

Water and Sewer Rate Study

March 14, 2018



CALAVERAS COUNTY WATER DISTRICT

Presented by:

HDR Engineering Inc.

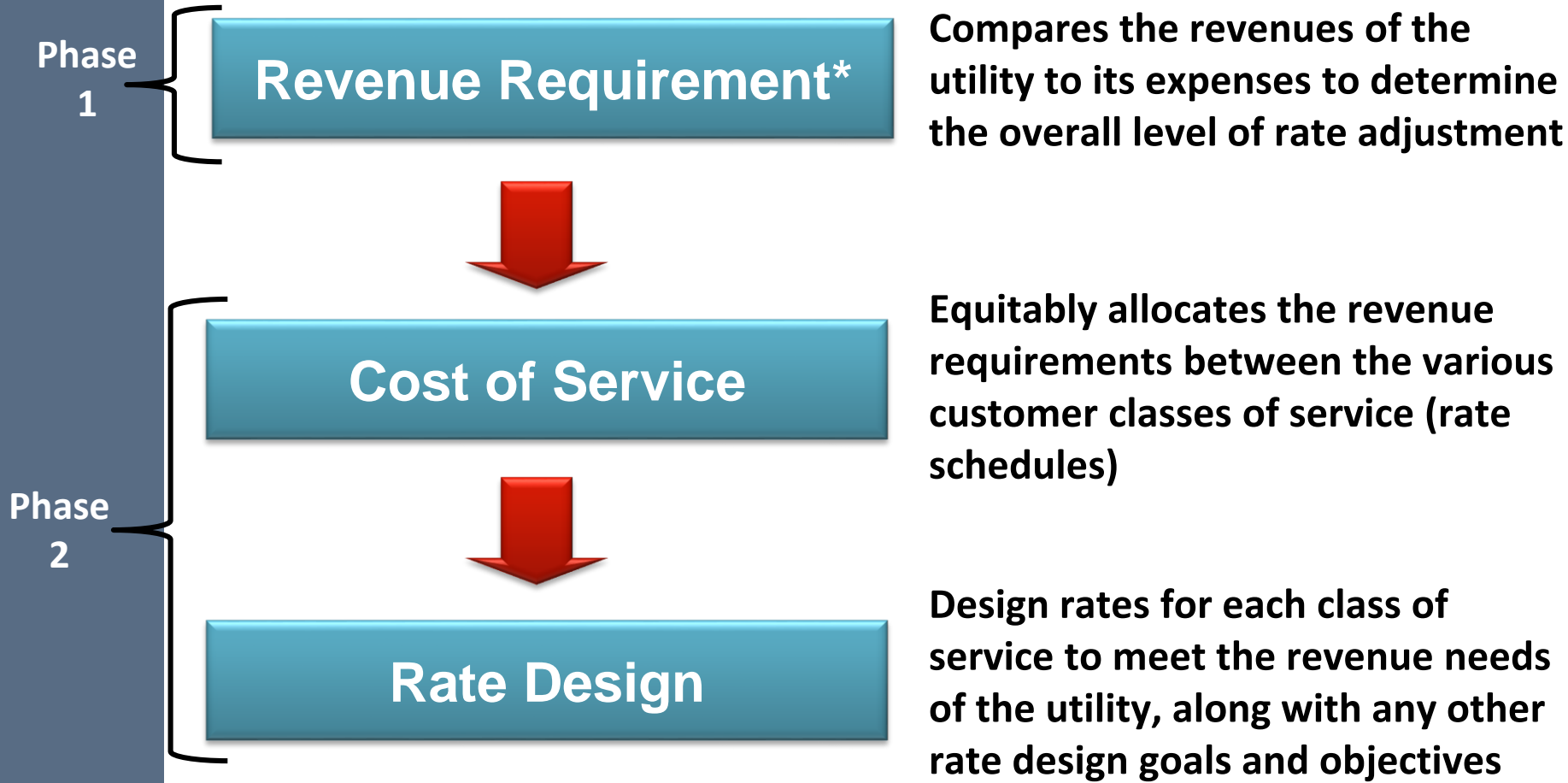
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Today's Topics

- Overview of the rate study approach
- Summary of key assumptions
- Review proposed water and sewer rates
- Review drought rates
- Review average bill impacts

Overview of the Rate Setting Process



*Also Known as Financial Plan



Cost of Service

What is cost of service?

