	\$254

<sup>\*</sup>Other minor funds include Non-Reclaimable Wastewater (NRW) and Administrative Service (GG) funds.

Without implementing the early retirement of the 2008A Bonds, the DCR shows a steady favorable trend above 3.0x from FY 2016/17. The DCR begins to drop in FY 2023/24 when principal payments for the 2008 Bonds and repayment of future SRF loans begin.

Table 17: Scenario 2 DCR Trend (with remedies)

	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24	FY 24/25
Baseline DCR	2.35	3.27	3 40	3.35	3 55	3.58	3 63	4 25	2 63	2.36
Scenario 2 DCR (with remedies)	2.35	3.27	3.40	2.33	2.78	2.97	3 21	3.92	2 65	2.11

Scenario 3: 50% reduction in growth and 50% reduction in property taxes

## **Assumptions**

As aforementioned, the 2008 economic downturn negatively impacted the Agency's property tax receipts and new wastewater connection fees. Under this scenario we stress test the potential reduction of these two major revenue sources should another economic downturn occur during the next decade.

A 50% shift in property tax receipts by State is assumed beginning in FY 2018/19. This aligns with the expiration of the temporary state tax increases approved under Proposition 30. Additionally, a 50% reduction in the number of new connections for both wastewater and water is

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assumed from the slowdown in new development as a result of an economic downturn. The result is a combined shortfall of approximately \$289 million; \$166 million in property taxes and \$123 million connection fees.

Table 18: Scenario 3 Estimated Impact on Program Fund Balances by FY 2024/25

(\$Millions)	Regional Wastewater Programs	Recycled Water and Groundwater	Water Resources	Other Minor Funds	TOTAL
Baseline ending balance	\$267	\$40	\$17	\$57	\$381
50% Property tax loss, starting in FY 2018/19	(144)	(8)	(5)	(9)	(166)
50% Reduction in connection fees, starting in FY 15/16	(101)	(18)	(1)	(3)	(123)
Adjusted ending balance	\$22	\$14	\$11	\$46	\$93
Minimum reserve balance	\$186	\$20	\$28	\$20	\$254

<sup>\*</sup>Other minor funds include Non-Reclaimable Wastewater (NRW) and Administrative Service (GG) funds.

Due to the estimated loss of \$289 million in revenue, one of the potential remedies included in this scenario is the cancellation of early repayment of the 2008A Bonds. Under this scenario annual debt service costs for the 2008A Bonds will be limited to only interest payments of \$6.25 million until principal payments begin in FY 2023/24. Elimination of the early repayment option will result in higher estimated fund balances of approximately \$88 million by FY 204/25. However, approximately \$60 million in avoided interest costs will not be realized. As principal payments begin in 2024, fund balances will be reduced along with total DCR. As indicated in Table 19, the DCR under this scenario begins to decline in FY 2023/24 when repayment of future debt borrowings are scheduled to begin, and principal payments against the 2008A Bonds continue through 2039.

Table 19: Scenario 3 DCR Trend (without remedies)

	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24	FY 24/25		
Baseline DCR	2.35	3 27	3.40	3.35	3.55	3.58	3.63	4.25	2.63	2.36		
Scenario 3 DCR	1.82	2.60	2.78	1.88	2.09	2.15	2.21	2 46	1.57	1.46		

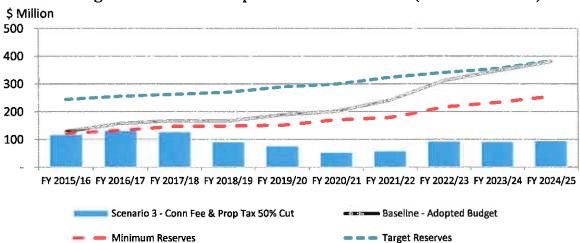


Figure 5: Scenario 3 Impact on Reserve Balance (without remedies)

## Potential remedies

Since the assumed revenue loss is primarily in property taxes and connection fees, the most probable remedies include;

- Grant receipts only \$39 million in grant receipts over the next ten years is included in the
  adopted Biennial Budget and ensuring year forecasts; a very conservative estimate. The
  Agency will actively pursue all grant opportunities available to support projects included
  in the TYCIP. Any grant receipts above the budgeted amount of \$39 million will help to
  offset the impact to additional rate increases or demand deficit capital calls.
- No early repayment of the \$125 million 2008A Bonds will provide favorable cash flow of approximately \$88 (net of ongoing annual debt service costs). Grant receipts above the \$39 million forecast may allow for the early retirement of a portion of the outstanding amount.
- Higher wastewater connection fees –additional annual rate increase of \$6,500 to \$8,000 per EDU beginning FY 2017/18 to recover approximately \$59 million to support future expansion of the system. Grant receipts above the \$39 million forecast will reduce the estimated increase.

