

Water and Sewer Rate Study

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CALAVERAS COUNTY WATER DISTRICT

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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

Phase
1

Revenue Requirement*

Compares the revenues of the utility to its expenses to determine the overall level of rate adjustment



Cost of Service

Equitably allocates the revenue requirements between the various customer classes of service (rate schedules)



Rate Design

Design rates for each class of service to meet the revenue needs of the utility, along with any other rate design goals and objectives

*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



Questions and Discussion