

# 2019 Facility Capacity Fee Study

- Board of Directors Meeting
- January 21, 2020



# Introduction to the presentation

- The Agency is in a great moment of growth. Previously FCF was outsourced and a single recommendation was made.
- Previously FCFs were set by the Wholesale Agency; this time they are being set by the merged, Retail Agency
- Today:
  - Ratepayer Advocate has reviewed staff work
  - Ratepayer Advocate has shared their thoughts with the F&A Committee
  - Staff has revised its recommendation based on input from the Ratepayer Advocate and F&A Committee

# How far apart are the recommendations? 1 of 2

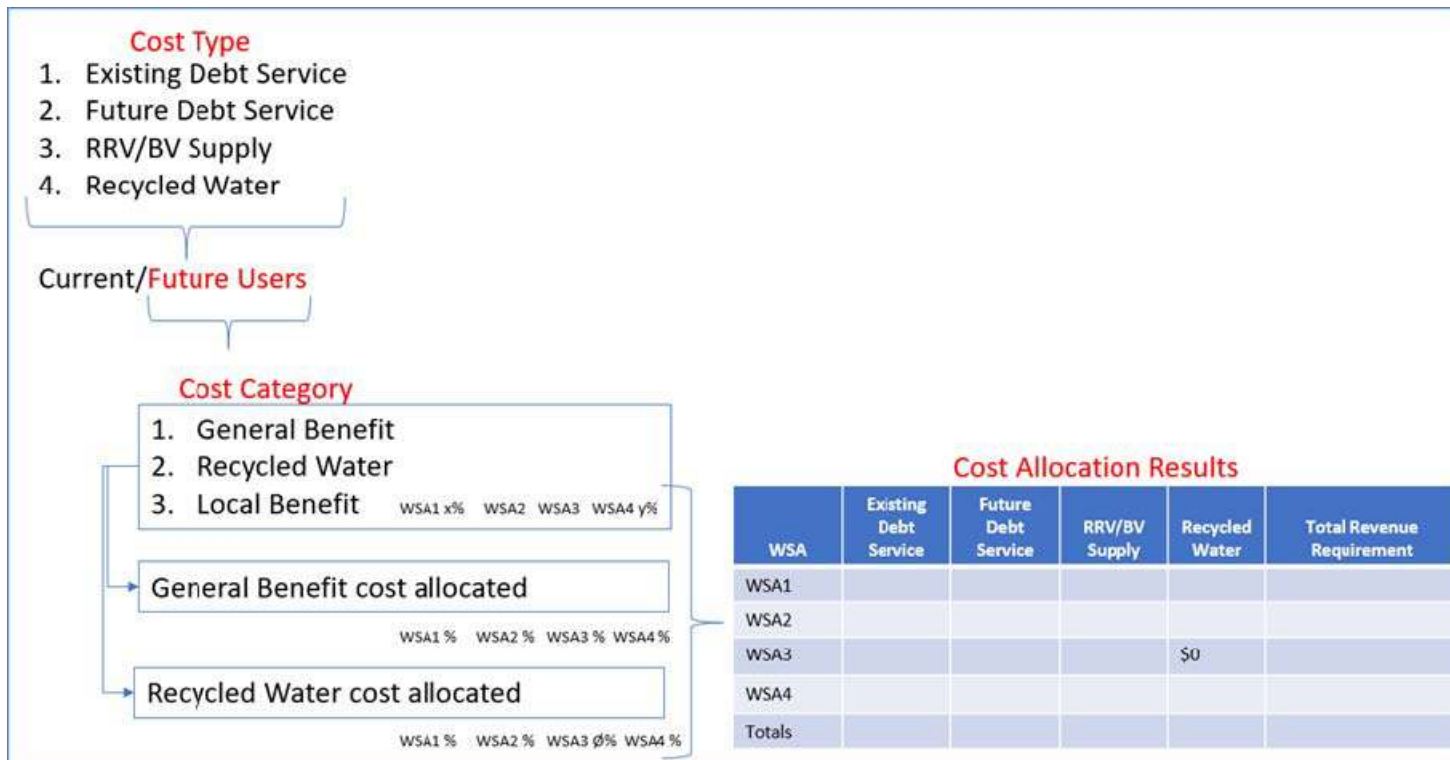
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Staff Recommendation					
WSA	Total Revenue Requirement	Growth in EMUs	Proposed Fee for 1"	Current Fee for 1"	Change %
WSA 1: West Valley	\$ 185,386,128	18,775	\$9,874	\$11,476	-14.0%
WSA 2: East Valley	\$ 100,539,404	6,740	\$14,918	\$16,124	-7.5%
WSA 3: Newhall Ranch	\$ 183,004,974	22,144	\$8,264	\$9,745	-15.2%
WSA 4: Whittaker -Bermite	\$ 6,806,871	481	\$14,140	\$18,192	-22.3%
	<b>475,737,376</b>	<b>48,140</b>			