Table 20: Scenario 3 Wastewater Connection Fees Additional Rate Increase

	FY 2015/16	FY 2016/17 -	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	TOTAL
Estimated Wastewater Connection units	2,165	2 290	1 868	1,655	1 648	1,368	1,225	1,130	1,133	520	15,000
Estimated additional fees \$/EDU				7,166	6,534	6,552	8,099	7,524	8,013	- 86	
Estimated additional revenue (\$Million)				11.86	10.76	8 96	9.92	8.50	9.07	0.04	59 13

 Demand deficit call – possible capital call from member agencies to support critical construction projects. Under the Regional Sewage Service Contract (Section E6 Capital Capacity Reimbursement Account (CCRA) and Allocation of Supplemental Capital Outlay Fund Shortages), if CCRA funds are not sufficient to support capital requirements, the Agency can demand member agencies pay the full amount required based on the proportionate share of CCRA balances. Use of a demand deficit will reduce the increase to new wastewater connections and lessen the impact on new development. Grant receipts above the \$39 million forecast will reduce the estimated call.

Monthly Volumetric EDU rate –additional increase of \$0.81 to \$9.16 per EDU each year from FY 2020/21 to FY 2024/25 will be necessary and the rate will reach \$31.2 per EDU by FY 2024/25 (Table 21) to recover approximately \$122 million from the 50% loss in property taxes. Grant receipts above the \$39 million forecast will reduce the estimated increase.

**Table 21: Scenario 3 Volumetric EDU Surcharges** 

	FY 2018/19	FY 3918/30	FY 2020/21	FY 2021/22	FY 2032(23	FY 2023/24	Y:2024/25	TOTAL
Estimated Wastewater annual EDUs	3,218,034	3,22€,080	3,234,145	3,242,230	3,250,336	3,258,462	3,266,608	
Estimated additional fees \$/EDU	0.81	2.41	4.00	5.60	7 20	8.38	9.16	
Estimated additional revenue (\$Million)	2.61	7.77	12.94	18 16	23 40	27.31	29 92	122 10

• Higher recycled water rates – additional annual increase of \$20 per acre foot starting in FY 2018/19 to recover approximately \$6.5 million from the loss of 50% in water connection fees. Grant receipts above the \$39 million forecast will reduce the estimated increase.

**Table 22: Scenario 3 Recycled Water Surcharges** 

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	-FY 2019/20	FY 2020/21	FY 2021/22		FY 2023/24	FY 2024/26	TOTAL
Esimated Recycled Water Annual AF	35,150	37,100	37,300	42,950	45,770	45,970	46,170	46,370	46,570	51,070	434,420
Estimated additional fees \$/AF				20	20	20	20	20	20	20	
Estimated additional revenue (\$Million)				0.86	0.92	0.92	0.92	0.93	0.93	1.02	6.50

These potential remedies help bring total fund balance and DCR close to the Baseline level as illustrated in Tables 23 and 24:

Table 23: Scenario 3: Impact of Potential Remedies by FY 2024/25

X WO TO BOY STORMING					
(\$Millions)	Regional Wastewater Programs	Recycled Water and Groundwater	Water Resources	Other Minor Funds	TOTAL
Baseline ending fund balance	\$267	\$40	\$17	\$57	\$381
50% Property tax loss starting in FY 2018/19	(144)	(8)	(5)	(9)	(166)
50% Reduction in connection fees starting in FY 2015/16	(101)	(18)	(1)	(3)	(123)
Adjusted ending fund balance	\$22	\$14	\$11	\$46	\$93
POTENTIAL REMEDIES					
No early repayment of 2008A Bonds (\$125 million)	63	21	34	4	88
Connection fees/Demand deficit	122	6	(+	1	129
EDU rate additional surcharge	54	2		(A)	54
MEU rate additional surcharge	-	-	16	14	16
Total adjustments	\$239	\$27	\$16	\$6	\$288
Estimated ending fund balance with remedies	\$262	\$42	\$27	\$50	\$381
Minimum reserve balance	\$186	\$20	\$28	\$20	\$254

<sup>\*</sup>Other minor funds include Non-Reclaimable Wastewater (NRW) and Administrative Service (GG) funds.

Table 24: Scenario 3 Projected DCR (with remedies)

	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24	FY 24/25
Baseline DCR	2 35	3.27	3.40	3.35	3.55	3.58	3.63	4.25	2.63	2.36
Scenario 3 DCR (with remedies)	1.82	2 60	2.78	2.56	2.91	3.11	3,41	4,17	2.69	2,40

The early repayment of the \$125 million high interest (5%) 2008 Revenue Bonds is one of the key drivers for the estimated fund balance and total DCR in scenario 2 and 3. However, changes in this debt financing strategy warrant more in-depth analysis and discussion to ensure all of the factors are carefully considered, including the loss of \$60 million in avoided interest costs and future debt capacity to secure low cost borrowing for the expansion of the RP-5 and RP-2 facilities.

Another alternative to be considered is refinancing the 2008A Bonds to take advantage of a lower interest rate. Although the savings are estimated to be significantly less, between \$7 million to \$8 million over ten years, compared to the \$60 million earned from early retirement; the net cash outlay of \$88 million would be avoided over the next 10 years. Staff will continue to work with the Agency's financial advisor to evaluate the most appropriate strategy given the planned capital investment over the next 20 years.

#### Closing

A key emphasis of this budget workshop is the evaluation of the adverse scenarios that would impact the Agency's financial sustainability to support various programs expenditures, operating costs, CIP and debt service costs. The remedies highlighted in the various scenarios are intended only as a "broad brush stroke" approach. Should any of these adverse conditions arise, or other unexpected changes that may negatively impact the Agency's fiscal health, a more comprehensive analysis and discussion will be conducted to ensure all of the risks and benefits are carefully considered.

