FINAL DRAFT WATER AND SEWER RATE STUDY

B&V PROJECT NO. 196239

PREPARED FOR

Camrosa Water District, CA

APRIL 22, 2019

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1 Executive Summary

Camrosa Water District (District) commissioned Black & Veatch Management Consulting, LLC (Black & Veatch) to conduct a Water and Sewer Rate Study (Study) for its Water and Sewer Utilities. Water is composed of Potable Water and Non-Potable Water. The Study included the development of a five-year financial plan, a cost of service analysis and the design of rates. The specific objectives of the Study were to:

- Evaluate the adequacy of projected revenues under existing rates to meet projected revenue requirements;
- Develop sound financial plans for the utilities covering a five-year Study period for both ongoing operations and planned capital improvements;
- Allocate the utilities' projected revenue requirements to the various customer classes by their respective service requirements; and
- Develop a suitable rate schedule that produces revenues adequate to meet financial needs while recognizing customer costs of service and regulatory considerations such as Proposition 218 and applicable judicial decisions.

1.1 WATER SYSTEM

The District's Water Utility provides Potable and Non-Potable Water services to an expected 8,305 residential, commercial, irrigation, schools, agricultural and fire connections in FY 2019. Potable Water serves 7,971 customers while Non-Potable Water serves an additional 334. The District obtains Potable Water from two primary sources: 1) groundwater and 2) import water from Calleguas Municipal Water District. The District obtains Non-Potable Water from two primary sources: 1) surface water obtained from Conejo Creek and 2) from recycled water produced at the District's Water Reclamation Facility. These potable and non-potable sources meet the District's annual 15,600 acre-feet (AF) demand.

1.2 SEWER SYSTEM

The District's Sewer Utility provides sewer services to 4,979 residential, commercial, irrigation, schools, and agricultural connections (8741 equivalent dwelling units (EDUs)). The District also provides sewer services to the California State University at Channel Islands. The District directs sewage flow through its 70 miles of mains and 5 lift stations to the Water Reclamation Facility. Additionally, a small portion of the District's customers flow is directed to the City of Thousand Oaks for collection and treatment via an agreement between the two agencies. These customers reside in a geographic area where it makes more economic sense to redirect flows to Thousand Oaks.

1.3 FINANCIAL PLAN

The District operates the utilities as self-supporting enterprises. As such, the utilities must develop financial plans, also known as revenue requirements, which provide sufficient levels of revenue to meet all operation and maintenance expenses, water purchases, wastewater treatment, debt service requirements, capital improvements funded from current revenues, and other revenue requirements.

The Study develops financial plans that project operating revenue, expenses, and capital financing costs for the utilities over a five-year planning period beginning July 1, 2018, and ending June 30, 2023. The financial plans project future rate revenues under existing rates, operations and maintenance (O&M) expenses, principal and interest expense on debt, transfers, and capital improvement program (CIP) requirements. In the projection of rate revenues, annual projections of customers and water consumption rely upon District estimates based on a reasonable increase from a three-year average of water sales, including low historical demands experienced after the 2016 state-mandated drought restrictions and the recent increase in demands in 2018. This three-year period covers historically low demands seen during the State-mandated drought emergency restrictions initiated in 2015, as well as modest rebounds in demand through last year. The District has already exceeded its long-term conservation target mandated by SBX 7-7 in 2009. In 2015, the District's gallons per capita per day (GPCD) was 241 gpcd, 25% below the target of 321 gpcd, itself a 20% reduction from the established baseline. Given residual water-use efficiency awareness and activities, as well as expanding State mandates and conservation regulations, the Water Utility is likely to remain far under the conservation requirements set by SBX 7-7 even with growth projections.

1.3.1 Water Utility

1.3.1.1 Potable Water

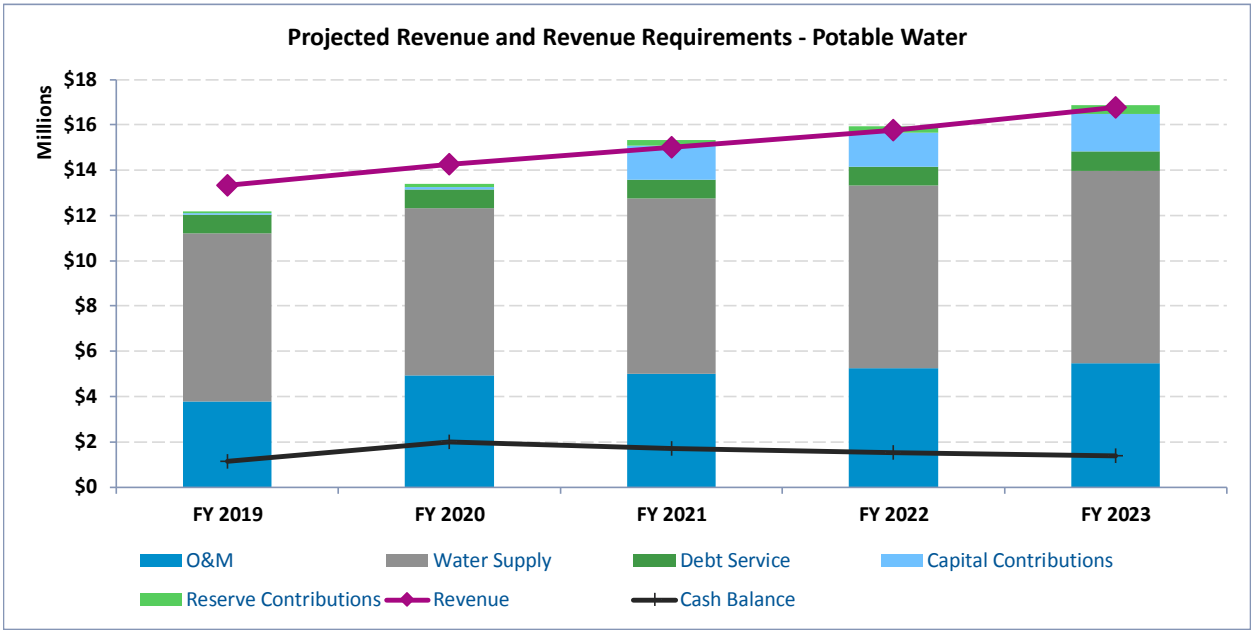
Summarized below are the Potable Water's revenue requirements:

- Operation and Maintenance Expenses: The District anticipates O&M expenses to increase from $11.21M in FY 2019 to $13.98M in FY2023. Water production and water purchases account for most of this increase, representing roughly 62% of O&M expenses.
- Debt Service: The District anticipates debt service payment of about $827,000 per FY on existing debt.
- Capital Improvements: The District plans to execute a five-year CIP of $13.90M from FY 2019 to FY 2023.
- Reserves: The District plans to maintain the operating and emergency reserve and amend the capital improvement and capital replacement reserve and a rate stabilization reserve.
    - The operating and emergency reserve is to help cover fluctuations in day-to-day expenses. The scheduled target is 45 days of O&M expenses (excluding wholesale water costs).
    - The capital replacement reserve fund is to help maintain sufficient funds on hand for the current and future replacement of existing capital assets as they reach the end of their useful lives and to help mitigate unexpected capital costs. The scheduled target will become a minimum of 5.0% of the replacement value of Potable Water's fixed assets.
    - The District uses the capital improvement reserve fund for new development. Capacity fees are development driven as are the costs incurred; therefore, as a matter of policy, the District has not established any no minimum or maximum levels for this fund.
    - The rate stabilization fund reserve is to help mitigate future increases in drought-stricken years. The scheduled target will become a minimum of 10% of the prior year's rate revenue. For the

rate stabilization fund reserve, rate revenue is defined as revenue generated from commodity charges only.

The District is proposing revenue adjustments for Potable Water to meet projected revenue requirements. These revenue adjustments should allow Potable Water to generate revenues as close as possible to operating expenses with minimal surplus or shortage as shown in Figure ES-1.

Figure ES 1 Potable Water Operating Cash Flow



1.3.1.2 Non-Potable Water

Summarized below are Non-Potable Water's revenue requirements:

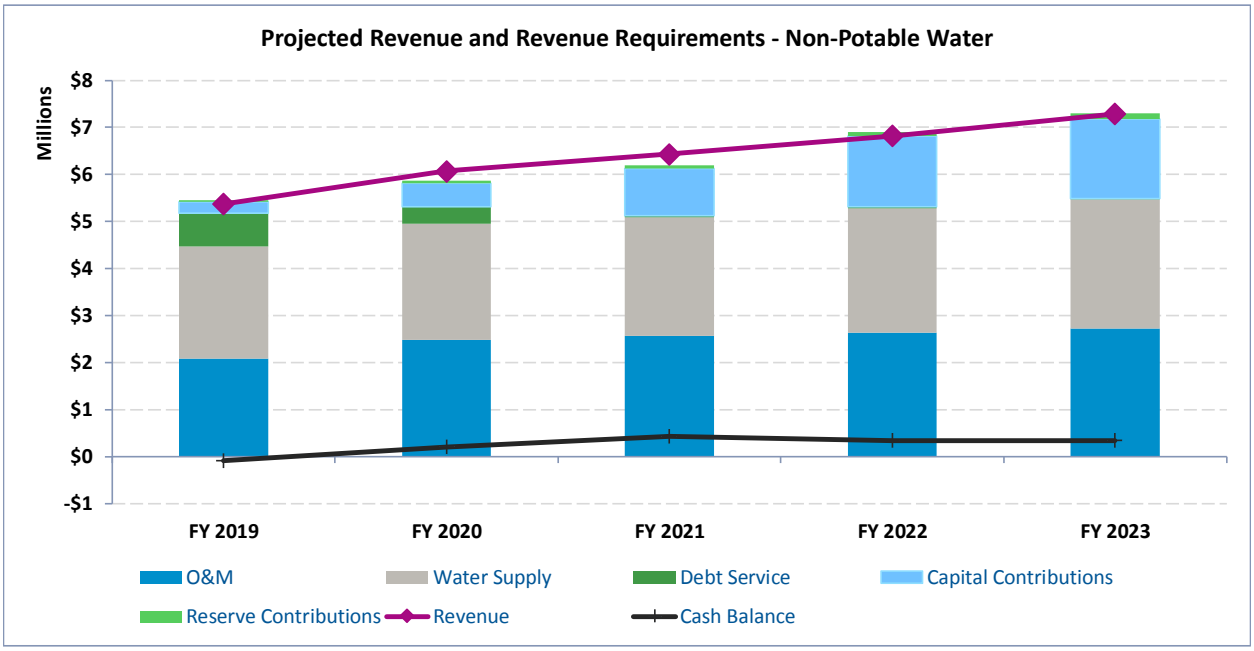
- Operation and Maintenance Expenses: The District anticipates O&M expenses to increase from $4.46M in FY 2019 to $5.46M in FY2023. Non-Potable Water supply costs constitute most of the increase at roughly 51% of O&M expenses.
- Debt Service: The District anticipates debt service payments to fluctuate over the Study period starting at $713,000 in FY 2019 and decreasing to $31,000 in FY 2021 as result of the payoff of the 2012 Refunding Bond.
- Capital Improvements: The District plans to execute a five-year CIP of $4.98M from FY 2019 to FY 2023.
- Reserves: The District plans to maintain the operating and emergency reserve and amend the capital improvement and capital replacement reserve and a rate stabilization reserve.
    - The operating and emergency reserve is to help cover fluctuations in day-to-day expenses. The scheduled target is 45 days of O&M expenses (excluding wholesale water costs).
    - The capital replacement reserve fund is to help maintain sufficient funds on hand for the current and future replacement of existing capital assets as they reach the end of their useful lives and to

help mitigate unexpected capital costs. The scheduled target will become a minimum of 5.0% of the replacement value of Non-Potable Water's fixed assets.

- The District uses the capital improvement reserve fund for new development. Capacity Fees are development driven as are the costs incurred; therefore, as a matter of policy, the District has not established any minimum or maximum levels for the fund.
- The rate stabilization fund reserve is to help mitigate future increases in drought-stricken years. The scheduled target will become a minimum of 10% of the prior year's rate revenue. In this Study, we define rate revenue as revenue generated from commodity charges only.

The District is proposing Non-Potable Water revenue adjustments to meet projected revenue requirements. These adjustments should allow Non-Potable Water to generate revenues as close as possible to operating expenses with minimal surplus or shortage as shown in Figure ES-2.

Figure ES 2 Non-Potable Water Operating Cash Flow



1.3.2 Sewer Utility

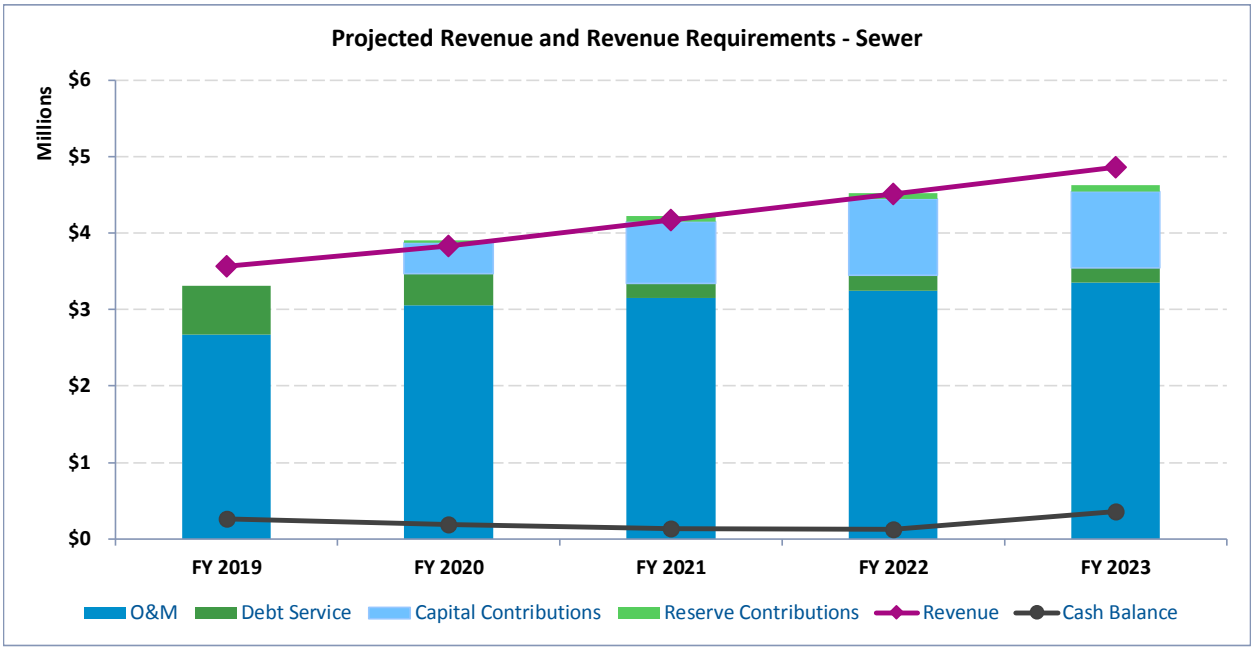
Summarized below are the Sewer Utility's revenue requirements:

- Operation and Maintenance Expenses: The District anticipates O&M expenses to increase from $2.67M in FY 2019 to $3.22M in FY2023.
- Debt Service: The District anticipates debt service payments to fluctuate over the Study period starting at $633,000 in FY 2019 and decreasing to $192,000 in FY 2021 as result of the payoff of the 2012 Series Refunding Bond.
- Capital Improvements: The District plans to execute a five-year CIP of $5.86M from FY 2019 to FY 2023.

- Reserves: The District plans to maintain the operating and emergency reserve and amend the capital improvement and capital replacement reserve.
  - The operating and emergency reserve is to help cover fluctuations in day-to-day expenses. The scheduled target is 45 days of O&M expenses.
  - The capital replacement reserve is to help maintain sufficient funds on hand to for the current and future replacement of existing capital assets as they reach the end of their useful lives and help mitigate unexpected capital costs. The scheduled target will become a minimum of 5.0% of the replacement value of the Sewer Utility's fixed assets.
  - The District uses the capital improvement reserve fund for new development. Capacity Fees are development driven as are the costs incurred; therefore, as a matter of policy, the District has not established any minimum or maximum levels for the fund.
  - The rate stabilization fund reserve is to help mitigate future increases in sewer treatment costs and change in customer base. The scheduled target will become a minimum of 10% of the prior year's rate revenue.

The District is proposing revenue adjustments for the Sewer Utility to meet projected revenue requirements. These revenue adjustments should allow the Sewer Utility to generate revenues as close as possible to operating expenses with minimal surplus or shortage as shown in Figure ES-3.

Figure ES 3 Sewer Operating Cash Flow



1.4 ADEQUACY OF EXISTING RATES TO MEET COSTS OF SERVICE

Based on the financial plan, Black & Veatch recommends the revenue adjustments shown in Table ES-1 to meet the projected revenue requirements for FY 2019 to FY 2023. These do not represent the proposed rate increases to customers; rather these represent the overall revenue increases needed by the utilities to meet their overall obligations and maintain current service levels.

Table ES 1 Proposed Revenue Adjustment

Fiscal Year	Effective Month	Potable Revenue Adjustment	Non-Potable Revenue Adjustment	Sewer Revenue Adjustment
FY 2019	Janaury	4.25%	8.10%	6.10%
FY 2020	July	4.25%	8.10%	6.00%
FY 2021	July	5.00%	8.10%	6.00%
FY 2022	July	5.00%	8.10%	6.00%
FY 2023	July	5.00%	8.10%	6.00%

1.5 COST-OF-SERVICE ANALYSIS

The cost-of-service analysis allocates the costs to the various customer classes of service in a fair and equitable manner. The methodologies used in the Study are specific to the respective utility operations. Therefore, they differ in process. The following is a brief description of the methodologies.

The water cost-of-service allocation performed in this Study uses the Base-Extra Capacity Method endorsed by the American Water Works Association (AWWA) *Principles of Water Rates, Fees, and Charges*, M1 (M1) manual. Under cost-of-service principles, we allocate costs to the different customer classes in proportion to their use of the water system. As recommended by AWWA, Black & Veatch distributed functional costs to the base (average load conditions), extra capacity (peaking) and customer-related parameters. This allocation methodology produces unit costs for allocation to individual customer classes based on the projected customer service requirements.

The sewer cost-of-service allocation performed in this Study follows the Functional Cost Allocation Method endorsed by the Water Environment Federation (WEF) *Financing and Charges for Wastewater Systems, Manual of Practice* (MoP) 27 manual. Similar to the methodology used for water systems, the sewer cost of service analysis allocates costs to the different customer classes in proportion to their use of the sewer system. As recommended by WEF, Black & Veatch distributed functional costs to volume, strength and customer-related parameters. This allocation methodology produces unit costs for allocation to individual customer classes based on the projected customer service requirements.

1.6 RATE DESIGN

Through the cost-of-service analysis, the allocation of costs to customer classes must meet Proposition 218 requirements. The Right to Vote on Taxes Act, also known as Proposition 218, was passed by California voters in 1996 and added Article XIIIC and Article XIIID to the California Constitution. These articles provide the regulatory framework that guides and informs the rate-setting process. The regulatory framework helps ensure cost recovery proportionate to the cost of providing the service.

1.6.1 Water Utility

To minimize impacts, retain simplicity, and ensure the reasonable stability of revenue, Black & Veatch recommends the District maintain the same rate structure with one noted change – the Domestic Agricultural customers will no longer be charged the additional residential unit as part of the monthly service fee, and all usage will be at the agricultural rate.

- Monthly Service Charge: Potable Water and Non-Potable Water will continue to have a fixed service charge based on meter sizes for all customer classes. The fixed service charge helps recover portions

of fixed cost elements such as operating, and capital components associated with import water, debt service, meter maintenance and services, meter reading, issuing bills, and maintenance and capacity costs associated with available fire protection.

- Commodity Charge: Potable Water and Non-Potable Water will continue to have a commodity charge based on units consumed by customer class. Residential customers will maintain the two-tier rate structure while all other customers will remain at a uniform rate by customer class. The commodity charge helps recover costs associated with base, extra capacity, and conservation.
- Fire Service Charge: Potable Water will continue to utilize the fire service charge based on meter size for private fire service connections. The fire service charge will help recover the costs of fixed cost elements such as operating and capital, issuing bills and maintenance and capacity costs associated with private fire protection costs.

Table ES-2 summarizes the recommended five-year rate schedules for all water components.

Table ES 2 Proposed Five-Year Water Rate Schedules

	Monthly Service Charge					
	Existing	Proposed				
Customer Class	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Potable Water						
Master Metered [1]	6.55	6.21	6.19	6.21	6.35	6.57
3/4"	13.64	12.79	12.77	13.26	13.58	14.08
1"	22.72	21.41	21.40	22.63	23.19	24.06
1.5"	45.46	42.94	42.93	46.02	47.17	48.96
2"	72.73	68.89	68.89	74.22	76.09	78.99
3"	159.09	151.09	151.12	163.54	167.68	174.10
4"	272.73	259.02	259.09	280.82	287.92	298.98
6"	409.10	388.69	388.81	421.73	432.41	449.02
8"	681.83	647.90	648.11	703.38	721.21	748.93

[1] Master Metered accounts are charged on a per unit basis rather than meter size.

	Monthly Service Charge					
	Existing	Proposed				
Customer Class	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Non-Potable Water						
Master Metered [1]	0	4.89	4.88	4.91	5.02	5.20
3/4"	0	7.51	7.52	8.09	8.28	8.60
1"	0	10.28	10.32	11.72	12.00	12.51
1.5"	0	17.19	17.30	20.78	21.29	22.25
2"	0	25.52	25.72	31.70	32.48	33.99
3"	0	51.90	52.40	66.30	67.95	71.19
4"	0	86.54	87.43	111.72	114.51	120.02
6"	0	128.16	129.51	166.30	170.47	178.70
8"	0	211.35	213.63	275.39	282.30	295.99

[1] Master Metered accounts are charged on a per unit basis rather than meter size.

Customer Class	Fire Service Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Fire Service						
4"	51.45	51.03	51.65	61.96	63.93	67.46
6"	102.86	77.09	78.03	93.60	96.58	101.90
8"	185.17	129.17	130.74	156.84	161.82	170.74
10"	308.69	343.45	347.63	417.02	430.27	453.98

Table ES-2 Proposed Five-Year Water Rate Schedules (Continued)

Customer Class	Commodity Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/HCF	$/HCF	$/HCF	$/HCF	$/HCF	$/HCF
Potable Water						
Residential and Master Meter						
Tier 1 - First 12 Units	3.08	3.28	3.47	3.61	3.81	4.01
Tier 2 - 13 Units and Higher	3.34	3.65	3.82	4.01	4.22	4.45
Commercial/Industrial and Public	3.34	3.65	3.82	4.01	4.22	4.45
Municipal Irrigation	3.34	3.65	3.82	4.01	4.22	4.45
Other	3.34	3.65	3.82	4.01	4.22	4.45
Agricultural Irrigation, Domestic Ag	3.34	3.65	3.82	4.01	4.22	4.45
Temp Construction and Temp Agricultu	3.34	4.91	5.29	5.60	5.88	6.17
Temporary Municipal	4.08	4.91	5.29	5.60	5.88	6.17
Emergency Water Service	5.05	4.91	5.29	5.60	5.88	6.17
Surplus Water (Served Outside District)	3.50	4.91	5.29	5.60	5.88	6.17
Non-Potable Water						
Non-Potable Irrigation Water	1.64	1.92	2.08	2.19	2.40	2.59
Blended Non-Potable Agricultural	2.88	2.46	2.70	3.15	3.36	3.67
Non-Potable Residential Landscape (SF	1.64	1.92	2.08	2.19	2.40	2.59
Recycled Landscape Irrigation	1.64	1.92	2.08	2.19	2.40	2.59
Outside District)	1.64	1.92	2.08	2.19	2.40	2.59

1.6.2 Sewer Utility

Similar to the Water Utility, to minimize impacts, retain simplicity, and ensure the reasonable stability of revenue, Black & Veatch recommends the District maintain the same rate structure.

- Monthly Sewer Service Charge: Sewer will continue to have a fixed sewer service charge based on equivalent dwelling units for all customer classes. The fixed service charge will recover all fixed and variable cost elements associated with operating and capital components.

Table ES-3 summarizes the recommended five-year sewer rate schedule.

Table ES 3 Proposed Five-Year Sewer Rate Schedules

Customer Class	Sewer Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU
Customers Served by District	31.32	33.49	35.83	38.37	40.62	43.05
Customers Served by Thousand Oaks	43.23	46.76	47.22	47.69	48.15	48.61

Disclaimer

Black & Veatch has prepared this report for the District, and it is based on information not within the control of Black & Veatch. The District has not requested Black & Veatch to make an independent analysis, to verify the information provided to us, or to render an independent judgment of the validity of the information provided by others. Because of this, Black & Veatch cannot, and does not, guarantee the accuracy thereof to the extent that such information, data, or opinions were based on information provided by others.

In conducting these analyses and in forming an opinion of the projection of future financial operations summarized in this report, Black & Veatch made certain assumptions on the conditions, events, and circumstances that may occur in the future. The methodology utilized in performing the analyses follows generally accepted practices for such projections. Such assumptions and methodologies are reasonable and appropriate for the purpose for which they are used. While we believe the assumptions are reasonable and the projection methodology valid, actual results may differ materially from those projected, as influenced by the conditions, events, and circumstances that occur. Such factors may include the utilities' ability to execute the capital improvement program as scheduled and within budget, regional climate and weather conditions affecting the demand for water, discharge of sewage flow and adverse legislative, regulatory, or legal decisions (including environmental laws and regulations) affecting the utilities' ability to manage the system and meet water quality requirements.

Water Rate Study

2 Revenue and Revenue Requirements

To meet the costs associated with providing water services to its customers, the Potable Water and Non-Potable Water derive revenue from a variety of sources including water user charges (rates), special services, pump zone charges, property taxes, interest earned from the investment of available funds, engineering fees, and other miscellaneous revenues. The Water Utility is always actively looking for other sources of revenue, such as grants. Black & Veatch has projected the level of future revenue generated in the Study through a combination of an analysis of historical and future system growth in terms of the number of connections and water consumption. This section also projects the expenses, or revenue requirements, necessary to operate and maintain the systems, invest in capital improvements, make debt service payments and cover other expenses of the Potable Water and Non-Potable Water systems.

2.1 CUSTOMER AND WATER CONSUMPTION PROJECTIONS

2.1.1 Customer Classes

Potable Water's customers include both residential and non-residential. The District has identified the following distinct customer classes: Residential; Commercial; Public Water; Domestic Agricultural; Irrigation; Temporary; District Owned; and Fire Service. In the analysis, Black & Veatch has combined the Potable Water customer classes into groups. They consist of the following:

- Group 1: Temp Construction and Temp Agricultural; Temporary Municipal; Emergency Water Service; Surplus Water (Served Outside District).
- Group 2: Residential and Master Meter (Tier 1).
- Group 3: Residential and Master Meter (Tier 2); Domestic Ag; Commercial/Industrial and Public; Municipal Irrigation; Other; Agricultural Irrigation.

Fire Service remains a customer class outside the groups identified.

Non-Potable Water's customers are mainly non-residential. The District identified the following distinct customer classes: Commercial; Irrigation; Agricultural; and District Owned. Like our treatment for Potable Water, we have combined the Non-Potable Water customer classes into groups. They consist of the following:

- Group 4: Non-Potable Irrigation Water; Non-Potable Residential Landscape (SRM); Recycled Landscape Irrigation; Recycled Surplus Water (Served Outside District).

- Group 5: Non-Potable Commercial Agricultural (contract customers).[1]
- Group 6: Blended Non-Potable Agricultural.
- Group 7: Recycled Commercial Ag (contract customers).

2.1.2 Connections

The District provides Potable Water services to an expected 7,971 customers and Non-Potable Water service to 334 customers in FY 2019. All customers connected to the Potable Water and Non-Potable Water systems do so via metered-connections. Black & Veatch conducted a review of historical connection patterns for customers in order to project anticipated growth patterns.Additionally, we incorporated feedback from District staff regarding the potential new development over the Study period. The projected total number of connections are expected to increase by 1.0% per year for Potable Water and 2.9% per year for Non-Potable Water over the Study period. Table 2-1 summarizes the projected number of connections for Potable Water and Non-Potable Water. The "Group" classifications represent consolidation of the individual customer classes based on usage pattern similarities.

Table 2-1 Number of Connections

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
		(Conn)	(Conn)	(Conn)	(Conn)	(Conn)
	Potable Water					
1	Group 1	16	16	16	16	16
2	Group 2	7,220	7,303	7,368	7,368	7,533
3	Group 3	640	648	648	648	648
4	Fire Service	95	95	95	95	95
5	Total	7,971	8,062	8,127	8,127	8,292
	Non-Potable Water					
6	Group 4	300	326	326	326	341
7	Group 6	28	28	28	28	28
8	Total	328	354	354	354	369
	Contract Customers					
9	Group 5	2	2	2	2	2
10	Group 7	4	4	4	4	4
11	Total	6	6	6	6	6
12	**Total Water Connections**	**8,305**	**8,422**	**8,487**	**8,487**	**8,667**

[1] Under the contract agreement for Group 5 and 7, the rate can be adjusted each year effective January 1 by the Implicit Price Deflator - State and Local Government Purchases of Goods and Services as published by the US Department of Commerce, Bureau of Economic Analysis. Calculated for the preceding 12 months period of July through June.

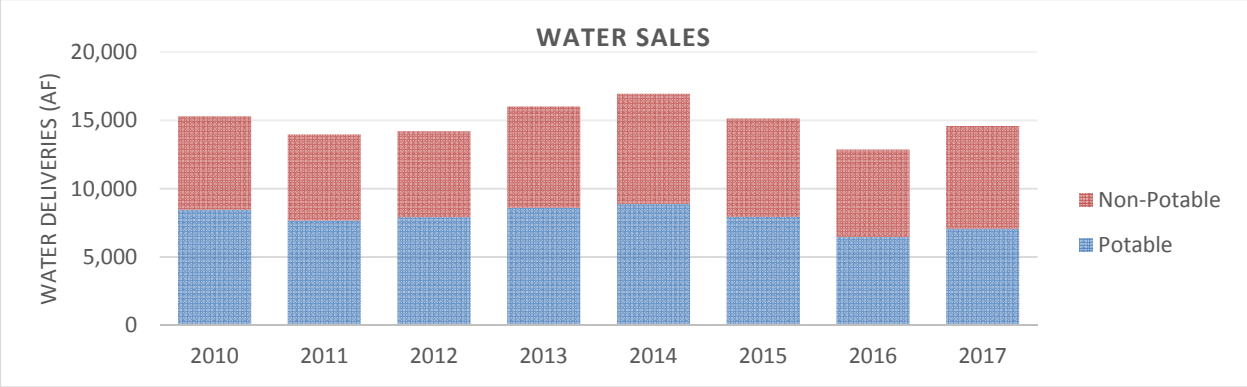
2.1.3 Water Consumption

Table 2-2 shows the projected Potable Water and Non-Potable Water consumption for the Study period. In determining the projected Potable Water and Non-Potable Water consumption, Black & Veatch analyzed historical patterns of water consumption in conjunction with future water conservation requirements set by the State of California via SBX 7-7 (2009), Water Conservation, and AB 1668 (2018) and SB 606 (2018), the Conservation as a Way of Life bills.

The District promotes water-use efficiency by developing alternatives to potable water and through customer education. The District has adopted more stringent permanent water-use prohibitions as required by recent law. As demonstrated by Figure 2-1, the District has experienced a steady decline in consumption despite an increase in the number of connections it serves.

The recent historic statewide drought resulted in a series of emergency declarations from the Governor. Executive Order B-29-15 directed the State Water Resources Control Board (SWRCB) to impose restrictions to achieve a 25% reduction in potable urban water use. Receiving "credit" for the Round Mountain Water Treatment Plant, a 1 MGD brackish groundwater desalination facility constructed during the drought, the District was downgraded from its initial placement in the highest of nine conservation tiers (requiring a 36% reduction) to the seventh-highest tiers, requiring a 24% reduction.

Figure 2-1 Water Sales



Executive Order B-37-16, Making Water Conservation a California Way of Life, instructed the State Water Resource Control Board (SWRCB) to develop a report on how to implement permanent conservation measures that "build on" the 20% reduction requirements of SBX 7-7. That report, released in April 2017, resulted in AB 1668 and SB 606, which instruct the SWRCB to develop a methodology by which urban water supplies will be required to calculate, by 2023, their "urban water use objectives," or annual water budgets, for certain customer classes. While it is currently unknown what these budgets will look like compared with historical use, the SWRCB has indicated that its object is to perpetuate levels of conservation achieved during the height of the drought.

The District has already exceeded its SBX 7-7 goals. The State lifted drought declarations and related conservation requirements in 2017, but water use in the District has been slow to rebound, hovering around 22% below the 2013 baseline. Persistent conservation awareness, due in part to the continual development of State regulation, are likely responsible. Between modest water-use rebounds and minimal population growth forecasts, the District anticipates increases of 1.2% per year for Potable

Water and 0.2% per year for Non-Potable Water over the Study period. The District bills water consumption in units of hundred cubic feet (HCF).

Table 2-2 Billed Water Consumption

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
		(HCF)	(HCF)	(HCF)	(HCF)	(HCF)
	Potable Customer Classes					
1	Group 1	11,326	11,326	11,326	11,326	11,326
2	Group 2	2,222,431	2,243,558	2,258,150	2,258,150	2,309,769
3	Group 3	843,757	908,226	908,226	908,226	908,226
4	Total	3,077,514	3,163,109	3,177,702	3,177,702	3,229,321
	Non-Potable Customer Classes					
4	Group 4	1,530,698	1,544,202	1,544,202	1,544,202	1,556,399
5	Group 6	377,665	377,665	377,665	377,665	377,665
6	Total	1,908,364	1,921,867	1,921,867	1,921,867	1,934,064
	Contract Customers					
6	Group 5	1,017,126	1,017,126	1,017,126	1,017,126	1,017,126
7	Group 7	340,204	340,204	340,204	340,204	340,204
8	Total	1,357,330	1,357,330	1,357,330	1,357,330	1,357,330
9	**Total Water Usage (HCF)**	**6,343,207**	**6,442,306**	**6,456,899**	**6,456,899**	**6,520,714**
10	Total Water Usage (AF)	14,562	14,790	14,823	14,823	14,970

2.2 REVENUE UNDER EXISTING RATES

Potable Water and Non-Potable Water user rates serve as the primary source of revenue for the water utility. Therefore, the level of future rate revenue is important in the development of a long-range financial plan. To determine rate revenue, the projected system growth in terms of the number of connections and billed water consumption is multiplied by the applicable rates to determine Potable Water and Non-Potable Water rate revenue.

Table 2-3 shows the Potable Water and Non-Potable Water current schedule of charges.