2

Ratepayer Advocate Recommendation					
WSA	Total Revenue Requirement	Growth in EMUs	Proposed Fee for 1"	Current Fee for 1"	Change %
WSA 1: West Valley	\$ 183,828,708	18,719	\$9,821	\$11,476	-14.4%
WSA 2: East Valley	\$ 99,980,328	6,720	\$14,879	\$16,124	-7.7%
WSA 3: Newhall Ranch	\$ 182,228,069	22,078	\$8,254	\$9,745	-15.3%
WSA 4: Whittaker -Bermite	\$ 6,766,898	480	\$14,099	\$18,192	-22.5%
	<b>472,804,003</b>	<b>47,997</b>			

# Flow of costs to the Water Service Areas





# Managing Risk

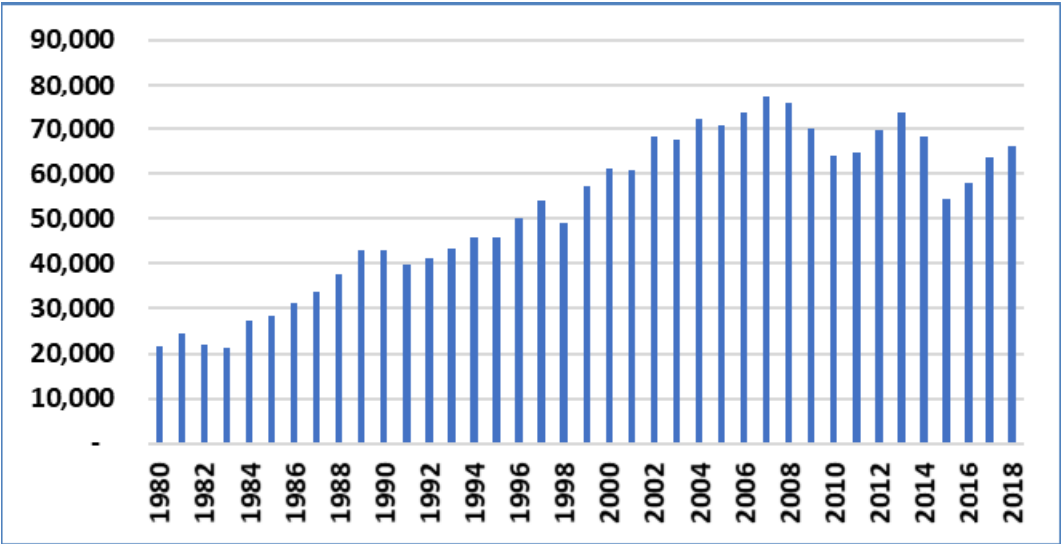
Key Variables

# Key Risks to Accurate FCF Pricing

- Growth in Demand Risk: The risk that growth in demand will not occur at the level planned.
- Interest Rate Risk: The risk to capital project budgets due to changes in interest rates
- Equivalent Meter Unit Risk: The risk that forecasted quantities of EMU will not occur at the level planned.
- FCF pricing risk: The risk that FCFs will not collect a reasonable percentage of the cost of growth

