Revenue Requirements and Water Rate Design

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Rate Study Approach

Pricing: How should the revenue be collected from the customer classes?

Rate Design

We Are Here

Cost Allocation: Who should pay and how much should each customer class pay?

Cost of Service

Financial Planning:

What are the annual revenue requirements of the utility?

Revenue Requirements Forecast

Operating & Capital Costs

Rate Revenues & Miscellaneous Revenues

Objectives, Policies & Rate Setting Principles





Rate Study Update

- Updated rate model:
 - Consider all operating and capital requirements through 2020
 - Prior model looked only at 2014
 - DSP rate integration
 - Vista Ridge impacts
 - SAWS integration infrastructure costs and how they are financed (debt or cash)
 - Potential additional wholesale water sales
 - Changes in price of water once Financial Close is achieved



Significant Rate Pressures through 2020

- Develop/provide for additional water supplies
 - Phase II of Desalination and Expanded Carrizo Projects
 - Phase II of integration pipeline
 - Vista Ridge
- Other Capital investments of ~ \$944M for:
 - Compliance with EPA consent decree
 - Improve/replace aging water delivery and other wastewater infrastructure



Revenue Requirements



Major Study Assumptions

- Utilizes O&M and capital estimates from 2015 budget process
 - These will be updated as we develop the final 2016 budgets
- DSP rate integration in 2017
- Vista Ridge
 - Integration capital costs, primarily debt funded
 - Begin receiving water in 2019 (50%) with full receipt in 2020
 - No additional wholesale water sales



Revenue Requirements 2016-2020

Including Vista Ridge (integration costs primarily debt funded)

	Total Water & Wastewater						
	SAWS ONLY		SAWS & DSP MERGED)	Cumulative
	2015	2016	2017	2018	2019	2020	Increase
Sources of Funds							
Operating revenues	\$ 506.0	\$ 511.7	\$ 606.8	\$ 643.9	\$ 684.1	\$ 783.9	
Revenue from rate adjustments	-	28.0	32.8	33.9	92.7	72.9	
Misc. revenues/other sources	9.7	6.8	7.2	8.1	9.2	8.7	
Total Sources	\$ 515.7	\$ 546.5	\$ 646.8	\$ 685.9	\$ 786.0	\$ 865.5	
Uses of Funds							
Operating & Maintenance	\$ 258.8	\$ 265.3	\$ 322.4	\$ 329.3	\$ 391.9	\$ 455.5	
Debt related expenses	185.6	200.8	238.5	247.8	265.9	278.1	
Capital Outlay	7.9	8.1	9.2	9.3	9.6	9.7	
Payment to the City	13.0	13.8	16.4	17.4	20.1	22.3	
Transfers to R&R	50.4	58.5	60.3	82.1	98.5	99.9	
Total Uses	\$ 515.7	\$ 546.5	\$ 646.8	\$ 685.9	\$ 786.0	\$ 865.5	
System-wide Rate Adjustments		5.5%	6.4%	5.6%	14.4%	10.7%	42.6%



Revenue Requirements 2016-2020

Without Vista Ridge

	Total Water & Wastewater						
SAWS ONLY		S ONLY	SAWS & DSP MERGED				Cumulative
	2015	2016	2017	2018	2019	2020	Increase
Sources of Funds							
Operating revenues	\$ 506.0	\$ 511.7	\$ 606.7	\$ 643.2	\$ 670.5	\$ 710.8	
Revenue from rate adjustments	-	27.9	32.1	21.2	33.5	23.8	
Misc. revenues/other sources	9.7	6.8	7.2	8.1	9.2	8.7	
Total Sources	\$ 515.7	\$ 546.4	\$ 646.0	\$ 672.5	\$ 713.2	\$ 743.3	
Uses of Funds							
Operating & Maintenance	\$ 258.8	\$ 265.3	\$ 322.4	\$ 329.3	\$ 336.0	\$ 343.3	
Debt related expenses	185.6	200.7	237.8	244.4	262.4	274.6	
Capital Outlay	7.9	8.1	9.2	9.3	9.6	9.7	
Payment to the City	13.0	13.8	16.4	17.1	18.2	19.0	
Transfers to R&R	50.4	58.5	60.2	72.4	87.0	96.7	
Total Uses	\$ 515.7	\$ 546.4	\$ 646.0	\$ 672.5	\$ 713.2	\$ 743.3	
System-wide Rate Adjustments		5.5%	6.3%	3.5%	5.2%	3.5%	24.0%