Table 2-3 Existing Water Rates

Description	Existing FY 2018
Monthly Meter Service Charge	
All Classes except (Domestic Agricultural)	($/monthly)
Master Metered [1]	6.55
3/4"	13.64
1"	22.72
1.5"	45.46
2"	72.73
3"	159.09
4"	272.73
6"	409.10
8"	681.83
[1] Master Metered accounts are charged on a per unit basis rather than meter size.	
Domestic Agricultural	
3/4"	0
1"	0
1.5"	0
2"	0
3"	0
4"	0
6"	0
8"	0
Fire Service	
4"	51.45
6"	102.86
8"	185.17
10"	308.69

Description	Existing FY 2018
Commodity Charge - Potable Water	($/HCF)
Residential and Master Meter and Domestic Agricultural	
Tier 1 - First 12 Units	3.08
Tier 2 - 13 Units and Higher	3.34
Commercial/Industrial and Public	3.34
Municipal Irrigation	3.34
Other	3.34
Agricultural Irrigation	3.34
Temporary Construction and Temporary Agricultural	3.34
Temporary Municipal	4.08
Emergency Water Service	5.05
Surplus Water (Served Outside District)	
Tier 1 - First 12 Units	3.50
Tier 2 - 13 Units and Higher	4.13
Commodity Charge - Non-Potable Water	
Non-Potable Irrigation Water	1.64
Blended Non-Potable Agricultural	2.88
Non-Potable Commercial Agricultural (Contract)	0.61
Non-Potable Residential Landscape (SRM)	1.64
Recycled Commercial Ag	0.40
Recycled Landscape Irrigation	1.64
Recycled Surplus Water (Served Outside District)	1.64

Table 2-4 represents a summary of projected Potable Water and Non-Potable Water rate revenue under existing rates. As shown, the revenue generated is projected to increase over the Study period in conjunction with the increase in the number of connections and water consumption. The projected Potable Water revenue increases from $12.40M in FY 2019 to $12.96M in FY 2023, representing an overall increase of 4.5% over the five-year Study Period. The projected Non-Potable Water revenue increases from $4.57M in FY 2019 to $4.63M in FY 2023, which reflects an overall increase of 1.2% over the five-year Study period.

Table 2-4 Projected Revenue under Existing Rates

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
		($)	($)	($)	($)	($)
	Potable Water					
1	Group 1	64,300	64,300	64,300	64,300	64,300
2	Group 2	9,018,500	9,100,800	9,158,900	9,158,900	9,353,300
3	Group 3	3,181,000	3,403,900	3,403,900	3,403,900	3,403,900
4	Fire Service	135,200	135,200	135,200	135,200	135,200
5	Total	$ 12,399,000	$ 12,704,200	$ 12,762,300	$ 12,762,300	$ 12,956,700
	Non-Potable Water					
6	Group 4	2,665,200	2,693,500	2,693,500	2,693,500	2,717,100
7	Group 6	1,144,400	1,144,400	1,144,400	1,144,400	1,144,400
8	Total	$ 3,809,600	$ 3,837,900	$ 3,837,900	$ 3,837,900	$ 3,861,500
	Contract Customers					
9	Group 5	627,700	627,700	627,700	627,700	627,700
10	Group 7	136,100	136,100	136,100	136,100	136,100
11	Total	$ 763,800	$ 763,800	$ 763,800	$ 763,800	$ 763,800
9	**Total Water Revenue**	**$ 16,972,400**	**$ 17,305,900**	**$ 17,364,000**	**$ 17,364,000**	**$ 17,582,000**

2.3 OTHER REVENUE

There are other operating sources which include charges for special services, pump zone charges, property taxes, interest on investments, and other miscellaneous revenues. In total other operating revenues represents on average 3.0% of Potable Water's total revenue and 4.0% of Non-Potable Water's total revenue from FY 2019 to FY 2023. The District anticipates that these revenues will remain relatively constant for the duration of the Study period.

2.4 OPERATING AND MAINTENANCE EXPENSES

Table 2-5 summarizes Potable Water and Non-Potable Water's projected O&M expense for the Study period. These expenses include costs related to salaries and benefits, services and supplies, contract and professional services, and water production costs. The District anticipates the following escalation factors based on District estimates as determined in the 2016A Revenue Bond Official Statement.

O&M COMPONENT	ESCALATION FACTOR
Salaries	4.0%
Benefits	3.0%
Supplies & Services	3.0%
Contract Services	2.0%
Utilities	3.0%
Purchased Water [1]	~6.0%

[1] Purchased water represent costs associated with purchasing import water from Calleguas Municipal Water District. The escalation factor is a 5-year average derived from Calleguas 5-year rate projections.

Water production costs include water production and purchased water costs. In the case of Potable Water, the District has two main sources of water: 1) Groundwater pumped from District-owned wells; and 2) imported water from Calleguas Municipal Water District (CMWD). The District operates 7 groundwater wells that tap the underground aquifers which make up approximately 43%-48% depending on FY of the District's water supply. The District imports the remainder of its water supplies from the wholesale water agency. Based on estimates of groundwater pumping costs and wholesale rates provided by CMWD, the District expects water production and purchased water costs to increase by an average of 6.2% per year over the Study period.

In the case of the Non-Potable Water, the District has two main sources of Non-Potable Water: 1) Surface water from Conejo Creek, and 2) the Water Reclamation Facility. This facility produces highly treated water delivered through separate purple pipelines. Non-Potable Water is a reliable source of water that helps offset the use of potable sources, especially in drought-prone years in California. Based on estimates from the facility, the District expects purchased recycled water costs to increase by an average of 5.6% per year over the Study period.

Table 2-5 O&M Expenses

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
		($)	($)	($)	($)	($)
	Potable Water					
1	Production	489,626	572,300	591,500	608,400	635,600
2	Water Purchases (CMWD)	6,958,864	6,831,800	7,158,500	7,459,900	7,880,500
3	Salaries & Benefits	1,736,669	2,100,581	2,137,007	2,266,158	2,377,658
4	Contracts & Professional Services	704,877	1,082,432	1,087,867	1,129,054	1,162,187
5	Services & Supplies	1,321,959	1,737,587	1,759,126	1,849,488	1,925,755
6	Total	$ 11,211,995	$ 12,324,700	$ 12,734,000	$ 13,313,000	$ 13,981,700
7	Average % Increase					6.2%
	Non-Potable Water					
8	Production	1,031,890	1,067,900	1,097,800	1,157,900	1,198,500
9	Water Purchases (CMWD)	1,347,135	1,390,700	1,437,700	1,490,000	1,545,000
10	Salaries & Benefits	935,128	1,054,402	1,093,344	1,133,645	1,175,442
11	Contracts & Professional Services	469,810	713,967	728,212	742,630	757,488
12	Services & Supplies	674,369	717,432	738,745	760,625	783,370
13	Total	$ 4,458,332	$ 4,944,400	$ 5,095,800	$ 5,284,800	$ 5,459,800
14	Average % Increase					5.6%
15	**Total Water O&M Expenses**	**$ 15,670,327**	**$ 17,269,100**	**$ 17,829,800**	**$ 18,597,800**	**$ 19,441,500**

As shown in Table 2-5, Potable Water's O&M expenses increase from $11.21M in FY 2019 to $13.98M in FY 2023 while Non-Potable Water's O&M expenses increase from $4.46M in FY 2019 to $5.46M in FY 2023.

2.5 DEBT SERVICE REQUIREMENTS

Table 2-6 represents Potable Water and Non-Potable 's existing debt service obligations. This table shows both principal and interest requirements on the existing debt over the Study period. It is common practice for utilities to utilize debt to finance multi-year capital improvement projects, but financing options will depend on the utility's financial conditions. By financing the cost of the projects, the utility can fund major projects immediately and spread the payment over a specified time frame. For Potable

Water, the District anticipates debt service payment on average of $827,000 per FY on existing debt. For Non-Potable Water, the District anticipates debt service payments to fluctuate over the Study period starting at $713,000 in FY 2019 and decreasing to $31,000 in FY 2021 as result of paying off the 2012 Refunding Bond. Based on the revenue bond requirements, the debt service coverage ratio is a minimum of 1.15x net revenues (revenue less operating expenses) for the Water Utility.

Table 2-6 Debt Service

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
		($)	($)	($)	($)	($)
	Potable Water					
1	Refunding Revenue Bond, Series 2012	0	0	0	0	0
2	Refunding Revenue Bond, Series 2011A/2016	823,790	823,538	827,316	830,236	829,988
3	Total	$ 823,790	$ 823,538	$ 827,316	$ 830,236	$ 829,988
	Non-Potable Water					
4	Refunding Revenue Bond, Series 2012	682,500	341,250	0	0	0
5	Refunding Revenue Bond, Series 2011A/2016	30,591	30,543	30,765	30,945	30,818
6	Total	$ 713,091	$ 371,793	$ 30,765	$ 30,945	$ 30,818
7	**Total Water Long-Term Debt**	**$ 1,536,881**	**$ 1,195,331**	**$ 858,081**	**$ 861,181**	**$ 860,806**

2.6 CAPITAL IMPROVEMENT PROGRAM

The District developed a five-year Capital Improvement Plan on an annual basis for identifying Potable Water and Non-Potable Water system needs including assessments, inspections, maintenance, and rehabilitation and replacement requirements.

Table 2-7 summarizes the planned CIP for FY 2019 through FY 2023. Potable Water is projecting $13.90M in CIP, and Non-Potable Water is projecting $4.98M in CIP over the same Study period, which includes both capital replacement and routine capital projects. For complete details associated with each CIP project, see District CIP Budget on their website.[2]

[2] Camrosa Water District. Finance Department. < https://www.camrosa.com/financial-information/ >

Table 2-7 Capital Improvement Projects

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
		($)	($)	($)	($)	($)
	Potable Water					
1	Potable Water Facilities					
2	Chloramination Project	100,980	0	0	0	0
3	Woodcreek Well Chloramination	0	86,700	0	0	0
4	Reservoir Rehabilitation Program					
5	Res 3B Tank Replacement - Potable Water	0	0	0	0	224,400
6	Res 4C & Hydro Tank Replacement	0	2,300,712	0	0	0
7	Res 3C Tank Replacement	0	0	224,400	1,734,000	0
8	New Pump Station Program					
9	Pump Station 1 to 2 @MS#8	0	0	0	99,144	918,000
10	Pump Station 3 to 4 A (priority #2)	0	99,144	918,000	0	0
11	Pump Station 2 to 3D at MS#6 (priority #3)	0	0	99,144	918,000	0
12	Pump Station 2 to 3 (priority 1 PVWell)	650,000	0	0	0	0
13	Pump Station Replacement program					
14	3D Pump Station 5	0	178,500	0	0	0
15	Pump Station Replacement program	0	0	0	357,000	0
16	Potable Pipeline Replacement Program					
17	Pipeline Replacement	0	91,800	183,600	1,407,600	0
18	New Well Design Program					
19	CSUCI Back-up Well	0	0	38,964	336,600	0
20	PV Well #2	918,000	0	0	0	0
21	Well Rehabilitation Program					
22	Well Rehabilitation Program	247,500	280,500	204,000	0	204,000
23	Meter Station Replacement Program					
24	Meter Station Replacement Program	200,000	0	204,000	0	0
25	Fixed Assets	157,252	223,961	113,638	87,781	87,781
26	Total	$ 2,273,732	$ 3,261,317	$ 1,985,746	$ 4,940,125	$ 1,434,181
	Non-Potable Water					
27	Non-Potable Water Facilities					
28	Pond Rip Rap	60,000	61,200	61,200	0	0
29	Reservoir Rehabilitation Program					
30	New Tank & Site rehabilitation (AG3) (Top of G	0	44,880	269,280	0	0
31	Yucca Tank Replacement	0	25,500	40,800	336,600	0
32	Upsize Creek Crossing Near NP 1A Tank	0	0	104,040	305,143	0
33	Pump Station Replacement Program					
34	Pump Station #4 Auxillary	0	66,300	0	0	0
35	Pump Station Replacement program	0	428,400	0	0	428,400
36	Non-Potable Pipeline Replacement Program					
37	Non-Potable Pipeline Replacement Program	0	61,200	91,800	397,800	0
38	CamSan Recycled Interconnection	1,224,162	0	0	0	0
39	Well Rehabilitation Program					
40	Well Rehabilitation Program	0	188,700	0	168,300	0
41	Fixed Assets	145,156	206,734	104,897	81,029	81,029
42	Total	$ 1,429,318	$ 1,082,914	$ 672,017	$ 1,288,872	$ 509,429
43	**Total Water Capital Expenses**	**$ 3,703,049**	**$ 4,344,231**	**$ 2,657,763**	**$ 6,228,997**	**$ 1,943,610**

2.6.1 Capital Improvement Financing Plan

The District funds annual expenditures for the CIP from a combination of previous bond debt proceeds, available funds on hand, transfers, grants, and revenues derived from user rates. As shown in Tables 2-8, Line 13 and Table 2-9, Line 13, the annual CIP expenditure amount varies by FY based on the

identified need in any given FY. Based on a 5-year average over the Study period, it is expected that Potable Water will expend about $2.78M per year and Non-Potable Water will expend $997k per year. The planned annual CIP contribution from the Operating Funds varies per FY based on available cash on hand and specific needs as shown in Table 2-8, Line 3 for Potable Water and Table 2-9, Line 3 for Non-Potable Water. District policy sets the minimum capital replacement reserve at 5.0% of the replacement value of fixed assets, and it is expected to be met or close to being met by FY 2023.

Table 2-8 Capital Replacement Fund Financing Plan (Potable Water)

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	Source of Funds					
1	Water Bond Proceeds (Previous issuance)	1,537,255	2,255,600	220,000	915,145	0
2	Mitigation Contributions	2,057,100	0	0	0	0
3	Transfer In from Operating Fund	50,000	100,000	1,500,000	1,500,000	1,680,000
4	Transfer In from WCIP Fund	0	0	0	0	0
5	Grant Funding	286,000	0	0	0	0
6	CIP De-Obligation	0	0	0	0	0
7	Net Operating Revenue	0	0	0	0	0
8	Total Sources	$ 3,930,355	$ 2,355,600	$ 1,720,000	$ 2,415,145	$ 1,680,000
	Use of Funds					
9	Replacement Projects	2,116,500	3,037,400	1,872,100	4,852,300	1,346,400
10	Fixed Asset Expenditures	157,300	224,000	113,600	87,800	87,800
11	Transfer Out to WCIP Fund	0	0	0	0	0
12	Transfer Out to NPW CRP Fund	0	0	0	0	0
13	Total Uses	$ 2,273,800	$ 3,261,400	$ 1,985,700	$ 4,940,100	$ 1,434,200
14	Net Annual Cash Balance	1,656,555	(905,800)	(265,700)	(2,524,955)	245,800
15	Beginning Unrestricted Fund Balance	8,200,800	9,857,355	8,951,555	8,685,855	6,160,900
16	Net Cumulative Fund Balance	$ 9,857,355	$ 8,951,555	$ 8,685,855	$ 6,160,900	$ 6,406,700
17	Min PWCR Reserve [1]	0	0	0	0	6,400,000

[1] Target to be met by end of Study Period (FY 2023).

Table 2-9 Capital Replacement Fund Financing Plan (Non-Potable Water)

Line No.	Description	Fiscal Year Ending June 30, FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	Source of Funds					
1	Water Bond Proceeds (Previous issuance)	0	0	0	0	0
2	Mitigation Contributions	671,800	0	0	0	0
3	Transfer In from Operating Fund	200,000	500,000	1,000,000	1,500,000	1,690,000
4	Transfer In from WCIP Fund	0	0	0	0	0
5	Transfer In from PW CRP Fund	0	0	0	0	0
6	Grant Funding	282,000	282,000	0	0	0
7	CIP De-Obligation	0	0	0	0	0
8	Net Operating Revenue	0	0	0	0	0
9	Total Sources	$ 1,153,800	$ 782,000	$ 1,000,000	$ 1,500,000	$ 1,690,000
	Use of Funds					
10	Replacement Projects	1,284,200	876,200	567,100	1,207,800	428,400
11	Fixed Asset Expenditures	145,200	206,700	104,900	81,000	81,000
12	Transfer Out to WCIP Fund	0	0	0	0	0
13	Total Uses	$ 1,429,400	$ 1,082,900	$ 672,000	$ 1,288,800	$ 509,400
14	Net Annual Cash Balance	(275,600)	(300,900)	328,000	211,200	1,180,600
15	Beginning Unrestricted Fund Balance	616,600	341,000	40,100	368,100	579,300
16	Net Cumulative Fund Balance	$ 341,000	$ 40,100	$ 368,100	$ 579,300	$ 1,759,900
17	Min PWCR Reserve [1]	0	0	0	0	1,800,000

[1] Target to be met by next Study Period.

2.7 TRANSFERS

Potable Water and Non-Potable Water will each perform two transfers annually over the Study period from their respective Operating Funds to the Capital Replacement Funds and Rate Stabilization Funds. Table 2-10, Lines 24 and 25 for Potable Water and Table 2-11, Lines 25 and 26 for Non-Potable Water show the associated amounts of each transfer. Section 2.8 explains the Capital Replacement and Rate Stabilization Funds.

2.8 RESERVES

The District has a defined reserve policy for its Water and Sewer Utilities. A utility typically establishes reserves for several reasons such as covering shortfalls in operating revenues, maintaining strong bond ratings, covering day-to-day operating costs, and easing the burden on ratepayers associated with large rate increases. The four defined reserves the District maintains are:

- Operating and Emergency Reserve represents working capital maintained by the Operating Fund to cover day-to-day expenses and maintain sufficient funds to cover accounts receivables if there are supplier issues, periods of lower than expected water sales, or unforeseen cost increases. The reserve scheduled target is 45 days of O&M expenses (excluding wholesale water costs).
- Capital Replacement Reserve represents funds used for unforeseen and unbudgeted capital costs. The reserve target is a minimum of 5.0% of the replacement value of the Potable Water and Non-Potable Water's fixed assets, respectively.

- Capital Improvement Reserve represents funds used for new development. Capacity Fees are development driven as are the costs incurred; therefore, the District has not established any minimum or maximum levels for the fund.
- Rate Stabilization Reserve represents funds used to absorb revenue shortfall due to short-term decreases in water sales. The reserve target is a minimum of 10% of the prior year's rate revenue. This Study defines rate revenue as revenue generated from commodity charges only.

Regardless of the type of reserve, appropriate reserve levels help the Water and Sewer Utilities attain and keep better bond ratings, which in turn, leads to lower borrowing costs.

2.9 PROJECTED OPERATING RESULTS

The revenue requirements of Potable Water and Non-Potable Water consist of O&M expenses, debt service, capital expenditures, and reserve requirements.

To fully understand the current condition of Potable Water and Non-Potable Water, it was important to examine the cash flow projections under the status quo scenario. In this scenario, Potable Water and Non-Potable Water would not impose any revenue increases over the Study period and continue to incur O&M expenses, debt service, pay for the execution of the planned CIP, and transfer to reserves. As shown in Figures 2-2 and 2-3, the status quo conditions would project that Potable Water and Non-Potable Water would operate from an annual deficit position, thus tapping into their respective reserves. By FY 2019, both Operating Funds would have a zero balance under such a scenario.

Figure 2-2 Status Quo Potable Water Operating Cash Flow

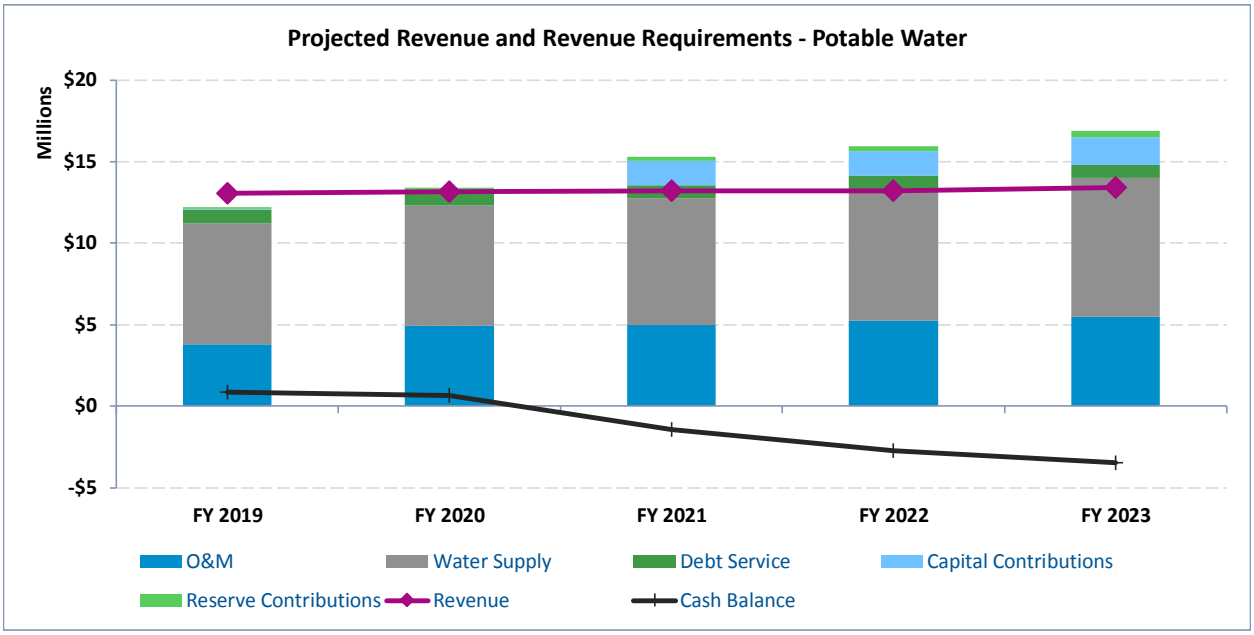
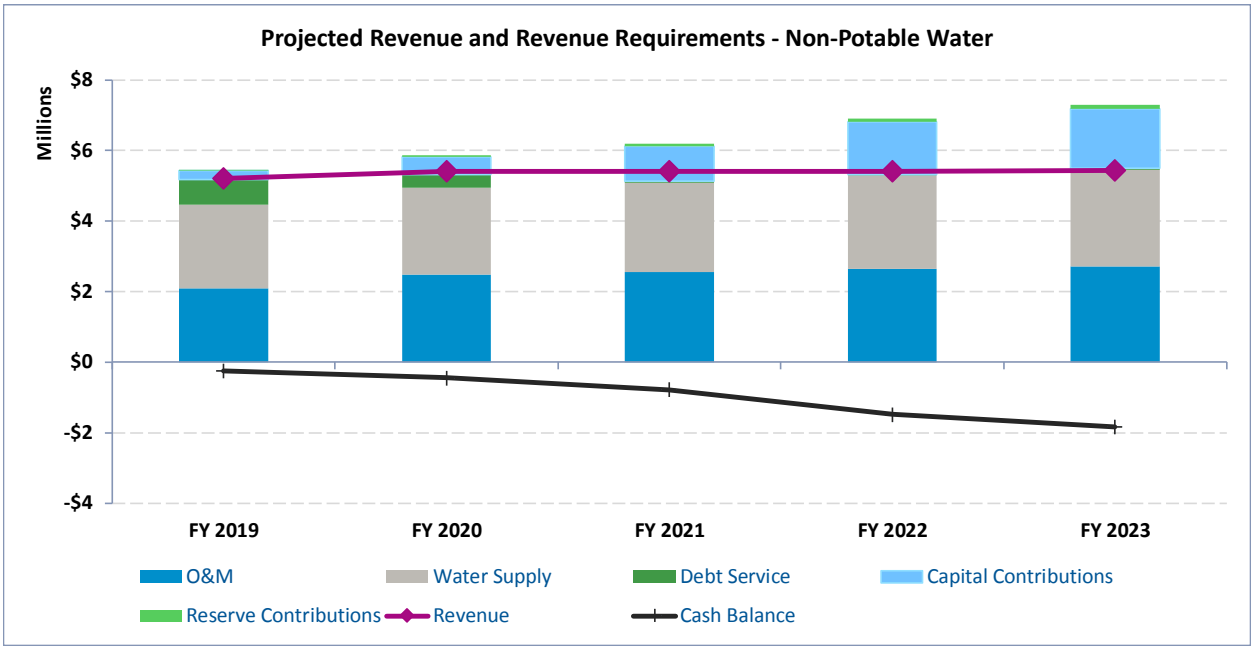


Figure 2-3 Status Quo Non-Potable Water Operating Cash Flow



Potable Water and Non-Potable Water will be in deficit positions if the District does not implement the revenue increases as shown in Table 2-10 and Table 2-11. The revenue increases represent the overall total revenue adjustment needed to meet revenue requirements. The revenue adjustment does not represent adjustments to the individual rates but reflects the overall level of revenue needed to meet the obligations.

The suggested revenue increases help the Potable Water and Non-Potable Water Utilities meet the following goals:

- Meet budgeted operating obligations.
- Meet planned capital investments.
- Maintain an operating reserve of 45 days of operating expenses.
- Maintain capital reserve of 5.0% of the replacement value of the Potable Water and Non-Potable Water's fixed assets.
- Maintain rate stabilization reserve at a level of 10% of the prior year's rate revenue.

Shown in Tables 2-10 and 2-11 is a summary of the proposed Operating Funds for the Study period. The Operating Funds consists of two parts: 1) Revenue and 2) Revenue Requirements.

Revenue

- Line 1 is the revenue under existing rates.
- Lines 2 through 7 is the additional revenue generated from the required annual revenue increases. The additional revenue generated is a direct reflection of the number of months the increase is effective for, and therefore the amount might calculate at less than that stated amount.

- Line 8 is the total revenue generated from user charges.
- Line 11 for Potable Water and Line 13 for the Non-Potable Water represent other operating revenues.
- Line 14 for Potable Water and Line 16 for Non-Potable Water represent non-operating revenues.
- Line 16 for Potable Water and Line 18 for Non-Potable Water represent transfer into the operating fund from reserves, specifically rate stabilization.
- Line 17 for Potable Water and Line 19 for Non-Potable Water represent total revenues for the enterprises.

Revenue Requirements

- Line 20 for Potable Water and Line 22 for Non-Potable Water represent total O&M expenses. Total O&M expenses include water production and water purchase.
- Line 23 for Potable Water and Line 25 for Non-Potable Water represent debt service payments.
- Line 26 for Potable Water and Line 28 for Non-Potable Water represent transfers. The transfers include money to the Rate Stabilization Fund and Capital Replacement Fund. These transfers do not represent direct operating expenses. Therefore these costs are treated as "below-the-line" cash flow items when determining debt service coverage.
- Line 27 for Potable Water and Line 29 for Non-Potable Water represent total revenue requirements for the enterprises.

Lines 30 for Potable Water and Line 32 for Non-Potable Water represent the net cumulative cash balance within the Operating Funds. The net cumulative cash balance intends to match, to the extent possible, Line 31 for Potable Water and Line 33 for Non-Potable Water which represents the reserve target minimum of 45 days of O&M expenses. The cash balance reserve is required to ensure the Operation Fund can continue in the event of a supplier interruption, market price fluctuations of critical equipment or supplies or an abrupt drop in account receivables.

Table 2-10 Potable Water Operating Fund

Line No.	Description	Fiscal Year Ending June 30, FY 2019 ($)	FY 2020 ($)	FY 2021 ($)	FY 2022 ($)	FY 2023 ($)
	Revenue					
	Rate Revenue					
1	Revenue from Existing Rates	12,399,100	12,704,200	12,762,300	12,762,300	12,956,700
	Year / Months Effective / Revenue Adj					
2	FY 2019 / 6 / 4.25%	263,500	539,900	542,400	542,400	550,700
3	FY 2020 / 12 / 4.25%		562,900	565,400	565,400	574,100
4	FY 2021 / 12 / 5.00%			693,500	693,500	704,100
5	FY 2022 / 12 / 5.00%				728,200	739,300
6	FY 2023 / 12 / 5.00%					776,200
7	Increased Revenue Due to Adjustments	263,500	1,102,800	1,801,300	2,529,500	3,344,400
8	Subtotal Rate Revenue	12,662,600	13,807,000	14,563,600	15,291,800	16,301,100
	Other Operating Revenue					
9	Special Services	65,500	37,000	37,000	37,000	37,000
10	Miscellaneous	29,900	26,800	26,800	26,800	26,800
11	Subtotal Other Operating Revenue	95,400	63,800	63,800	63,800	63,800
	Non-Operating Revenue					
12	Taxes	375,700	321,600	321,600	321,600	321,600
13	Interest	192,300	71,000	71,000	71,000	71,000
14	Subtotal Non-Operating Revenue	568,000	392,600	392,600	392,600	392,600
	Transfers					
15	Transfer from Rate Stabilization	0	0	0	0	0
16	Subtotal Non-Operating Revenue	0	0	0	0	0
17	**Total Revenue**	**$ 13,326,000**	**$ 14,263,400**	**$ 15,020,000**	**$ 15,748,200**	**$ 16,757,500**
	Revenue Requirements					
	Operating & Maintenance					
18	O&M Expenses	3,763,500	4,920,600	4,984,000	5,244,700	5,465,600
19	Water Supply	7,448,500	7,404,100	7,750,000	8,068,300	8,516,100
20	Subtotal O&M	11,212,000	12,324,700	12,734,000	13,313,000	13,981,700
	Debt Service					
21	Existing Revenue Bonds	823,800	823,500	827,300	830,200	830,000
22	Proposed Revenue Bonds	0	0	0	0	0
23	Total Debt Service	823,800	823,500	827,300	830,200	830,000
	Transfers					
24	Transfer to Capital Replacement [1]	50,000	100,000	1,500,000	1,500,000	1,680,000
25	Transfer to Rate Stabilization	100,000	150,000	250,000	310,000	390,000
26	Total Transfers	150,000	250,000	1,750,000	1,810,000	2,070,000
27	**Total Revenue Requirements**	**$ 12,185,800**	**$ 13,398,200**	**$ 15,311,300**	**$ 15,953,200**	**$ 16,881,700**
28	Net Annual Cash Balance	1,140,200	865,200	(291,300)	(205,000)	(124,200)
29	Beginning Fund Balance	0	1,140,200	2,005,400	1,714,100	1,509,100
30	Net Cumulative Fund Balance	$ 1,140,200	$ 2,005,400	$ 1,714,100	$ 1,509,100	$ 1,384,900
31	Minimum Operating Reserves (45 Days)	$ 464,000	$ 606,600	$ 614,500	$ 646,600	$ 673,800
32	Debt Service Coverage (1.15x)	2.57	2.35	2.76	2.93	3.34

[1] Transfer to the Capital Replacement fund represents Pay-As-You-GO funds used to pay capital projects.

Table 2-11 Non-Potable Water Operating Fund

Line No.	Description			Fiscal Year Ending June 30, FY 2019 ($)	FY 2020 ($)	FY 2021 ($)	FY 2022 ($)	FY 2023 ($)
	Revenue							
	Rate Revenue							
1	Revenue from Existing Rates			3,816,700	3,845,100	3,845,100	3,845,100	3,868,700
	Year	Months Effective	Revenue Adj					
2	FY 2019	6	8.10%	154,600	311,500	311,500	311,500	313,400
3	FY 2020	12	8.10%		336,700	336,700	336,700	338,800
4	FY 2021	12	8.10%			364,000	364,000	366,200
5	FY 2022	12	8.10%				393,400	395,900
6	FY 2023	12	8.10%					427,900
7	Increased Revenue Due to Adjustments			154,600	648,200	1,012,200	1,405,600	1,842,200
8	Subtotal Rate Revenue			3,971,300	4,493,300	4,857,300	5,250,700	5,710,900
	Other Operating Revenue							
9	Water Sales - PVCWD/CamSan			444,500	704,700	704,700	704,700	704,700
10	Contract Customers [1]			620,500	620,500	620,500	620,500	620,500
11	Special Services			32,900	1,100	1,100	1,100	1,100
12	Miscellaneous			17,300	16,900	16,900	16,900	16,900
13	Subtotal Other Operating Revenue			1,115,200	1,343,200	1,343,200	1,343,200	1,343,200
	Non-Operating Revenue							
14	Taxes			250,500	214,400	214,400	214,400	214,400
15	Interest			27,600	13,000	13,000	13,000	13,000
16	Subtotal Non-Operating Revenue			278,100	227,400	227,400	227,400	227,400
	Transfers							
17	Transfer from Rate Stabilization			0	0	0	0	0
18	Subtotal Non-Operating Revenue			0	0	0	0	0
19	**Total Revenue**			**$ 5,364,600**	**$ 6,063,900**	**$ 6,427,900**	**$ 6,821,300**	**$ 7,281,500**
	Revenue Requirements							
	Operating & Maintenance							
20	O&M Expenses			2,079,300	2,485,800	2,560,300	2,636,900	2,716,300
21	Water Supply			2,379,000	2,458,600	2,535,500	2,647,900	2,743,500
22	Subtotal O&M			4,458,300	4,944,400	5,095,800	5,284,800	5,459,800
	Debt Service							
23	Existing Revenue Bonds			713,100	371,800	30,800	30,900	30,800
24	Proposed Revenue Bonds			0	0	0	0	0
25	Total Debt Service			713,100	371,800	30,800	30,900	30,800
	Transfers							
26	Transfer to Capital Replacement [2]			200,000	500,000	1,000,000	1,500,000	1,690,000
27	Transfer to Rate Stabilization			0	50,000	70,000	90,000	110,000
28	Total Transfers			200,000	550,000	1,070,000	1,590,000	1,800,000
29	**Total Revenue Requirements**			**$ 5,371,400**	**$ 5,866,200**	**$ 6,196,600**	**$ 6,905,700**	**$ 7,290,600**
30	Net Annual Cash Balance			(6,800)	197,700	231,300	(84,400)	(9,100)
31	Beginning Fund Balance			0	0	197,700	429,000	344,600
32	Net Cumulative Fund Balance			$ (6,800)	$ 197,700	$ 429,000	$ 344,600	$ 335,500
33	Minimum Operating Reserves (45 Days)			$ 256,400	$ 306,500	$ 315,700	$ 325,100	$ 334,900
34	Debt Service Coverage (1.15x)			1.27	3.01	43.25	49.72	59.15

[1] Contract Customers represent Groups 5 and 7.

[2] Transfer to the Capital Replacement fund represents Pay-As-You-GO funds used to pay capital projects.

Figure 2-4 shows a graphical representation of the proposed Potable Water Operating Fund shown in Table 2-10 and Figure 2-5 shows a graphical representation of the Non-Potable Water Operating Fund shown in Table 2-11. The figures show that the District should meet the projected revenue requirements through the proposed revenue adjustments. These revenue adjustments would allow Potable Water and Non-Potable Water to generate revenues as close as possible to operating expenses with minimal surplus or shortage over the Study period.