# Growth in Demand Risk: Forecasting 2020 Demand

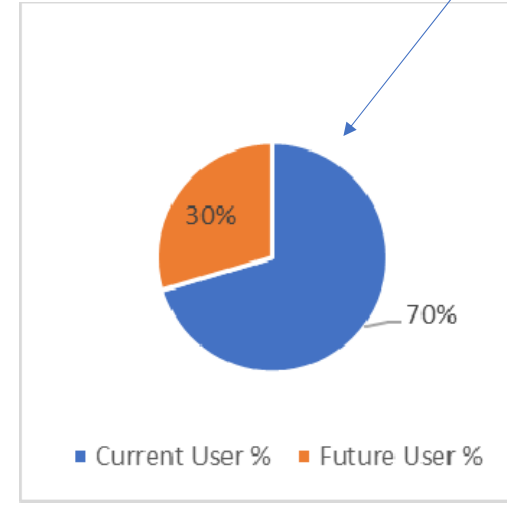
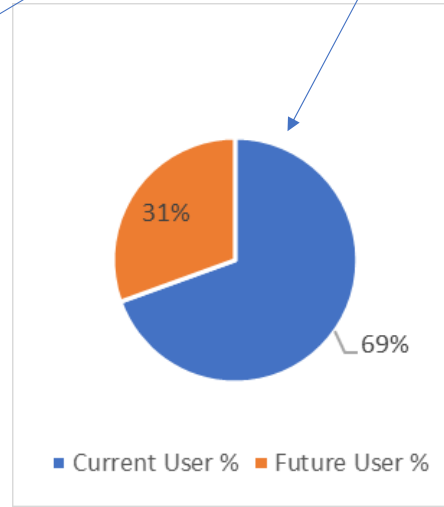
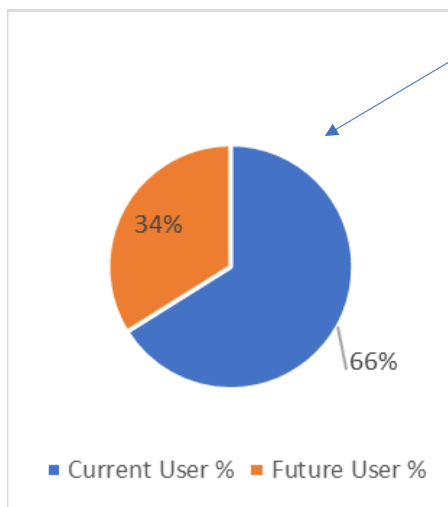
SCV Water Demand 1980-2018



Year	Demand (AFY)
2014	68,178
2015	54,491
2016	57,966
2017	63,555
2018	66,082
<b>Average</b>	<b>62,054</b>