- Analysis to equitably allocate the revenue requirement to the various customer classes of service

Why cost of service?

- Generally accepted as “fair and equitable”
- Avoids subsidies
- Revenues track costs
- Provides an accurate price signal
- Meet the intent of Proposition 218

Objectives of cost of service

- Determine if subsidies exist
- Develop average unit costs for rate design

Summary of the Key Assumptions

- Focus has been on the cost of service analysis
 - Subsequent rate designs
- Discussions with Ad Hoc Committee and Board have identified:
 - Customer classes
 - Rate structures
 - Revenue transition plans

Water Cost of Service – Policy Direction

- Water analysis based on following classes of service:
 - Residential
 - Non-Residential
 - Irrigation/Landscape
- Developed rate structures by class of service
 - Residential
 - No water allowance in fixed charge
 - Eliminate the variable tier size by meter size
 - Current tier sizes are maintained
 - Non-Residential
 - No water allowance in fixed charge
 - Uniform consumption rate

Sewer Cost of Service – Policy Direction

- Sewer analysis based on following classes of service:
 - Residential
 - Non-residential
- Maintained current rate structure by class of service
 - Continue use of multiplier for non-residential accounts
 - Multiplier is being reviewed by District staff to confirm assumptions

Water Revenue Transition Plan – Level Rate Adjustments

Summary of Water Revenue Requirement							
	Budget		Projected				
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Revenue	\$13,612	\$13,857	\$14,028	\$14,160	\$14,319	\$14,480	\$14,639
Expenditures	\$13,532	\$13,895	\$14,147	\$14,502	\$14,877	\$15,261	\$15,659
Debt Service	\$2,088	\$1,671	\$2,051	\$1,880	\$1,880	\$700	\$700
Transfers In	(\$2,521)	(\$1,707)	(\$1,978)	(\$1,827)	(\$1,832)	(\$656)	(\$665)
Revenue Requirement	\$13,100	\$13,859	\$14,221	\$14,555	\$14,924	\$15,305	\$15,694
Balance/(Deficiency) of Funds	\$512	(\$2)	(\$193)	(\$394)	(\$605)	(\$825)	(\$1,055)
Proposed Revenue Adjustment	0.0%	0.0%	1.7%	1.8%	1.8%	1.8%	1.9%

These figures are a result of the costs savings and revenue enhancements discussed at prior meetings



District's Current Water Rates

Bi-Monthly Rates	
	Rates
Operating Rates	
5/8"	113.56
3/4"	170.34
1"	283.91
1.5"	567.81
2"	908.50
3"	1,817.00
4"	2,839.06
Consumption Rate per 100 cubic feet (cf)	
Tier 1	Included in Meter Rate
Tier 2	1.44
Tier 3	1.80
Tier 4	2.30

Tier Sizing	Tier 1	Tier 2	Tier 3	Tier 4
5/8"	0 - 1,000 cf	1,001 - 6,000 cf	6,001 - 12,000 cf	Over 12,000 cf
3/4"	0 - 1,500 cf	1,501 - 9,000 cf	9,001 - 18,000 cf	Over 18,000 cf
1"	0 - 2,500 cf	2,501 - 15,000 cf	15,001 - 30,000 cf	Over 30,000 cf
1.5"	0 - 5,000 cf	5,001 - 30,000 cf	30,001 - 60,000 cf	Over 60,000 cf
2"	0 - 8,000 cf	8,001 - 48,000 cf	48,001 - 96,000 cf	Over 96,000 cf
3"	0 - 16,000 cf	16,001 - 96,000 cf	96,001 - 192,000 cf	Over 192,000 cf
4"	0 - 25,000 cf	25,001 - 150,000 cf	150,001 - 300,000 cf	Over 300,000 cf

*100 cf = 748 gallons

Proposed Water Rates*

- Remove “free water” tier for residential rate; single tier for non-residential

Bi-Monthly Rates	
	Total
Operating Rates	
5/8"	112.28
Consumption Rate per 100 cubic feet (cf)	
Residential	
Tier 1	1.09
Tier 2	1.14
Tier 3	1.56
Tier 4	1.77
Non-Residential	
All Consumption	1.47
Irrigation	
All Consumption	1.78