Figure 2-4 Potable Water Operating Cash Flow

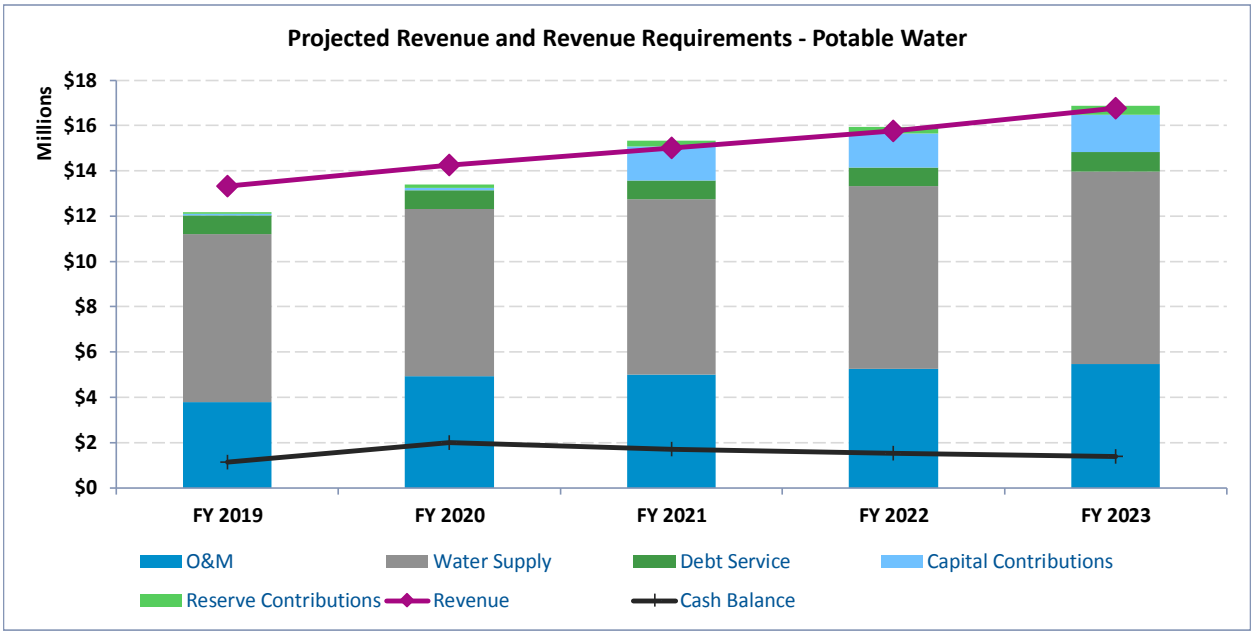
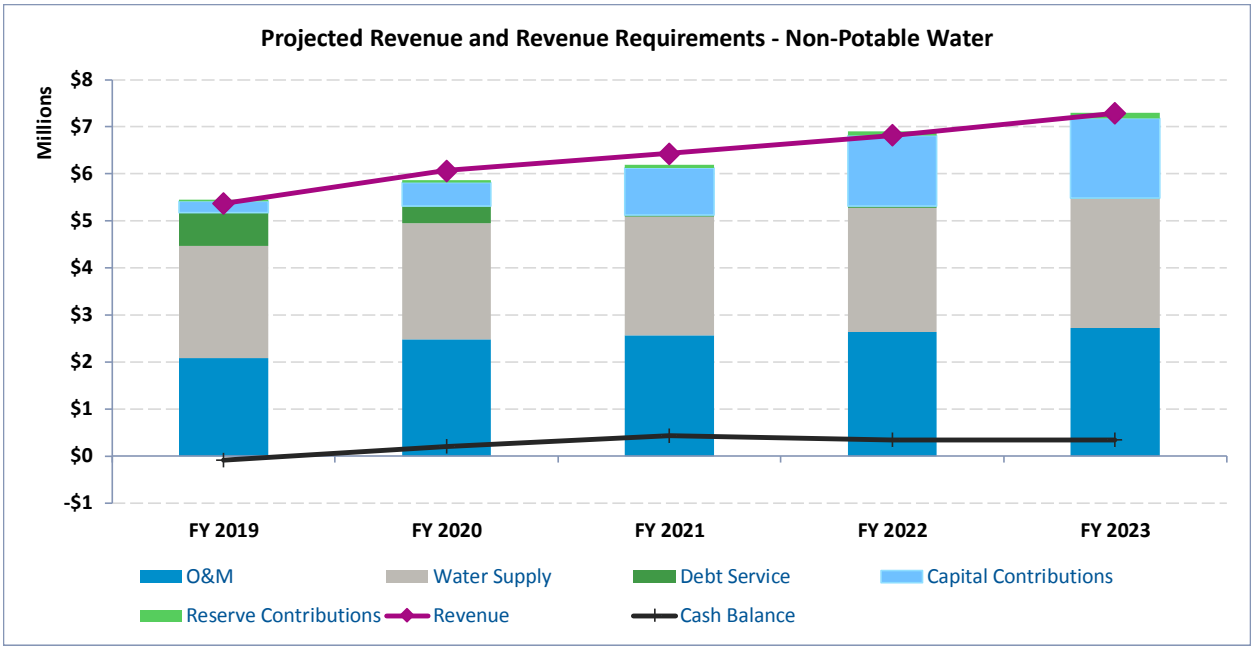


Figure 2-5 Non-Potable Water Operating Cash Flow



3 Cost of Service Analysis

Cost of Service analysis requires recovery of the District's needed revenues from rates for Potable Water and Non-Potable Water service, which are allocated to customer classes according to the service rendered. An equitable rate structure allocates the capture of revenue requirements for customer classes based on the quantity of water consumed; peak flows, the number of customer connections and other relevant factors.

In analyzing Potable Water and Non-Potable Water's cost of service for allocation to its customer classes, Black & Veatch selected the annual revenue requirements for FY 2019 as the Test Year (TY) requirements to demonstrate the development of cost-of-service water rates. Table 3-1 summarizes the total costs of service Potable Water needs to recover from Potable Water user rates, and Table 3-2 summarizes the total costs of service Non-Potable Water needs to recover from Non-Potable Water user rates. Both tables represent TY 2019.

Table 3-1 Cost of Service Revenue from Rates (Potable Water)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expenses	3,763,500	0	3,763,500
2	Water Supply	7,448,500	0	7,448,500
3	Debt Service	0	823,800	823,800
4	Transfer to Capital Replacement		50,000	50,000
5	Transfer to Rate Stabilization	100,000		100,000
6	Subtotal	11,312,000	873,800	12,185,800
	Less Revenue Requirements Met from Other Sources			
7	Other Operating Revenue	(95,400)	0	(95,400)
8	Other Non-Operating Revenue	(568,000)	0	(568,000)
9	Subtotal	(663,400)	0	(663,400)
	Adjustments			
10	Adjustment for Annual Cash Balance	1,140,200	0	1,140,200
11	Adjustment to Annualize Rate Increa	263,500	0	263,500
12	Subtotal	1,403,700	0	1,403,700
13	Cost of Service to be Recovered from Ra	$ 12,052,300	$ 873,800	$ 12,926,100

Shown in Line 6 is the total revenue requirement that corresponds with Table 2-10, Line 27. Deducting revenues from other sources produced the net revenue requirement recovered via rates shown in Line 9.

Line 10 reflects the change in available funds for the Potable Water system during the TY and corresponds to the net annual cash balance, Line 28 of Table 2-10. When the net annual cash balance on Table 2-10 is positive, it indicates that the utility is adding to its operating fund balance, when the balance is negative, the utility is drawing down on reserve balances to meet its annual needs. As a result, Table 3-1, Line 10, adjusts the overall revenues needed from rates to reflect the change in available funds. For example, if the utility ends the year with a positive net annual balance, then the revenues coming in for

the year must be sufficient to allow for funds to reside in the operating reserve for future use. If the utility must drawdown on its reserves to meet the annual requirements, then Line 10 of Table 3-1 reflects that the net revenue requirements should decrease by this amount because the revenues from rates are not sufficient to meet annual requirements.

Since the District expects to implement the revenue adjustment across the remaining billing cycles starting in January 2019, the final cost of service recovered from rates requires an adjustment. Line 11 represents the additional revenues generated if the revenue increase was effective for a full year, versus only 6 months.

Table 3-2 Cost of Service Revenue from Rates (Non-Potable Water)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expenses	2,079,300	0	2,079,300
2	Water Supply	2,379,000	0	2,379,000
3	Debt Service	0	713,100	713,100
4	Transfer to Capital Replacement		200,000	200,000
5	Transfer to Rate Stabilization	0		0
6	Subtotal	4,458,300	913,100	5,371,400
	Less Revenue Requirements Met from Other Sources			
7	PVCWD Revenue	(444,500)	0	(444,500)
8	Other Operating Revenue	(670,700)	0	(670,700)
9	Other Non-Operating Revenue	(278,100)	0	(278,100)
10	Subtotal	(1,393,300)	0	(1,393,300)
	Adjustments			
11	Adjustment for Annual Cash Balance	(6,800)	0	(6,800)
12	Adjustment to Annualize Rate Increas	154,600	0	154,600
13	Subtotal	147,800	0	147,800
14	Cost of Service to be Recovered from Ra	$ 3,212,800	$ 913,100	$ 4,125,900

Shown in Line 6 is the total revenue requirement that corresponds with Table 2-11, Line 28. Deducting revenues from other sources produces the net revenue requirement recovered via rates shown in Line 10.

Similar to what is described above regarding Line 10 of Table 3-1, Line 11 represents the change in available funds or the net annual cash balance during the TY (Line 29 of Table 2-11). Since Line 11 of Table 3-2 shows a negative $7k, this means that the revenues coming in for the year aren't sufficient to allow for funds to reside in the operating reserve for future use.

Since the District expects to implement the revenue adjustment across the remaining billing cycles starting in January 2019, the final cost of service recovered from rates requires an adjustment. Line 12 represents the additional revenues generated if the revenue increase was effective for a full year, versus only 6 months.

3.1 FUNCTIONAL COST COMPONENTS

The first step in conducting a cost-of-service analysis involves analyzing the cost of providing Potable Water and Non-Potable Water service by system function to properly allocate the costs to the various customer classes and subsequently design rates. As a basis for allocating costs of service among customer classes, we separate costs into the following four basic functional cost components: (1) "Base"; (2) "Extra Capacity"; (3) "Customer"; and (4) "Direct Assignment," described as follows:

- Base costs represent the operating and capital costs of the system associated with service to customers to the extent required under constant or average annual load conditions without the elements necessary to meet water consumption variations or peak demands.
- Extra Capacity costs represent those operating and capital costs incurred in meeting peaking demands. Peaking demands represent water consumption more than the average rate of use.
- Customer costs are those expenditures that are associated with customer-specific functions and vary in proportion to the number of customers connected to the system. These include meter reading, billing, collecting and accounting, and maintenance and capital costs associated with meters and services.
- Directly assigned costs are costs specifically identified as those incurred to serve specific customers. These costs include water production fire protection and debt service for Potable Water. For Non-Potable Water, it includes blended agricultural and debt service.

3.2 ALLOCATION TO COST COMPONENTS

The next step of the cost-of-service process involves allocating each element of cost to functional cost components based on the parameter or parameters having the most significant influence on the magnitude of that element of cost. We allocate O&M expense items directly to appropriate cost components. We use a detailed allocation of related capital investment as a proxy for allocating capital and replacement costs. The separation of costs into functional components provides a means for distributing such costs to the various classes of customers based on their respective responsibilities for each type of service.

3.2.1 System Base, Max Day, and Max Hour Allocations

Potable Water and Non-Potable Water systems consist of various facilities; each designed and operated to fulfill a given function. For the systems to provide adequate service to its customers, it must be capable of meeting not only the annual volume requirements but also the maximum demand rates placed on the system. Because not all customers and types of customers exert maximum demand at the same time, the capacities of the various facilities must meet the maximum coincidental demand of all classes of customers. Each Potable Water and Non-Potable Water service facility within the systems have an underlying average demand, exerted by the customers for whom the base cost component applies. For those facilities designed solely to meet average day demand, 100% of the costs go to the base cost component. Extra capacity requirements associated with coincidental demands more than average use consist of maximum daily and maximum hourly demand subcomponents.

For volume-related cost allocations, the first step in determining the allocation percentages is to assign system peaking factors. The base element is equal to the average daily demand (ADD) and assigned a value of 1.0. The Potable Water's maximum day (max day) demand is 1.93 times the ADD. The

maximum hourly (max hour) demand is 2.316 times the ADD. For Non-Potable Water, the maximum day (max day) demand is 2.20 times the ADD and the maximum hourly (max hour) demand is 4.40 times the ADD.

The Potable Water costs associated with facilities required to meet maximum day demand are allocable to base and maximum day extra capacity as follows:

- Base = (1.0/1.93) x 100 = 51.8%
- Max Day = (1.93 – 1.0)/1.93x 100 = 48.2%

These calculations indicate that the average or base use requires 51.8% of the capacity of facilities designed and generated to meet maximum day demand and the remaining 48.2% meets maximum day extra capacity requirements.

The Potable Water costs associated with facilities required to meet maximum hour demand are allocable to base, maximum day extra capacity and maximum hour extra capacity as follows:

- Base = (1.0/2.316) x 100 = 43.2%
- Max Day = (1.93 – 1.0)/2.316 x 100 = 40.2%
- Max Hour = (2.32 – 1.93)/2.316 x 100 = 16.7%

The Non-Potable Water costs associated with facilities required to meet maximum day demand are allocable to base and maximum day extra capacity as follows:

- Base = (1.0/2.20) x 100 = 45.5%
- Max Day = (2.20 – 1.0)/2.20 x 100 = 54.5%

These calculations indicate that the average or base use requires 45.5% of the capacity of facilities designed and generated to meet maximum day demand and the remaining 54.5% meets maximum day extra capacity requirements.

The Non-Potable Water costs associated with facilities required to meet maximum hour demand are allocable to base, maximum day extra capacity and maximum hour extra capacity as follows:

- Base = (1.0/4.40) x 100 = 22.7%
- Max Day = (2.20 – 1.0)/4.40 x 100 = 27.3%
- Max Hour = (4.40 – 2.20)/4.40 x 100 = 50.0%

3.2.2 Allocation of Operating and Maintenance (O&M) Expenses

In the allocation of O&M expenses for the Test Year (2019), we directly allocate the costs to the cost components to the extent possible. Potable Water and Non-Potable Water book operating costs by operating categories. Therefore, Black & Veatch used the factors noted in Section 3.1 to allocate the operating expenses to the cost components. We based the allocation of various administrative costs based on the average of all other costs. Tables 3-3, 3-4, 3-7, and 3-8 represent the allocation of O&M to the cost components. Next, we subtracted revenues from other sources as shown in Table 3-1, Line 9 for Potable Water and Table 3-2, Line 10 for Non-Potable Water, and we deducted any drawdown of available cash balances and normalized the rate adjustments for a full year as shown in Table 3-1, Line 12 for Potable Water and Table 3-2, Line 13 for Non-Potable Water to determine the net O&M costs for each

utility. The direct assignment represents water production and fire protection for Potable Water and blended agricultural for Non-Potable Water. For the allocation of adjustments such as miscellaneous revenues and other adjustments, Black & Veatch allocates these adjustments based on the average distribution of costs. For example, on Table 3-4, the allocation of $482,900 of miscellaneous revenues under the Base column comes from multiplying the total miscellaneous revenues figure ($663,400) by the ratio of the total Base O&M cost on Line 14 ($8,234,695) to the total O&M cost ($11,311,995). We repeat this process for each functional category to derive the distribution of costs to the categories.

In the following tables, historical spending trends are incorporated where possible to provide a better representation of how the District's costs relate to different functional components. Specifically, the allocations for salaries and benefits, contract services, utilities, pipeline repairs and maintenance, and materials, tools and equipment use data from 2017 to formulate the percentages reflected in Tables 3-3 and 3-5. Appendix A demonstrates the derivation of the percentages based on 2017 actual costs with modifications to reflect budget assignments for 2018.

3.2.3 Allocation of Capital Investments

In the allocation of capital investment for the Test Year (2019), the existing fixed assets (which serve as a proxy for the current capital investments) are allocated directly to cost components to the extent possible. The allocation of costs into the costs components provides a basis for annual investment in Potable Water and Non-Potable Water system facilities. Tables 3-5, 3-6, 3-9 and 3-10 show the total allocation of existing system investment serving Potable Water and Non-Potable Water customers. The total net system investment of $22.83M shown on Line 9 for Potable Water and $12.86M in Line 8 for Non-Potable Water represents the Test Year original cost less accumulated depreciation of the system in service. The total net system investment reflects the Potable Water and Non-Potable Water's fixed asset listing ending June 30, 2017. This value represents the book value of the assets. Using the distribution of total net system investment across the functional cost components, we can then allocate the planned capital costs. Like the allocation of O&M expenses, Black & Veatch allocates adjustments such as miscellaneous revenues and other adjustments based on the average distribution of costs.

Table 3-3 Allocation of O&M Expenditures (Potable Water)

Line No.	Description	Common to All Customers					Fire Protection	Water Production	Allocation Basis
		Base	Extra Capacity		Customer				
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	
	Operating Expenses								
1	Production								
2	Water Purchase	88.54%	0.00%	0.00%	0.00%	0.00%	0.00%	11.46%	[1]
3	Production Power	88.54%	0.00%	0.00%	0.00%	0.00%	0.00%	11.46%	[1]
4	Salaries and Benefits	30.30%	28.20%	11.10%	7.60%	19.80%	3.00%	0.00%	[2]
5	Contracts & Professional Services								
6	Outside Contracts	73.90%	16.80%	6.30%	0.00%	0.00%	3.00%	0.00%	[2]
7	Professional Services	73.90%	16.80%	6.30%	0.00%	0.00%	3.00%	0.00%	[2]
8	Services & Supplies	63.04%	4.12%	0.00%	29.81%	0.00%	3.03%	0.00%	[2]
9	Utilities	88.00%	9.00%	0.00%	0.00%	0.00%	3.00%	0.00%	[2]
10	Pipeline Repairs	27.70%	25.70%	4.80%	38.80%	0.00%	3.00%	0.00%	[2]
11	Materials & Supplies	50.70%	46.00%	0.00%	0.30%	0.00%	3.00%	0.00%	[2]
12	Repair Parts & Equipment Maint	50.70%	46.00%	0.00%	0.30%	0.00%	3.00%	0.00%	[2]
13	Transfers	88.54%	0.00%	0.00%	0.00%	0.00%	0.00%	11.46%	[1]

[1] Fixed/Variable Import Water Charges

[2] Allocations are based on actual costs for FY 2017. See Appendix A for more details.

Table 3-4 Allocation of $ O&M Expenditures (Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production
		($)	($)	($)	($)	($)	($)	($)	($)
	Operating Expenses								
1	Production								
2	Water Purchase	6,958,864	6,161,264	0	0	0	0	0	797,600
3	Production Power	489,626	246,326	228,600	0	0	0	14,700	0
4	Salaries and Benefits	1,736,669	526,169	489,700	192,800	132,000	343,900	52,100	0
5	Contracts & Professional Services								
6	Outside Contracts	536,584	396,584	90,100	33,800	0	0	16,100	0
7	Professional Services	168,293	124,393	28,300	10,600	0	0	5,000	0
8	Services & Supplies	257,336	162,236	10,600	0	76,700	0	7,800	0
9	Utilities	51,802	45,502	4,700	0	0	0	1,600	0
10	Pipeline Repairs	130,000	36,100	33,400	6,200	50,400	0	3,900	0
11	Materials & Supplies	406,381	206,081	186,900	0	1,200	0	12,200	0
12	Repair Parts & Equipment Maint	476,440	241,540	219,200	0	1,400	0	14,300	0
13	Transfers	100,000	88,500	0	0	0	0	0	11,500
14	Total O&M Expenses	$ 11,311,995	$ 8,234,695	$ 1,291,500	$ 243,400	$ 261,700	$ 343,900	$ 127,700	$ 809,100
	Less Other Revenue								
15	Miscellaneous Revenues	663,400	482,900	75,700	14,300	15,300	20,200	7,500	47,500
16	Other Adjustments	(1,403,700)	(1,021,800)	(160,300)	(30,200)	(32,500)	(42,700)	(15,800)	(100,400)
17	Net Operating Expenses	$ 12,052,295	$ 8,773,595	$ 1,376,100	$ 259,300	$ 278,900	$ 366,400	$ 136,000	$ 862,000

Table 3-5 Allocation of Capital Costs (Potable Water)

Line No.	Description	Common to All Customers					Fire Protection	Water Production	Allocation Basis
		Base	Extra Capacity		Customer				
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	
	Plant Assets								
1	Water Production	88.54%	0.00%	0.00%	0.00%	0.00%	0.00%	11.46%	[1]
2	Pumping	88.54%	0.00%	0.00%	0.00%	0.00%	0.00%	11.46%	[1]
3	Treatment	50.31%	46.69%	0.00%	0.00%	0.00%	3.00%	0.00%	[2]
4	Transmission & Distribution	42.18%	39.16%	15.67%	0.00%	0.00%	3.00%	0.00%	[3]
5	Meters	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	[4]
6	Fire Hydrants	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	[5]
7	Land	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	[6]
8	General Plant	46.41%	32.51%	5.27%	10.40%	0.00%	4.26%	1.15%	[7]

[1] Fixed/Variable Import Water Charges
[2] Base/Max Day (adj for Fire)
[3] Base/Max Hour/Max Day (adj for Fire)
[4] Meters
[5] Fire Hydrants
[6] Base
[7] Average of above

Table 3-6 Allocation of $ Capital Costs (Potable Water)

Line No.	Description	(1) Total Costs (Net Book Value)	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production
		($)	($)	($)	($)	($)	($)	($)	($)
	Plant Assets								
1	Water Production	1,638,500	1,450,700	0	0	0	0	0	187,800
2	Pumping	600,900	532,000	0	0	0	0	0	68,900
3	Treatment	9,263,500	4,660,800	4,324,800	0	0	0	277,900	0
4	Transmission & Distribution	7,512,100	3,168,400	2,941,400	1,176,900	0	0	225,400	0
5	Meters	2,324,300	0	0	0	2,324,300	0	0	0
6	Fire Hydrants	449,100	0	0	0	0	0	449,100	0
7	Land	560,500	560,500	0	0	0	0	0	0
8	General Plant	477,900	221,700	155,400	25,200	49,700	0	20,400	5,500
9	Total Plant Assets	$ 22,826,800	$ 10,594,100	$ 7,421,600	$ 1,202,100	$ 2,374,000	$ 0	$ 972,800	$ 262,200
	Less Other Revenue								
10	Miscellaneous Revenues	0	0	0	0	0	0	0	0
11	Other Adjustments	0	0	0	0	0	0	0	0
12	Net Capital Expenses	$ 22,826,800	$ 10,594,100	$ 7,421,600	$ 1,202,100	$ 2,374,000	$ 0	$ 972,800	$ 262,200
13	Proxy for Allocation of Capital Costs (%)		46.4%	32.5%	5.3%	10.4%	0.0%	4.3%	1.1%
14	Amended proxy for Allocation of Capital Costs (%)		51.8%	32.5%	5.3%	5.0%	0.0%	4.3%	1.1%

Note: Proxy percentages are derived by dividing total costs in each column by the total costs.
For example, Base = Column 2, Line 11 / Column 1, Line 11
Base = $10,594,100 / $22,826,800 = 46.4%
Line 14 was amended to reflect that less CIP was associated with meter than other components.

Table 3-7 Allocation of O&M Expenditures (Non-Potable Water)

Line No.	Description	Common to All Customers					Blended Agricultural	Allocation Basis
		Base	Extra Capacity		Customer			
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(%)	(%)	(%)	(%)	(%)	(%)	
	Operating Expenses							
1	Production							
2	Water Purchase	44.61%	0.00%	0.00%	0.00%	0.00%	55.39%	[1]
3	Production Power	42.08%	53.05%	0.00%	0.00%	0.00%	4.87%	[2]
4	Salaries and Benefits	15.50%	18.80%	35.30%	7.60%	19.80%	3.00%	[3]
5	Contracts & Professional Services							
6	Outside Contracts	22.60%	25.40%	47.40%	1.60%	0.00%	3.00%	[3]
7	Professional Services	22.60%	25.40%	47.40%	1.60%	0.00%	3.00%	[3]
8	Services & Supplies	46.44%	9.07%	1.36%	40.18%	0.00%	2.95%	[3]
9	Utilities	97.00%	0.00%	0.00%	0.00%	0.00%	3.00%	[3]
10	Pipeline Repairs	27.70%	33.40%	26.50%	9.40%	0.00%	3.00%	[3]
11	Materials & Supplies	28.50%	34.20%	32.80%	1.50%	0.00%	3.00%	[3]
12	Repair Parts & Equipment Mainter	28.50%	34.20%	32.80%	1.50%	0.00%	3.00%	[3]
13	Transfers	44.61%	0.00%	0.00%	0.00%	0.00%	55.39%	[1]

[1] Fixed/Variable Import Water Charges

[2] Max Day/Base (adj for Blended Ag)

[3] Allocations are based on actual costs for FY 2017. See Appendix A for more details.

Table 3-8 Allocation of $ O&M Expenditures (Non-Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers – Base: Base	(3) Common to All Customers – Extra Capacity: Max. Day	(4) Common to All Customers – Extra Capacity: Max. Hour	(5) Common to All Customers – Customer: Meters	(6) Common to All Customers – Customer: Cust/Bill.	(7) Blended Agricultural
		($)	($)	($)	($)	($)	($)	($)
	Operating Expenses							
1	Production							
2	Water Purchase	1,347,135	600,935	0	0	0	0	746,200
3	Production Power	1,031,890	434,190	547,400	0	0	0	50,300
4	Salaries and Benefits	935,128	144,828	175,800	330,100	71,100	185,200	28,100
5	Contracts & Professional Services							
6	Outside Contracts	304,847	68,947	77,400	144,500	4,900	0	9,100
7	Professional Services	164,963	37,363	41,900	78,200	2,600	0	4,900
8	Services & Supplies	176,447	81,947	16,000	2,400	70,900	0	5,200
9	Utilities	9,048	8,748	0	0	0	0	300
10	Pipeline Repairs	32,000	8,800	10,700	8,500	3,000	0	1,000
11	Materials & Supplies	80,814	23,114	27,600	26,500	1,200	0	2,400
12	Repair Parts & Equipment Mainter	376,060	107,260	128,600	123,300	5,600	0	11,300
13	Transfers	0	0	0	0	0	0	0
14	Total O&M Expenses	$ 4,458,332	$ 1,516,132	$ 1,025,400	$ 713,500	$ 159,300	$ 185,200	$ 858,800
	Less Other Revenue							
15	Miscellaneous Revenues	1,393,300	473,700	320,500	223,000	49,800	57,900	268,400
16	Other Adjustments	(147,800)	(50,200)	(34,000)	(23,700)	(5,300)	(6,100)	(28,500)
17	Net Operating Expenses	$ 3,212,832	$ 1,092,632	$ 738,900	$ 514,200	$ 114,800	$ 133,400	$ 618,900

Table 3-9 Allocation of Capital Costs (Non-Potable Water)

Line No.	Description	Common to All Customers					Blended Agricultural	Allocation Basis
		Base	Extra Capacity		Customer			
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(%)	(%)	(%)	(%)	(%)	(%)	
	Plant Assets							
1	Water Production	44.6%	0.0%	0.0%	0.0%	0.0%	55.4%	[1]
2	Pumping	44.6%	0.0%	0.0%	0.0%	0.0%	55.4%	[1]
3	Treatment	44.0%	53.0%	0.0%	0.0%	0.0%	3.0%	[2]
4	Transmission & Distribution	21.7%	26.3%	49.0%	0.0%	0.0%	3.0%	[3]
5	Meters	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	[4]
6	Land	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	[5]
7	General Plant	38.5%	34.7%	15.4%	0.8%	0.0%	10.6%	[6]

[1] Fixed/Variable Import Water Charges
[2] Base/Max Day (adj for Blended Ag)
[3] Base/Max Hour/Max Day (adj for Blended Ag)
[4] Meters
[5] Base
[6] Average of above

Table 3-10 Allocation of $ Capital Costs (Non-Potable Water)

Line No.	Description	(1) Total Costs (Net Book Value)	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Blended Agricultural
		($)	($)	($)	($)	($)	($)	($)
	Plant Assets							
1	Water Production	1,708,500	762,100	0	0	0	0	946,400
2	Pumping	141,600	63,200	0	0	0	0	78,400
3	Treatment	6,294,700	2,766,800	3,339,100	0	0	0	188,800
4	Transmission & Distribution	3,979,600	864,700	1,045,500	1,950,000	0	0	119,400
5	Meters	107,400	0	0	0	107,400	0	0
6	Land	405,200	405,200	0	0	0	0	0
7	General Plant	224,600	86,400	77,900	34,700	1,900	0	23,700
8	Total Plant Assets	$ 12,861,600	$ 4,948,400	$ 4,462,500	$ 1,984,700	$ 109,300	$ 0	$ 1,356,700
	Less Other Revenue							
9	Miscellaneous Revenues	0	0	0	0	0	0	0
10	Other Adjustments	0	0	0	0	0	0	0
11	Net Capital Expenses	$ 12,861,600	$ 4,948,400	$ 4,462,500	$ 1,984,700	$ 109,300	$ 0	$ 1,356,700
12	Proxy for Allocation of Capital Costs (%)		38.5%	34.7%	15.4%	0.8%	0.0%	10.5%

Note: Proxy percentages are derived by dividing total costs in each column by the total costs.
For example, Base = Column 2, Line 11 / Column 1, Line 11
Base = $4,948,400 / $12,861,600 = 38.5%

3.3 UNITS OF SERVICE

Following the allocation of costs, the total cost responsibility for each customer class is developed using unit costs of service for each cost function and subsequently assigning those costs to the customer classes based on the respective service requirements of each. To properly recognize the cost of service, each customer class receives its share of base, maximum day, peak hour, and customer costs. The number of units of service required by each customer class provides a means for the proportionate distribution of costs previously allocated to respective cost categories.

Table 3-11 summarizes the estimated Test Year (2019) units of service for the various customer classes. Base costs vary with the volume of water consumed and distributed to customer classes on that basis. Extra Capacity costs are those associated with meeting peak demand rates of water use and distributed to customer classes based on the respective class capacity requirements more than average rates of use. Black & Veatch followed the capacity factor methodology outlined in Appendix A of the AWWA M1 Manual to derive peak consumption information from the monthly consumption records in the District's Customer Information System (CIS) which helps provide the basis for estimating maximum day and peak hour ratios by customer class. The number of bills for each customer class serves as the basis for distributing customer billing requirements. Customer meter requirements are allocated based on the number of equivalent meters serving each customer class. The estimated number of equivalent meters for each customer class relies on the total number of various sizes of meters serving respective classes and the ratio of the cost of meters for the various sizes to the cost of 5/8-inch meter. The equivalent meter ratios adopted in this analysis are consistent with those established in the AWWA M1 Manual. Private fire protection costs allocations use equivalent fire hydrants.

3.3.1 Max Day/Max Hour Peaking Factors

Similar to other utilities, the District does not have access to system capacity factor data. It is typical for cities to lack this data since acquiring it requires the installation of special meters for prolonged periods to measure the usage patterns of different customer classes. In the absence of measured capacity factors, we developed estimates of these factors using procedures outlined in Appendix A of AWWA's M1 Rate Manual. The process involved using the District's monthly peaking data and high-level assumptions regarding customer class usage patterns. The capacity factors for each customer class are multiplied by the average consumption for each class to determine the base, max day, and max hour allocation percentages. The allocation to base, max day, and max hour considers the total water consumption per customer class and the demand each customer class places on the system.

3.3.2 Fire Service

We allocate fire protection costs between those costs to be recovered from all users and those recovered from customers that have private fire meters. District staff provided Black & Veatch with the number of public fire hydrants (1,083), as well as the number of private fire meters (95) by meter size. We then converted the public fire hydrants and the number of meters to equivalent hydrants. The resulting proportion of equivalent public fire hydrants is approximately 90.6%. As shown in Table 3-13, Column 1, $247,400, of the fire protection costs are associated with public hydrants and are recovered from all water users and the remaining $98,500 of the fire protection costs will be recovered directly from those customers with private fire meters.

The derivation of fire protection units of service depends on the system's fire requirements. For the District, according to the District's Infrastructure Fire Management Plan (Tables 5.12 and 5.16), the water system should be able to handle a 2-hour fire delivering 3,000 gallons per minute (GPM) of flow. The process for converting these fire protection requirements into base/max day/max hour elements is as follows:

Public Fire Protection

- Max Day requirements = Fire duration x Water flow x conversion factors x number of public hydrants/total number of hydrants
    - Max Day = 2 x 3,000 x 60/7.48/100 x 1,083/1,211 = 430 HCF/day
- Max Hour requirements = Water flow x conversion factors x number of public hydrants/total number of hydrants
    - Max Hour Total = 3,000 x 60/7.48/100 * 1,083/1,211 = 5,166 HCF/day
    - Max Hour Extra = 5,166 HCF/day – 430 HCF/day = 4,735 HCF/day

We repeated the same process for the private fire protection units, but we replace "number of public fire hydrants" with "number of private hydrants."

3.4 COST OF SERVICE ALLOCATIONS

To determine the cost of service for each customer class, we apply the unit costs of service to each customer classes' respective service requirements. The total unit costs of service applied to the respective requirements for each customer class results in the total cost of service for each customer class.

3.4.1 Units Costs of Service

The Test Year (2019) unit cost of service for each functional cost component is simply the total cost divided by the applicable units of service as shown in Tables 3-12 and 3-14. On Line 4, the total costs represent the cost that rates need to recover shown as demonstrated in Table 3-1, Line 13 for Potable Water and Table 3-2, Line 14 for Non-Potable Water. The net O&M cost includes O&M (which includes water purchase) less revenue from other sources and adjustments. The total capital cost includes debt service payments and transfers to the Capital Replacement Fund. Line 6 represents the unit costs for the entire Potable Water and Non-Potable Water systems regardless of customer class. After that, we use these unit costs in allocating the costs to the specific customer classes. Theoretically, debt service is a fixed cost in that the District must pay the debt payment regardless of how much water the District sells. However, putting 100% of debt service on the District's fixed charge would cause a large spike to customer rates and potentially cause affordability issues. Instead, the District has opted to recognize that much of the debt issued serves to provide facilities and pipelines for the provision of water service. As such, this Study allocates 94.5% of the debt service obligation to the Base element (shared by all customers), and 4.5% to the fixed cost element.

3.4.2 Distribution of Costs of Service to Customer Classes

Applying the unit costs to the units for each customer class produces the customer class costs. This process is illustrated in Table 3-13 and 3-15, in which we apply the unit costs to the customer class units

of service for Test Year (2019). The costs attributable to each customer class reflect the functional costs components described in Section 3.1. Each customer class places a burden on the system in different ways, and thus the allocation of the units is representative of this burden.

An example of the application of unit costs is shown below for illustrative purposes.

	Base Component	
Unit Cost (Table 3-13, Line 1)	$ 3.05	per HCF
Group 2 Consumption (Table 3-13, Line 5)	1,969,348	HCF
Total Allocated Cost	$ 6,000,000	

Please note that the numbers within the tables are rounded, therefore result might vary.

3.4.3 Cost of Service Adjustments

Presented in Table 3-16 is a summary of the cost of service by customer class for both potable and non-potable customer groups. In recognition that public fire protection provides a general benefit to all customers that use potable water for non-irrigation purposes, we allocate this cost to relevant customers in Column 2. Column 3 shows the adjusted allocated costs of service.