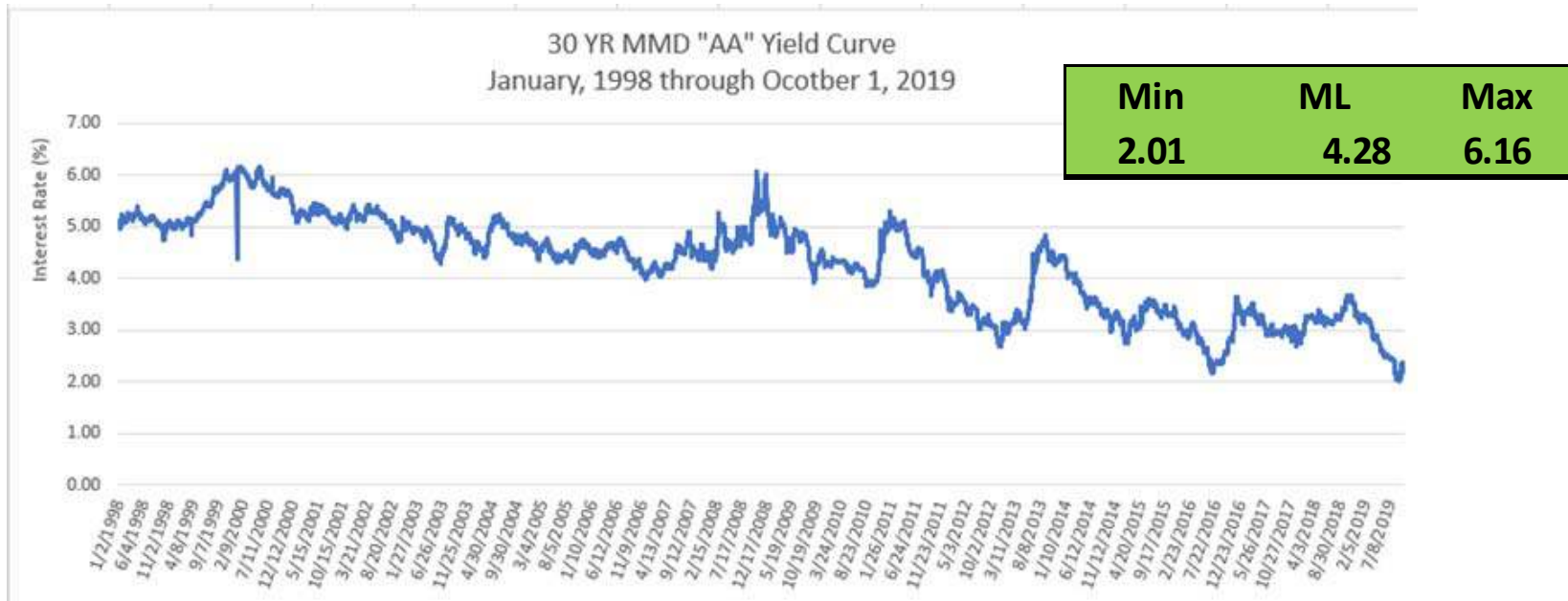
# Growth in Demand Risk

	<u>5yr Avg</u>		<u>10yr Avg</u>	<u>5yr 2014-18 Distributions</u>		
	2012-16	2014-18	2009-18	95% N	95% Ln	95% Tri
Current User Demand	64,761	62,054	65,229	71,421	71,841	66,131
Future User Demand	29,139	31,846	28,671	22,479	22,059	27,769
Total Demand 2050 from UWMP	93,900	93,900	93,900	93,900	93,900	93,900
Current User %	69%	66%	69%	76%	77%	70%
Future User %	31%	34%	31%	24%	23%	30%

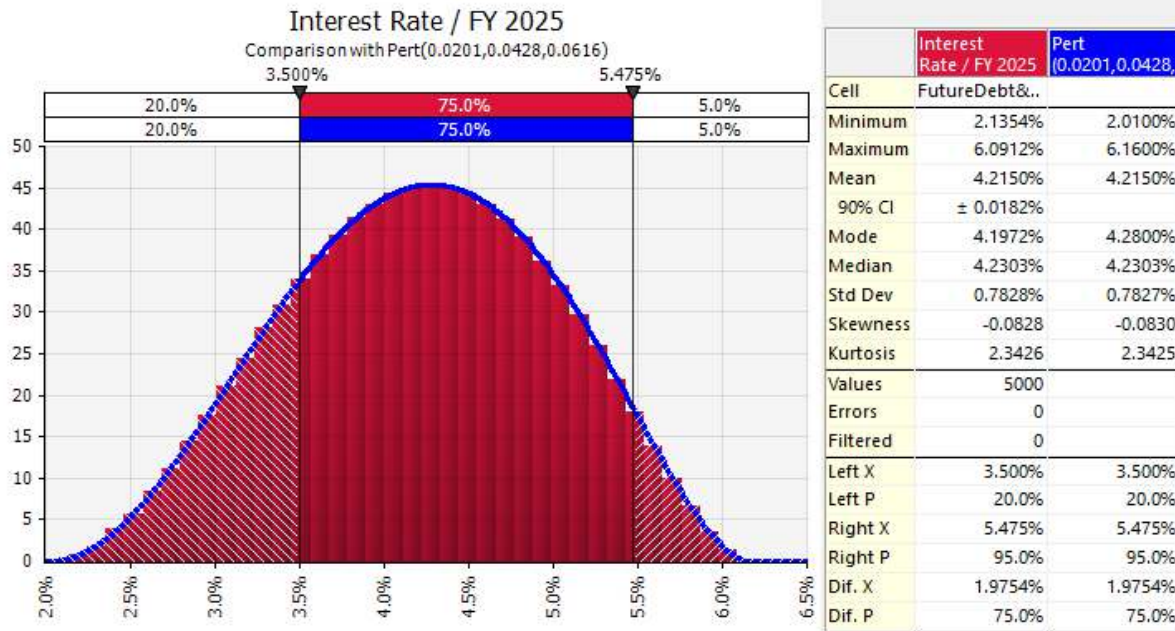




# Interest Rate Risk



# Interest Rate Risk



Existing Debt Issue	Existing Debt Average Coupon	Estimated True Interest Cost*
<b>Wholesale Division</b>		
Series 2010A	4.60%	1.44% (TE)
Series 2015A	4.99%	2.75% (TX)
Series 2016A	4.95%	3.01% (TX)
Series 2020 New Money	N/A	3.67% (TE)
<b>Retail Division</b>		
Series 2017A	4.39%	2.71% (TX)