The Agency is currently working with member agencies and water stakeholders to complete the Integrated Water Resources Plan (IRP). This plan is a major step in defining the components to build a water resilient and sustainable Inland Empire. In addition, development of an Energy Management Plan (EMP) is underway and the restructuring of potable water rates is also in progress. Upon the completion of initiatives, staff will incorporate cost projections, funding options and respective timelines into the long range financial plan analysis. A workshop will be facilitated in early 2016 to present an update of long term funding and commitments, along with a re-evaluation of the Agency's financial policies.

#### PRIOR BOARD ACTION

None.

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#### **IMPACT ON BUDGET**

None.

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#### Appendix A

#### Rates used to calculate Baseline forecast

			Африней					Estimated		
Baseline rates and fees	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	EY 2023/24	FY 2024/25
Wastewater connection fee,s \$/EDU	5,261	5,712	6,309	6,624	6,955	7,651	8,301	8,550	8,807	9,071
Water connection fee, \$/MEU	693	1,455	1,527	1,604	1,684	1,735	1,787	1,841	1,896	1,953
Volumetric EDU, \$/EDU	15.89	17.14	18.39	19.59	20.00	20.40	20.80	21.20	21.62	22.04
Recycled water Direct sales, \$/AF	350	410	470	480	490	500	510	520	530	540
Recycled water Groundwatr sales, \$/AF	410	470	530	540	550	560	570	580	590	600
	i i					Estimated				
		FY 2016/17	FY 2017/18	FY 2018/19	EY 2019/20	FY 2020/21	FY,2021/22	FY 2022/23	FY 2023/24	.FY 2024/25 .
Volumetric MEU, \$/MEU		1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90

# Long Range Plan of Finance Workshop #1







September 2015



#### 0

#### Stress Test Assumptions (2015 - 2025)

Scenario 1

50% reduction in growth beginning FY 2015/16

Baseline

Adopted O&M and TYCIP Scenario 3

50% reduction in growth beginning FY 2015/16 and 50% shift of property taxes beginning FY 2018/19

Scenario 2 100% shift of property taxes beginning FY 2018/19

#### Biennial Budget and TYCIP Based on the Adopted Baseline

#### Major Funding Sources

#### Adopted multi-year rates

- · Continual receipt of property taxes
- Higher number of new wastewater connections
- New water connection fee
- SRF loans and grants

#### Major Uses of Funds

- TYCIP
- Relocation of RP-2
- Expansion of RP-1
- Begin rehabilitation of RP-1
- Early repayment of 2008A Revenue Bonds

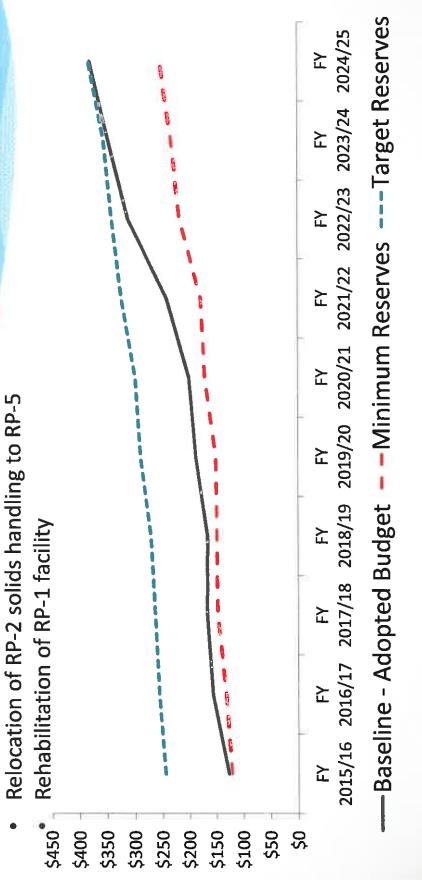
# **SCENARIOS ASSUMPTIONS**

VARIABLES	Scenario 1 50% reduction in growth	Scenario 2 100% shift of property taxes	Scenario 3 50% reduction in growth AND 50% shift of property taxes
IMPACTED REVENUES:			
Wastewater Connection Fees	×	×	×
Water Connection Fees	×		
Monthly EDU Volumetric Rate	×	×	×
Monthly MEU Rate		×	
Recycled Water Rates			×
IMPACTED EXPENSES:			
2008A Bond Early Retirement		×	×
O&M Expense		No Change	
TYCIP		No Change	

#### Baseline

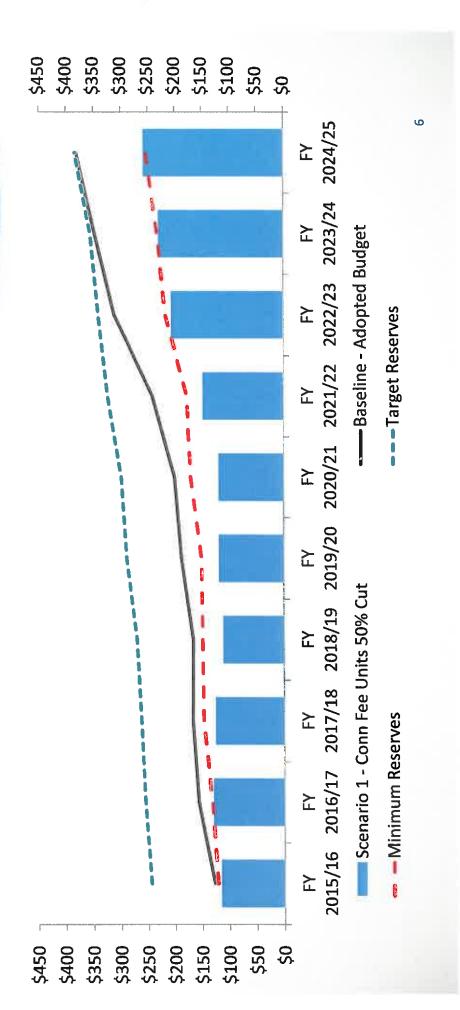
#### Comparison Estimated Ending Fund Balance to Minimum and Target Reserve Levels