Table 3-11 Units of Service (Potable Water and Non-Potable Water)

Line No.	Description	Consumption		Maximum Day			Maximum Hour			Meters	Cust/Bills	Fire Protection
		Annual	Avg. Day	Factor	Total	Extra	Factor	Total	Extra			
	Column Reference	(1)	(2)=(1)/365	(3)	(4)=(2)x(3)	(5)=(4)-(2)	(6)	(7)=(2)x(6)	(8)=(7)-(4)	(9)	(10)	(11)
	Units of Measure	(HCF)	(HCF/day)		(HCF/day)	(HCF/day)		(HCF/day)	(HCF/day)	(EMs)	(bills)	(EHs)
	Potable Water											
1	Group 1	11,326	31	451%	140	109	602%	187	47	236	192	0
2	Group 2	1,969,348	5,395	292%	15,755	10,359	390%	21,042	5,288	13,176	85,524	0
3	Group 3	1,096,841	3,005	321%	9,646	6,641	427%	12,832	3,185	4,115	8,796	0
4	Subtotal	3,077,514	8,432		25,541	17,109		34,061	8,520	17,527	94,512	
	Potable Fire Service											
5	Public Fire	0	0		430	430		5,166	4,735	0	0	1,083
6	Fire Service (PP5)	0	0		51	51		609	559	5,258	1,140	128
7	Subtotal	0	0		481	481		5,775	5,294	5,258	1,140	1,211
8	Total Potable Water System	3,077,514	8,432		26,022	17,591		39,836	13,814	22,785	95,652	1,211
	Non-Potable Water											
9	Group 4	1,530,698	4,194	297%	12,455	8,262	356%	14,930	2,474	1,745	3,600	0
10	Group 6	377,665	1,035	320%	3,311	2,276	384%	3,973	662	639	336	0
11	Subtotal	1,908,364	5,228		15,766	10,538		18,903	3,136	2,384	3,936	-
12	Total Non-Potable Water System	1,908,364	5,228		15,766	10,538		18,903	3,136	2,384	3,936	-

Table 3-12 Units Cost of Service (Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production	(9) Debt Service
		($)	($)	($)	($)	($)	($)	($)		
	Potable Water - Unit Cost of Service									
1	Net Operating Expense (Per Table 3-4)	12,052,300	8,773,600	1,376,100	259,300	278,900	366,400	136,000	862,000	0
2	Debt Service	823,800	576,700	0	0	0	0	0	0	247,100
3	Capital Costs	50,000	25,900	16,300	2,600	2,500	0	2,100	600	0
4	Total Cost of Service	$ 12,926,100	$ 9,376,200	$ 1,392,400	$ 261,900	$ 281,400	$ 366,400	$ 138,100	$ 862,600	$ 247,100
5	Units of Service (Per Table 3-11)		3,077,514	17,591	13,814	22,785	95,652	1,211	17,527	17,527
6	Units of Measure		HCF	HCF/Day	HCF/Day	Eq. Meter	Bill	Eq. Hydrant	Eq. Meter	Eq. Meter
7	Cost per Unit (Line 4 / Line 5)		$ 3.05	$ 79.16	$ 18.96	$ 12.35	$ 3.83	$ 114.06	$ 49.22	$ 14.10
8	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	Per Eq. Hydrant	per Eq. Meter	per Eq. Meter

Note: Capital Cost distributed by the proxy derived in Table 3-6, Line 14.

Table 3-13 Distribution of Costs to Customer Classes (Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers – Base: Base	(3) Common to All Customers – Extra Capacity: Max. Day	(4) Common to All Customers – Extra Capacity: Max. Hour	(5) Customer: Meters	(6) Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production [1]	(9) Debt Service [1]
		($)	($)	($)	($)	($)	($)	($)		
1	Cost per Unit (Per Table 3-12)		$ 3.05	$ 79.16	$ 18.96	$ 12.35	$ 3.83	$ 114.06	$ 49.22	$ 14.10
2	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	Per Eq. Hydrant	per Eq. Meter	per Eq. Meter
	Potable Water									
	Group 1									
3	Units		11,326	109	47	236	192	0	236	236
4	Allocation of costs of service	62,500	34,500	8,600	900	2,900	700	0	11,600	3,300
	Group 2									
5	Units		1,969,348	10,359	5,288	13,176	85,524	0	13,176	13,176
6	Allocation of costs of service	8,244,800	6,000,000	820,000	100,200	162,700	327,600	0	648,500	185,800
	Group 3									
7	Units		1,096,841	6,641	3,185	4,115	8,796	0	4,115	4,115
8	Allocation of costs of service	4,272,900	3,341,700	525,700	60,400	50,900	33,700	0	202,500	58,000
	Public Fire									
9	Units		0	430	4,735	0	0	1,083	0	0
10	Allocation of costs of service	247,400	0	34,100	89,800	0	0	123,500	0	0
	Fire Service (PP5)									
11	Units		0	51	559	5,258	1,140	128	0	0
12	Allocation of costs of service	98,500	0	4,000	10,600	64,900	4,400	14,600	0	0
13	TOTAL COSTS OF SERVICE	$ 12,926,100	$ 9,376,200	$ 1,392,400	$ 261,900	$ 281,400	$ 366,400	$ 138,100	$ 862,600	$ 247,100
	Reference for Table 4-9.									
	Group 2 Tier 1									
14	Units			4,081	2,249					
15	Allocation of costs of service	365,700		323,100	42,600					
	Group 2 Tier 2									
16	Units			6,279	3,038					
17	Allocation of costs of service	554,600		497,000	57,600					

[1] Units for Water Production and Debt Service are equivalent Meters units as the allocation is based on Equivalent Meters. The exception is that Water Production and Debt Service have no Fire Service Allocation thus no units.

Table 3-14 Units Cost of Service (Non-Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Blended Agricultural	(8) Debt Service
		($)	($)	($)	($)	($)	($)	($)	($)
	Non-Potable Water - Unit Cost of Service								
1	Net Operating Expense (Per Table 3-8)	3,212,800	1,092,600	738,900	514,200	114,800	133,400	618,900	0
2	Debt Service	713,100	713,100	0	0	0	0	0	0
3	Capital Costs	200,000	76,900	69,400	30,900	1,700	0	21,100	0
4	Total Cost of Service	$ 4,125,900	$ 1,882,600	$ 808,300	$ 545,100	$ 116,500	$ 133,400	$ 640,000	$ 0
5	Units of Service (Per Table 3-11)		1,530,698	10,538	3,136	2,384	3,936	377,665	2,384
6	Units of Measure		HCF	HCF/Day	HCF/Day	Eq. Meter	Bill	HCF	Eq. Meter
7	Cost per Unit (Line 4 / Line 5)		$ 1.23	$ 76.70	$ 173.79	$ 48.87	$ 33.89	$ 1.69	$ 0.00
8	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	per HCF	per Eq. Meter

Note: Capital Cost distributed by Proxy derived in Table 3-10, Line 12.

Table 3-15 Distribution of Costs to Customer Classes (Non-Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers: Base	(3) Extra Capacity: Max. Day	(4) Extra Capacity: Max. Hour	(5) Customer: Meters	(6) Customer: Cust/Bill.	(7) Blended Agricultural	(8) Debt Service [2]
			Base	Extra Capacity		Customer		Blended	Debt
		($)	($)	($)	($)	($)	($)	($)	
1	Cost per Unit (Per Table 3-14)		$ 1.23	$ 76.70	$ 173.79	$ 48.87	$ 33.89	$ 1.69	$ 0.00
2	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	per HCF	per Eq. Meter
	Non-Potable Water								
	Group 4								
3	Units		1,530,698	8,262	2,474	1,745	3,600	0	1,745
4	Allocation of costs of service	3,153,600	1,882,600	633,700	430,000	85,300	122,000	0	0
	Group 6 [1]								
5	Units		0	2,276	662	639	336	377,665	639
6	Allocation of costs of service	972,300	0	174,600	115,100	31,200	11,400	640,000	0
7	TOTAL COSTS OF SERVICE	$ 4,125,900	$ 1,882,600	$ 808,300	$ 545,100	$ 116,500	$ 133,400	$ 640,000	$ 0

[1] Base costs associated with Group 6 are different from other customer classes, therefore direct assignment for base is shown in Column 7.
[2] Units for Debt Service are equivalent Meters units as the allocation is based on Equivalent Meters.

Table 3-16 Cost of Service by Customer Class Summary

Line No.	Description	Cost of Service [1]	Re-Allocation of Public Fire Protection [2]	Adjusted Cost of Service
		($)	($)	($)
	Potable and Non-Potable Water Customers			
1	Group 1	62,500	1,200	63,700
2	Group 2	8,244,800	162,100	8,406,900
3	Group 3	4,272,900	84,100	4,357,000
4	Group 4	3,153,600		3,153,600
5	Group 6	972,300		972,300
6	Subtotal	16,706,100	247,400	16,953,500
7	Public Fire	247,400	(247,400)	0
8	PP5 Fire Service	98,500		98,500
9	Subtotal	345,900	(247,400)	98,500
10	**Total Water System**	**$ 17,052,000**	**$ 0**	**$ 17,052,000**

[1] Cost of service values from Tables 3-13 and 3-15

[2] Public fire protection costs re-allocated based on proportionate share of costs for Groups 1, 2 &3.
For example, Group 1's porportionate share = Line 9 * Line 1 / (Line 1 + Line 2 + Line 3)
Group 1's share = $247,400 * $62,500 / ($62,500 + $8,244,800 + $4,272,900)

4 Rate Design

The initial consideration in the derivation of rate schedules for Potable Water and Non-Potable Water service is the establishment of equitable charges to the customers commensurate with the cost of providing that service. While the cost of service allocations to customer classes should not be construed as literal or exact determinations, they offer a guide to the necessity for, and the extent of, rate adjustments. Practical considerations sometimes modify rate adjustments by considering additional factors such as the extent of bill impacts, existing contracts, and historical local policies and practices.

4.1 EXISTING RATES

Potable Water and Non-Potable Water's existing rates consist of a fixed component in the form of monthly service charge and a variable component in the form of a commodity charge. The District bills its customers a monthly service charge based on meter size. The commodity charge is based on units of consumption (1 unit = 1 HCF = 748 gallons). The District has a separate fixed charge for private fire service. Table 2-3 presented earlier in this report summarized the existing Potable Water and Non-Potable Water rates.

4.2 PROPOSED RATES

The costs of service analysis described in preceding sections of this report provide a basis for the design of Potable Water and Non-Potable Water rates.

4.2.1 Monthly Service Charge

The monthly service charge recovers a portion of the costs associated with wholesale water purchase, meter maintenance and services, meter reading, bill issuance, debt service, and maintenance and capacity costs associated with public fire protection regardless of the level of water consumed. Black & Veatch used meter ratios based on maximum operating capacities by meter size, which recognizes that as meter size increases, so does the capacity, as shown on Table 4-1. For example, customers with a 4" meter expect to be able to use more water (at a higher flow capacity) than customers are with a ¾" meter. Consequently, the District's water system must maintain assets sized accordingly and capable of providing customers the level of service expected from their meter connection when the tap turns on.

Based on the changes, Table 4-1 demonstrates the cost elements incorporated into the monthly service charge for FY 2019. Table 4-2 shows the five-year fixed service charge rate schedule. The five-year fixed charge rate schedule follows the cost of service allocations as described in Section 3 of this report. Appendix B includes accompanying tables for each study period year.

The following are sample calculations for Meters Unit Costs derived in Table 4-1. The footnotes to Table 4-1 provide additional calculations for the other unit costs that make up the monthly service charge. Additionally, please note that the difference between the meter costs for potable and non-potable customers is that the latter does not have water production costs.

Meter Unit Cost = [$281,400 (Table 3-12, Line 4) + $116,500 (Table 3-14, Line 4)] / [22,785 Equivalent Potable Water Meters (Table 3-12, Line 5) + 2,384 Equivalent Non-Potable Meters (Table 3-14, Line 5)] / 12 bills

Table 4-1 Costs within the Monthly Service Charge for FY 2019

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Meters Svcs, Public Fire Protection & Billing, Debt Svc							Total
Customer Class	Meters Unit Cost [1]	Fire Unit Cost [2]	Water Production [3]	Debt Unit Cost [4]	Ratio*	Billing Unit Cost [5]	Ratio*	Service Charge
	per EM	per EM	per EM	per EM		per Bill		$/month
Potable Water								
Master Metered	1.32	1.18	4.10	1.17	0.25	5.02	0.85	6.21
3/4"	1.32	1.18	4.10	1.17	1.00	5.02	1.00	12.79
1"	1.32	1.18	4.10	1.17	2.11	5.02	1.00	21.41
1.5"	1.32	1.18	4.10	1.17	4.88	5.02	1.00	42.94
2"	1.32	1.18	4.10	1.17	8.22	5.02	1.00	68.89
3"	1.32	1.18	4.10	1.17	18.80	5.02	1.00	151.09
4"	1.32	1.18	4.10	1.17	32.69	5.02	1.00	259.02
6"	1.32	1.18	4.10	1.17	49.38	5.02	1.00	388.69
8"	1.32	1.18	4.10	1.17	82.74	5.02	1.00	647.90

* Ratio is based on equivalent meters. Bill ratios are typically 1.0 except for master metered.
[1] Meter unit cost = (Table 3-12, Column 5, Line 4 + Table 3-14, Column 5, Line 4) / (Table 3-12, Column 5, Line 5 + Table 3-14, Column 5, Line 5) / 12 = ($281,400 + $116,500) /(22,785 + 2,384) /12
[2] Fire unit cost = (Table 3-13, Column 1, Line 10) / (Table 3-11, Column 9, Line 4) / 12 = $247,400 / 17,527 / 12
[3] Water Production unit cost = (Table 3-12, Column 8, Line 7) / 12 = $49.22 / 12
[4] Debt unit cost = (Table 3-12, Column 9, Line 7) / 12 = ($14.10) / 12
[5] Billing unit cost = (Table 3-12, Column 6, Line 4 + Table 3-14, Column 6, Line 4) /(Table 3-12, Column 6, Line 5 + Table 3-14, Column 6, Line 5) = ($366,400 + $133,400) / (95,652 + 3,936)
[6] Total Service Charge = (Column 1 + Column 2 + Column 3 + Column 4) x Column 5 + Column 6 x Column 7

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Meters Svcs, Public Fire Protection & Billing, Debt Svc						Total
Customer Class	Meters Unit Cost [1]	Fire Unit Cost [2]	Debt Unit Cost [3]	Ratio*	Billing Unit Cost [4]	Ratio*	Service Charge [5]
	per EM	per EM	per EM		per Bill		$/month
Non-Potable Water							
Master Metered	1.32	1.18	0	0.25	5.02	0.85	4.89
3/4"	1.32	1.18	0	1.00	5.02	1.00	7.51
1"	1.32	1.18	0	2.11	5.02	1.00	10.28
1.5"	1.32	1.18	0	4.88	5.02	1.00	17.19
2"	1.32	1.18	0	8.22	5.02	1.00	25.52
3"	1.32	1.18	0	18.80	5.02	1.00	51.90
4"	1.32	1.18	0	32.69	5.02	1.00	86.54
6"	1.32	1.18	0	49.38	5.02	1.00	128.16
8"	1.32	1.18	0	82.74	5.02	1.00	211.35

* Ratio is based on equivalent meters. Bill ratios are typically 1.0 except for master metered.
[1] Meter unit cost = (Table 3-12, Column 5, Line 4 + Table 3-14, Column 5, Line 4) / (Table 3-12, Column 5, Line 5 + Table 3-14, Column 5, Line 5) / 12 = ($281,400 + $116,500) /(22,785 + 2,384) /12
[2] Fire unit cost = (Table 3-13, Column 1, Line 10) / (Table 3-11, Column 9, Line 4) / 12 = $247,400 / 17,527 / 12
[3] Debt unit cost = (Table 3-14, Column 8, Line 7) / 12 = $0.00 / 12
[4] Billing unit cost = (Table 3-12, Column 6, Line 4 + Table 3-14, Column 6, Line 4) /(Table 3-12, Column 6, Line 5 + Table 3-14, Column 6, Line 5) = ($366,400 + $133,400) / (95,652 + 3,936)
[5] Total Service Charge = (Column 1 + Column 2 + Column 3) x Column 4 + Column 5 x Column 6

Table 4-2 Proposed Multi-Year Monthly Service Charge

Customer Class	Monthly Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Potable Water						
Master Metered [1]	6.55	6.21	6.19	6.21	6.35	6.57
3/4"	13.64	12.79	12.77	13.26	13.58	14.08
1"	22.72	21.41	21.40	22.63	23.19	24.06
1.5"	45.46	42.94	42.93	46.02	47.17	48.96
2"	72.73	68.89	68.89	74.22	76.09	78.99
3"	159.09	151.09	151.12	163.54	167.68	174.10
4"	272.73	259.02	259.09	280.82	287.92	298.98
6"	409.10	388.69	388.81	421.73	432.41	449.02
8"	681.83	647.90	648.11	703.38	721.21	748.93

[1] Master Metered accounts are charged on a per unit basis rather than meter size.

Customer Class	Monthly Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Non-Potable Water						
Master Metered [1]	0	4.89	4.88	4.91	5.02	5.20
3/4"	0	7.51	7.52	8.09	8.28	8.60
1"	0	10.28	10.32	11.72	12.00	12.51
1.5"	0	17.19	17.30	20.78	21.29	22.25
2"	0	25.52	25.72	31.70	32.48	33.99
3"	0	51.90	52.40	66.30	67.95	71.19
4"	0	86.54	87.43	111.72	114.51	120.02
6"	0	128.16	129.51	166.30	170.47	178.70
8"	0	211.35	213.63	275.39	282.30	295.99

[1] Master Metered accounts are charged on a per unit basis rather than meter size.

4.2.2 Fire Service

The fire service charge includes the costs of issuing bills as well as maintenance and capacity costs associated with private fire protection. The fire service charge increases as pipeline diameter size increases. Potable Water provides fire service to approximately 334 private fire service accounts[3]. These customers have a water line connection to the water system that is specifically for fire protection. To meet fire protection demands, Potable Water must design, operate, and maintain a water system that can meet peak fire demand requirements. Potable Water charges these accounts a fire service charge based on the diameter of the line that connects their fire protection system to the water system.

We derive the unit fire protection cost as follows:

[3] Currently, the distribution of private fire connections is 24 accounts with 4" meters, 42 accounts with 6" meters, and 29 accounts with 8" meters. On an equivalent meter basis, using the meter ratios of Table 4-1, this equals 5,257.98 equivalent meters.

- The unit cost per equivalent meter = Total private fire protection cost from Table 3-13, Line 12, Column 1 divided by the total number of equivalent meters (which is the distribution of the private hydrant connections multiplied by the meter ratios from Table 4-1) divided by the number of bills issued, or
- Unit cost per equivalent meter = $98,500/5,257.98/12 = $1.56

Table 4-3 demonstrates the costs incorporated into the fire service charge, and Table 4-4 shows the five-year rate schedule based on unit costs in future years. The five-year fire service charge rate schedule follows the cost of service allocations as described in Section 3 of this report. Appendix B includes the associated tables for each study period year.

Table 4-3 Costs within the Fire Service Charge for FY 2019

Customer Class	Private Fire Protection		Total Service Charge
	Fire Unit Cost	Ratio	
	per EM		$/month
Fire Service			
4"	1.56	32.7	51.03
6"	1.56	49.4	77.09
8"	1.56	82.7	129.17
10"	1.56	220.0	343.45

Table 4-4 Proposed Multi-Year Fire Service Charge

Customer Class	Fire Service Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Fire Service						
4"	51.45	51.03	51.65	61.96	63.93	67.46
6"	102.86	77.09	78.03	93.60	96.58	101.90
8"	185.17	129.17	130.74	156.84	161.82	170.74
10"	308.69	343.45	347.63	417.02	430.27	453.98

4.2.3 Commodity Charge

The commodity charge is designed to recover costs associated with the base and extra capacity demands. These costs include fixed and variable costs that are incurred by Potable Water and Non-Potable Water systems while providing the average rate of use and peaking demand use. The following are the individual components that make up the commodity charge.

4.2.3.1 Potable Water

4.2.3.1.1 Base Costs

The base costs represent costs associated with water supply costs and delivery costs. Water supply costs are the costs associated with obtaining and treating water. Potable Water obtains import water from Calleguas Municipal Water District and groundwater through a series of wells. Calleguas Municipal Water District treats the water that it provides the District, while the District treats its groundwater at the well sites. Delivery costs are the operating and capital costs associated with delivering water through the transmission and distribution system to all customers at base use (average daily demand) conditions.

4.2.3.1.2 Water Supply Unit Costs

The determination of unit water supply costs associated with each customer class is a function of the cost and amount of water allocated from the two water sources. Black & Veatch used the following 3-steps to derive the water supply unit costs:

- Step 1: Determine the weighted average unit costs for total Potable Water sold. Sold water represents the amount of treated water sold by Potable Water. Sold does not incorporate unaccounted water. Unaccounted water represents water used to flush and clean the system, fight fires systematically, and water loss through the system that occurs as a part of routine operations such as main breaks and associated flushing of the lines for water quality purposes after each repair.

  Table 4-5 identifies the amount of Potable Water produced by each water supply source, the associated costs, and the unit costs. This Study based the production allocation on the expected groundwater production by the District. The costs are determined based on purchased prices from Calleguas Municipal Water District and anticipated operating costs for groundwater. The result provides a cost per HCF for each source of water provided to all customers.

Table 4-5 Water Supply Unit Costs

Description	Production Allocation*	Production Costs	Total Volume	Supply Unit Costs
	%	$	HCF	$/HCF
Water Source				
Calleguas Municipal Water District	57%	5,986,388	1,754,183	$ 3.41
Groundwater	43%	421,202	1,323,331	0.32
Subtotal	100%	$ 6,407,590	3,077,514	
Weighted Average Costs				$ 2.08

* The production costs come from Table 3-4, Column 2, Line 2 & 3.

- Step 2: Determine the amount of water sold to each customer class. Table 4-6 identifies the amount of water sold by customer class based on CIS records.

Table 4-6 Water Sold by Customer Class

Description	Group 1	Group 2 Tier 1	Group 2 Tier 2	Group 3	Total Volume
Total Usage	11,326	972,175	997,173	1,096,841	3,077,515
% of Usage	0.4%	31.6%	32.4%	35.6%	100.0%

- Step 3: Allocate the water supply sources to each customer class and determine the weighted average costs by customer class. Table 4-7 identifies the amount of water sold by water source and the associated unit costs. Based on the different customer classes, the District water supply as follows:

  - Group 1 represents outside District boundaries and temporary customers. These customers can use District water at their discretion. Therefore these customers result in additional demand and increase the District's import water demand.
  - Group 2 represents the residential customers who were split up further into Group 2 Tier 1 and Group 2 Tier 2. These customers were separated based on usage. Tier 1 represents customers with usage between 0-12 HCF, and Tier 2 represents customers with usage above 12 HCF. The

District allocates a significant percentage of groundwater to this group as a whole. Tier 1 benefits from a greater allocation of groundwater while Tier 2 is allocated slightly more costly import water as Tier 2 water uses are deemed discretionary for functions such as irrigation.

- Group 3 represents commercial and District-owned customers. The District allocates water supply sources similar to Tier 2 associated with Group 2.

Table 4-7 Water Supply Unit Costs by Customer Class

Description	Supply Unit Costs	Group 1	Group 2 Tier 1	Group 2 Tier 2	Group 3	Total Volume
		HCF	HCF	HCF	HCF	HCF
Water Source						
Calleguas Municipal Water District	$ 3.41	10,193	510,392	587,442	646,157	1,754,184
Groundwater	0.32	1,133	461,783	409,731	450,684	1,323,331
Subtotal		11,326	972,175	997,173	1,096,841	3,077,515
Weighted Average Unit Costs	$ 2.08	$ 3.10	$ 1.94	$ 2.14	$ 2.14	

4.2.3.1.3 Delivery Costs

Table 4-8 determines water delivery unit costs. We subtract the water-supply costs from the common to all base costs determined in Table 3-12. The base costs represented the combined supply and delivery costs under average daily demand conditions.

Table 4-8 Water Delivery Unit Costs

Description	Delivery Unit Rate	
	$ Group 1-3	
Base Costs	$9,376,200	(from Table 3-12, Line 4, Column 2)
Less Water Supply Cost	(6,407,590)	(from Table 3-4, Line 2+Line 3 in Column 2)
Subtotal	$2,968,610	
Water Supply (HCF)	3,077,514	
Unit Costs	$0.96	

Description	Delivery Unit Rate	Delivery Unit Rate	
	$ Group 4	$ Group 6	
Base Costs	$1,882,600	$640,000	(from Table 3-14, Line 4, Column 2 & 7)
Less Water Supply Cost	(1,035,125)	(796,500)	(from Table 3-8, Line 2+Line 3 in Columns 2 & 7)
Subtotal	$847,475	($156,500)	
Water Supply (HCF)	1,530,698	377,665	
Unit Costs	$0.55	($0.41)	

Note: Group 6 is negative because the offsets in shown in Table 3-8, Line 15 and 16 are all applied to delivery.

4.2.3.1.4 Extra Capacity Costs

The extra capacity represents costs associated with peak demands in excess of base demand. Total extra capacity costs consists of maximum day and maximum hour demands. Peaking factors derived from customer consumption data serves as the basis for distributing the peaking costs shown in Table 3-13. The total peaking cost associated with Group 1, 2 and 3 in Columns 3 and 4, Rows 2, 4 and 6 are redistributed below. Table 3-13 provides the breakout between Group 2 Tier and Group 2 Tier 2. Table 4-9 identified the peaking unit costs common to all by tier and customer class.

Table 4-9 Common Water Peaking Unit Costs

Description	Peaking Costs [1]	Usage	Peaking Unit Rate
	$	HCF	$/HCF
Customer Class			
Group 1	9,500	11,326	$ 0.84
Group 2 Tier 1	365,700	972,175	0.38
Group 2 Tier 2 and Group 3	1,140,700	2,094,014	0.54
Subtotal	$ 1,515,900	3,077,515	

[1] Peaking costs derived in Table 3-13.

Description	Peaking Costs [1]	Usage	Peaking Unit Rate
	$	HCF	$/HCF
Customer Class			
Group 4	1,063,700	1,530,698	0.69
Group 6	289,700	377,665	0.77
Subtotal	$ 1,353,400	1,908,364	

[1] Peaking costs derived in Table 3-15.

4.2.3.1.5 Summary of Base and Extra-Capacity Rates

The commodity charge includes costs associated with base and extra capacity as shown in Tables 4-10 for each customer class.

Table 4-10 Summary of Individual Potable Water Unit Costs

	(1)	(2)	(3)	(4)
Description	Supply Unit Rate	Delivery Unit Rate	Peaking Unit Rate	Total Unit Rate
	$/HCF	$/HCF	$/HCF	$/HCF
Customer Class				
Group 1	$ 3.10	$ 0.96	$ 0.84	$ 4.91
Group 2 Tier 1	1.94	0.96	0.38	3.28
Group 2 Tier 2 and Group 3	2.14	0.96	0.54	3.65

4.2.3.2 Non-Potable Water

The development of Non-Potable Water rates is composed of base and extra-capacity costs similar to Potable Water, yet the calculations are derived based on costs allocated to the different customer classes in Table 3-15. Table 4-11 shows the costs and volume associated with each customer class.

Table 4-11 Summary of Individual Non-Potable Water Unit Costs

Description	(1) Supply Unit Rate [1]	(2) Delivery Unit Rate [2]	(3) Peaking Unit Rate	(4) Total Unit Rate
	$/HCF	$/HCF	$/HCF	$/HCF
Customer Class				
Group 4	$ 0.68	$0.55	$ 0.69	$ 1.25
Group 6	2.11	(0.41)	0.77	0.35

[1] Supply Unit Costs is derived from Table 3-8, Line 2+Line 3 in Columns 2 for Group 4 and Column 7 for Group 6 divided by their respective volumes seen in Table 3-11, Column 1.

4.2.3.3 Proposed Commodity Rates

Table 4-12 shows the five-year rate schedule for both Potable Water and Non-Potable Water. As discussed earlier, the District is changing its treatment of the Domestic Agricultural group. The proposed changes include:

- Removal of the master-metered unit charge on the monthly service fee
- Uniform rate for all usage at the agricultural commodity rate

The five-year commodity rate schedule follows the cost of service allocations as described in Section 3 of this report. Appendix B includes the associated tables for each year of the study period.

Table 4-12 Proposed Multi-Year Commodity Charges

Customer Class	Commodity Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/HCF	$/HCF	$/HCF	$/HCF	$/HCF	$/HCF
Potable Water						
Residential and Master Meter						
Tier 1 - First 12 Units	3.08	3.28	3.47	3.61	3.81	4.01
Tier 2 - 13 Units and Higher	3.34	3.65	3.82	4.01	4.22	4.45
Commercial/Industrial and Public	3.34	3.65	3.82	4.01	4.22	4.45
Municipal Irrigation	3.34	3.65	3.82	4.01	4.22	4.45
Other	3.34	3.65	3.82	4.01	4.22	4.45
Agricultural Irrigation, Domestic Ag	3.34	3.65	3.82	4.01	4.22	4.45
Temp Construction and Temp Agricultu	3.34	4.91	5.29	5.60	5.88	6.17
Temporary Municipal	4.08	4.91	5.29	5.60	5.88	6.17
Emergency Water Service	5.05	4.91	5.29	5.60	5.88	6.17
Surplus Water (Served Outside District)	3.50	4.91	5.29	5.60	5.88	6.17
Non-Potable Water						
Non-Potable Irrigation Water	1.64	1.92	2.08	2.19	2.40	2.59
Blended Non-Potable Agricultural	2.88	2.46	2.70	3.15	3.36	3.67
Non-Potable Residential Landscape (SF	1.64	1.92	2.08	2.19	2.40	2.59
Recycled Landscape Irrigation	1.64	1.92	2.08	2.19	2.40	2.59
Outside District)	1.64	1.92	2.08	2.19	2.40	2.59

4.3 TYPICAL MONTHLY COSTS UNDER PROPOSED CHARGES

Table 4-13 and 4-14 presents a comparison of typical monthly costs under existing rates and the proposed schedule of Potable Water and Non-Potable Water user rates derived in this study.

Table 4-13 Typical Monthly Bill (Potable Water)

Line No.	Description	Usage	Existing Rates	Proposed Rates
		(HCF)	($)	($)
1	Residential, 3/4" Meter	0	13.64	12.79
2		5	29.04	29.19
3		10	44.44	45.59
4		12	50.60	52.15
5		20	77.32	81.35
6		30	110.72	117.85
7		40	144.12	154.35
8		50	177.52	190.85

Table 4-14 Typical Monthly Bill (Non-Potable Water)

Line No.	Description	Usage	Existing Rates	Proposed Rates
		(HCF)	($)	($)
1	Residential Landscape, 1" Meter	0	22.72	21.41
2		5	30.92	31.01
3		10	39.12	40.61
4		20	55.52	59.81
5		30	71.92	79.01
6		40	88.32	98.21
7		50	104.72	117.41
8		100	186.72	213.41

4.4 NEIGHBORING WATER UTILITIES

Presented in Table 4-15 are the proposed rates compared to rates of neighboring cities, for a single-family residential customer with a 3/4" meter consuming 12 units of water. Based on the comparison, the District is currently one of the lower water providers in the area. With the proposed rate increases, the District moves to an average water provider of the surveyed communities. All surveyed community rates are current as of August 2018.

Table 4-15 Comparison to Neighboring Water Utilities

Water Provider	Typical Bill
	($/mo)
Fillmore	48.13
Camarillo (2019)	50.28
Camrosa Water District (Existing)	50.60
Camrosa Water District (Proposed)	52.15
Moorpark (via Ventura County)	53.96
Santa Paula	66.05
Oxnard	69.65
Simi Valley	64.58
Port Hueneme	83.22
Thousand Oaks (2019)	85.09

Sewer Rate Study

5 Revenue and Revenue Requirements

To meet the costs associated with providing sewer services to its customers, the Sewer Utility derives revenue from a variety of sources including sewer user charges (rates), special services, interest earned from the investment of available funds, and other miscellaneous revenues. The Sewer Utility is also actively looking for other sources of revenue, such as grants. Black & Veatch has projected the level of future revenue generated in the Study through a combination of an analysis of historical and future system growth in terms of the number of EDUs and billed sewage flow. This section also projects the expenses, or revenue requirements, necessary to operate and maintain the system, invest in capital improvements, make debt service payments and cover other expenses of the sewer system.

5.1 CUSTOMER AND WATER CONSUMPTION PROJECTIONS

5.1.1 Customer Classes

The Sewer Utility's customers include both residential and non-residential. The District has identified the following distinct customer classes: Customers served by District, Customers served by Thousand Oaks. Customers served by Thousand Oaks are District customers, but due to limitations of the collection system to serve those areas, the City of Thousand Oaks provides service to those customers.

5.1.2 Equivalent Dwelling Units (EDUs)

The District provides sewer services to over 4,979 service connections (8,757 Equivalent Dwelling Units EDUs including three mastered metered communities and the university). The District bills all customers using an EDU-basis. The District determines EDUs based on Section 42 of the District's Sanitary Sewer Design & Construction Standard. An EDU "will be is based upon one of the following criteria: 1. Fixture count provided by the customer where each group of 25 fixture units is equal to 1 EDU; 2. If a known quantity of discharge is available, it will be divided by the current gallons per day average for all sewer accounts…." Black & Veatch conducted an analysis of historical EDU patterns for customers in addition to incorporating feedback from District staff regarding the potential new development over the Study period to project anticipated growth patterns. The projected total number of EDUs are expected to increase by 1.9% per year over the Study period. Table 5-1 summarizes the projected number of EDUs for the Sewer Utility.

Table 5-1 Number of EDUs

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2019 (EDUs)	FY 2020 (EDUs)	FY 2021 (EDUs)	FY 2022 (EDUs)	FY 2023 (EDUs)
	Sewer					
1	Customers Served by District	8,739	8,820	9,073	9,261	9,428
2	Customers Served by Thousand Oaks	18	18	18	18	18
3	Total	8,757	8,838	9,091	9,279	9,446

5.2 REVENUE UNDER EXISTING RATES

Sewer user rates serve as the primary source of revenue for the Sewer Utility. Therefore, the level of future rate revenue is important in the development of a long-range financial plan. To determine rate

revenue, we multiply the projected system growth in terms of the number of EDUs by the applicable rates to determine sewer rate revenue. Table 5-2 shows the Sewer Utility's current schedule of charges.

Table 5-2 Existing Sewer Rates

Description	Existing FY 2018
Service Charge	($/monthly)
Customers Served by District	31.32
Customers Served by Thousand Oaks	43.23

Table 5-3 represents a summary of the projected sewer rate revenue under existing rates. As shown, the revenue generated is projected to increase over the Study period in conjunction with the increase in the number of EDUs. The projected sewer revenue increases from $3.32M in FY 2019 to $3.58M in FY 2023, representing an overall increase of 7.9% over the five-year Study Period.