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
<b>Proposed Debt Terms</b>						
Interest Rate	4.50%	4.50%	4.50%	4.50%	3.50%	3.50%
Term (years)	30	30	30	30	30	30
Issuance Cost	0.85%	0.85%	0.85%	0.85%	0.85%	0.85%
Interest Earning Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

# EMU Realization Risk

5/8" MIN	5/8" ML	5/8" MAX	3/4" MIN	3/4" ML	3/4" MAX	1" MIN	1" ML	1" MAX
0.0%	2.0%	4.0%	60.0%	70.0%	80.0%	20.0%	30.0%	40.0%

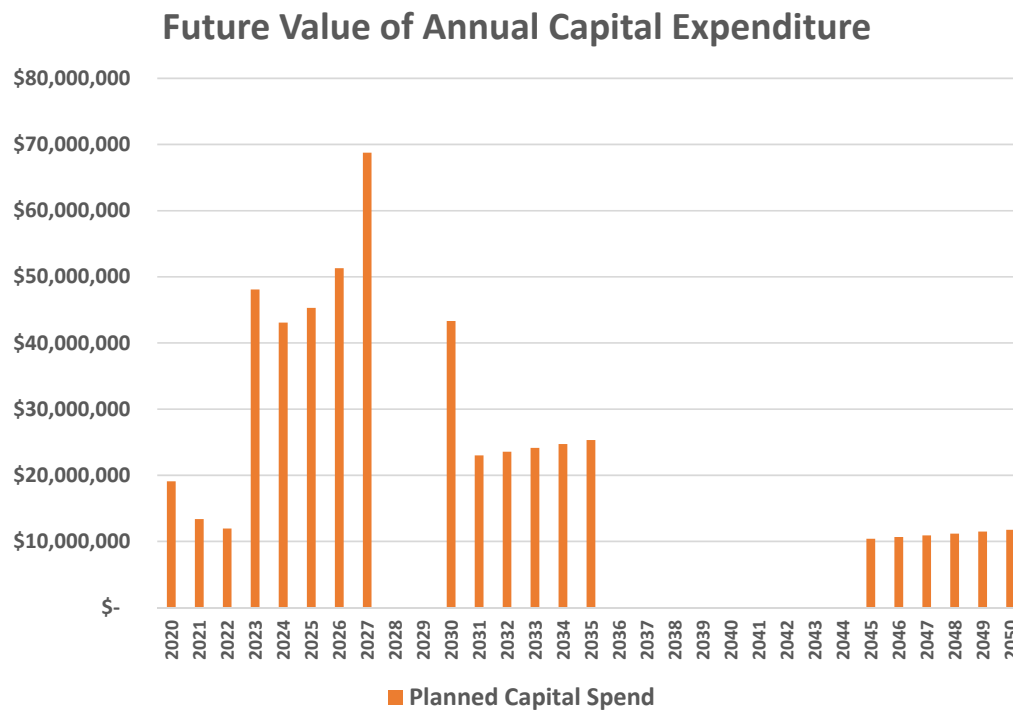
	A	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	FACTOR		0.4	0.6	1	2.0	3.2	4.6	6.0	10.0	20.0	32.0	46.0	86.0	
2															
3	PERIOD	YEAR	5/8"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"	12"	Total EMU
4		2010	2,974	29,680	4,103	2,412	11,482	83	1,650	3,290	17,060	9,728	1,978	602	85,041
5		2011	2,969	29,852	4,109	2,434	11,421	92	1,554	2,900	17,000	9,696	1,978	602	84,606
6		2012	2,955	29,992	4,242	2,448	11,462	101	1,530	2,940	17,400	9,760	2,024	602	85,456
7		2013	2,938	30,188	4,569	2,490	11,622	87	1,536	3,020	17,720	9,920	2,070	688	86,849
8		2014	2,936	30,451	5,027	2,566	11,907	101	1,518	3,700	18,520	10,368	2,254	602	89,950
9		2015	2,880	30,676	5,680	2,600	12,022	92	1,524	3,760	18,700	10,464	2,254	602	91,255
10		2016	2,745	30,934	6,340	2,602	12,144	106	1,524	3,770	18,940	10,528	2,254	602	92,488
11		2017	2,594	31,207	6,694	2,618	12,211	124	1,554	3,750	19,160	10,624	2,254	602	93,392
12		2018	2,409	31,501	7,094	2,642	12,394	133	1,542	3,730	19,280	10,752	2,668	688	94,833
13		2019	2,288	31,768	7,510	2,656	12,426	129	1,680	3,700	19,420	10,816	2,622	688	95,702
14	1	2020	2,082	31,437	7,996	2,702	12,620	99	1,596	3,469	19,492	10,952	2,255	638	95,340
15	2	2021	1,918	31,833	8,688	2,762	12,900	102	1,632	3,546	19,926	11,196	2,306	652	97,461
16	3	2022	1,742	32,229	9,415	2,824	13,188	104	1,668	3,625	20,371	11,446	2,357	666	99,636
43	30	2049	858	43,721	17,435	4,037	18,851	149	2,385	5,182	29,117	16,360	3,369	952	142,416
44	31	2050	865	44,047	17,565	4,067	18,992	150	2,402	5,220	29,335	16,483	3,394	959	143,480
45			-1,217	12,611	9,569	1,364	6,372	50	806	1,752	9,842	5,530	1,139	322	48,140
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# Differences in FCF Calculation Methodology, Opinion, and Fees