	Tier 1	Tier 2	Tier 3	Tier 4
Residential	0 - 1,000 cf	1,001 - 6,000 cf	6,001 - 12,000 cf	Over 12,000 cf

*Based on Level Rate Transition Plan (100 cf = 748 gallons)



DRAFT Water Rates – Level Rate Plan

	Current Rates	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
Bi-Monthly Meter Charges						
5/8"	\$113.56	\$112.28	\$114.23	\$116.22	\$118.26	\$120.35
3/4"	170.34	168.43	171.34	174.33	177.39	180.53
1"	283.91	280.71	285.57	290.55	295.65	300.89
1.5"	567.81	561.43	571.14	581.10	591.31	601.77
2"	908.50	898.28	913.83	929.76	946.09	962.83
3"	1,817.00	1,796.57	1,827.66	1,859.52	1,892.19	1,925.66
4"	2,839.06	2,807.14	2,855.71	2,905.50	2,956.54	3,008.85
Residential Consumption Charges (\$/100 cf)						
Tier 1, (0 – 1,000 cf)	\$0.00	\$1.09	\$1.11	\$1.13	\$1.15	\$1.17
Tier 2, (1,001 – 6,000 cf)	1.44	1.14	1.16	1.18	1.20	1.22
Tier 3, (6,001 – 12,000 cf)	1.80	1.56	1.59	1.62	1.65	1.68
Tier 4, (12,001 cf and Over)	2.30	1.77	1.80	1.83	1.86	1.90
Non-Residential	NA*	\$1.47	\$1.49	\$1.52	\$1.55	\$1.57
Irrigation/Landscape	NA*	\$1.78	\$1.81	\$1.84	\$1.87	\$1.91

* Currently Non-Residential and Irrigation/Landscape customers pay the same tiered consumption charges as Residential customers



Residential Comparison – 5/8” Meter

Consumption (cubic feet)	Current Rates	Proposed Rates	Consumptive Charge	Total Bill	\$ Change	% Change
Base Rate	\$113.56	\$112.28	\$0.00	\$112.28	(\$1.28)	-1.1%
200	113.56	112.28	2.18	114.46	\$0.90	0.8%
400	113.56	112.28	4.36	116.64	\$3.08	2.7%
600	113.56	112.28	6.54	118.82	5.26	4.6%
800	113.56	112.28	8.72	121.00	7.44	6.6%
1,000	113.56	112.28	10.90	123.18	9.62	8.5%
1,200	116.44	112.28	13.18	125.46	9.02	7.7%
1,400	119.32	112.28	15.46	127.74	8.42	7.1%
1,600	122.20	112.28	17.74	130.02	7.82	6.4%
1,800	125.08	112.28	20.02	132.30	7.22	5.8%
2,000	127.96	112.28	22.30	134.58	6.62	5.2%
2,200	130.84	112.28	24.58	136.86	6.02	4.6%
2,400	133.72	112.28	26.86	139.14	5.42	4.1%
2,600	136.60	112.28	29.14	141.42	4.82	3.5%
2,800	139.48	112.28	31.42	143.70	4.22	3.0%
3,000	142.36	112.28	33.70	145.98	3.62	2.5%

Drought and Water Use Reductions

- State Water Resources Control Board
 - Plans to adopt resolution permanently prohibiting wasteful water uses
- Water use reduction targets (2015 UWMP)

Table 8-1: Stages of Action (DWR Table 8-1)

Stage	Percent Supply Reduction	Water Supply Condition
1: Advisory Stage (Voluntary Rationing)	≤10%	Up to a 10% reduction in total District supply
2: Alert Stage (Mandatory Rationing)	11-15%	11-15% reduction in total District supply
3: Moderate Stage (Mandatory Rationing)	16-25%	16-25% reduction in total District supply
4: Critical Stage (Mandatory Rationing)	26-49%	26-49% reduction in total District supply
5: Emergency Stage (Mandatory Rationing)	≥50%	50% or more reduction in total District supply