Table 5-3 Projected Revenue under Existing Rates

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
		($)	($)	($)	($)	($)
	Sewer					
1	Customers Served by District	3,309,900	3,340,500	3,436,400	3,507,600	3,570,800
2	Customers Served by Thousand Oaks	9,400	9,400	9,400	9,400	9,400
3	Total	$ 3,319,300	$ 3,349,900	$ 3,445,800	$ 3,517,000	$ 3,580,200

5.3 OTHER REVENUE

There are other operating sources which include charges for special services, interest on investments, and other miscellaneous revenues. In total other operating revenues represents 1.6% of sewer's total revenue. The District anticipates that these revenues will remain relatively constant for the duration of the Study period.

5.4 OPERATING AND MAINTENANCE EXPENSES

Table 5-7 summarizes the Sewer Utility's projected O&M expenses for the Study period. These expenses include costs related to salaries and benefits, services and supplies, contract and professional services, and utilities. The District anticipates that all O&M expenditures will increase on average 4.8% annually from the FY 2019.

Table 5-4 O&M Expenses

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
		($)	($)	($)	($)	($)
1	Production*	8,420	21,500	21,500	21,500	21,500
2	Salaries & Benefits	1,438,660	1,773,400	1,838,800	1,906,700	1,977,100
3	Contracts & Professional Services	705,947	725,100	739,500	754,200	769,100
4	Services & Supplies	494,698	512,100	525,800	539,900	554,300
5	Utilities	25,150	25,900	26,700	27,500	28,300
6	Total	$ 2,672,875	$ 3,058,000	$ 3,152,300	$ 3,249,800	$ 3,350,300

* Increase in Production due to new O&M costs associated with Salinity Management Pipeline.

As shown in Table 5-4, the Sewer Utility's O&M expenses increase from $2.7M in FY 2019 to $3.2M in FY 2023.

5.5 DEBT SERVICE REQUIREMENTS

Table 5-5 represents the Sewer Utility's existing debt service obligations. This table shows the combined principal and interest requirements on the existing debt over the Study period. It is common practice for utilities to debt finance large capital improvement projects. By financing the cost of the projects, the District can fund large projects immediately and spread the payment over a specified time frame, thereby helping to offset the impact on rate-payers.

Table 5-5 Long-Term Debt Service

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
		($)	($)	($)	($)	($)
1	Refunding Revenue Bond, Series 2012	441,600	220,500	0	0	0
2	Refunding Revenue Bond, Series 2011A/2016	191,650	191,650	193,950	193,450	192,025
3	Total	$ 633,250	$ 412,150	$ 193,950	$ 193,450	$ 192,025

5.6 CAPITAL IMPROVEMENT PROGRAM

The Sewer Utility develops a five-year Capital Improvement Plan (CIP) on an annual basis for identifying sewer system needs including ongoing assessments, maintenance, and renewal and replacement requirements.

Table 5-6 summarizes the Sewer Utility's CIP for FY 2019 through FY 2023. The Sewer Utility is projecting $5.86M in CIP over the Study period, which includes both capital and replacement projects. For complete details associated with each CIP project, see the District's CIP Budget on their website.[4]

[4] Camrosa Water District. Finance Department. < https://www.camrosa.com/financial-information/ >

Table 5-6 Capital Improvement Projects

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
		($)	($)	($)	($)	($)
1	Effluent Pond Relining	510,000	0	0	0	0
2	Collection system replacement	0	0	61,200	91,800	1,147,500
3	Sewer Lift MCC & Rehab	0	244,800	0	244,800	0
4	CWRF PLC Replacement	0	127,500	280,500	0	0
5	Calleguas Creek Sewer line	0	0	0	36,720	343,944
6	Replace Bar Screen	0	0	0	408,000	0
7	Calle Bodega & Mission Oaks line	0	0	24,480	249,900	0
8	Dewatering Press	1,378,956	0	0	0	0
9	Fixed Assets	170,157	233,325	119,085	92,310	92,310
10	Total	$ 2,059,113	$ 605,625	$ 485,265	$ 1,123,530	$ 1,583,754

5.6.1 Capital Improvement Financing Plan

The District funds annual expenditures for the CIP from a combination of previous bond debt proceeds, available funds on hand, transfers, grants, and revenues derived from user rates. As shown in Tables 5-7, Line 11, the annual CIP expenditure amount varies by FY based on the identified need in any given FY. Based on a 5-year average over the Study period, it is expected that the Sewer Utility will expend about $586k per year. The planned annual CIP contribution from the Operating Funds varies per FY based on available cash on hand and specific needs as shown in Table 5-7, Line 2. District policy sets the minimum capital replacement reserve at 5.0% of the replacement value of fixed assets, and it is expected to be met by FY 2023.

Table 5-7 Construction Fund Financing Plan

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	Source of Funds					
1	Revenue Bond Proceeds (Previous Issuance)	710,500	0	0	0	0
2	Transfer In from Operating Fund	0	400,000	800,000	1,000,000	1,000,000
3	Transfer in from Sewer CIP Fund	897,600	0	0	0	0
4	Grant Funding	0	0	0	0	0
5	CIP De-Obligation	0	0	0	0	0
6	Net Operating Revenue	0	0	0	0	0
7	Total Sources	$ 1,608,100	$ 400,000	$ 800,000	$ 1,000,000	$ 1,000,000
	Use of Funds					
8	Replacement Projects	1,889,000	372,300	366,200	1,031,200	1,491,400
9	Fixed Asset Expenditures	170,200	233,300	119,100	92,300	92,300
10	Transfer Out to Sewer CIP Fund	0	0	0	0	0
11	Total Uses	$ 2,059,200	$ 605,600	$ 485,300	$ 1,123,500	$ 1,583,700
12	Net Annual Cash Balance	(451,100)	(205,600)	314,700	(123,500)	(583,700)
13	Beginning Unrestricted Fund Balance	4,290,200	3,839,100	3,633,500	3,948,200	3,824,700
14	Net Cumulative Fund Balance	$ 3,839,100	$ 3,633,500	$ 3,948,200	$ 3,824,700	$ 3,241,000
15	Min SCR Reserve*	0	0	0	0	3,200,000

* Target to be met by end of Study Period (FY 2023).

5.7 TRANSFERS

The Sewer Utility performs two transfers over the Study period from the Operating Fund to the Capital Replacement Fund and Rate Stabilization Fund. Table 5-8, Lines 23 and 24 show the associated amounts of each transfer. Section 5.8 explains the Capital Replacement and Rate Stabilization Funds.

5.8 RESERVES

The District has a defined reserve policy for its Water and Sewer Utilities. A utility typically establishes reserves for several reasons such as covering shortfalls in operating revenues, maintaining strong bond ratings, covering day-to-day operating costs, and easing the burden on ratepayers associated with large rate increases. The four defined reserves the District maintains are:

- Operating and Emergency Reserve represents working capital maintained by the Operating Fund to cover day-to-day expenses and maintain sufficient funds to cover accounts receivables if there are supplier issues, periods of lower than expected sales, or unforeseen cost increases. The reserve scheduled target is 45 days of O&M expenses.
- Capital Replacement Reserve represents funds used for unforeseen and unbudgeted capital costs. The reserve is a minimum of 5.0% of the replacement value of the Sewer Utility's fixed assets.
- Capital Improvement Reserve represents funds used for new development. Capacity Fees are development driven as are the costs incurred; therefore, the District has not established any minimum or maximum levels for the fund.
- Rate Stabilization Reserve represents funds used to absorb revenue shortfall due to short-term decreases in water or wastewater sales. The reserve target is a minimum of 10% of the prior year's rate revenue. This Study defines rate revenue as revenue generated from commodity charges only.

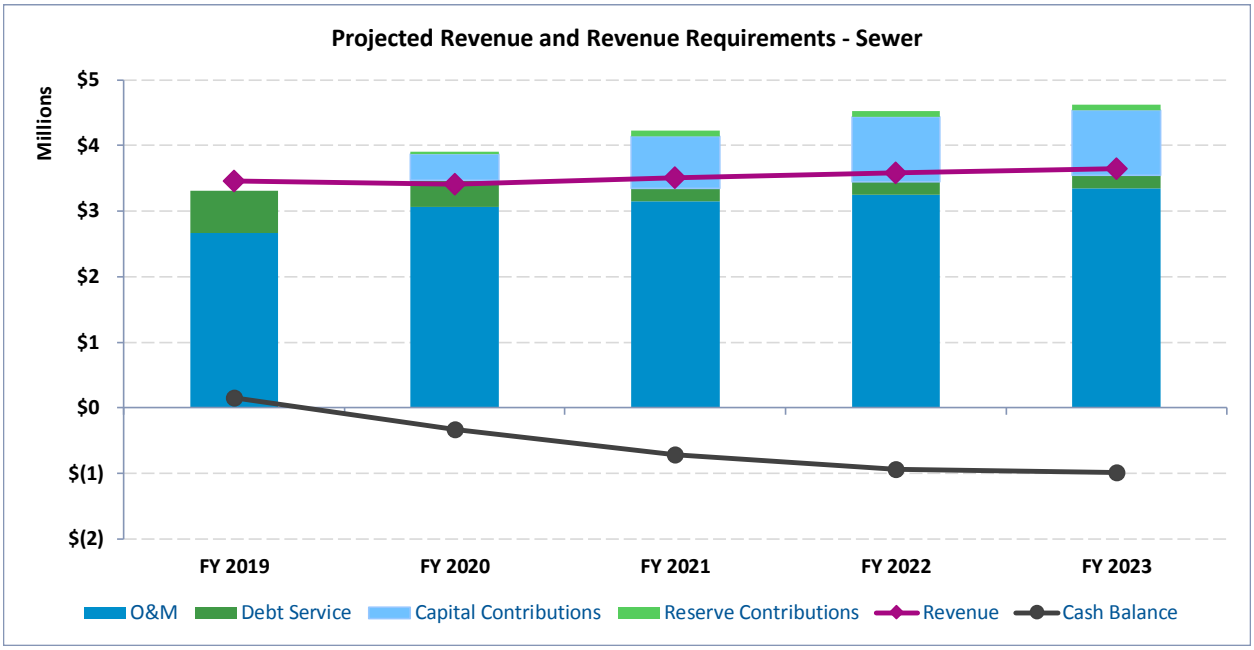
Regardless of the type of reserve, appropriate reserve levels help the Water and Sewer Utilities attain and keep better bond ratings, which in turn, leads to lower borrowing costs.

5.9 PROJECTED OPERATING RESULTS

The revenue requirements of the Sewer Utility consist of O&M expenses, debt service, capital expenditures, and reserve requirements.

It is important to examine the cash flow projections under the status quo scenario to fully understand the current condition of the Sewer Utility and the need for revenue adjustments. In this scenario, the Sewer Utility would not impose any revenue increases over the Study Period and continue to incur O&M expenses and debt service, pay for the execution of the planned CIP, and transfer to reserves. As shown in Figures 5-1, the status quo conditions would project that the Sewer Utility would operate from an annual deficit position, thus tapping into its reserves. By FY 2019, the Operating Fund would have a zero balance under such a scenario.

Figure 5-1 Status Quo Operating Cash Flow



The Sewer Utility will fall into a deficit position if the District does not implement the revenue increases as shown in Table 5-8. The revenue increases represent the overall total revenue adjustment needed to meet revenue requirements. The revenue adjustment does not represent adjustments to the individual rates but reflects the overall level of revenue needed to meet the Sewer Utility's obligations.

The suggested revenue increases help the Sewer Utility meet the following goals:

- Meet budgeted operating obligations.
- Meet planned capital investments.
- Maintain an operating reserve of 45 days of operating expenses.
- Maintain capital reserve of 5.0% of the replacement value of the Potable Water and Non-Potable Water's fixed assets.
- Maintain rate stabilization reserve at the level of 10% of the prior year's rate revenue.

Shown in Table 5-8 is a summary of the proposed Operating Fund for the Study Period. The Operating Fund consists of two parts: 1) Revenue and 2) Revenue Requirements.

Revenue

- Line 1 is the revenue under existing rates.
- Lines 2 through 7 is the additional revenue generated from the required annual revenue increases. The additional revenue generated is a direct reflection of the number of months the increase is effective for, and therefore the amount might calculate at less than that stated amount.
- Line 8 is the total revenue generated from user charges.
- Line 11 represents other operating revenues.

- Line 14 represents non-operating revenues.
- Line 16 represents transfer into the operating fund from reserves, specifically rate stabilization.
- Line 17 represents total revenues for the enterprises.

Revenue Requirements

- Line 19 represents O&M expenses.
- Line 22 represent debt service payments.
- Line 25 represents transfers. The transfers include money to the Rate Stabilization Fund and Capital Replacement Fund. These transfers do not represent direct operating expenses. Therefore these costs are treated as "below-the-line" cash flow items when determining debt service coverage.
- Line 26 represents total revenue requirements.

Lines 29 represents the net cumulative cash balance within the Operating Fund. The net cumulative cash balance intends to match, to the extent possible, Line 30 which represent a reserve target minimum of 45 days of O&M expenses. The cash balance reserve is required to ensure the Operation Fund can continue in the event of a supplier interruption, market price fluctuations of critical equipment or supplies or an abrupt drop in account receivables. Line 31 represents debt service coverage. Based on the operating cash flow, the debt service coverage of 1.15x requirement is met in all years as shown. The requirement is set forth by the lending financial institution and based on the ratio between revenues and expenses. In FY 2019, the debt service coverage falls below the target, but since the coverage is determined based on the Water and Sewer Utilities combined, the slight dip has minimal impact on the overall coverage.

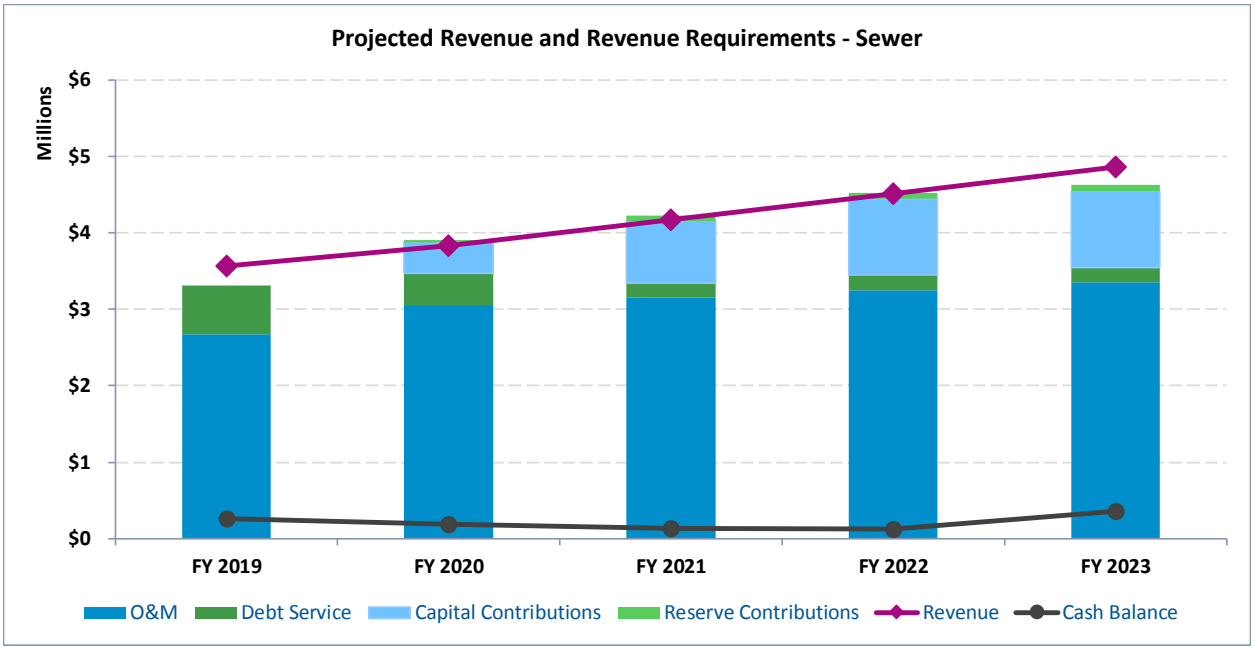
Table 5-8 Operating Fund

Line No.	Description			Fiscal Year Ending June 30, FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	Revenue							
	Rate Revenue							
1	Revenue from Existing Rates			3,319,300	3,349,900	3,445,800	3,517,000	3,580,200
	Year	Months Effective	Revenue Adj					
2	FY 2019	6	6.10%	101,200	204,300	210,200	214,500	218,400
3	FY 2020	12	6.00%		213,300	219,400	223,900	227,900
4	FY 2021	12	6.00%			232,500	237,300	241,600
5	FY 2022	12	6.00%				251,600	256,100
6	FY 2023	12	6.00%					271,500
7	Increased Revenue Due to Adjustments			101,200	417,600	662,100	927,300	1,215,500
8	Subtotal Rate Revenue			$ 3,420,500	$ 3,767,500	$ 4,107,900	$ 4,444,300	$ 4,795,700
	Other Operating Revenue							
9	Special Services			53,000	20,500	20,500	20,500	20,500
10	Miscellaneous			0	0	0	0	0
11	Subtotal Other Operating Revenue			$ 53,000	$ 20,500	$ 20,500	$ 20,500	$ 20,500
	Non-Operating Revenue							
12	Taxes			0	0	0	0	0
13	Interest			93,600	46,000	46,000	46,000	46,000
14	Subtotal Non-Operating Revenue			$ 93,600	$ 46,000	$ 46,000	$ 46,000	$ 46,000
	Transfers							
15	Transfer from Rate Stabilization			0	0	0	0	0
16	Subtotal Non-Operating Revenue			$ 0	$ 0	$ 0	$ 0	$ 0
17	**Total Revenue**			**$ 3,567,100**	**$ 3,834,000**	**$ 4,174,400**	**$ 4,510,800**	**$ 4,862,200**
	Revenue Requirements							
	Operating & Maintenance							
18	O&M Expenses			2,672,900	3,058,000	3,152,300	3,249,800	3,350,300
19	Subtotal O&M			$ 2,672,900	$ 3,058,000	$ 3,152,300	$ 3,249,800	$ 3,350,300
	Debt Service							
20	Existing Revenue Bonds			633,300	412,200	194,000	193,500	192,000
21	Proposed Revenue Bonds			0	0	0	0	0
22	Total Debt Service			$ 633,300	$ 412,200	$ 194,000	$ 193,500	$ 192,000
	Transfers							
23	Transfer to Water Capital Replacement			0	400,000	800,000	1,000,000	1,000,000
24	Transfer to Rate Stabilization			0	35,000	80,000	80,000	85,000
25	Total Transfers			$ 0	$ 435,000	$ 880,000	$ 1,080,000	$ 1,085,000
26	**Total Revenue Requirements**			**$ 3,306,200**	**$ 3,905,200**	**$ 4,226,300**	**$ 4,523,300**	**$ 4,627,300**
27	Net Annual Cash Balance			260,900	(71,200)	(51,900)	(12,500)	234,900
28	Beginning Fund Balance			0	260,900	189,700	137,800	125,300
29	Net Cumulative Fund Balance			$ 260,900	$ 189,700	$ 137,800	$ 125,300	$ 360,200
30	Minimum Operating Reserves (45 Days)			$ 329,500	$ 377,000	$ 388,600	$ 400,700	$ 413,100
31	Debt Service Coverage (1.15x)			1.41	1.88	5.27	6.52	7.87

Figure 5-2 shows a graphical representation of the proposed Sewer Utility Operating Fund shown in Table 5-8. The figure shows that the proposed revenue adjustments would allow the Sewer Utility to

generate revenues as close as possible to operating expenses with minimal surplus or shortage over the Study period, thereby meeting the projected revenue requirements.

Figure 5-2 Operating Cash Flow



6 Cost of Service Analysis

Cost of Service analysis requires that the utility recover needed revenues from rates for sewer service, which are allocated to customer classes according to the service rendered. An equitable rate structure allocates the capture of revenue requirements to customer classes based on EDU, sewage volume, strength, and other relevant factors.

In analyzing the Sewer Utility's cost of service for allocation to its customer classes, Black & Veatch selected the annual revenue requirements for FY 2019 as the Test Year (TY) requirements to demonstrate the development of cost-of-service sewer rates. Table 6-1 summarizes the total costs of service to be recovered from sewer user rates. The table represents TY 2019.

Table 6-1 Cost of Service Revenue from Rates

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expense	2,672,900	0	2,672,900
2	Debt Service Requirements	0	633,300	633,300
3	Transfers	0	0	0
4	Subtotal	$ 2,672,900	$ 633,300	$ 3,306,200
	Less Revenue Requirements Met from Other Sources			
5	Other Operating Revenue	(53,000)	0	(53,000)
6	Interest from Operations	(93,600)	0	(93,600)
7	Subtotal	$ (146,600)	$ 0	$ (146,600)
	Adjustments			
8	Adjustment for Annual Cash Balance	260,900	0	260,900
9	Adjustment to Annualize Rate Increase	101,300	0	101,300
10	Subtotal	$ 362,200	$ 0	$ 362,200
11	Cost of Service to be Recovered from Rates	$ 2,888,500	$ 633,300	$ 3,521,800

Shown in Line 4 is the total revenue requirement that corresponds with Table 5-8, Line 26. Deducting revenues from other sources produces the net revenue requirement recovered via rates shown in Line 7. Line 8 represents the net annual cash balance during the TY. Since Table 5-8, Line 27 shows a positive dollar amount; this means that the revenues coming in for the year are sufficient to allow for funds to reside in the operating reserve for future use. If the utility must drawdown on its reserves to meet the annual requirements, then Line 8 reflects that the net revenue requirements should decrease by this amount because the revenues from rates are not sufficient to meet annual requirements.

Since the District expects to implement the revenue adjustment across the remaining billing cycles starting in January 2019, the final cost of service recovered from rates requires an adjustment. Line 9 represents the additional revenues generated if the revenue increase was effective for a full year, versus only 6 months.

6.1 FUNCTIONAL COST COMPONENTS

The first step in conducting a cost-of-service analysis involves analyzing the cost of providing sewer service by system function to properly allocate the costs to the various customer classes and subsequently design rates. As a basis for allocating costs of service among customer classes, we separate costs into the following four basic functional cost components: (1) "Base"; (2) "Strength"; (3) "Customer"; and (4) "Direct Assignment," described as follows:

- Base costs represent the operating and capital costs of the system associated with collection. The collection costs vary directly with the quantity of sewage flow.
- Strength costs represent those operating and capital costs associated with treatment. The treatment costs are specifically related to strength parameters such as Biological Oxygen Demand (BOD), and Total Suspended Solids (TSS).
- Customer costs are those expenditures that tend to vary in proportion to the number of customers connected to the system. These include meter reading, billing, collecting and accounting, and maintenance and capital costs associated with meters and services.
- Directly assigned costs are costs specifically identified as those incurred to serve specific customers. The Sewer Utility has identified costs associated solely with customers served by Thousand Oaks.

6.2 ALLOCATION TO COST COMPONENTS

The next step of the cost-of-service process involves allocating each element of cost to functional cost components based on the parameter or parameters having the most significant influence on the magnitude of that element of cost. We allocate O&M expense items directly to appropriate cost components. We use a detailed allocation of related capital investment as a proxy for allocating capital and replacement costs. The separation of costs into functional components provides a means for distributing such costs to the various classes of customers based on their respective responsibilities for each type of service.

6.2.1 Volume and Strength Allocations

The sewer system consists of various facilities; each designed and operated to fulfill a given function. For the system to provide adequate service to its customers, it must be capable of meeting not only the annual volume requirements but also the strength loading demands placed on the system. Because not all customers and types of customers exert volume and strength loading demands similarly, the capacities of the various facilities must be designed to accommodate the demands of all classes of customers. Each sewer service facility within the system has an underlying volume demand, exerted by all customers for whom the base cost component applies. For those facilities designed solely to meet volume demand, 100% of the costs go to the base cost component. For those facilities designed to meet strength loading demands, the percentage of the costs all allocated to the different strength cost component based on their specific function.

6.2.2 Allocation of Operating and Maintenance (O&M) Expenses

In the allocation of O&M expense for Test Year (2019), we directly allocate the costs to the cost components to the extent possible. The Sewer Utility books operating costs by operating categories. Therefore, Black & Veatch used the factors noted in Section 5.1 to allocate the operating expenses to the

cost components. We allocate administrative cost elements based on the average of all other costs. Tables 6-2 and 6-3 represent the allocation of O&M to the cost components. We subtract revenues from other sources as shown in Table 6-1, Lines 7 and we deduct any drawdown of the cash balance and normalize for partial rate adjustments as shown in Line 10 to determine the net O&M costs.

6.2.3 Allocation of Capital Investments

In the allocation of capital investment for Test Year (2019), the existing fixed assets (which serve as a proxy for the current capital investments) are allocated directly to cost components to the extent possible. The allocation of costs into the cost components provides a basis for annual investment in sewer system facilities. Tables 6-4 and 6-5 show the total allocation of existing system investment serving sewer customers for the Test Year (2019). The total net system investment of $16.3M shown on Line 6 represents the Test Year original cost less accumulated depreciation of the system in service. The total net system investment reflects the Sewer Utility's fixed asset listing ending June 30, 2017. This value represents the net book value of the assets. Using the distribution of total net system investment across the functional cost components, we can then allocate the planned capital costs.

Table 6-2 Allocation of O&M Expenditures

Line No.	Description	Common to All Customers					Allocation Basis
		Volume	BOD	TSS	Customer	T.O.	
		(%)	(%)	(%)	(%)	(%)	
	Operation & Maintenance						
1	Water Production	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
2	Salaries and Benefits	30.00%	25.00%	25.00%	20.00%	0.00%	[2]
3	Contracts & Professional Services						
4	Outside Contracts	49.19%	24.61%	24.61%	0.00%	1.60%	[3]
5	Professional Services	50.00%	25.00%	25.00%	0.00%	0.00%	[4]
6	Services & Supplies	29.19%	23.87%	23.87%	23.08%	0.00%	[5]
7	Utilities	50.00%	25.00%	25.00%	0.00%	0.00%	[4]
8	Materials & Supplies	60.00%	20.00%	20.00%	0.00%	0.00%	[6]
9	Repair Parts & Equipment Maintenanc	60.00%	20.00%	20.00%	0.00%	0.00%	[6]

[1] All Volume
[2] Volume/Strength/Customer
[3] Volume/Strength/Customer/TO
[4] Volume/Strength
[5] Volume/Strength/Customer (avg of all other cost items)
[6] Volume/Strength

Table 6-3 Allocation of $ O&M Expenditures

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
		($)	($)	($)	($)	($)	($)
	Operation & Maintenance						
1	Water Production	8,420	8,420	0	0	0	0
2	Salaries and Benefits	1,438,660	431,560	359,700	359,700	287,700	0
3	Contracts & Professional Services						
4	Outside Contracts	633,117	311,417	155,800	155,800	0	10,100
5	Professional Services	72,830	36,430	18,200	18,200	0	0
6	Services & Supplies	227,943	66,543	54,400	54,400	52,600	0
7	Utilities	25,150	12,550	6,300	6,300	0	0
8	Materials & Supplies	120,255	72,055	24,100	24,100	0	0
9	Repair Parts & Equipment Maintenanc	146,500	87,900	29,300	29,300	0	0
10	Total O&M Expenses	$ 2,672,875	$ 1,026,875	$ 647,800	$ 647,800	$ 340,300	$ 10,100
	Less Other Revenue						
11	Miscellaneous Revenues	146,600	56,500	35,700	35,700	18,700	0
12	Other Adjustments	(362,200)	(139,700)	(88,100)	(88,100)	(46,300)	0
13	Net Operating Expenses	$ 2,888,475	$ 1,110,075	$ 700,200	$ 700,200	$ 367,900	$ 10,100

Table 6-4 Allocation of Capital Costs

Line No.	Description	Common to All Customers					Allocation Basis
		Volume	BOD	TSS	Customer	T.O.	
		(%)	(%)	(%)	(%)	(%)	
	Plant Assets						
1	Collection	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
2	Lift Station	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
3	Treatment	50.00%	25.00%	25.00%	0.00%	0.00%	[2]
4	Land	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
5	General Plant	80.00%	10.00%	10.00%	0.00%	0.00%	[2]

[1] All Volume

[2] Volume/Strength

Table 6-5 Allocation of $ Capital Costs

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
		($)	($)	($)	($)	($)	($)
	Plant Assets						
1	Collection	5,414,500	5,414,500	0	0	0	0
2	Lift Station	113,800	113,800	0	0	0	0
3	Treatment	10,075,900	5,037,900	2,519,000	2,519,000	0	0
4	Land	407,300	407,300	0	0	0	0
5	General Plant	319,600	255,600	32,000	32,000	0	0
6	Total Plant Assets	$ 16,331,100	$ 11,229,100	$ 2,551,000	$ 2,551,000	$ 0	$ 0
	Less Other Revenue						
7	Miscellaneous Revenues	0	0	0	0	0	0
8	Other Adjustments	0	0	0	0	0	0
9	Net Operating Expenses	$ 16,331,100	$ 11,229,100	$ 2,551,000	$ 2,551,000	$ 0	$ 0
10	Proxy for Allocation of Capital Costs (%)		68.8%	15.6%	15.6%	0.0%	0.0%

6.3 UNITS OF SERVICE

Following the allocation of costs, the total cost responsibility for sewer customers is developed using unit costs of service for each cost function and subsequently assigning those costs to the customer classes based on the respective service requirements of each. To properly recognize the cost of service, the sewer customers receive its share of base, strength and customer costs. The number of units of service required by each customer provides a means for the proportionate distribution of costs previously allocated to respective cost categories.

Table 6-6 summarizes the estimated Test Year units of service for the sewer customers. Base costs vary with the volume of sewage flow produced and distributed to customers on that basis. Black & Veatch derived contributed sewage flow information from the monthly water consumption records in the District's CIS multiplied by a return factor to arrive at treated sewage flow. Strength costs are those associated with pollutant characteristics, and the Study allocated these costs to customers based on loadings. The District treats all customers as one class. Therefore pollutant loadings for all customers were set at the base of 250 mg/L for BOD and 200 mg/L for TSS[5]. The number of bills for customers serves as the basis for distributing customer billing requirements.

6.4 COST OF SERVICE ALLOCATIONS

To determine the cost of service for sewer customers, we apply the unit costs of service to the customer's service requirements. The total unit costs of service applied to the respective requirements result in the total cost of service.

6.4.1 Units Costs of Service

The Test Year (2019) unit cost of service for each functional cost component is simply the total cost divided by the applicable units of service as shown in Table 6-5, as summarized on Table 6-6 The capital costs on Line 3 represent capital costs associated with District's CIP projects. On Line 4, the total costs represent the cost that rates need to recover shown as demonstrated in Table 6-1, Line 11. The net O&M cost includes O&M less revenue from other sources and adjustments. The total capital cost includes debt service payments and any transfers to the Capital Replacement Fund. Line 6 represents the unit costs for the entire sewer system. After that; we apply these unit costs to allocate the costs to the customer class. Theoretically, debt service is a fixed cost in that the District must pay the debt payment regardless of how much billed sewage is treated and charged. Since the District's charge is all fixed, the debt is essentially recovered 100% through the fixed charge. In the analysis, the debt was allocated based on the net plant

[5] The use of 250 mg/l for BOD and 200 mg/l for TSS is representative of typical residential pollutant loadings and commonly used by many communities for engineering planning and design. Additionally, the District has no significant industrial users (SIUs) that would require pretreatment monitoring as required by the USEPA, nor does it have any large commercial customers. Further, since the District does not have any USEPA grants, the segregation of rates by customer class or development of treatment surcharges is not necessary.

assets. As such, we allocate 69% of the debt service obligation to the Volume element, and 31% to the strength cost elements. Finally, Table 6-6 has two columns associated with volume: Contributed volume, which is what is measured by the water meter, and Treated volume, which corresponds to the volume received at the treatment plant. The difference between the two is the amount "not returned to the sewer," water used for irrigation or other uses (like swimming pools) that does not go down the drain. Based on the District's treatment plant records, the return factors range from 33% to 50%.

6.4.2 Distribution of Costs of Service to Customers

Applying the unit costs to the units for each customer produces the customer costs. In this case, the District only has two customer classes, but the process is the same. This process is illustrated in Table 6-8, in which we apply the unit costs to the customer class units of service. We base the costs attributable to each customer class on the functional costs components described in Section 6.1. Each customer class places a burden on the system in different ways, and thus the allocation of the units is representative of this burden.

An example of the application of unit costs is shown below for illustrative purposes.

	Vol Component	
Unit Cost (Table 6-8, Line 1)	$ 2.50	per HCF
All Customers Consumption (Table 6-8, Line 3)	619,276	HCF
Total Allocated Cost	$ 1,545,600	

Please note that the numbers within the tables are rounded, therefore result might vary.

Table 6-6 Units of Service

Line No.	Description	Contributed Units	Contributed Volume	Treated Volume	BOD Loadings Factor	BOD Loadings Loading	TSS Loadings Factor	TSS Loadings Loading	Bills
	Units of Measure	(EDUs)	(HCF)	(HCF)	(mg/L)	(lbs)	(mg/L)	(lbs)	(bills)
1	Customers Served by District	8,739	1,640,934	619,276	250	965,900	200	772,700	104,868
2	Customers Served by Thousand Oaks	18	17,539	5,347	250	8,400	200	6,700	216
3	Total	8,757	1,658,473	624,622		974,300		779,400	105,084
4	Total Wastewater System		1,658,473	624,622		974,300		779,400	105,084
5	Total Wastewater System (less through CWD)		1,640,934	619,276		965,900		772,700	104,868

Table 6-7 Units Cost of Service

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
1	Net Operating Expense	2,888,500	1,110,100	700,200	700,200	367,900	10,100
2	Debt Service [1]	633,300	435,500	98,900	98,900	0	0
3	Capital Costs	0	0	0	0	0	0
4	Total Cost of Service	$ 3,521,800	$ 1,545,600	$ 799,100	$ 799,100	$ 367,900	$ 10,100
5	Units of Service (Per Table 6-6)		619,276	965,900	772,700	104,868	5,347
6	Units of Measure		HCF	lbs	lbs	bills	HCF
7	Cost per Unit (Line 4/Line 5)		$ 2.50	$ 0.83	$ 1.03	$ 3.51	$ 1.89
8	Units of Measure		per HCF	per lbs	per lbs	per bill	per HCF

[1] Allocated based on Table 6-5, Line 10

Table 6-8 Distribution of Costs to Customer Classes

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
1	Cost per Unit (Per Table 6-7)		$ 2.50	$ 0.83	$ 1.03	$ 3.51	$ 1.89
2	Units of Measure		per HCF	per lbs	per lbs	per bill	per HCF
	Customers Served by District						
3	Units		619,276	965,900	772,700	104,868	0
4	Allocation of costs of service	$ 3,511,700	1,545,600	799,100	799,100	367,900	0
	Customers Served by Thousand Oaks						
5	Units		0	0	0	0	5,347
6	Allocation of costs of service	$ 10,100	0	0	0	0	10,100
7	TOTAL COSTS OF SERVICE	$ 3,521,800	$ 1,545,600	$ 799,100	$ 799,100	$ 367,900	$ 10,100

7 Rate Design

The initial consideration in the derivation of rate schedules for sewer service is the establishment of equitable charges to the customers commensurate with the cost of providing that service. While the cost of service allocations to customer classes should not be construed as literal or exact determinations, they offer a guide to the necessity for, and the extent of, rate adjustments. Practical considerations sometimes modify rate adjustments by considering additional factors such as the extent of bill impacts, existing contracts, and historical local policies and practices.