- It's not the costs to recover... it's how much growth will be realized
  - Staff number: 48,140
  - Ratepayer Advocate number: 47,997
- There are defensible alternatives using Staff's risk-based FCF model.

Level of Confidence		WSA 1	WSA 2	WSA 3	WSA 4	Total EMUs	
Confidence Interval	95.0%	Fee	\$10,714	\$6,233	\$9,004	\$15,381	
		EMU's	17,158	6,159	20,238	440	43,995
	92.5%	Fee	\$10,496	\$15,892	\$8,813	\$15,060	
		EMU's	17,548	6,299	20,697	450	44,994
	90.0%	Fee	\$10,339	\$5,645	\$674	\$4,826	
		EMU's	17,844	6,405	21,047	458	45,754
	87.5%	Fee	\$10,157	\$15,363	\$8,515	\$14,560	
		EMU's	18,189	6,529	21,453	466	46,637
	85.0%	Fee	\$10,055	\$15,202	\$8,425	\$14,408	
		EMU's	18,396	6,604	21,697	472	47,169
82.5%	Fee	\$9,966	\$15,061	\$8,345	\$14,275		
	EMU's	18,582	6,671	21,918	476	47,647	
80.0%	Fee	\$9,874	\$14,918	\$8,264	\$14,140		
	EMU's	18,775	6,740	22,144	481	48,140	
70.0%	Fee	\$9,595	\$14,477	\$8,015	\$13,724		
	EMU's	19,396	6,963	22,878	497	49,734	
60.0%	Fee	\$9,369	\$14,119	\$7,813	\$13,386		
	EMU's	19,933	7,156	23,511	511	51,111	
50.0%	Fee	\$9,148	\$13,772	\$7,617	\$13,059		
	EMU's	20,481	7,352	24,157	525	52,515	

# Timing of Capital Plan



The Master Capital Plan is heavily loaded up front. This led to the development of FCF scenarios that excluded capital costs from 2030 through build out. The logic behind this is that projects planned over 10 years out may get cut or deferred; annual staff review of the Master Plan will provide plenty of lead time to add back these projects that will primarily benefit communities that will not be started until the next update of the FCF.

Projects starting 2030 and later: (\$213.9m)  
 Recycled Water Projects (Alignments A-H)  
 ESFP Storage Expansion  
 Rio Vista Reservoir Expansion  
 Water Supply Banking (10,000 AF)  
 Stored Water Recovery Unit Replacement  
 Southern Service Area Expansion

# The need for a high level of confidence in the price point used for FCFs

## What the model is telling us

- For a specific level of confidence, what should the FCFs be so that if all FCFs were prepaid in 2020, the revenue received would be adequate to cover all costs allocated to growth through buildout.
- There is no expectation that this will happen
- As a result, the FCF study will be updated periodically

## What we need to collect annually

- Existing Debt Service allocated to Future Growth is  $\approx$  \$21 million per year
- Agency FCF Revenue forecast  $\approx$  \$8 million per year
- The gap is  $\approx$  \$13 million per year