Gradual building of reserves to support capital requirements not funded by connection

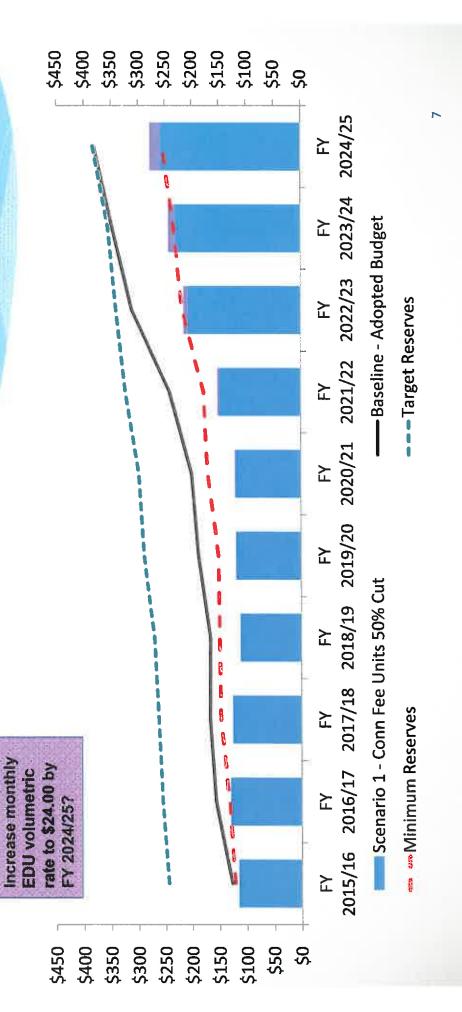


## Comparison of Estimated Ending Fund Balance and DCR Baseline vs. Scenario 1

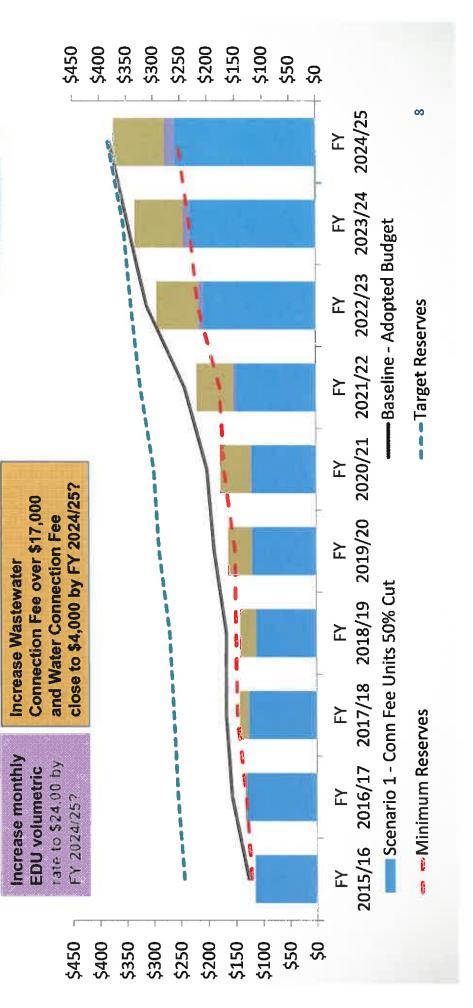
- \$ 50% reduction in growth beginning in FY 2015/16
  - \$123 million estimated loss in connection fees



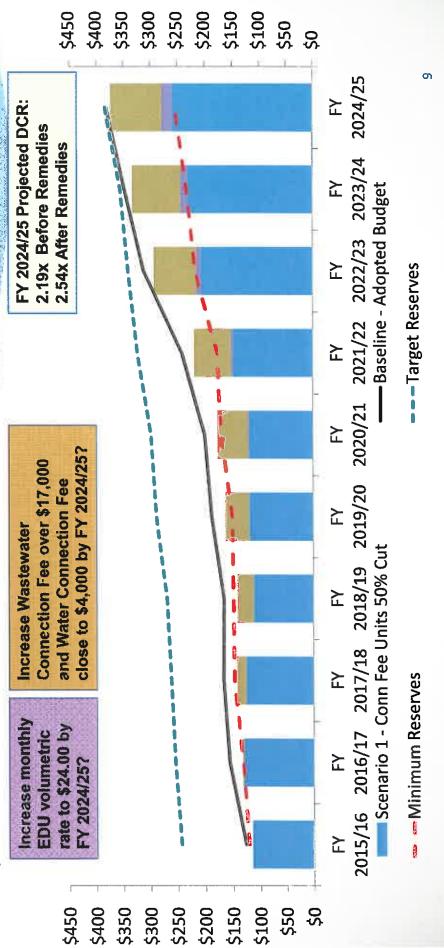
- \* 50% reduction in growth beginning in FY 2015/16
- \$123 million estimated loss in connection fees