7.1 EXISTING RATES

The Sewer Utility's existing rates consist of a fixed component in the form of monthly sewer service charge. The monthly service charge is a flat fee based on EDUs and applied to all customers. Table 5-2 presented earlier in this report summarizes the existing sewer rates.

7.2 PROPOSED RATES

The costs of service analysis described in preceding sections of this report provide a basis for the design of sewer rates.

7.2.1 Monthly Sewer Service Charge

The monthly sewer service charge is designed to recover operating and capital costs associated with sewage flow, strength loadings, and billing, collecting and accounting, and maintenance costs. The charge is a flat monthly fee based on EDUs. Section 5.1 provides the definition of an EDU.

Table 7-1 Determination of Monthly Service Charge

Description	Total Costs	Number of EDUs	Total Unit Rate*
	$	EDU	$/mo/EDU
Customer Class			
Customers Served by District	3,511,700	8,739	33.49
Customers Served by Thousand Oaks	10,100	18	46.76
Subtotal	$ 3,521,800	8,757	

* Divided by 12 to represent monthly bill.

Table 7-2 shows the forecasted proposed five-year monthly service charge rate schedule. The five-year commodity rate schedule follows on the cost of service allocations as described in Section 6 of this report. Appendix C includes the associated tables for each year of the study.

Table 7-2 Proposed Multi-Year Monthly Service Charge

Customer Class	Sewer Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU
Customers Served by District	31.32	33.49	35.83	38.37	40.62	43.05
Customers Served by Thousand Oaks	43.23	46.76	47.22	47.69	48.15	48.61

7.3 TYPICAL MONTHLY COSTS UNDER PROPOSED CHARGES

Table 7-3 presents a comparison of typical monthly costs under existing rates and the proposed schedule of sewer user rates derived in this study for both all customers and customers served by Thousand Oaks.

Table 7-3 Typical Monthly Bill

Sewer Service Charge		
	Existing	Proposed
Customer Class	FY 2018	FY 2019
	$/mo/EDU	$/mo/EDU
Customers Served by District	31.32	33.49
Customers Served by Thousand Oaks	43.23	46.76

7.4 NEIGHBORING SEWER UTILITIES

Presented in Table 7-4 is the proposed rates compared to rates of neighboring jurisdictions, for a single family residential customer. For sewer utilities that have a volumetric based component, 9.6 HCF (80% of 12 HCF) was used to determine the charges. Based on the comparison, the District is currently a lower cost sewer provider in the area. With the proposed rate increases, the District remains one of the lowest sewer providers of the surveyed communities. All surveyed community rates are best estimates as of August 2018.

Table 7-4 Comparison to Neighboring Sewer Utilities

Wastewater Provider	Typical SFR Bill
	($/mo)
Moorpark (via Ventura County)	26.00
Thousand Oaks (2019)	29.37
Camrosa Water District (Existing)	31.32
Camrosa Water District (Proposed)	33.49
Port Hueneme	36.00
Oxnard	51.44
Camarillo (2019)	54.73
Santa Paula	87.96
Fillmore	103.36

* For agencies based on flow, 9.6 HCF was used to calculate typical bill.

Appendix A – O&M Allocations

The following calculations are intended to clarify the O&M allocations for Tables 3-3 and 3-7. These allocations reflect the actual costs incurred by the District in conducting business in 2017.

Background for Tables for 3-3

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Description	**Cost**	**Base**	**Max. Day**	**Max. Hour**	**Meters**	**Cust/Bill.**	**Fire**	**Basis**
	$	%	%	%	%	%	%	
Salaries & Benefits								
All Other	967,020	43.2%	40.2%	16.7%				Based on Base/Max Day/Max Hour
Customer	263,733					100.0%		Based on % of Salaries dedicated to Customer Service
Meter	101,231				100.0%			Based on % of Salaries dedicated to Meters
Total	**$1,331,984**	**$417,539**	**$388,311**	**$161,170**	**$101,231**	**$263,733**		
		(1) x (2)	(1) x (3)	(1) x (4)	(1) x (5)	(1) x (6)		
1st Allocation		**31.3%**	**29.2%**	**12.1%**	**7.6%**	**19.8%**		
Remove 1/3 of Fire Costs from each of Base/Max Day/Max Hour results in:								
2nd Allocation - Use for 2019		**30.3%**	**28.2%**	**11.1%**	**7.6%**	**19.8%**	**3.0%**	Adjustment for projected 2018 activities
Utilities								
SCE	7,000	51.8%	48.2%					Based on Base/Max Day
Water	25,000	100.0%						Direct Allocation
Total	**$32,000**	**$28,627**	**$3,373**	**$0**	**$0**	**$0**		
		(1) x (2)	(1) x (3)	(1) x (4)	(1) x (5)	(1) x (6)		
1st Allocation		**89.5%**	**10.5%**	**0.0%**	**0.0%**	**0.0%**		
Remove 1/2 of Fire Costs from each of Base/Max Day results in:								
2nd Allocation - Use for 2019		**88.0%**	**9.0%**	**0.0%**	**0.0%**	**0.0%**	**3.0%**	Adjustment for projected 2018 activities
Contracts Services								
Supply	250,000	100.0%						Direct Allocation
Treatment	2,500	51.8%	48.2%					Based on Base/Max Day
Distribution	195,000	43.2%	40.2%	16.7%				Based on Base/Max Day/Max Hour
Total	**$447,500**	**$335,492**	**$79,508**	**$32,500**	**$0**	**$0**		
		(1) x (2)	(1) x (3)	(1) x (4)	(1) x (5)	(1) x (6)		
1st Allocation		**75.0%**	**17.8%**	**7.3%**	**0.0%**	**0.0%**		
Remove 1/3 of Fire Costs from each of Base/Max Day/Max Hour results in:								
2nd Allocation - Use for 2019		**73.9%**	**16.8%**	**6.3%**	**0.0%**	**0.0%**	**3.0%**	Adjustment for projected 2018 activities
Pipeline Repairs & Maintenance								
Pumping	65,000	51.8%	48.2%					Based on Base/Max Day
Transmission	50,000	51.8%	48.2%					Based on Base/Max Day
Distribution	150,000	43.2%	40.2%	16.7%				Based on Base/Max Day/Max Hour
Meter	168,000				100.0%			Direct Allocation
Total	**$433,000**	**$124,352**	**$115,648**	**$25,000**	**$168,000**	**$0**		
		(1) x (2)	(1) x (3)	(1) x (4)	(1) x (5)	(1) x (6)		
1st Allocation		**28.7%**	**26.7%**	**5.8%**	**38.8%**	**0.0%**		
Remove 1/3 of Fire Costs from each of Base/Max Day/Max Hour results in:								
2nd Allocation - Use for 2019		**27.7%**	**25.7%**	**4.8%**	**38.8%**	**0.0%**	**3.0%**	Adjustment for projected 2018 activities

Description	Cost	Base	Max. Day	Max. Hour	Meters	Cust/Bill.	Fire	Basis
	$	%	%	%	%	%	%	
Material, Tools & Equipment								
Supply	5,000	100.0%						Direct Allocation
Pumping	22,000	51.8%	48.2%					Based on Base/Max Day
Treatment	322,500	51.8%	48.2%					Based on Base/Max Day
Distribution	20,000	43.2%	40.2%	16.7%				Based on Base/Max Day/Max Hour
Meter	1,000				100.0%			Direct Allocation
Total	**$370,500**	**$192,133**	**$174,034**	**$3,333**	**$1,000**	**$0**		
		(1) x (2)	(1) x (3)	(1) x (4)	(1) x (5)	(1) x (6)		
1st Allocation		**51.9%**	**47.0%**	**0.9%**	**0.3%**	**0.0%**		
Remove 1/3 of Fire Costs from each of Base/Max Day/Max Hour results in:								
2nd Allocation - Use for 2019		**50.7%**	**46.0%**	**0.0%**	**0.3%**	**0.0%**	**3.0%**	Adjustment for projected 2018 activities
Note: Max Hour Allocation was less than 0% when Fire was subtracted, therefore it was set at 0.								
Fees and Charges								
Supply	127,458	100.0%						Direct Allocation
Pumping	5,700	51.8%	48.2%					Based on Base/Max Day
Treatment	7,500	51.8%	48.2%					Based on Base/Max Day
Distribution	1,075	43.2%	40.2%	16.7%				Based on Base/Max Day/Max Hour
Total	**$141,733**	**$134,762**	**$6,792**	**$179**	**$0**	**$0**		
1st Allocation		**95.1%**	**4.8%**	**0.1%**	**0.0%**	**0.0%**		
Remove 1/3 of Fire Costs from each of Base/Max Day/Max Hour results in:								
2nd Allocation		**93.2%**	**3.8%**	**0.0%**	**0.0%**	**0.0%**	**3.0%**	Adjustment for projected 2018 activities
Note: Max Hour Allocation was less than 0% when Fire was subtracted, therefore it was set at 0.								
Services & Supplies								
Communications	18,666	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Small Tools & Equipment	15,761	50.7%	46.0%	0.0%	0.3%	0.0%	3.0%	From Materials, Tools & Equipment above
Legal Services	15,210	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Dues & Subscriptions	14,828	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Conference & Travel	10,884	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Safety & Training	8,484	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Board Expense	47,320	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Bad Debt	2,873	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Fees & Charges	87,820	93.2%	3.8%	0.0%	0.0%	0.0%	3.0%	From Fees & Charges above
Insurance	35,490	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Miscellaneous	0	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Total	**$257,336**	**$162,109**	**$10,587**	**$0**	**$76,920**	**$0**	**$7,720**	
		(2) / (1)	(3) / (1)	(4) / (1)	(5) / (1)	(6) / (1)	(7) / (1)	
Weighted Average - USE 2019		**63.0%**	**4.1%**	**0.0%**	**29.9%**	**0.0%**	**3.0%**	
Note: These are might be variation due to rounding.								

Background for Tables for 3-7

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Description	**Cost**	**Base**	**Max. Day**	**Max. Hour**	**Meters**	**Cust/Bill.**	**Fire**	**Basis**
	$	%	%	%	%	%	%	
Salaries & Benefits								
All Other	1,167,325	22.7%	27.3%	50.0%				Based on Base/Max Day/Max Hour
Customer	318,361					100.0%		Based on % of Salaries dedicated to Customer Service
Meter	122,199				100.0%			Based on % of Salaries dedicated to Meters
Total	**$1,607,886**	**$265,301**	**$318,361**	**$583,663**	**$122,199**	**$318,361**		
		(1) x (2)	(1) x (3)	(1) x (4)	(1) x (5)	(1) x (6)		
1st Allocation		**16.5%**	**19.8%**	**36.3%**	**7.6%**	**19.8%**		
Remove 1/3 of Fire Costs from each of Base/Max Day/Max Hour results in:								
2nd Allocation - Use for 2019		**15.5%**	**18.8%**	**35.3%**	**7.6%**	**19.8%**	**3.0%**	Adjustment for projected 2018 activities
Utilities								
SCE	0	0.0%	0.0%					Based on Base/Max Day
Water	0	0.0%						Direct Allocation
Total	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**		
		(1) x (2)	(1) x (3)	(1) x (4)	(1) x (5)	(1) x (6)		
1st Allocation		**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**		
Remove 1/2 of Fire Costs from each of Base/Max Day results in:								
2nd Allocation - Use for 2019		**97.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**3.0%**	Adjustment for projected 2018 activities
Contracts Services								
Supply	0	0.0%						Direct Allocation
Treatment	0	0.0%	0					Based on Base/Max Day
Distribution	61,000	22.7%	27.3%	50.0%				Based on Base/Max Day/Max Hour
Overhead	2,000	50.0%			50.0%			
Total	**$63,000**	**$14,864**	**$16,636**	**$30,500**	**$1,000**	**$0**		
		(1) x (2)	(1) x (3)	(1) x (4)	(1) x (5)	(1) x (6)		
1st Allocation		**23.6%**	**26.4%**	**48.4%**	**1.6%**	**0.0%**		
Remove 1/3 of Fire Costs from each of Base/Max Day/Max Hour results in:								Adjustment for projected 2018 activities
2nd Allocation - Use for 2019		**22.6%**	**25.4%**	**47.4%**	**1.6%**	**0.0%**	**3.0%**	
Pipeline Repairs & Maintenance								
Pumping	100,000	45.5%	54.5%					Based on Base/Max Day
Transmission	60,000	45.5%	54.5%					Based on Base/Max Day
Distribution	247,000	22.7%	27.3%	50.0%				Based on Base/Max Day/Max Hour
Meter	42,000				100.0%			Direct Allocation
Total	**$449,000**	**$128,864**	**$154,636**	**$123,500**	**$42,000**	**$0**		
		(1) x (2)	(1) x (3)	(1) x (4)	(1) x (5)	(1) x (6)		
1st Allocation		**28.7%**	**34.4%**	**27.5%**	**9.4%**	**0.0%**		
Remove 1/3 of Fire Costs from each of Base/Max Day/Max Hour results in:								
2nd Allocation - Use for 2019		**27.7%**	**33.4%**	**26.5%**	**9.4%**	**0.0%**	**3.0%**	Adjustment for projected 2018 activities

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Description	**Cost**	**Base**	**Max. Day**	**Max. Hour**	**Meters**	**Cust/Bill.**	**Fire**	**Basis**
Material, Tools & Equipment								
Supply	0	0.0%						Direct Allocation
Pumping	10,000	45.5%	54.5%					Based on Base/Max Day
Treatment	0	0.0%	0.0%					Based on Base/Max Day
Distribution	22,000	22.7%	27.3%	50.0%				Based on Base/Max Day/Max Hour
Meter	500				100.0%			Direct Allocation
Total	**$32,500**	**$9,545**	**$11,455**	**$11,000**	**$500**	**$0**		
		(1) x (2)	(1) x (3)	(1) x (4)	(1) x (5)	(1) x (6)		
1st Allocation		**29.4%**	**35.2%**	**33.8%**	**1.5%**	**0.0%**		
Remove 1/3 of Fire Costs from each of Base/Max Day/Max Hour results in:								
2nd Allocation - Use for 2019		**28.5%**	**34.2%**	**32.8%**	**1.5%**	**0.0%**	**3.0%**	Adjustment for projected 2018 activities
Fees and Charges								
Supply	200	100.0%						Direct Allocation
Pumping	0	0.0%	0					Based on Base/Max Day
Treatment	3,000	45.5%	54.5%					Based on Base/Max Day
Distribution	0	0.0%	0.0%	0.0%				Based on Base/Max Day/Max Hour
Total	**$3,200**	**$1,564**	**$1,636**	**$0**	**$0**	**$0**		
		(1) x (2)	(1) x (3)	(1) x (4)	(1) x (5)	(1) x (6)		
1st Allocation		**48.9%**	**51.1%**	**0.0%**	**0.0%**	**0.0%**		
Remove 1/2 of Fire Costs from each of Base/Max Day results in:								
2nd Allocation - Use for 2019		**47.4%**	**49.6%**	**0.0%**	**0.0%**	**0.0%**	**3.0%**	Adjustment for projected 2018 activities
Note: Max Hour Allocation was less than 0% when Fire was subtracted, therefore it was set at 0.								
Services & Supplies								
Communications	17,230	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Small Tools & Equipment	7,241	28.5%	34.2%	32.8%	1.5%	0.0%	3.0%	From Materials, Tools & Equipment above
Legal Services	14,040	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Dues & Subscriptions	13,687	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Conference & Travel	10,046	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Safety & Training	7,831	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Board Expense	43,680	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Bad Debt	2,652	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Fees & Charges	27,280	47.4%	49.6%	0.0%	0.0%	0.0%	3.0%	From Fees & Charges above
Insurance	32,760	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Miscellaneous	0	47.0%	0.0%	0.0%	50.0%	0.0%	3.0%	Split 50/50 Base and Meters, then Base Adjusted for Fire
Total	**$176,447**	**$81,700**	**$16,007**	**$2,375**	**$71,072**	**$0**	**$5,293**	
		(2) / (1)	(3) / (1)	(4) / (1)	(5) / (1)	(6) / (1)	(7) / (1)	
Weighted Average - USE 2019		**46.3%**	**9.1%**	**1.3%**	**40.3%**	**0.0%**	**3.0%**	
Note: These are might be variation due to rounding.								

Appendix B – Water Cost of Service Tables for 2020-2023

Camrosa Water District
Water and Wastewater Financial Planning & Rate Design
Tables - COS/Rate Design

Table 3-1
FY 2020 Cost of Service Revenue from Rates (Potable Water)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expenses	4,920,600	0	4,920,600
2	Water Supply	7,404,100	0	7,404,100
3	Debt Service	0	823,500	823,500
4	Transfer to Capital Replacement		100,000	100,000
5	Transfer to Rate Stabilization	150,000		150,000
6	Subtotal	12,474,700	923,500	13,398,200
	Less Revenue Requirements Met from Other Sources			
7	Other Operating Revenue	(63,800)	0	(63,800)
8	Other Non-Operating Revenue	(392,600)	0	(392,600)
9	Subtotal	(456,400)	0	(456,400)
	Adjustments			
10	Adjustment for Annual Cash Balance	865,200	0	865,200
11	Adjustment to Annualize Rate Increa	0	0	0
12	Subtotal	865,200	0	865,200
13	Cost of Service to be Recovered from R	$ 12,883,500	$ 923,500	$ 13,807,000

Camrosa Water District
Water and Wastewater Financial Planning & Rate Design
Tables - COS/Rate Design

Table 3-2
FY 2020 Cost of Service Revenue from Rates (Non-Potable Water)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expenses	2,485,800	0	2,485,800
2	Water Supply	2,458,600	0	2,458,600
3	Debt Service	0	371,800	371,800
4	Transfer to Capital Replacement		500,000	500,000
5	Transfer to Rate Stabilization	50,000		50,000
6	Subtotal	4,994,400	871,800	5,866,200
	Less Revenue Requirements Met from Other Sources			
7	PVCWD Revenue	(704,700)	0	(704,700)
8	Other Operating Revenue	(638,500)	0	(638,500)
9	Other Non-Operating Revenue	(227,400)	0	(227,400)
10	Subtotal	(1,570,600)	0	(1,570,600)
	Adjustments			
11	Adjustment for Annual Cash Balance	197,700	0	197,700
12	Adjustment to Annualize Rate Increa	(100)	0	(100)
13	Subtotal	197,600	0	197,600
14	Cost of Service to be Recovered from R	$ 3,621,400	$ 871,800	$ 4,493,200

Table 3-3
FY 2020 Allocation of O&M Expenditures (Potable Water)

Line No.	Description	Common to All Customers					Fire Protection	Water Production	Allocation Basis
		Base	Extra Capacity		Customer				
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	
	Operating Expenses								
1	Production								
2	Water Purchase	88.03%	0.00%	0.00%	0.00%	0.00%	0.00%	11.97%	[1]
3	Production Power	88.03%	0.00%	0.00%	0.00%	0.00%	0.00%	11.97%	[1]
4	Salaries and Benefits	30.30%	28.20%	11.10%	7.60%	19.80%	3.00%	0.00%	[2]
5	Contracts & Professional Services								
6	Outside Contracts	73.90%	16.80%	6.30%	0.00%	0.00%	3.00%	0.00%	[2]
7	Professional Services	73.90%	16.80%	6.30%	0.00%	0.00%	3.00%	0.00%	[2]
8	Services & Supplies	62.88%	4.11%	0.00%	29.95%	0.00%	3.06%	0.00%	[2]
9	Utilities	88.00%	9.00%	0.00%	0.00%	0.00%	3.00%	0.00%	[2]
10	Pipeline Repairs	27.70%	25.70%	4.80%	38.80%	0.00%	3.00%	0.00%	[2]
11	Materials & Supplies	50.70%	46.00%	0.00%	0.30%	0.00%	3.00%	0.00%	[2]
12	Repair Parts & Equipment Maint	50.70%	46.00%	0.00%	0.30%	0.00%	3.00%	0.00%	[2]
13	Transfers	88.03%	0.00%	0.00%	0.00%	0.00%	0.00%	11.97%	[1]

[1] Fixed/Variable Import Water Charges
[2] Allocations are based on actual costs for FY 2017. See Appendix A for more details.

Table 3-4
FY 2020 Allocation of $ O&M Expenditures (Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production
		($)	($)	($)	($)	($)	($)	($)	($)
	Operating Expenses								
1	Production								
2	Water Purchase	6,831,800	6,014,200	0	0	0	0	0	817,600
3	Production Power	572,300	287,900	267,200	0	0	0	17,200	0
4	Salaries and Benefits	1,800,700	545,600	507,800	199,900	136,900	356,500	54,000	0
5	Contracts & Professional Services								
6	Outside Contracts	547,300	404,500	91,900	34,500	0	0	16,400	0
7	Professional Services	171,700	126,900	28,800	10,800	0	0	5,200	0
8	Services & Supplies	265,100	166,700	10,900	0	79,400	0	8,100	0
9	Utilities	53,400	47,000	4,800	0	0	0	1,600	0
10	Pipeline Repairs	133,900	37,100	34,400	6,400	52,000	0	4,000	0
11	Materials & Supplies	418,600	212,100	192,600	0	1,300	0	12,600	0
12	Repair Parts & Equipment Maint	490,700	248,800	225,700	0	1,500	0	14,700	0
13	Transfers	150,000	132,000	0	0	0	0	0	18,000
14	Total O&M Expenses	$ 11,435,500	$ 8,222,800	$ 1,364,100	$ 251,600	$ 271,100	$ 356,500	$ 133,800	$ 835,600
	Less Other Revenue								
15	Miscellaneous Revenues	456,400	328,400	54,400	10,000	10,800	14,200	5,300	33,300
16	Other Adjustments	(865,200)	(622,200)	(103,200)	(19,000)	(20,500)	(27,000)	(10,100)	(63,200)
17	Net Operating Expenses	$ 11,844,300	$ 8,516,600	$ 1,412,900	$ 260,600	$ 280,800	$ 369,300	$ 138,600	$ 865,500

Table 3-5
FY 2020 Allocation of Capital Costs (Potable Water)

Line No.	Description	Common to All Customers					Fire Protection	Water Production	Allocation Basis
		Base	Extra Capacity		Customer				
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	
	Plant Assets								
1	Water Production	88.03%	0.00%	0.00%	0.00%	0.00%	0.00%	11.97%	[1]
2	Pumping	88.03%	0.00%	0.00%	0.00%	0.00%	0.00%	11.97%	[1]
3	Treatment	50.31%	46.69%	0.00%	0.00%	0.00%	3.00%	0.00%	[2]
4	Transmission & Distribution	42.18%	39.16%	15.67%	0.00%	0.00%	3.00%	0.00%	[3]
5	Meters	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	[4]
6	Fire Hydrants	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	[5]
7	Land	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	[6]
8	General Plant	46.36%	32.51%	5.27%	10.40%	0.00%	4.26%	1.20%	[7]

[1] Fixed/Variable Import Water Charges
[2] Base/Max Day (adj for Fire)
[3] Base/Max Hour/Max Day (adj for Fire)
[4] Meters
[5] Fire Hydrants
[6] Base
[7] Average of above

Table 3-6
FY 2020 Allocation of $ Capital Costs (Potable Water)

Line No.	Description	(1) Total Costs (Net Book Value)	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production
		($)	($)	($)	($)	($)	($)	($)	($)
	Plant Assets								
1	Water Production	1,638,500	1,442,400	0	0	0	0	0	196,100
2	Pumping	600,900	529,000	0	0	0	0	0	71,900
3	Treatment	9,263,500	4,660,800	4,324,800	0	0	0	277,900	0
4	Transmission & Distribution	7,512,100	3,168,400	2,941,400	1,176,900	0	0	225,400	0
5	Meters	2,324,300	0	0	0	2,324,300	0	0	0
6	Fire Hydrants	449,100	0	0	0	0	0	449,100	0
7	Land	560,500	560,500	0	0	0	0	0	0
8	General Plant	477,900	221,500	155,400	25,200	49,700	0	20,400	5,700
9	Total Plant Assets	$ 22,826,800	$ 10,582,600	$ 7,421,600	$ 1,202,100	$ 2,374,000	$ 0	$ 972,800	$ 273,700
	Less Other Revenue								
10	Miscellaneous Revenues	0	0	0	0	0	0	0	0
11	Other Adjustments	0	0	0	0	0	0	0	0
12	Net Capital Expenses	$ 22,826,800	$ 10,582,600	$ 7,421,600	$ 1,202,100	$ 2,374,000	$ 0	$ 972,800	$ 273,700
13	Proxy for Allocation of Capital Costs (%)		46.4%	32.5%	5.3%	10.4%	0.0%	4.3%	1.2%

Table 3-7
FY 2020 Allocation of O&M Expenditures (Non-Potable Water)

Line No.	Description	Common to All Customers					Blended Agricultural	Allocation Basis
		Base	Extra Capacity		Customer			
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(%)	(%)	(%)	(%)	(%)	(%)	
	Operating Expenses							
1	Production							
2	Water Purchase	44.51%	0.00%	0.00%	0.00%	0.00%	55.49%	[1]
3	Production Power	43.95%	53.05%	0.00%	0.00%	0.00%	3.00%	[2]
4	Salaries and Benefits	15.50%	18.80%	35.30%	7.60%	19.80%	3.00%	[3]
5	Contracts & Professional Services							
6	Outside Contracts	22.60%	25.40%	47.40%	1.60%	0.00%	3.00%	[3]
7	Professional Services	22.60%	25.40%	47.40%	1.60%	0.00%	3.00%	[3]
8	Services & Supplies	46.18%	9.08%	1.38%	40.45%	0.00%	2.92%	[3]
9	Utilities	97.00%	0.00%	0.00%	0.00%	0.00%	3.00%	[3]
10	Pipeline Repairs	27.70%	33.40%	26.50%	9.40%	0.00%	3.00%	[3]
11	Materials & Supplies	28.50%	34.20%	32.80%	1.50%	0.00%	3.00%	[3]
12	Repair Parts & Equipment Mainte	28.50%	34.20%	32.80%	1.50%	0.00%	3.00%	[3]
13	Transfers	44.51%	0.00%	0.00%	0.00%	0.00%	55.49%	[1]

[1] Fixed/Variable Import Water Charges
[2] Max Day/Base (adj for Blended Ag)
[3] Allocations are based on actual costs for FY 2017. See Appendix A for more details.

Table 3-8
FY 2020 Allocation of $ O&M Expenditures (Non-Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Blended Agricultural
		($)	($)	($)	($)	($)	($)	($)
	Operating Expenses							
1	Production							
2	Water Purchase	1,390,700	619,000	0	0	0	0	771,700
3	Production Power	1,067,900	449,600	566,500	0	0	0	51,800
4	Salaries and Benefits	969,500	150,200	182,300	342,200	73,700	192,000	29,100
5	Contracts & Professional Services							
6	Outside Contracts	310,900	70,200	79,000	147,400	5,000	0	9,300
7	Professional Services	168,300	38,100	42,700	79,800	2,700	0	5,000
8	Services & Supplies	181,700	83,900	16,500	2,500	73,500	0	5,300
9	Utilities	9,300	9,000	0	0	0	0	300
10	Pipeline Repairs	33,000	9,200	11,000	8,700	3,100	0	1,000
11	Materials & Supplies	83,200	23,700	28,500	27,300	1,200	0	2,500
12	Repair Parts & Equipment Mainter	387,300	110,400	132,500	127,000	5,800	0	11,600
13	Transfers	50,000	22,300	0	0	0	0	27,700
14	Total O&M Expenses	$ 4,651,800	$ 1,585,600	$ 1,059,000	$ 734,900	$ 165,000	$ 192,000	$ 915,300
	Less Other Revenue							
15	Miscellaneous Revenues	1,570,600	535,400	357,600	248,100	55,700	64,800	309,000
16	Other Adjustments	(197,600)	(67,300)	(45,000)	(31,200)	(7,000)	(8,200)	(38,900)
17	Net Operating Expenses	$ 3,278,800	$ 1,117,500	$ 746,400	$ 518,000	$ 116,300	$ 135,400	$ 645,200

Table 3-9
FY 2020 Allocation of Capital Costs (Non-Potable Water)

Line No.	Description	Common to All Customers					Blended Agricultural	Allocation Basis
		Base	Extra Capacity		Customer			
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(%)	(%)	(%)	(%)	(%)	(%)	
	Plant Assets							
1	Water Production	44.5%	0.0%	0.0%	0.0%	0.0%	55.5%	[1]
2	Pumping	44.5%	0.0%	0.0%	0.0%	0.0%	55.5%	[1]
3	Treatment	44.0%	53.0%	0.0%	0.0%	0.0%	3.0%	[2]
4	Transmission & Distribution	21.7%	26.3%	49.0%	0.0%	0.0%	3.0%	[3]
5	Meters	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	[4]
6	Land	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	[5]
7	General Plant	38.5%	34.7%	15.4%	0.8%	0.0%	10.6%	[6]

[1] Fixed/Variable Import Water Charges
[2] Base/Max Day (adj for Blended Ag)
[3] Base/Max Hour/Max Day (adj for Blended Ag)
[4] Meters
[5] Base
[6] Average of above

Table 3-10
FY 2020 Allocation of $ Capital Costs (Non-Potable Water)

Line No.	Description	(1) Total Costs (Net Book Value)	(2) Common to All Customers – Base – Base	(3) Common to All Customers – Extra Capacity – Max. Day	(4) Common to All Customers – Extra Capacity – Max. Hour	(5) Customer – Meters	(6) Customer – Cust/Bill.	(7) Blended Agricultural
		($)	($)	($)	($)	($)	($)	($)
	Plant Assets							
1	Water Production	1,708,500	760,400	0	0	0	0	948,100
2	Pumping	141,600	63,000	0	0	0	0	78,600
3	Treatment	6,294,700	2,766,800	3,339,100	0	0	0	188,800
4	Transmission & Distribution	3,979,600	864,700	1,045,500	1,950,000	0	0	119,400
5	Meters	107,400	0	0	0	107,400	0	0
6	Land	405,200	405,200	0	0	0	0	0
7	General Plant	224,600	86,400	77,900	34,700	1,900	0	23,700
8	Total Plant Assets	$ 12,861,600	$ 4,946,500	$ 4,462,500	$ 1,984,700	$ 109,300	$ 0	$ 1,358,600
	Less Other Revenue							
9	Miscellaneous Revenues	0	0	0	0	0	0	0
10	Other Adjustments	0	0	0	0	0	0	0
11	Net Capital Expenses	$ 12,861,600	$ 4,946,500	$ 4,462,500	$ 1,984,700	$ 109,300	$ 0	$ 1,358,600
12	Proxy for Allocation of Capital Costs (%)		38.5%	34.7%	15.4%	0.8%	0.0%	10.6%

Table 3-11
FY 2020 Units of Service (Potable Water and Non-Potable Water)

Line No.	Description	Consumption		Maximum Day			Maximum Hour			Meters	Cust/Bills	Fire Protection
		Annual	Avg. Day	Factor	Total	Extra	Factor	Total	Extra			
	Column Reference	(1)	(2)=(1)/365	(3)	(4)=(2)x(3)	(5)=(4)-(2)	(6)	(7)=(2)x(6)	(8)=(7)-(4)	(9)	(10)	(11)
	Units of Measure	(HCF)	(HCF/day)		(HCF/day)	(HCF/day)		(HCF/day)	(HCF/day)	(EMs)	(bills)	(EHs)
	Potable Water											
1	Group 1	11,326	31	451%	140	109	602%	187	47	236	192	0
2	Group 2	1,990,474	5,453	292%	15,924	10,470	390%	21,268	5,344	13,259	86,520	0
3	Group 3	1,161,310	3,182	321%	10,213	7,031	427%	13,586	3,373	4,181	8,892	0
4	Subtotal	3,163,109	8,666		26,277	17,611		35,041	8,764	17,676	95,604	
	Potable Fire Service											
5	Public Fire	0	0		430	430		5,166	4,735	0	0	1,083
6	Fire Service (PP5)	0	0		51	51		609	559	5,258	1,140	128
7	Subtotal	0	0		481	481		5,775	5,294	5,258	1,140	1,211
8	Total Potable Water System	3,163,109	8,666		26,758	18,092		40,816	14,058	22,934	96,744	1,211
	Non-Potable Water											
9	Group 4	1,544,202	4,231	297%	12,565	8,334	356%	15,061	2,496	1,800	3,912	0
10	Group 6	377,665	1,035	320%	3,311	2,276	384%	3,973	662	639	336	0
11	Subtotal	1,921,867	5,265		15,876	10,611		19,035	3,158	2,439	4,248	-
12	Total Non-Potable Water System	1,921,867	5,265		15,876	10,611		19,035	3,158	2,439	4,248	-

Table 3-12
FY 2020 Units Cost of Service (Potable Water)

Line No.	Description	Total Costs	Common to All Customers					Fire Protection	Water Production	Debt Service
			Base	Extra Capacity		Customer				
			Base	Max. Day	Max. Hour	Meters	Cust/Bill.			
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		($)	($)	($)	($)	($)	($)	($)		
	Potable Water - Unit Cost of Service									
1	Net Operating Expense (Per Table 3-4)	12,883,500	9,555,800	1,412,900	260,600	280,800	369,300	138,600	865,500	0
2	Debt Service	823,500	576,400	0	0	0	0	0	0	247,100
3	Capital Costs	100,000	51,700	32,500	5,300	5,000	0	4,300	1,200	0
4	Total Cost of Service	$ 13,807,000	$ 10,183,900	$ 1,445,400	$ 265,900	$ 285,800	$ 369,300	$ 142,900	$ 866,700	$ 247,100
5	Units of Service (Per Table 3-11)		3,163,109	18,092	14,058	22,934	96,744	1,211	17,676	17,676
6	Units of Measure		HCF	HCF/Day	HCF/Day	Eq. Meter	Bill	Eq. Hydrant	Eq. Meter	Eq. Meter
7	Cost per Unit (Line 4 / Line 5)		$ 3.22	$ 79.89	$ 18.91	$ 12.46	$ 3.82	$ 118.02	$ 49.03	$ 13.98
8	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	Per Eq. Hydrant	per Eq. Meter	per Eq. Meter

Table 3-13
FY 2020 Distribution of Costs to Customer Classes (Potable Water)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Common to All Customers							
			Base	Extra Capacity		Customer		Fire	Water	Debt
Line No.	Description	Total Costs	Base	Max. Day	Max. Hour	Meters	Cust/Bill.	Protection	Production [1]	Service [1]
		($)	($)	($)	($)	($)	($)	($)		
1	Cost per Unit (Per Table 3-12)		$ 3.22	$ 79.89	$ 18.91	$ 12.46	$ 3.82	$ 118.02	$ 49.03	$ 13.98
2	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	Per Eq. Hydrant	per Eq. Meter	per Eq. Meter
	Potable Water									
	Group 1									
3	Units		11,326	109	47	236	192	0	236	236
4	Allocation of costs of service	64,600	36,500	8,700	900	2,900	700	0	11,600	3,300
	Group 2									
5	Units		1,990,474	10,470	5,344	13,259	86,520	0	13,259	13,259
6	Allocation of costs of service	8,677,100	6,408,500	836,500	101,100	165,200	330,300	0	650,100	185,400
	Group 3									
7	Units		1,161,310	7,031	3,373	4,181	8,892	0	4,181	4,181
8	Allocation of costs of service	4,713,800	3,738,900	561,700	63,700	52,200	33,900	0	205,000	58,400
	Public Fire									
9	Units		0	430	4,735	0	0	1,083	0	0
10	Allocation of costs of service	251,800	0	34,400	89,600	0	0	127,800	0	0
	Fire Service (PP5)									
11	Units		0	51	559	5,258	1,140	128	0	0
12	Allocation of costs of service	99,700	0	4,100	10,600	65,500	4,400	15,100	0	0
13	TOTAL COSTS OF SERVICE	$ 13,807,000	$ 10,183,900	$ 1,445,400	$ 265,900	$ 285,800	$ 369,300	$ 142,900	$ 866,700	$ 247,100
	Reference for Table 4-9.									
	Group 2 Tier 1									
14	Units			4,122	2,271					
15	Allocation of costs of service	372,300		329,300	43,000					
	Group 2 Tier 2									
16	Units			6,351	3,073					
17	Allocation of costs of service	565,500		507,400	58,100					

[1] Units for Water Production and Debt Service are equivalent Meters units as the allocation is based on Equivalent Meters. The exception is that Water Production and Debt Service have no Fire Service Allocation thus no units.