Preliminary Rate Design Scenarios

Existing Rate Structure

- Seasonal Rates
- Fixed Charge
- Volumetric Charge

Usage Block	Residential Block Thresholds	General & Wholesale Block Thresholds	Irrigation Block Thresholds
	(gallons)	(gallons)	(gallons)
Block 1	0 - 5,985	Base	0 - 6,732
Block 2	5,986 - 12,717	100% - 125% of Base	6,733 - 17,205
Block 3	12,718 - 17,205	125% - 175% of Base	>17,205
Block 4	>17,205	Over 175% of Base	

Existing Rate Structure

Block Pricing

Usage Block	Residential Standard	Residential Seasonal	General/ Commercial	Irrigation Standard	Irrigation Seasonal
	\$ Rate/100 gallons	\$ Rate/100 gallons	\$ Rate/100 gallons	\$ Rate/100 gallons	\$ Rate/100 gallons
Block 1	\$0.2291	\$0.2291	\$0.3194	\$0.3689	\$0.3689
Block 2	\$0.3315	\$0.3442	\$0.3433	\$0.4675	\$0.5006
Block 3	\$0.4675	\$0.4977	\$0.4018	\$0.8572	\$0.9912
Block 4	\$0.8185	\$0.9469	\$0.4967		



Principles of Rate Design

- Cost of service based customer class
- Send price message sooner to customers with consumption outside of the life line supply rate block
 - Revenue adjustments cannot only be borne by high users
- Continue to encourage conservation through pricing signals
- Create a life line supply rate block



Preliminary Rate Structure Options

- Fixed Adjustment to fixed charge for life line supply
- Seasonal Replace with drought rates
- Two residential rate scenarios
 - 6 blocks
 - 8 blocks
 - Changes in block pricing differentials
- Irrigation
 - Changes in number of blocks and pricing differentials



Rate Design Analysis

Preliminary Class Block Thresholds

Usage Block	Residential Scenario 1	Residential Scenario 2	General/Commercial Scenario	Irrigation Scenario
	Block Thresholds (gallons)	Block Thresholds (gallons)	Block Thresholds (gallons)	Block Thresholds (gallons)
Block 1	0 - 2,992	0 - 2,992	Base	0 - 8,229
Block 2	2,993 – 5,985	2,993 – 4,489	100% - 125% of Base	8,230 - 17,954
Block 3	5,986 – 8,977	4,490 – 5,985	125% - 175% of Base	17,955 - 162,316
Block 4	8,978 – 12,717	5,986 – 7,480	Over 175% of Base	>162,316
Block 5	12,718 – 17,205	7,481 – 10,473		
Block 6	>17,206	10,474 – 14,962		
Block 7		14,963 – 20,199		
Block 8		>20,199		

Base is defined as 100% of Prior Years' Average Annual Consumption

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Rate Design Analysis

Preliminary Block Pricing

Usage Block	Residential Scenario 1 \$ Rate/100 gallons	Residential Scenario 2 \$ Rate/100 gallons	General /Commercial Scenario \$ Rate/100 gallons	Irrigation Scenario \$ Rate/100 gallons
Block 1	\$0.1431	\$0.1407	\$0.3039	\$0.3957
Block 2	\$0.2862	\$0.2463	\$0.3494	\$0.5935
Block 3	\$0.3577	\$0.3167	\$0.4558	\$0.7913
Block 4	\$0.4293	\$0.3871	\$0.5318	\$0.9892
Block 5	\$0.6439	\$0.4574		
Block 6	\$0.8585	\$0.5278		
Block 7		\$0.6334		
Block 8		\$0.8445		



Rate Structure Considerations

Seek RAC member feedback on preliminary structure options

- What does RAC need from staff to generate input
- Timing Prior to next RAC meeting

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