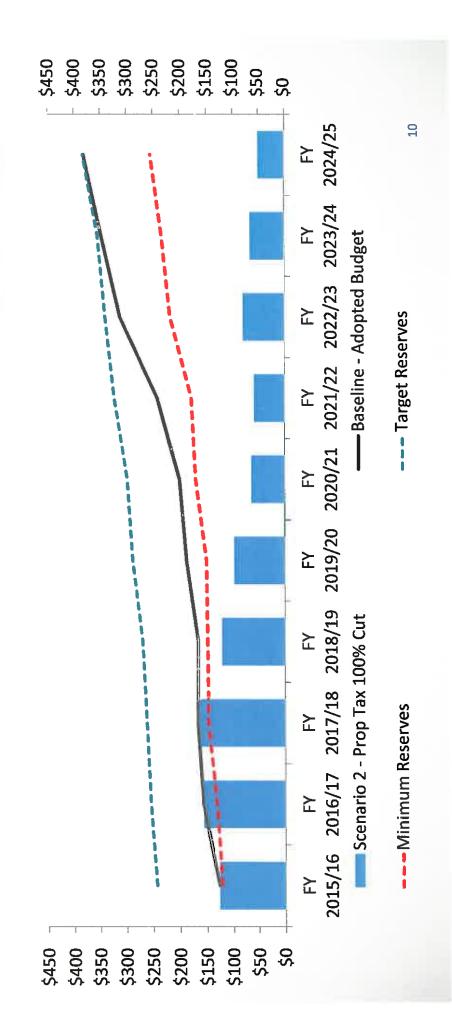
- \$ 50% reduction in growth beginning in FY 2015/16
- \$123 million estimated loss in connection fees



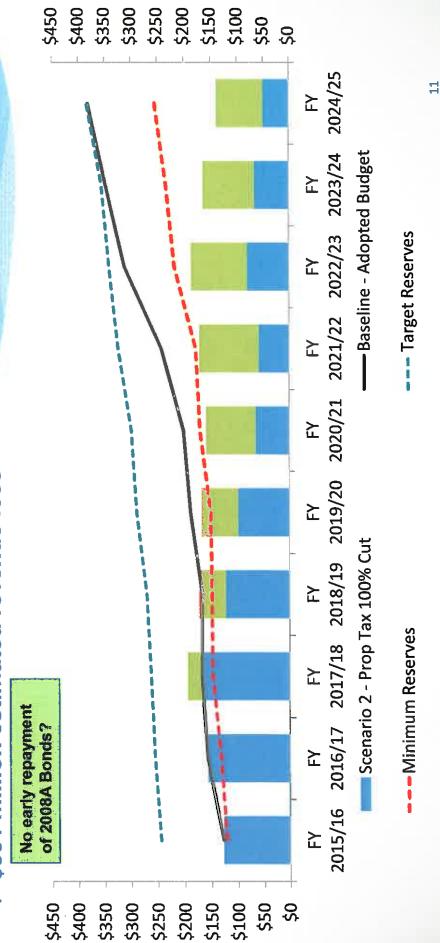
- \$ 50% reduction in growth beginning in FY 2015/16
- \$123 million estimated loss in connection fees



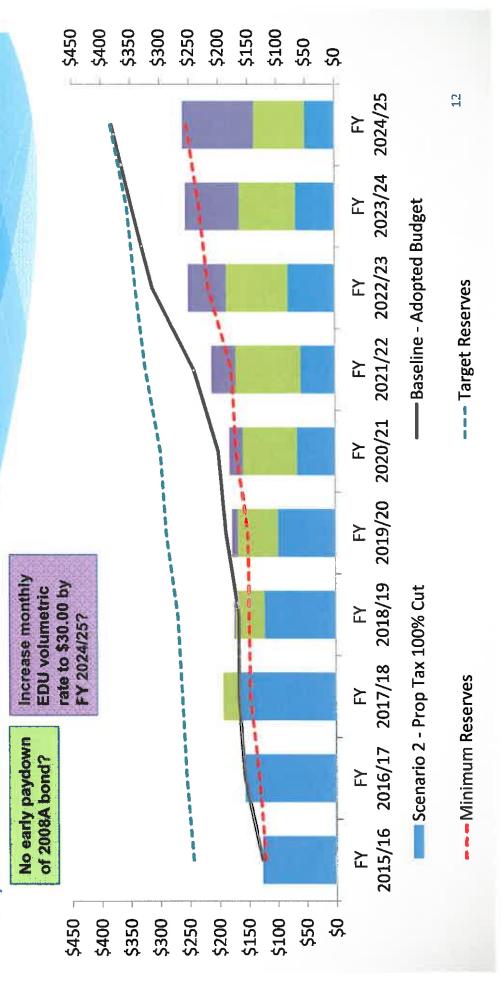
- \$ 100% shift of property tax receipts beginning in FY 2018/19
- \$331 million estimated revenue loss