Table 3-14
FY 2020 Units Cost of Service (Non-Potable Water)

Line No.	Description	Total Costs	Common to All Customers					Blended Agricultural	Debt Service
			Base	Extra Capacity		Customer			
			Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		($)	($)	($)	($)	($)	($)	($)	($)
	Non-Potable Water - Unit Cost of Service								
1	Net Operating Expense (Per Table 3-8)	3,621,400	1,460,100	746,400	518,000	116,300	135,400	645,200	0
2	Debt Service	371,800	371,800	0	0	0	0	0	0
3	Capital Costs	500,000	192,300	173,500	77,200	4,200	0	52,800	0
4	Total Cost of Service	$ 4,493,200	$ 2,024,200	$ 919,900	$ 595,200	$ 120,500	$ 135,400	$ 698,000	$ 0
5	Units of Service (Per Table 3-11)		1,544,202	10,611	3,158	2,439	4,248	377,665	2,439
6	Units of Measure		HCF	HCF/Day	HCF/Day	Eq. Meter	Bill	HCF	Eq. Meter
7	Cost per Unit (Line 4 / Line 5)		$ 1.31	$ 86.69	$ 188.45	$ 49.41	$ 31.87	$ 1.85	$ 0.00
8	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	per HCF	per Eq. Meter

Table 3-15
FY 2020 Distribution of Costs to Customer Classes (Non-Potable Water)

Line No.	Description	Total Costs	Common to All Customers					Blended Agricultural	Debt Service [2]
			Base	Extra Capacity		Customer			
			Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		($)	($)	($)	($)	($)	($)	($)	
1	Cost per Unit (Per Table 3-14)		$ 1.31	$ 86.69	$ 188.45	$ 49.41	$ 31.87	$ 1.85	$ 0.00
2	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	per HCF	per Eq. Meter
	Non-Potable Water								
	Group 4								
3	Units		1,544,202	8,334	2,496	1,800	3,912	0	1,800
4	Allocation of costs of service	3,430,800	2,024,200	722,600	470,400	88,900	124,700	0	0
	Group 6 [1]								
5	Units		0	2,276	662	639	336	377,665	639
6	Allocation of costs of service	1,062,400	0	197,300	124,800	31,600	10,700	698,000	0
7	TOTAL COSTS OF SERVICE	$ 4,493,200	$ 2,024,200	$ 919,900	$ 595,200	$ 120,500	$ 135,400	$ 698,000	$ 0

[1] Base costs associated with Group 6 are different from other customer classes, therefore direct assignment for base is shown in Column 7.
[2] Units for Debt Service are equivalent Meters units as the allocation is based on Equivalent Meters.

Table 3-16
FY 2020 Cost of Service by Customer Class Summary

Line No.	Description	(1) Cost of Service [1]	(2) Re-Allocation of Public Fire Protection [2]	(3) Adjusted Cost of Service
		($)	($)	($)
	Potable and Non-Potable Water Customers			
1	Group 1	64,600	1,200	65,800
2	Group 2	8,677,100	162,400	8,839,500
3	Group 3	4,713,800	88,200	4,802,000
4	Group 4	3,430,800		3,430,800
5	Group 6	1,062,400		1,062,400
6	Subtotal	17,948,700	251,800	18,200,500
7	Public Fire	251,800	(251,800)	0
8	PP5 Fire Service	99,700		99,700
9	Subtotal	351,500	(251,800)	99,700
10	**Total Water System**	**$ 18,300,200**	**$ 0**	**$ 18,300,200**

[1] Cost of service values from Tables 3-13 and 3-15
[2] Public fire protection costs re-allocated based on proportionate share of costs for Groups 1, 2 &3.
For example, Group 1's porportionate share = Line 9 * Line 1 / (Line 1 + Line 2 + Line 3)
Group 1's share = $251,800 * $64,600 / ($64,600 + $8,677,100 + $4,713,800)

Table 4-1
FY 2020 Costs within the Monthly Service Charge

Customer Class	Meters Svcs, Public Fire Protection & Billing, Debt Svc							Total Service Charge
	Meters Unit Cost [1]	Fire Unit Cost [2]	Water Production [3]	Debt Unit Cost [4]	Ratio*	Billing Unit Cost [5]	Ratio*	
	per EM	per EM	per EM	per EM		per Bill		$/month
Potable Water								
Master Metered	1.33	1.19	4.09	1.16	0.25	5.00	0.85	6.19
3/4"	1.33	1.19	4.09	1.16	1.00	5.00	1.00	12.77
1"	1.33	1.19	4.09	1.16	2.11	5.00	1.00	21.40
1.5"	1.33	1.19	4.09	1.16	4.88	5.00	1.00	42.93
2"	1.33	1.19	4.09	1.16	8.22	5.00	1.00	68.89
3"	1.33	1.19	4.09	1.16	18.80	5.00	1.00	151.12
4"	1.33	1.19	4.09	1.16	32.69	5.00	1.00	259.09
6"	1.33	1.19	4.09	1.16	49.38	5.00	1.00	388.81
8"	1.33	1.19	4.09	1.16	82.74	5.00	1.00	648.11

* Ratio is based on equivalent meters. Bill ratios are typically 1.0 except for master metered.
[1] Meter unit cost = (Table 3-12, Column 5, Line 4 + Table 3-14, Column 5, Line 4) / (Table 3-12, Column 5, Line 5 + Table 3-14, Column 5, Line 5) / 12 = ($285,800 + $120,500) /(22,934 + 2,439) /12
[2] Fire unit cost = (Table 3-13, Column 1, Line 10) / (Table 3-11, Column 9, Line 4) / 12 = $251,800 / 17,676
[3] Water Production unit cost = (Table 3-12, Column 8, Line 7) / 12 = $49.03 / 12
[4] Debt unit cost = (Table 3-12, Column 9, Line 7) / 12 = ($13.98) / 12
[5] Billing unit cost = (Table 3-12, Column 6, Line 4 + Table 3-14, Column 6, Line 4) /(Table 3-12, Column 6, Line 5 + Table 3-14, Column 6, Line 5) / 12 = ($369,300 + $135,400) / (96,744 + 4,248) / 12

Customer Class	Meters Svcs, Public Fire Protection & Billing, Debt Svc						Total Service Charge
	Meters Unit Cost [1]	Fire Unit Cost [2]	Debt Unit Cost [4]	Ratio*	Billing Unit Cost [5]	Ratio*	
	per EM	per EM	per EM		per Bill		$/month
Non-Potable Water							
Master Metered	1.33	1.19	0	0.25	5.00	0.85	4.88
3/4"	1.33	1.19	0	1.00	5.00	1.00	7.52
1"	1.33	1.19	0	2.11	5.00	1.00	10.32
1.5"	1.33	1.19	0	4.88	5.00	1.00	17.30
2"	1.33	1.19	0	8.22	5.00	1.00	25.72
3"	1.33	1.19	0	18.80	5.00	1.00	52.40
4"	1.33	1.19	0	32.69	5.00	1.00	87.43
6"	1.33	1.19	0	49.38	5.00	1.00	129.51
8"	1.33	1.19	0	82.74	5.00	1.00	213.63

* Ratio is based on equivalent meters. Bill ratios are typically 1.0 except for master metered.
[1] Meter unit cost = (Table 3-12, Column 5, Line 4 + Table 3-14, Column 5, Line 4) / (Table 3-12, Column 5, Line 5 + Table 3-14, Column 5, Line 5) / 12 = ($285,800 + $120,500) /(22,934 + 2,439) /12
[2] Fire unit cost = (Table 3-13, Column 1, Line 10) / (Table 3-11, Column 9, Line 4) / 12 = $251,800 / 17,676
[4] Debt unit cost = (Table 3-14, Column 8, Line 7) / 12 = $0.00 / 12
[5] Billing unit cost = (Table 3-12, Column 6, Line 4 + Table 3-14, Column 6, Line 4) /(Table 3-12, Column 6, Line 5 + Table 3-14, Column 6, Line 5) / 12 = ($369,300 + $135,400) / (96,744 + 4,248) / 12

Table 4-2
Proposed Multi-Year Monthly Service Charge

Customer Class	Monthly Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Potable Water						
Master Metered [1]	6.55	6.21	6.19	6.21	6.35	6.57
3/4"	13.64	12.79	12.77	13.26	13.58	14.08
1"	22.72	21.41	21.40	22.63	23.19	24.06
1.5"	45.46	42.94	42.93	46.02	47.17	48.96
2"	72.73	68.89	68.89	74.22	76.09	78.99
3"	159.09	151.09	151.12	163.54	167.68	174.10
4"	272.73	259.02	259.09	280.82	287.92	298.98
6"	409.10	388.69	388.81	421.73	432.41	449.02
8"	681.83	647.90	648.11	703.38	721.21	748.93

[1] Master Metered accounts are charged on a per unit basis rather than meter size.

Customer Class	Monthly Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Non-Potable Water						
Master Metered [1]	0	4.89	4.88	4.91	5.02	5.20
3/4"	0	7.51	7.52	8.09	8.28	8.60
1"	0	10.28	10.32	11.72	12.00	12.51
1.5"	0	17.19	17.30	20.78	21.29	22.25
2"	0	25.52	25.72	31.70	32.48	33.99
3"	0	51.90	52.40	66.30	67.95	71.19
4"	0	86.54	87.43	111.72	114.51	120.02
6"	0	128.16	129.51	166.30	170.47	178.70
8"	0	211.35	213.63	275.39	282.30	295.99

[1] Master Metered accounts are charged on a per unit basis rather than meter size.

Table 4-3
FY 2020 Costs within the Fire Service Charge

Customer Class	Private Fire Protection		Total Service Charge
	Fire Unit Cost	Ratio	
	per EM		$/month
Fire Service			
4"	1.58	32.7	51.65
6"	1.58	49.4	78.03
8"	1.58	82.7	130.74
10"	1.58	220.0	347.63

Table 4-4
Proposed Multi-Year Fire Service Charge

Customer Class	Fire Service Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Fire Service						
4"	51.45	51.03	51.65	61.96	63.93	67.46
6"	102.86	77.09	78.03	93.60	96.58	101.90
8"	185.17	129.17	130.74	156.84	161.82	170.74
10"	308.69	343.45	347.63	417.02	430.27	453.98

Table 4-5
FY 2020 Water Supply Unit Costs

Description	Production Allocation*	Production Costs	Total Volume	Supply Unit Costs
	%	$	HCF	$/HCF
Water Source				
Calleguas Municipal Water District	52%	5,814,979	1,644,817	$ 3.54
Groundwater	48%	487,121	1,518,293	0.32
Subtotal	100%	$ 6,302,100	3,163,109	
Weighted Average Costs				$ 1.99

* The production costs come from Table 3-4, Column 2, Line 2 & 3.

Table 4-6
FY 2020 Water Sold by Customer Class

Description	Group 1	Group 2 Tier 1	Group 2 Tier 2	Group 3	Total Volume
Total Usage	11,326	981,745	1,008,730	1,161,310	3,163,111
% of Usage	0.4%	31.0%	31.9%	36.7%	100.0%

Table 4-7
FY 2020 Water Supply Unit Costs by Customer Class

Description	Supply Unit Costs	Group 1	Group 2 Tier 1	Group 2 Tier 2	Group 3	Total Volume
		HCF	HCF	HCF	HCF	HCF
Water Source						
Calleguas Municipal Water District	$ 3.54	10,193	471,238	540,794	622,594	1,644,818
Groundwater	0.32	1,133	510,507	467,936	538,716	1,518,293
Subtotal		11,326	981,745	1,008,730	1,161,310	3,163,111
Weighted Average Unit Costs	$ 1.99	$ 3.21	$ 1.86	$ 2.04	$ 2.04	

Table 4-8
FY 2020 Water Delivery Unit Costs

Description	Delivery Unit Rate	
	$	
	Group 1-3	
Base Costs	$10,183,900	(from Table 3-12, Line 4, Column 2)
Less Water Supply Cost	(6,302,100)	(from Table 3-4, Line 2+Line 3 in Column 2)
Subtotal	$3,881,800	
Water Supply (HCF)	3,163,109	
Unit Costs	$1.23	

Description	Delivery Unit Rate	Delivery Unit Rate	
	$	$	
	Group 4	Group 6	
Base Costs	$2,024,200	$698,000	(from Table 3-14, Line 4, Column 2 & 7)
Less Water Supply Cost	(1,068,600)	(823,500)	(from Table 3-8, Line 2+Line 3 in Columns 2 & 7)
Subtotal	$955,600	($125,500)	
Water Supply (HCF)	1,544,202	377,665	
Unit Costs	$0.62	($0.33)	

Note: Group 6 is negative because the offsets in shown in Table 3-8, Line 15 and 16 are all applied to delivery.

Table 4-9
FY 2020 Common Water Peaking Unit Costs

Description	Peaking Costs [1]	Usage	Peaking Unit Rate
	$	HCF	$/HCF
Customer Class			
Group 1	9,600	11,326	$ 0.85
Group 2 Tier 1	372,300	981,745	0.38
Group 2 Tier 2 and Group 3	1,190,900	2,170,040	0.55
Subtotal	$ 1,572,800	3,163,111	

[1] Peaking costs derived in Table 3-13.

Description	Peaking Costs [1]	Usage	Peaking Unit Rate
	$	HCF	$/HCF
Customer Class			
Group 4	1,193,000	1,544,202	0.77
Group 6	322,100	377,665	0.85
Subtotal	$ 1,515,100	1,921,867	

[1] Peaking costs derived in Table 3-15.

Table 4-10
FY 2020 Individual Potable Water Unit Costs

Description	(1) Supply Unit Rate	(2) Delivery Unit Rate	(3) Peaking Unit Rate	(4) Total Unit Rate
	$/HCF	$/HCF	$/HCF	$/HCF
Customer Class				
Group 1	$ 3.21	$ 1.23	$ 0.85	$ 5.29
Group 2 Tier 1	1.86	1.23	0.38	3.47
Group 2 Tier 2 and Group 3	2.04	1.23	0.55	3.82

Table 4-11
FY 2020 Individual Potable Water Unit Costs

Description	(1) Supply Unit Rate [1]	(2) Delivery Unit Rate [2]	(3) Peaking Unit Rate	(4) Total Unit Rate
	$/HCF	$/HCF	$/HCF	$/HCF
Customer Class				
Group 4	$ 0.69	$0.62	$ 0.77	$ 1.39
Group 6	2.18	(0.33)	0.85	0.52

[1] Supply Unit Costs is derived from Table 3-8, Line 2+Line 3 in Columns 2 for Group 4 and Column 7 for Group 6 divided by their respective volumes seen in Table 3-11, Column 1.

Table 4-12
Proposed Multi-Year Commodity Charges

Customer Class	Commodity Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/HCF	$/HCF	$/HCF	$/HCF	$/HCF	$/HCF
Potable Water						
Residential and Master Meter						
Tier 1 - First 12 Units	3.08	3.28	3.47	3.61	3.81	4.01
Tier 2 - 13 Units and Higher	3.34	3.65	3.82	4.01	4.22	4.45
Commercial/Industrial and Public	3.34	3.65	3.82	4.01	4.22	4.45
Municipal Irrigation	3.34	3.65	3.82	4.01	4.22	4.45
Other	3.34	3.65	3.82	4.01	4.22	4.45
Agricultural Irrigation, Domestic Ag	3.34	3.65	3.82	4.01	4.22	4.45
Temp Construction and Temp Agricult	3.34	4.91	5.29	5.60	5.88	6.17
Temporary Municipal	4.08	4.91	5.29	5.60	5.88	6.17
Emergency Water Service	5.05	4.91	5.29	5.60	5.88	6.17
Surplus Water (Served Outside District)	3.50	4.91	5.29	5.60	5.88	6.17
Non-Potable Water						
Non-Potable Irrigation Water	1.64	1.92	2.08	2.19	2.40	2.59
Blended Non-Potable Agricultural	2.88	2.46	2.70	3.15	3.36	3.67
Non-Potable Residential Landscape (SR	1.64	1.92	2.08	2.19	2.40	2.59
Recycled Landscape Irrigation	1.64	1.92	2.08	2.19	2.40	2.59
Outside District)	1.64	1.92	2.08	2.19	2.40	2.59

Camrosa Water District
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Table 3-1
FY 2021 Cost of Service Revenue from Rates (Potable Water)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expenses	4,984,000	0	4,984,000
2	Water Supply	7,750,000	0	7,750,000
3	Debt Service	0	827,300	827,300
4	Transfer to Capital Replacement		1,500,000	1,500,000
5	Transfer to Rate Stabilization	250,000		250,000
6	Subtotal	12,984,000	2,327,300	15,311,300
	Less Revenue Requirements Met from Other Sources			
7	Other Operating Revenue	(63,800)	0	(63,800)
8	Other Non-Operating Revenue	(392,600)	0	(392,600)
9	Subtotal	(456,400)	0	(456,400)
	Adjustments			
10	Adjustment for Annual Cash Balance	(291,300)	0	(291,300)
11	Adjustment to Annualize Rate Increa	100	0	100
12	Subtotal	(291,200)	0	(291,200)
13	Cost of Service to be Recovered from R	$ 12,236,400	$ 2,327,300	$ 14,563,700

Camrosa Water District
Water and Wastewater Financial Planning & Rate Design
Tables - COS/Rate Design

Table 3-2
FY 2021 Cost of Service Revenue from Rates (Non-Potable Water)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expenses	2,560,300	0	2,560,300
2	Water Supply	2,535,500	0	2,535,500
3	Debt Service	0	30,800	30,800
4	Transfer to Capital Replacement		1,000,000	1,000,000
5	Transfer to Rate Stabilization	70,000		70,000
6	Subtotal	5,165,800	1,030,800	6,196,600
	Less Revenue Requirements Met from Other Sources			
7	PVCWD Revenue	(704,700)	0	(704,700)
8	Other Operating Revenue	(638,500)	0	(638,500)
9	Other Non-Operating Revenue	(227,400)	0	(227,400)
10	Subtotal	(1,570,600)	0	(1,570,600)
	Adjustments			
11	Adjustment for Annual Cash Balance	231,300	0	231,300
12	Adjustment to Annualize Rate Increa	(100)	0	(100)
13	Subtotal	231,200	0	231,200
14	Cost of Service to be Recovered from R	$ 3,826,400	$ 1,030,800	$ 4,857,200

Table 3-3
FY 2021 Allocation of O&M Expenditures (Potable Water)

Line No.	Description	Common to All Customers					Fire Protection	Water Production	Allocation Basis
		Base	Extra Capacity		Customer				
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	
	Operating Expenses								
1	Production								
2	Water Purchase	87.64%	0.00%	0.00%	0.00%	0.00%	0.00%	12.36%	[1]
3	Production Power	87.64%	0.00%	0.00%	0.00%	0.00%	0.00%	12.36%	[1]
4	Salaries and Benefits	30.30%	28.20%	11.10%	7.60%	19.80%	3.00%	0.00%	[2]
5	Contracts & Professional Services								
6	Outside Contracts	73.90%	16.80%	6.30%	0.00%	0.00%	3.00%	0.00%	[2]
7	Professional Services	73.90%	16.80%	6.30%	0.00%	0.00%	3.00%	0.00%	[2]
8	Services & Supplies	62.92%	4.10%	0.00%	29.98%	0.00%	3.00%	0.00%	[2]
9	Utilities	88.00%	9.00%	0.00%	0.00%	0.00%	3.00%	0.00%	[2]
10	Pipeline Repairs	27.70%	25.70%	4.80%	38.80%	0.00%	3.00%	0.00%	[2]
11	Materials & Supplies	50.70%	46.00%	0.00%	0.30%	0.00%	3.00%	0.00%	[2]
12	Repair Parts & Equipment Maint	50.70%	46.00%	0.00%	0.30%	0.00%	3.00%	0.00%	[2]
13	Transfers	87.64%	0.00%	0.00%	0.00%	0.00%	0.00%	12.36%	[1]

[1] Fixed/Variable Import Water Charges
[2] Allocations are based on actual costs for FY 2017. See Appendix A for more details.

Table 3-4
FY 2021 Allocation of $ O&M Expenditures (Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production
		($)	($)	($)	($)	($)	($)	($)	($)
	Operating Expenses								
1	Production								
2	Water Purchase	7,158,500	6,273,600	0	0	0	0	0	884,900
3	Production Power	591,500	297,600	276,200	0	0	0	17,700	0
4	Salaries and Benefits	1,867,100	565,800	526,500	207,200	141,900	369,700	56,000	0
5	Contracts & Professional Services								
6	Outside Contracts	558,200	412,500	93,800	35,200	0	0	16,700	0
7	Professional Services	175,100	129,400	29,400	11,000	0	0	5,300	0
8	Services & Supplies	273,200	171,900	11,200	0	81,900	0	8,200	0
9	Utilities	55,000	48,300	5,000	0	0	0	1,700	0
10	Pipeline Repairs	137,900	38,300	35,400	6,600	53,500	0	4,100	0
11	Materials & Supplies	431,200	218,600	198,400	0	1,300	0	12,900	0
12	Repair Parts & Equipment Maint	505,400	256,200	232,500	0	1,500	0	15,200	0
13	Transfers	250,000	219,100	0	0	0	0	0	30,900
14	Total O&M Expenses	$ 12,003,100	$ 8,631,300	$ 1,408,400	$ 260,000	$ 280,100	$ 369,700	$ 137,800	$ 915,800
	Less Other Revenue								
15	Miscellaneous Revenues	456,400	328,100	53,600	9,900	10,700	14,100	5,200	34,800
16	Other Adjustments	291,200	209,400	34,200	6,300	6,800	9,000	3,300	22,200
17	Net Operating Expenses	$ 11,255,500	$ 8,093,800	$ 1,320,600	$ 243,800	$ 262,600	$ 346,600	$ 129,300	$ 858,800

Table 3-5
FY 2021 Allocation of Capital Costs (Potable Water)

Line No.	Description	Common to All Customers					Fire Protection	Water Production	Allocation Basis
		Base	Extra Capacity		Customer				
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	
	Plant Assets								
1	Water Production	87.64%	0.00%	0.00%	0.00%	0.00%	0.00%	12.36%	[1]
2	Pumping	87.64%	0.00%	0.00%	0.00%	0.00%	0.00%	12.36%	[1]
3	Treatment	50.31%	46.69%	0.00%	0.00%	0.00%	3.00%	0.00%	[2]
4	Transmission & Distribution	42.18%	39.16%	15.67%	0.00%	0.00%	3.00%	0.00%	[3]
5	Meters	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	[4]
6	Fire Hydrants	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	[5]
7	Land	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	[6]
8	General Plant	46.32%	32.51%	5.27%	10.40%	0.00%	4.26%	1.24%	[7]

[1] Fixed/Variable Import Water Charges
[2] Base/Max Day (adj for Fire)
[3] Base/Max Hour/Max Day (adj for Fire)
[4] Meters
[5] Fire Hydrants
[6] Base
[7] Average of above

Table 3-6
FY 2021 Allocation of $ Capital Costs (Potable Water)

Line No.	Description	(1) Total Costs (Net Book Value)	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production
		($)	($)	($)	($)	($)	($)	($)	($)
	Plant Assets								
1	Water Production	1,638,500	1,436,000	0	0	0	0	0	202,500
2	Pumping	600,900	526,600	0	0	0	0	0	74,300
3	Treatment	9,263,500	4,660,800	4,324,800	0	0	0	277,900	0
4	Transmission & Distribution	7,512,100	3,168,400	2,941,400	1,176,900	0	0	225,400	0
5	Meters	2,324,300	0	0	0	2,324,300	0	0	0
6	Fire Hydrants	449,100	0	0	0	0	0	449,100	0
7	Land	560,500	560,500	0	0	0	0	0	0
8	General Plant	477,900	221,300	155,400	25,200	49,700	0	20,400	5,900
9	Total Plant Assets	$ 22,826,800	$ 10,573,600	$ 7,421,600	$ 1,202,100	$ 2,374,000	$ 0	$ 972,800	$ 282,700
	Less Other Revenue								
10	Miscellaneous Revenues	0	0	0	0	0	0	0	0
11	Other Adjustments	0	0	0	0	0	0	0	0
12	Net Capital Expenses	$ 22,826,800	$ 10,573,600	$ 7,421,600	$ 1,202,100	$ 2,374,000	$ 0	$ 972,800	$ 282,700
13	Proxy for Allocation of Capital Costs (%)		46.3%	32.5%	5.3%	10.4%	0.0%	4.3%	1.2%

Table 3-7
FY 2021 Allocation of O&M Expenditures (Non-Potable Water)

Line No.	Description	Common to All Customers					Blended Agricultural	Allocation Basis
		Base	Extra Capacity		Customer			
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(%)	(%)	(%)	(%)	(%)	(%)	
	Operating Expenses							
1	Production							
2	Water Purchase	44.34%	0.00%	0.00%	0.00%	0.00%	55.66%	[1]
3	Production Power	43.95%	53.05%	0.00%	0.00%	0.00%	3.00%	[2]
4	Salaries and Benefits	15.50%	18.80%	35.30%	7.60%	19.80%	3.00%	[3]
5	Contracts & Professional Services							
6	Outside Contracts	22.60%	25.40%	47.40%	1.60%	0.00%	3.00%	[3]
7	Professional Services	22.60%	25.40%	47.40%	1.60%	0.00%	3.00%	[3]
8	Services & Supplies	46.36%	9.04%	1.34%	40.37%	0.00%	2.89%	[3]
9	Utilities	97.00%	0.00%	0.00%	0.00%	0.00%	3.00%	[3]
10	Pipeline Repairs	27.70%	33.40%	26.50%	9.40%	0.00%	3.00%	[3]
11	Materials & Supplies	28.50%	34.20%	32.80%	1.50%	0.00%	3.00%	[3]
12	Repair Parts & Equipment Mainte	28.50%	34.20%	32.80%	1.50%	0.00%	3.00%	[3]
13	Transfers	44.34%	0.00%	0.00%	0.00%	0.00%	55.66%	[1]

[1] Fixed/Variable Import Water Charges
[2] Max Day/Base (adj for Blended Ag)
[3] Allocations are based on actual costs for FY 2017. See Appendix A for more details.

Table 3-8
FY 2021 Allocation of $ O&M Expenditures (Non-Potable Water)

Line No.	Description	Total Costs	Common to All Customers					Blended Agricultural
			Base	Extra Capacity		Customer		
			Base	Max. Day	Max. Hour	Meters	Cust/Bill.	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
		($)	($)	($)	($)	($)	($)	($)
	Operating Expenses							
1	Production							
2	Water Purchase	1,437,700	637,500	0	0	0	0	800,200
3	Production Power	1,097,800	462,300	582,300	0	0	0	53,200
4	Salaries and Benefits	1,005,300	155,800	189,000	354,900	76,400	199,000	30,200
5	Contracts & Professional Services							
6	Outside Contracts	317,100	71,700	80,500	150,300	5,100	0	9,500
7	Professional Services	171,700	38,800	43,600	81,400	2,700	0	5,200
8	Services & Supplies	187,000	86,700	16,900	2,500	75,500	0	5,400
9	Utilities	9,600	9,300	0	0	0	0	300
10	Pipeline Repairs	34,000	9,400	11,400	9,000	3,200	0	1,000
11	Materials & Supplies	85,700	24,400	29,300	28,100	1,300	0	2,600
12	Repair Parts & Equipment Mainter	398,900	113,700	136,400	130,800	6,000	0	12,000
13	Transfers	70,000	31,000	0	0	0	0	39,000
14	Total O&M Expenses	$ 4,814,800	$ 1,640,600	$ 1,089,400	$ 757,000	$ 170,200	$ 199,000	$ 958,600
	Less Other Revenue							
15	Miscellaneous Revenues	1,570,600	535,200	355,400	246,900	55,500	64,900	312,700
16	Other Adjustments	(231,200)	(78,700)	(52,300)	(36,400)	(8,200)	(9,600)	(46,000)
17	Net Operating Expenses	$ 3,475,400	$ 1,184,100	$ 786,300	$ 546,500	$ 122,900	$ 143,700	$ 691,900

Table 3-9
FY 2021 Allocation of Capital Costs (Non-Potable Water)

Line No.	Description	Common to All Customers					Blended Agricultural	Allocation Basis
		Base	Extra Capacity		Customer			
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(%)	(%)	(%)	(%)	(%)	(%)	
	Plant Assets							
1	Water Production	44.3%	0.0%	0.0%	0.0%	0.0%	55.7%	[1]
2	Pumping	44.3%	0.0%	0.0%	0.0%	0.0%	55.7%	[1]
3	Treatment	44.0%	53.0%	0.0%	0.0%	0.0%	3.0%	[2]
4	Transmission & Distribution	21.7%	26.3%	49.0%	0.0%	0.0%	3.0%	[3]
5	Meters	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	[4]
6	Land	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	[5]
7	General Plant	38.4%	34.7%	15.4%	0.8%	0.0%	10.6%	[6]

[1] Fixed/Variable Import Water Charges
[2] Base/Max Day (adj for Blended Ag)
[3] Base/Max Hour/Max Day (adj for Blended Ag)
[4] Meters
[5] Base
[6] Average of above

Table 3-10
FY 2021 Allocation of $ Capital Costs (Non-Potable Water)

Line No.	Description	(1) Total Costs (Net Book Value)	(2) Common to All Customers – Base – Base	(3) Common to All Customers – Extra Capacity – Max. Day	(4) Common to All Customers – Extra Capacity – Max. Hour	(5) Common to All Customers – Customer – Meters	(6) Common to All Customers – Customer – Cust/Bill.	(7) Blended Agricultural
		($)	($)	($)	($)	($)	($)	($)
	Plant Assets							
1	Water Production	1,708,500	757,600	0	0	0	0	950,900
2	Pumping	141,600	62,800	0	0	0	0	78,800
3	Treatment	6,294,700	2,766,800	3,339,100	0	0	0	188,800
4	Transmission & Distribution	3,979,600	864,700	1,045,500	1,950,000	0	0	119,400
5	Meters	107,400	0	0	0	107,400	0	0
6	Land	405,200	405,200	0	0	0	0	0
7	General Plant	224,600	86,300	77,900	34,700	1,900	0	23,800
8	Total Plant Assets	$ 12,861,600	$ 4,943,400	$ 4,462,500	$ 1,984,700	$ 109,300	$ 0	$ 1,361,700
	Less Other Revenue							
9	Miscellaneous Revenues	0	0	0	0	0	0	0
10	Other Adjustments	0	0	0	0	0	0	0
11	Net Capital Expenses	$ 12,861,600	$ 4,943,400	$ 4,462,500	$ 1,984,700	$ 109,300	$ 0	$ 1,361,700
12	Proxy for Allocation of Capital Costs (%)		38.4%	34.7%	15.4%	0.8%	0.0%	10.6%

Table 3-11
FY 2021 Units of Service (Potable Water and Non-Potable Water)

Line No.	Description	Consumption		Maximum Day			Maximum Hour			Meters	Cust/Bills	Fire Protection
		Annual	Avg. Day	Factor	Total	Extra	Factor	Total	Extra			
	Column Reference	(1)	(2)=(1)/365	(3)	(4)=(2)x(3)	(5)=(4)-(2)	(6)	(7)=(2)x(6)	(8)=(7)-(4)	(9)	(10)	(11)
	Units of Measure	(HCF)	(HCF/day)		(HCF/day)	(HCF/day)		(HCF/day)	(HCF/day)	(EMs)	(bills)	(EHs)
	Potable Water											
1	Group 1	11,326	31	451%	140	109	602%	187	47	236	192	0
2	Group 2	2,005,067	5,493	292%	16,041	10,547	390%	21,424	5,383	13,324	87,300	0
3	Group 3	1,161,310	3,182	321%	10,213	7,031	427%	13,586	3,373	4,181	8,892	0
4	Subtotal	3,177,702	8,706		26,394	17,688		35,197	8,803	17,741	96,384	
	Potable Fire Service											
5	Public Fire	0	0		430	430		5,166	4,735	0	0	1,083
6	Fire Service (PP5)	0	0		51	51		609	559	5,258	1,140	128
7	Subtotal	0	0		481	481		5,775	5,294	5,258	1,140	1,211
8	Total Potable Water System	3,177,702	8,706		26,875	18,169		40,972	14,097	22,999	97,524	1,211
	Non-Potable Water											
9	Group 4	1,544,202	4,231	297%	12,565	8,334	356%	15,061	2,496	1,800	3,912	0
10	Group 6	377,665	1,035	320%	3,311	2,276	384%	3,973	662	639	336	0
11	Subtotal	1,921,867	5,265		15,876	10,611		19,035	3,158	2,439	4,248	-
12	Total Non-Potable Water System	1,921,867	5,265		15,876	10,611		19,035	3,158	2,439	4,248	-

Table 3-12
FY 2021 Units Cost of Service (Potable Water)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Common to All Customers							
			Base	Extra Capacity		Customer		Fire	Water	Debt
Line No.	Description	Total Costs	Base	Max. Day	Max. Hour	Meters	Cust/Bill.	Protection	Production	Service
		($)	($)	($)	($)	($)	($)	($)		
	Potable Water - Unit Cost of Service									
1	Net Operating Expense (Per Table 3-4)	12,236,400	9,074,700	1,320,600	243,800	262,600	346,600	129,300	858,800	0
2	Debt Service	827,300	558,400	0	0	0	0	0	0	268,900
3	Capital Costs	1,500,000	775,800	487,700	79,000	75,000	0	63,900	18,600	0
4	Total Cost of Service	$ 14,563,700	$ 10,408,900	$ 1,808,300	$ 322,800	$ 337,600	$ 346,600	$ 193,200	$ 877,400	$ 268,900
5	Units of Service (Per Table 3-11)		3,177,702	18,169	14,097	22,999	97,524	1,211	17,741	17,741
6	Units of Measure		HCF	HCF/Day	HCF/Day	Eq. Meter	Bill	Eq. Hydrant	Eq. Meter	Eq. Meter
7	Cost per Unit (Line 4 / Line 5)		$ 3.28	$ 99.53	$ 22.90	$ 14.68	$ 3.55	$ 159.57	$ 49.46	$ 15.16
8	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	Per Eq. Hydrant	per Eq. Meter	per Eq. Meter

Table 3-13
FY 2021 Distribution of Costs to Customer Classes (Potable Water)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Common to All Customers							
			Base	Extra Capacity		Customer		Fire	Water	Debt
Line No.	Description	Total Costs	Base	Max. Day	Max. Hour	Meters	Cust/Bill.	Protection	Production [1]	Service [1]
		($)	($)	($)	($)	($)	($)	($)		
1	Cost per Unit (Per Table 3-12)		$ 3.28	$ 99.53	$ 22.90	$ 14.68	$ 3.55	$ 159.57	$ 49.46	$ 15.16
2	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	Per Eq. Hydrant	per Eq. Meter	per Eq. Meter
	Potable Water									
	Group 1									
3	Units		11,326	109	47	236	192	0	236	236
4	Allocation of costs of service	68,500	37,100	10,800	1,100	3,500	700	0	11,700	3,600
	Group 2									
5	Units		2,005,067	10,547	5,383	13,324	87,300	0	13,324	13,324
6	Allocation of costs of service	9,107,700	6,567,800	1,049,700	123,300	195,600	310,300	0	659,000	202,000
	Group 3									
7	Units		1,161,310	7,031	3,373	4,181	8,892	0	4,181	4,181
8	Allocation of costs of service	4,943,900	3,804,000	699,900	77,200	61,300	31,500	0	206,700	63,300
	Public Fire									
9	Units		0	430	4,735	0	0	1,083	0	0
10	Allocation of costs of service	324,000	0	42,800	108,400	0	0	172,800	0	0
	Fire Service (PP5)									
11	Units		0	51	559	5,258	1,140	128	0	0
12	Allocation of costs of service	119,600	0	5,100	12,800	77,200	4,100	20,400	0	0
13	TOTAL COSTS OF SERVICE	$ 14,563,700	$ 10,408,900	$ 1,808,300	$ 322,800	$ 337,600	$ 346,600	$ 193,200	$ 877,400	$ 268,900
	Reference for Table 4-9.									
	Group 2 Tier 1									
14	Units			4,149	2,286					
15	Allocation of costs of service	465,300		413,000	52,300					
	Group 2 Tier 2									
16	Units			6,402	3,097					
17	Allocation of costs of service	708,000		637,100	70,900					

[1] Units for Water Production and Debt Service are equivalent Meters units as the allocation is based on Equivalent Meters. The exception is that Water Production and Debt Service have no Fire Service Allocation thus no units.