Declared Drought - Reduced Revenues

- **Advisory Stage 1 - “< 10%” reduction**
 - Project 135,882 ccf less in water sales
 - Reduces water revenues by approximately \$181,000
- **Alert Stage 2 - “11 – 15%” reduction**
 - Project 176,824 ccf less in water sales
 - Reduces water revenues by approximately \$235,000
- **Moderate Stage 3 - “16 – 25%” reduction**
 - Project 285,991 ccf less in water sales
 - Reduces water revenues by approximately \$378,005
- **Critical Stage 4 - “26 – 49%” reduction**
 - Project 517,931 ccf less in water sales
 - Reduces water revenues by approximately \$677,000
- **Emergency Stage 5 - “> 50%” reduction**
 - Project 681,487 ccf less in water sales
 - Reduces water revenues by approximately \$883,000

Proposed Drought Rates

- Board must approve surcharges prior to implementation

Proposed Drought Rates		
Stage	% Target Reduction	Surcharge * \$/100 cf
Advisory Stage 1	<10%	\$ 0.15
Alert Stage 2	11% - 15%	0.20
Moderate Stage 3	16% - 25%	0.35
Critical Stage 4	26% - 49%	0.80
Emergency Stage 5	>50%	1.29

*Surcharge is charged for all consumption regardless of tier.



Agricultural Rates

- Current rate
 - \$9.70 per acre foot
 - 45% allowance granted to riparian users
 - Rate in place since 1980's
 - Water use approximately 1,200 – 1,500 acre feet per year
- Rate review
 - Water Resources reviewed New Hogan raw water costs
 - Meet with property owners/farmers February 19th
- Proposed rate
 - FY 2018-19: \$12 per acre foot
 - FY 2019-20: \$15 per acre foot
 - FY 2020-21: \$18 per acre foot
 - FY 2021-22: \$18 per acre foot
 - FY 2022-23: \$18 per acre foot

Sewer Revenue Transition Plan – Level Rate Adjustments

Summary of Sewer Revenue Requirement							
	Budget		Projected				
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Revenue	\$6,377	\$6,408	\$6,465	\$6,535	\$6,607	\$6,679	\$6,751
Expenditures	\$7,275	\$7,048	\$6,912	\$7,058	\$7,250	\$7,447	\$7,652
Debt Service	\$479	\$541	\$682	\$695	\$695	\$298	\$298
Transfers In	(\$643)	(\$841)	(\$902)	(\$752)	(\$620)	(\$84)	\$62
Revenue Requirement	\$7,112	\$6,748	\$6,692	\$7,001	\$7,325	\$7,662	\$8,012
Balance/(Deficiency) of Funds	(\$734)	(\$341)	(\$227)	(\$466)	(\$718)	(\$982)	(\$1,261)
Proposed Revenue Adjustments	0.0%	0.0%	4.1%	4.1%	4.1%	4.1%	4.1%

These results are a result of the costs savings discussed at prior meetings



Current and Proposed Rates

	Current Rates	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
Residential Bi-Monthly	\$172.32	\$179.91	\$187.23	\$194.78	\$202.58	\$210.63
Bi-Monthly Bill \$ Change		7.59	7.32	7.56	7.79	8.05
Bi-Monthly Bill % Change		4.4%	4.1%	4.1%	4.0%	4.0%
Non-Residential B-Monthly	\$172.32	\$176.25	\$183.38	\$190.74	\$198.33	\$206.18
Bi-Monthly Bill \$ Change		3.93	7.13	7.36	7.59	7.84
Bi-Monthly Bill % Change		2.3%	4.0%	4.0%	4.0%	4.0%

* Non-Residential Rates are Per Equivalent Residential Unit



Next Steps

- Today
 - Receive Final Board direction
 - Overall revenue adjustments
 - Proposed water and sewer rates
 - Drought rates
 - Agricultural rates
- Next Steps
 - Finalize Study
 - Initiate Proposition 218 process (March 28th meeting)
 - Set public hearing (Wednesday, May 23rd at 1:00 p.m.)
 - Notify customers (mail Prop 218 notices)
 - Public outreach and town hall meetings

Questions and Discussion