- \$ 100% shift of property tax receipts beginning in FY 2018/19
- \* \$331 million estimated revenue loss

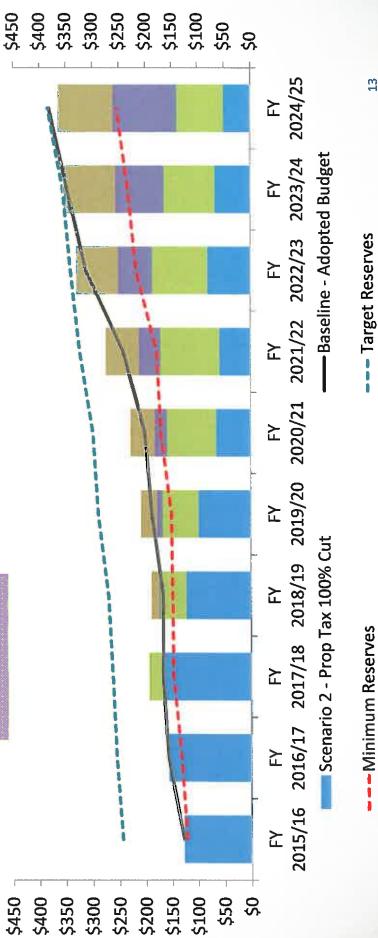


- 100% shift of property tax receipts beginning in FY 2018/19
- \$331 million estimated revenue loss



## Comparison of Estimated Ending Fund Balance and DCR Baseline vs. Scenario 2





Comparison of Estimated Ending Fund Balance and DCR

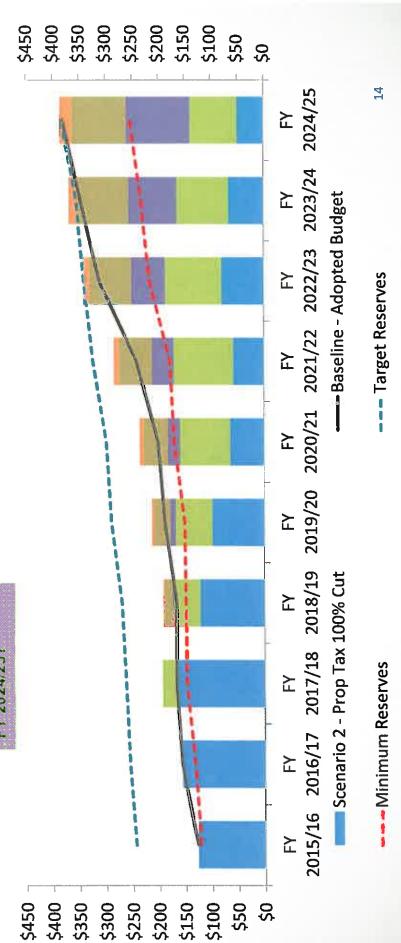
# \* 190% shift of property tax receipts beginning in FY 2018/19

\$331 million estimated revenue loss

No early Increase monthly Connection 2008A Bonds? EDU volumetric Connection rate to \$30.00 by \$16,000 by FY 2024/25?

Increase Wastewater Connection Fee over \$16,000 by FY 2024/25?

Increase MEU Rate to \$2.90 by FY 2024/25?

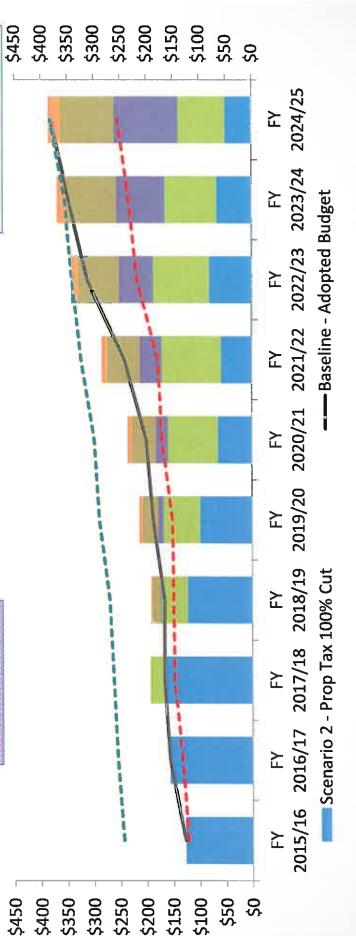


Comparison of Estimated Ending Fund Balance and DCR

400% shift of property tax receipts beginning in FY 2018/19

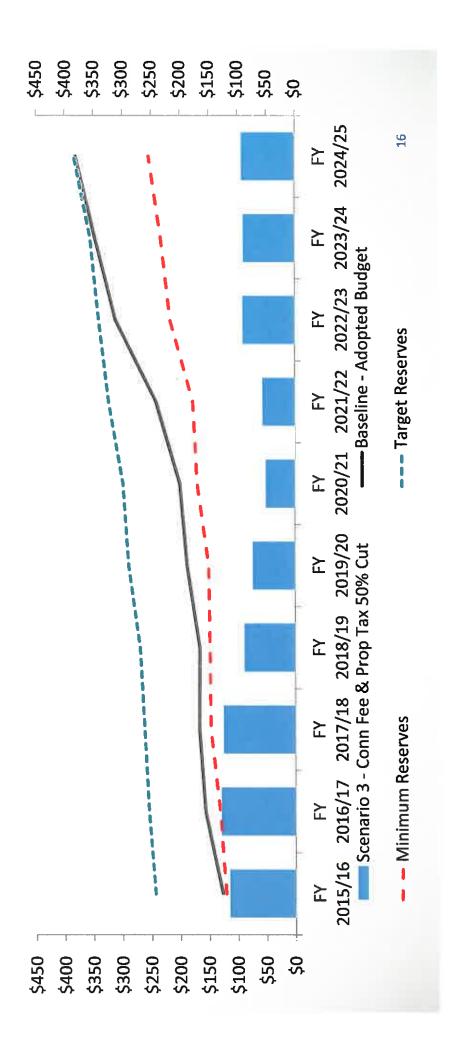




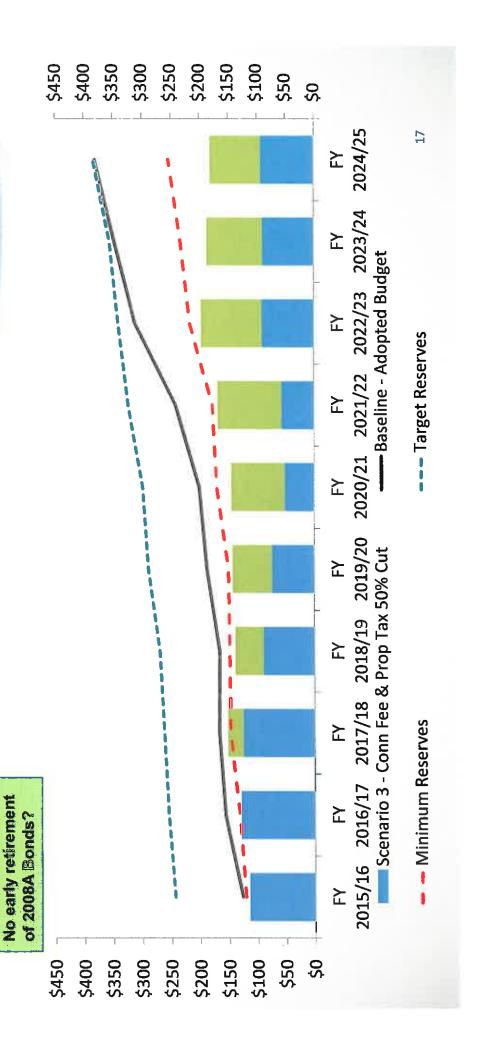


## Comparison of Estimated Ending Fund Balance and DCR Baseline vs. Scenario 3

- \* 50% growth reduction beginning FY 2015/16 AND
- \$ 50% shift of property taxes beginning FY 2018/19
- \$ \$290 million estimated revenue loss

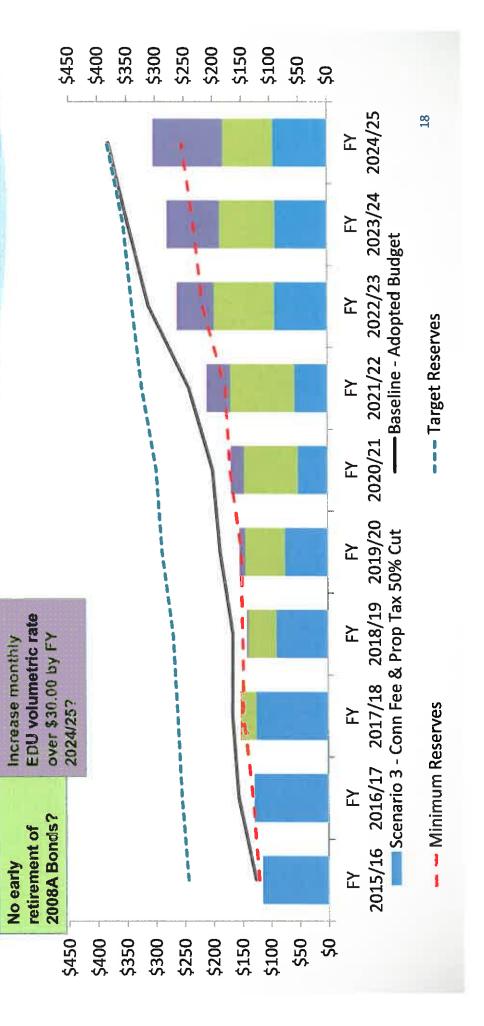


- \* 50% growth reduction beginning FY 2015/16 AND
- 50% shift of property taxes beginning FY 2018/19
- \$290 million estimated revenue loss

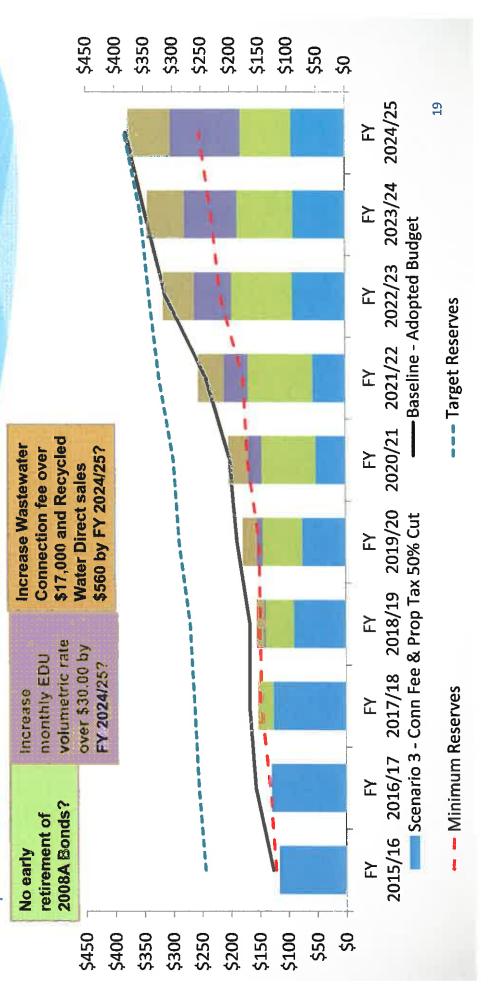


## Comparison of Estimated Ending Fund Balance and DCR Baseline vs. Scenario 3

- \* 50% growth reduction beginning FY 2015/16 AND
- ▶ 50% shift of property taxes beginning FY 2018/19
- \$ \$290 million estimated revenue loss

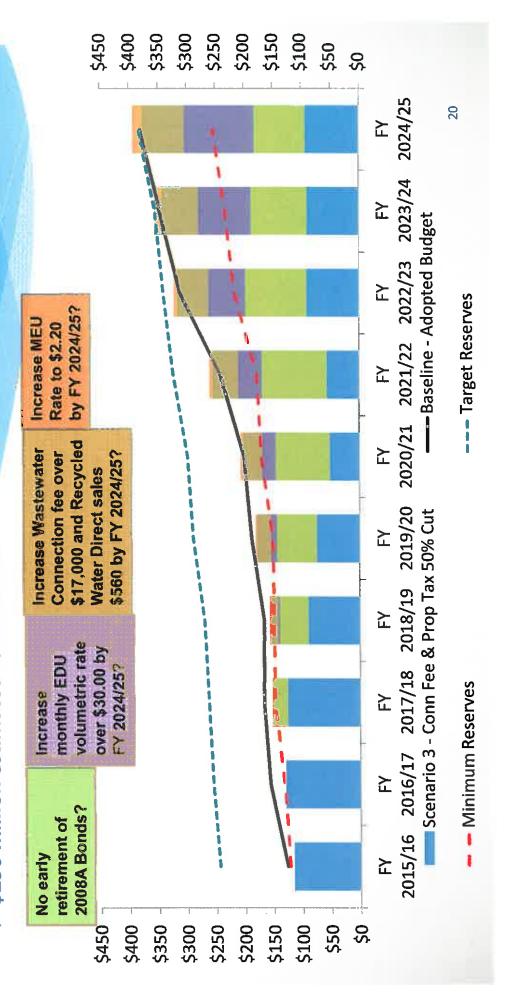


- \* 50% growth reduction beginning FY 2015/16 AND
- 50% shift of property taxes beginning FY 2018/19
- \$ \$290 million estimated revenue loss



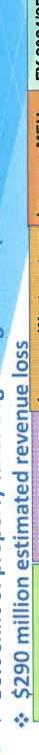
## Comparison of Estimated Ending Fund Balance and DCR Baseline vs. Scenario 3

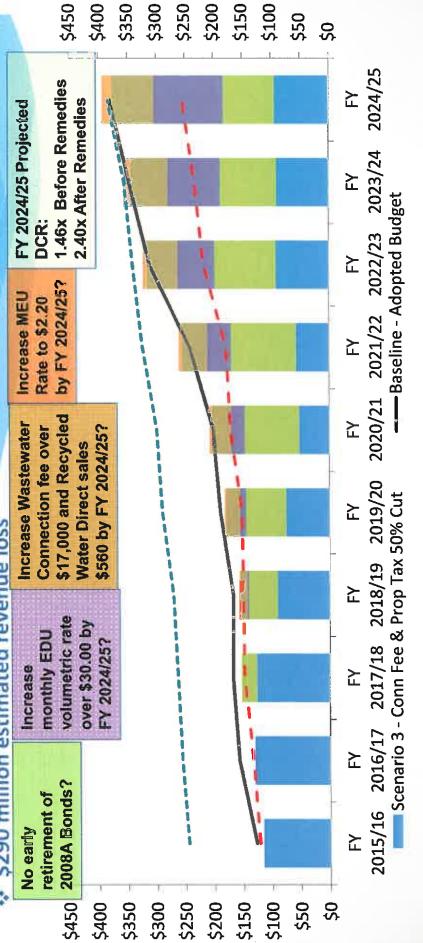
- \$ 50% growth reduction beginning FY 2015/16 AND
- 50% shift of property taxes beginning FV 2018/19
- \$290 million estimated revenue loss



Comparison of Estimated Ending Fund Balance and DCR

- 50% growth reduction beginning FY 2015/16 AND
- 50% shift of property taxes beginning FY 2018/19





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--- Target Reserves

Minimum Reserves



#### Next Steps..

- Water Rates
- Energy Management Plan
- Integrated Resources Planning (IRP)
- Grants and Property Tax Workshop in November
- Follow up LRPF workshop January-February 2016