Table 3-14
FY 2021 Units Cost of Service (Non-Potable Water)

Line No.	Description	Total Costs	Common to All Customers					Blended Agricultural	Debt Service
			Base	Extra Capacity		Customer			
			Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		($)	($)	($)	($)	($)	($)	($)	($)
	Non-Potable Water - Unit Cost of Service								
1	Net Operating Expense (Per Table 3-8)	3,826,400	1,535,100	786,300	546,500	122,900	143,700	691,900	0
2	Debt Service	30,800	24,600	0	0	0	0	0	6,200
3	Capital Costs	1,000,000	384,300	347,000	154,300	8,500	0	105,900	0
4	Total Cost of Service	$ 4,857,200	$ 1,944,000	$ 1,133,300	$ 700,800	$ 131,400	$ 143,700	$ 797,800	$ 6,200
5	Units of Service (Per Table 3-11)		1,544,202	10,611	3,158	2,439	4,248	377,665	2,439
6	Units of Measure		HCF	HCF/Day	HCF/Day	Eq. Meter	Bill	HCF	Eq. Meter
7	Cost per Unit (Line 4 / Line 5)		$ 1.26	$ 106.81	$ 221.89	$ 53.88	$ 33.83	$ 2.11	$ 2.54
8	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	per HCF	per Eq. Meter

Table 3-15
FY 2021 Distribution of Costs to Customer Classes (Non-Potable Water)

Line No.	Description	Total Costs	Common to All Customers					Blended Agricultural	Debt Service [2]
			Base	Extra Capacity		Customer			
			Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		($)	($)	($)	($)	($)	($)	($)	
1	Cost per Unit (Per Table 3-14)		$ 1.26	$ 106.81	$ 221.89	$ 53.88	$ 33.83	$ 2.11	$ 2.54
2	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	per HCF	per Eq. Meter
	Non-Potable Water								
	Group 4								
3	Units		1,544,202	8,334	2,496	1,800	3,912	0	1,800
4	Allocation of costs of service	3,622,000	1,944,000	890,200	553,900	97,000	132,300	0	4,600
	Group 6 [1]								
5	Units		0	2,276	662	639	336	377,665	639
6	Allocation of costs of service	1,235,200	0	243,100	146,900	34,400	11,400	797,800	1,600
7	TOTAL COSTS OF SERVICE	$ 4,857,200	$ 1,944,000	$ 1,133,300	$ 700,800	$ 131,400	$ 143,700	$ 797,800	$ 6,200

[1] Base costs associated with Group 6 are different from other customer classes, therefore direct assignment for base is shown in Column 7.
[2] Units for Debt Service are equivalent Meters units as the allocation is based on Equivalent Meters.

Table 3-16
FY 2021 Cost of Service by Customer Class Summary

Line No.	Description	(1) Cost of Service [1]	(2) Re-Allocation of Public Fire Protection [2]	(3) Adjusted Cost of Service
		($)	($)	($)
	Potable and Non-Potable Water Customers			
1	Group 1	68,500	1,600	70,100
2	Group 2	9,107,700	209,000	9,316,700
3	Group 3	4,943,900	113,400	5,057,300
4	Group 4	3,622,000		3,622,000
5	Group 6	1,235,200		1,235,200
6	Subtotal	18,977,300	324,000	19,301,300
7	Public Fire	324,000	(324,000)	0
8	PP5 Fire Service	119,600		119,600
9	Subtotal	443,600	(324,000)	119,600
10	**Total Water System**	**$ 19,420,900**	**$ 0**	**$ 19,420,900**

[1] Cost of service values from Tables 3-13 and 3-15
[2] Public fire protection costs re-allocated based on proportionate share of costs for Groups 1, 2 &3.
For example, Group 1's porportionate share = Line 9 * Line 1 / (Line 1 + Line 2 + Line 3)
Group 1's share = $324,000 * $68,500 / ($68,500 + $9,107,700 + $4,943,900)

Table 4-1
FY 2021 Costs within the Monthly Service Charge

Customer Class	Meters Svcs, Public Fire Protection & Billing, Debt Svc							Total Service Charge
	Meters Unit Cost [1]	Fire Unit Cost [2]	Water Production [3]	Debt Unit Cost [4]	Ratio*	Billing Unit Cost [5]	Ratio*	
	per EM	per EM	per EM	per EM		per Bill		$/month
Potable Water								
Master Metered	1.54	1.52	4.12	1.47	0.25	4.82	0.85	6.21
3/4"	1.54	1.52	4.12	1.47	1.00	4.82	1.00	13.26
1"	1.54	1.52	4.12	1.47	2.11	4.82	1.00	22.63
1.5"	1.54	1.52	4.12	1.47	4.88	4.82	1.00	46.02
2"	1.54	1.52	4.12	1.47	8.22	4.82	1.00	74.22
3"	1.54	1.52	4.12	1.47	18.80	4.82	1.00	163.54
4"	1.54	1.52	4.12	1.47	32.69	4.82	1.00	280.82
6"	1.54	1.52	4.12	1.47	49.38	4.82	1.00	421.73
8"	1.54	1.52	4.12	1.47	82.74	4.82	1.00	703.38

* Ratio is based on equivalent meters. Bill ratios are typically 1.0 except for master metered.
[1] Meter unit cost = (Table 3-12, Column 5, Line 4 + Table 3-14, Column 5, Line 4) / (Table 3-12, Column 5, Line 5 + Table 3-14, Column 5, Line 5) / 12 = ($337,600 + $131,400) /(22,999 + 2,439) /12
[2] Fire unit cost = (Table 3-13, Column 1, Line 10) / (Table 3-11, Column 9, Line 4) / 12 = $324,000 / 17,741
[3] Water Production unit cost = (Table 3-12, Column 8, Line 7) / 12 = $49.46 / 12
[4] Debt unit cost = (Table 3-12, Column 9, Line 7) / 12 = ($15.16) / 12
[5] Billing unit cost = (Table 3-12, Column 6, Line 4 + Table 3-14, Column 6, Line 4) /(Table 3-12, Column 6, Line 5 + Table 3-14, Column 6, Line 5) / 12 = ($346,600 + $143,700) / (97,524 + 4,248) / 12

Customer Class	Meters Svcs, Public Fire Protection & Billing, Debt Svc						Total Service Charge
	Meters Unit Cost [1]	Fire Unit Cost [2]	Debt Unit Cost [4]	Ratio*	Billing Unit Cost [5]	Ratio*	
	per EM	per EM	per EM		per Bill		$/month
Non-Potable Water							
Master Metered	1.54	1.52	0.21	0.25	4.82	0.85	4.91
3/4"	1.54	1.52	0.21	1.00	4.82	1.00	8.09
1"	1.54	1.52	0.21	2.11	4.82	1.00	11.72
1.5"	1.54	1.52	0.21	4.88	4.82	1.00	20.78
2"	1.54	1.52	0.21	8.22	4.82	1.00	31.70
3"	1.54	1.52	0.21	18.80	4.82	1.00	66.30
4"	1.54	1.52	0.21	32.69	4.82	1.00	111.72
6"	1.54	1.52	0.21	49.38	4.82	1.00	166.30
8"	1.54	1.52	0.21	82.74	4.82	1.00	275.39

* Ratio is based on equivalent meters. Bill ratios are typically 1.0 except for master metered.
[1] Meter unit cost = (Table 3-12, Column 5, Line 4 + Table 3-14, Column 5, Line 4) / (Table 3-12, Column 5, Line 5 + Table 3-14, Column 5, Line 5) / 12 = ($337,600 + $131,400) /(22,999 + 2,439) /12
[2] Fire unit cost = (Table 3-13, Column 1, Line 10) / (Table 3-11, Column 9, Line 4) / 12 = $324,000 / 17,741
[4] Debt unit cost = (Table 3-14, Column 8, Line 7) / 12 = $1,600.00 / 12
[5] Billing unit cost = (Table 3-12, Column 6, Line 4 + Table 3-14, Column 6, Line 4) /(Table 3-12, Column 6, Line 5 + Table 3-14, Column 6, Line 5) / 12 = ($346,600 + $143,700) / (97,524 + 4,248) / 12

Table 4-2
Proposed Multi-Year Monthly Service Charge

Customer Class	Monthly Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Potable Water						
Master Metered [1]	6.55	6.21	6.19	6.21	6.35	6.57
3/4"	13.64	12.79	12.77	13.26	13.58	14.08
1"	22.72	21.41	21.40	22.63	23.19	24.06
1.5"	45.46	42.94	42.93	46.02	47.17	48.96
2"	72.73	68.89	68.89	74.22	76.09	78.99
3"	159.09	151.09	151.12	163.54	167.68	174.10
4"	272.73	259.02	259.09	280.82	287.92	298.98
6"	409.10	388.69	388.81	421.73	432.41	449.02
8"	681.83	647.90	648.11	703.38	721.21	748.93

[1] Master Metered accounts are charged on a per unit basis rather than meter size.

Customer Class	Monthly Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Non-Potable Water						
Master Metered [1]	0	4.89	4.88	4.91	5.02	5.20
3/4"	0	7.51	7.52	8.09	8.28	8.60
1"	0	10.28	10.32	11.72	12.00	12.51
1.5"	0	17.19	17.30	20.78	21.29	22.25
2"	0	25.52	25.72	31.70	32.48	33.99
3"	0	51.90	52.40	66.30	67.95	71.19
4"	0	86.54	87.43	111.72	114.51	120.02
6"	0	128.16	129.51	166.30	170.47	178.70
8"	0	211.35	213.63	275.39	282.30	295.99

[1] Master Metered accounts are charged on a per unit basis rather than meter size.

Table 4-3
FY 2021 Costs within the Fire Service Charge

Customer Class	Private Fire Protection		Total Service Charge
	Fire Unit Cost	Ratio	
	per EM		$/month
Fire Service			
4"	1.90	32.7	61.96
6"	1.90	49.4	93.60
8"	1.90	82.7	156.84
10"	1.90	220.0	417.02

Table 4-4
Proposed Multi-Year Fire Service Charge

Customer Class	Fire Service Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Fire Service						
4"	51.45	51.03	51.65	61.96	63.93	67.46
6"	102.86	77.09	78.03	93.60	96.58	101.90
8"	185.17	129.17	130.74	156.84	161.82	170.74
10"	308.69	343.45	347.63	417.02	430.27	453.98

Table 4-5
FY 2021 Water Supply Unit Costs

Description	Production Allocation*	Production Costs	Total Volume	Supply Unit Costs
	%	$	HCF	$/HCF
Water Source				
Calleguas Municipal Water District	52%	6,069,669	1,652,405	$ 3.67
Groundwater	48%	501,531	1,525,297	0.33
Subtotal	100%	$ 6,571,200	3,177,702	
Weighted Average Costs				$ 2.07

* The production costs come from Table 3-4, Column 2, Line 2 & 3.

Table 4-6
FY 2021 Water Sold by Customer Class

Description	Group 1	Group 2 Tier 1	Group 2 Tier 2	Group 3	Total Volume
Total Usage	11,326	988,355	1,016,712	1,161,310	3,177,703
% of Usage	0.4%	31.1%	32.0%	36.5%	100.0%

Table 4-7
FY 2021 Water Supply Unit Costs by Customer Class

Description	Supply Unit Costs	Group 1	Group 2 Tier 1	Group 2 Tier 2	Group 3	Total Volume
		HCF	HCF	HCF	HCF	HCF
Water Source						
Calleguas Municipal Water District	$ 3.67	10,193	474,410	545,136	622,666	1,652,406
Groundwater	0.33	1,133	513,945	471,576	538,644	1,525,297
Subtotal		11,326	988,355	1,016,712	1,161,310	3,177,703
Weighted Average Unit Costs	$ 2.07	$ 3.34	$ 1.93	$ 2.12	$ 2.12	

Table 4-8
FY 2021 Water Delivery Unit Costs

Description	Delivery Unit Rate	
	$	
	Group 1-3	
Base Costs	$10,408,900	(from Table 3-12, Line 4, Column 2)
Less Water Supply Cost	(6,571,200)	(from Table 3-4, Line 2+Line 3 in Column 2)
Subtotal	$3,837,700	
Water Supply (HCF)	3,177,702	
Unit Costs	$1.21	

Description	Delivery Unit Rate	Delivery Unit Rate	
	$	$	
	Group 4	Group 6	
Base Costs	$1,944,000	$797,800	(from Table 3-14, Line 4, Column 2 & 7)
Less Water Supply Cost	(1,099,800)	(853,400)	(from Table 3-8, Line 2+Line 3 in Columns 2 & 7)
Subtotal	$844,200	($55,600)	
Water Supply (HCF)	1,544,202	377,665	
Unit Costs	$0.55	($0.15)	

Note: Group 6 is negative because the offsets in shown in Table 3-8, Line 15 and 16 are all applied to delivery.

Table 4-9
FY 2021 Common Water Peaking Unit Costs

Description	Peaking Costs [1]	Usage	Peaking Unit Rate
	$	HCF	$/HCF
Customer Class			
Group 1	11,900	11,326	$ 1.05
Group 2 Tier 1	465,300	988,355	0.47
Group 2 Tier 2 and Group 3	1,485,100	2,178,022	0.68
Subtotal	$ 1,962,300	3,177,703	

[1] Peaking costs derived in Table 3-13.

Description	Peaking Costs [1]	Usage	Peaking Unit Rate
	$	HCF	$/HCF
Customer Class			
Group 4	1,444,100	1,544,202	0.94
Group 6	390,000	377,665	1.03
Subtotal	$ 1,834,100	1,921,867	

[1] Peaking costs derived in Table 3-15.

Table 4-10
FY 2021 Individual Potable Water Unit Costs

Description	(1) Supply Unit Rate	(2) Delivery Unit Rate	(3) Peaking Unit Rate	(4) Total Unit Rate
	$/HCF	$/HCF	$/HCF	$/HCF
Customer Class				
Group 1	$ 3.34	$ 1.21	$ 1.05	$ 5.60
Group 2 Tier 1	1.93	1.21	0.47	3.61
Group 2 Tier 2 and Group 3	2.12	1.21	0.68	4.01

Table 4-11
FY 2021 Individual Potable Water Unit Costs

	(1)	(2)	(3)	(4)
Description	Supply Unit Rate [1]	Delivery Unit Rate [2]	Peaking Unit Rate	Total Unit Rate
	$/HCF	$/HCF	$/HCF	$/HCF
Customer Class				
Group 4	$ 0.71	$0.55	$ 0.94	$ 1.48
Group 6	2.26	(0.15)	1.03	0.89

[1] Supply Unit Costs is derived from Table 3-8, Line 2+Line 3 in Columns 2 for Group 4 and Column 7 for Group 6 divided by their respective volumes seen in Table 3-11, Column 1.

Table 4-12
Proposed Multi-Year Commodity Charges

	Commodity Charge					
	Existing	Proposed				
Customer Class	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/HCF	$/HCF	$/HCF	$/HCF	$/HCF	$/HCF
Potable Water						
Residential and Master Meter						
Tier 1 - First 12 Units	3.08	3.28	3.47	3.61	3.81	4.01
Tier 2 - 13 Units and Higher	3.34	3.65	3.82	4.01	4.22	4.45
Commercial/Industrial and Public	3.34	3.65	3.82	4.01	4.22	4.45
Municipal Irrigation	3.34	3.65	3.82	4.01	4.22	4.45
Other	3.34	3.65	3.82	4.01	4.22	4.45
Agricultural Irrigation, Domestic Ag	3.34	3.65	3.82	4.01	4.22	4.45
Temp Construction and Temp Agricult	3.34	4.91	5.29	5.60	5.88	6.17
Temporary Municipal	4.08	4.91	5.29	5.60	5.88	6.17
Emergency Water Service	5.05	4.91	5.29	5.60	5.88	6.17
Surplus Water (Served Outside District)	3.50	4.91	5.29	5.60	5.88	6.17
Non-Potable Water						
Non-Potable Irrigation Water	1.64	1.92	2.08	2.19	2.40	2.59
Blended Non-Potable Agricultural	2.88	2.46	2.70	3.15	3.36	3.67
Non-Potable Residential Landscape (SR	1.64	1.92	2.08	2.19	2.40	2.59
Recycled Landscape Irrigation	1.64	1.92	2.08	2.19	2.40	2.59
Outside District)	1.64	1.92	2.08	2.19	2.40	2.59

Camrosa Water District
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Table 3-1
FY 2022 Cost of Service Revenue from Rates (Potable Water)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expenses	5,244,700	0	5,244,700
2	Water Supply	8,068,300	0	8,068,300
3	Debt Service	0	830,200	830,200
4	Transfer to Capital Replacement		1,500,000	1,500,000
5	Transfer to Rate Stabilization	310,000		310,000
6	Subtotal	13,623,000	2,330,200	15,953,200
	Less Revenue Requirements Met from Other Sources			
7	Other Operating Revenue	(63,800)	0	(63,800)
8	Other Non-Operating Revenue	(392,600)	0	(392,600)
9	Subtotal	(456,400)	0	(456,400)
	Adjustments			
10	Adjustment for Annual Cash Balance	(205,000)	0	(205,000)
11	Adjustment to Annualize Rate Increa	0	0	0
12	Subtotal	(205,000)	0	(205,000)
13	Cost of Service to be Recovered from R	$ 12,961,600	$ 2,330,200	$ 15,291,800

Table 3-2
FY 2022 Cost of Service Revenue from Rates (Non-Potable Water)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expenses	2,636,900	0	2,636,900
2	Water Supply	2,647,900	0	2,647,900
3	Debt Service	0	30,900	30,900
4	Transfer to Capital Replacement		1,500,000	1,500,000
5	Transfer to Rate Stabilization	90,000		90,000
6	Subtotal	5,374,800	1,530,900	6,905,700
	Less Revenue Requirements Met from Other Sources			
7	PVCWD Revenue	(704,700)	0	(704,700)
8	Other Operating Revenue	(638,500)	0	(638,500)
9	Other Non-Operating Revenue	(227,400)	0	(227,400)
10	Subtotal	(1,570,600)	0	(1,570,600)
	Adjustments			
11	Adjustment for Annual Cash Balance	(84,400)	0	(84,400)
12	Adjustment to Annualize Rate Increa	(100)	0	(100)
13	Subtotal	(84,500)	0	(84,500)
14	Cost of Service to be Recovered from R	$ 3,719,700	$ 1,530,900	$ 5,250,600

Table 3-3
FY 2022 Allocation of O&M Expenditures (Potable Water)

Line No.	Description	Common to All Customers					Fire Protection	Water Production	Allocation Basis
		Base	Extra Capacity		Customer				
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	
	Operating Expenses								
1	Production								
2	Water Purchase	87.68%	0.00%	0.00%	0.00%	0.00%	0.00%	12.32%	[1]
3	Production Power	87.68%	0.00%	0.00%	0.00%	0.00%	0.00%	12.32%	[1]
4	Salaries and Benefits	30.30%	28.20%	11.10%	7.60%	19.80%	3.00%	0.00%	[2]
5	Contracts & Professional Services								
6	Outside Contracts	73.90%	16.80%	6.30%	0.00%	0.00%	3.00%	0.00%	[2]
7	Professional Services	73.90%	16.80%	6.30%	0.00%	0.00%	3.00%	0.00%	[2]
8	Services & Supplies	62.86%	4.09%	0.00%	29.99%	0.00%	3.06%	0.00%	[2]
9	Utilities	88.00%	9.00%	0.00%	0.00%	0.00%	3.00%	0.00%	[2]
10	Pipeline Repairs	27.70%	25.70%	4.80%	38.80%	0.00%	3.00%	0.00%	[2]
11	Materials & Supplies	50.70%	46.00%	0.00%	0.30%	0.00%	3.00%	0.00%	[2]
12	Repair Parts & Equipment Maint	50.70%	46.00%	0.00%	0.30%	0.00%	3.00%	0.00%	[2]
13	Transfers	87.68%	0.00%	0.00%	0.00%	0.00%	0.00%	12.32%	[1]

[1] Fixed/Variable Import Water Charges
[2] Allocations are based on actual costs for FY 2017. See Appendix A for more details.

Table 3-4
FY 2022 Allocation of $ O&M Expenditures (Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production
		($)	($)	($)	($)	($)	($)	($)	($)
	Operating Expenses								
1	Production								
2	Water Purchase	7,459,900	6,540,700	0	0	0	0	0	919,200
3	Production Power	608,400	306,100	284,000	0	0	0	18,300	0
4	Salaries and Benefits	1,936,000	586,600	546,000	214,900	147,100	383,300	58,100	0
5	Contracts & Professional Services								
6	Outside Contracts	569,400	420,700	95,700	35,900	0	0	17,100	0
7	Professional Services	178,600	131,900	30,000	11,300	0	0	5,400	0
8	Services & Supplies	281,400	176,900	11,500	0	84,400	0	8,600	0
9	Utilities	56,700	49,900	5,100	0	0	0	1,700	0
10	Pipeline Repairs	142,000	39,300	36,500	6,800	55,100	0	4,300	0
11	Materials & Supplies	444,100	225,200	204,300	0	1,300	0	13,300	0
12	Repair Parts & Equipment Maint	520,600	263,900	239,500	0	1,600	0	15,600	0
13	Transfers	310,000	271,800	0	0	0	0	0	38,200
14	Total O&M Expenses	$ 12,507,100	$ 9,013,000	$ 1,452,600	$ 268,900	$ 289,500	$ 383,300	$ 142,400	$ 957,400
	Less Other Revenue								
15	Miscellaneous Revenues	456,400	328,900	53,000	9,800	10,600	14,000	5,200	34,900
16	Other Adjustments	205,000	147,800	23,800	4,400	4,700	6,300	2,300	15,700
17	Net Operating Expenses	$ 11,845,700	$ 8,536,300	$ 1,375,800	$ 254,700	$ 274,200	$ 363,000	$ 134,900	$ 906,800

Table 3-5
FY 2022 Allocation of Capital Costs (Potable Water)

Line No.	Description	Common to All Customers					Fire Protection	Water Production	Allocation Basis
		Base	Extra Capacity		Customer				
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	
	Plant Assets								
1	Water Production	87.68%	0.00%	0.00%	0.00%	0.00%	0.00%	12.32%	[1]
2	Pumping	87.68%	0.00%	0.00%	0.00%	0.00%	0.00%	12.32%	[1]
3	Treatment	50.31%	46.69%	0.00%	0.00%	0.00%	3.00%	0.00%	[2]
4	Transmission & Distribution	42.18%	39.16%	15.67%	0.00%	0.00%	3.00%	0.00%	[3]
5	Meters	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	[4]
6	Fire Hydrants	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	[5]
7	Land	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	[6]
8	General Plant	46.33%	32.51%	5.27%	10.40%	0.00%	4.26%	1.23%	[7]

[1] Fixed/Variable Import Water Charges
[2] Base/Max Day (adj for Fire)
[3] Base/Max Hour/Max Day (adj for Fire)
[4] Meters
[5] Fire Hydrants
[6] Base
[7] Average of above

Table 3-6
FY 2022 Allocation of $ Capital Costs (Potable Water)

Line No.	Description	(1) Total Costs (Net Book Value)	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production
		($)	($)	($)	($)	($)	($)	($)	($)
	Plant Assets								
1	Water Production	1,638,500	1,436,600	0	0	0	0	0	201,900
2	Pumping	600,900	526,900	0	0	0	0	0	74,000
3	Treatment	9,263,500	4,660,800	4,324,800	0	0	0	277,900	0
4	Transmission & Distribution	7,512,100	3,168,400	2,941,400	1,176,900	0	0	225,400	0
5	Meters	2,324,300	0	0	0	2,324,300	0	0	0
6	Fire Hydrants	449,100	0	0	0	0	0	449,100	0
7	Land	560,500	560,500	0	0	0	0	0	0
8	General Plant	477,900	221,300	155,400	25,200	49,700	0	20,400	5,900
9	Total Plant Assets	$ 22,826,800	$ 10,574,500	$ 7,421,600	$ 1,202,100	$ 2,374,000	$ 0	$ 972,800	$ 281,800
	Less Other Revenue								
10	Miscellaneous Revenues	0	0	0	0	0	0	0	0
11	Other Adjustments	0	0	0	0	0	0	0	0
12	Net Capital Expenses	$ 22,826,800	$ 10,574,500	$ 7,421,600	$ 1,202,100	$ 2,374,000	$ 0	$ 972,800	$ 281,800
13	Proxy for Allocation of Capital Costs (%)		46.3%	32.5%	5.3%	10.4%	0.0%	4.3%	1.2%

Table 3-7
FY 2022 Allocation of O&M Expenditures (Non-Potable Water)

Line No.	Description	Common to All Customers					Blended Agricultural	Allocation Basis
		Base	Extra Capacity		Customer			
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(%)	(%)	(%)	(%)	(%)	(%)	
	Operating Expenses							
1	Production							
2	Water Purchase	44.07%	0.00%	0.00%	0.00%	0.00%	55.93%	[1]
3	Production Power	43.95%	53.05%	0.00%	0.00%	0.00%	3.00%	[2]
4	Salaries and Benefits	15.50%	18.80%	35.30%	7.60%	19.80%	3.00%	[3]
5	Contracts & Professional Services							
6	Outside Contracts	22.60%	25.40%	47.40%	1.60%	0.00%	3.00%	[3]
7	Professional Services	22.60%	25.40%	47.40%	1.60%	0.00%	3.00%	[3]
8	Services & Supplies	46.10%	9.10%	1.35%	40.44%	0.00%	3.01%	[3]
9	Utilities	97.00%	0.00%	0.00%	0.00%	0.00%	3.00%	[3]
10	Pipeline Repairs	27.70%	33.40%	26.50%	9.40%	0.00%	3.00%	[3]
11	Materials & Supplies	28.50%	34.20%	32.80%	1.50%	0.00%	3.00%	[3]
12	Repair Parts & Equipment Mainte	28.50%	34.20%	32.80%	1.50%	0.00%	3.00%	[3]
13	Transfers	44.07%	0.00%	0.00%	0.00%	0.00%	55.93%	[1]

[1] Fixed/Variable Import Water Charges
[2] Max Day/Base (adj for Blended Ag)
[3] Allocations are based on actual costs for FY 2017. See Appendix A for more details.

Table 3-8
FY 2022 Allocation of $ O&M Expenditures (Non-Potable Water)

Line No.	Description	Total Costs	Common to All Customers					Blended Agricultural
			Base	Extra Capacity		Customer		
			Base	Max. Day	Max. Hour	Meters	Cust/Bill.	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
		($)	($)	($)	($)	($)	($)	($)
	Operating Expenses							
1	Production							
2	Water Purchase	1,490,000	656,700	0	0	0	0	833,300
3	Production Power	1,157,900	487,300	614,200	0	0	0	56,400
4	Salaries and Benefits	1,042,400	161,500	196,000	368,000	79,200	206,400	31,300
5	Contracts & Professional Services							
6	Outside Contracts	323,400	73,100	82,100	153,300	5,200	0	9,700
7	Professional Services	175,100	39,500	44,500	83,000	2,800	0	5,300
8	Services & Supplies	192,400	88,700	17,500	2,600	77,800	0	5,800
9	Utilities	9,900	9,600	0	0	0	0	300
10	Pipeline Repairs	35,000	9,600	11,700	9,300	3,300	0	1,100
11	Materials & Supplies	88,300	25,200	30,200	29,000	1,300	0	2,600
12	Repair Parts & Equipment Mainter	410,900	117,100	140,500	134,800	6,200	0	12,300
13	Transfers	90,000	39,700	0	0	0	0	50,300
14	Total O&M Expenses	$ 5,015,300	$ 1,708,000	$ 1,136,700	$ 780,000	$ 175,800	$ 206,400	$ 1,008,400
	Less Other Revenue							
15	Miscellaneous Revenues	1,570,600	534,800	356,000	244,300	55,100	64,600	315,800
16	Other Adjustments	84,500	28,700	19,200	13,100	3,000	3,500	17,000
17	Net Operating Expenses	$ 3,360,200	$ 1,144,500	$ 761,500	$ 522,600	$ 117,700	$ 138,300	$ 675,600

Table 3-9
FY 2022 Allocation of Capital Costs (Non-Potable Water)

Line No.	Description	Common to All Customers					Blended Agricultural	Allocation Basis
		Base	Extra Capacity		Customer			
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(%)	(%)	(%)	(%)	(%)	(%)	
	Plant Assets							
1	Water Production	44.1%	0.0%	0.0%	0.0%	0.0%	55.9%	[1]
2	Pumping	44.1%	0.0%	0.0%	0.0%	0.0%	55.9%	[1]
3	Treatment	44.0%	53.0%	0.0%	0.0%	0.0%	3.0%	[2]
4	Transmission & Distribution	21.7%	26.3%	49.0%	0.0%	0.0%	3.0%	[3]
5	Meters	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	[4]
6	Land	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	[5]
7	General Plant	38.4%	34.7%	15.4%	0.8%	0.0%	10.6%	[6]

[1] Fixed/Variable Import Water Charges
[2] Base/Max Day (adj for Blended Ag)
[3] Base/Max Hour/Max Day (adj for Blended Ag)
[4] Meters
[5] Base
[6] Average of above

Table 3-10
FY 2022 Allocation of $ Capital Costs (Non-Potable Water)

Line No.	Description	(1) Total Costs (Net Book Value)	(2) Common to All Customers – Base – Base	(3) Common to All Customers – Extra Capacity – Max. Day	(4) Common to All Customers – Extra Capacity – Max. Hour	(5) Customer – Meters	(6) Customer – Cust/Bill.	(7) Blended Agricultural
		($)	($)	($)	($)	($)	($)	($)
	Plant Assets							
1	Water Production	1,708,500	753,000	0	0	0	0	955,500
2	Pumping	141,600	62,400	0	0	0	0	79,200
3	Treatment	6,294,700	2,766,800	3,339,100	0	0	0	188,800
4	Transmission & Distribution	3,979,600	864,700	1,045,500	1,950,000	0	0	119,400
5	Meters	107,400	0	0	0	107,400	0	0
6	Land	405,200	405,200	0	0	0	0	0
7	General Plant	224,600	86,200	77,900	34,700	1,900	0	23,900
8	Total Plant Assets	$ 12,861,600	$ 4,938,300	$ 4,462,500	$ 1,984,700	$ 109,300	$ 0	$ 1,366,800
	Less Other Revenue							
9	Miscellaneous Revenues	0	0	0	0	0	0	0
10	Other Adjustments	0	0	0	0	0	0	0
11	Net Capital Expenses	$ 12,861,600	$ 4,938,300	$ 4,462,500	$ 1,984,700	$ 109,300	$ 0	$ 1,366,800
12	Proxy for Allocation of Capital Costs (%)		38.4%	34.7%	15.4%	0.8%	0.0%	10.6%

Table 3-11
FY 2022 Units of Service (Potable Water and Non-Potable Water)

Line No.	Description	Consumption		Maximum Day			Maximum Hour			Meters	Cust/Bills	Fire Protection
		Annual	Avg. Day	Factor	Total	Extra	Factor	Total	Extra			
	Column Reference	(1)	(2)=(1)/365	(3)	(4)=(2)x(3)	(5)=(4)-(2)	(6)	(7)=(2)x(6)	(8)=(7)-(4)	(9)	(10)	(11)
	Units of Measure	(HCF)	(HCF/day)		(HCF/day)	(HCF/day)		(HCF/day)	(HCF/day)	(EMs)	(bills)	(EHs)
	Potable Water											
1	Group 1	11,326	31	451%	140	109	602%	187	47	236	192	0
2	Group 2	2,005,067	5,493	292%	16,041	10,547	390%	21,424	5,383	13,324	87,300	0
3	Group 3	1,161,310	3,182	321%	10,213	7,031	427%	13,586	3,373	4,181	8,892	0
4	Subtotal	3,177,702	8,706		26,394	17,688		35,197	8,803	17,741	96,384	
	Potable Fire Service											
5	Public Fire	0	0		430	430		5,166	4,735	0	0	1,083
6	Fire Service (PP5)	0	0		51	51		609	559	5,258	1,140	128
7	Subtotal	0	0		481	481		5,775	5,294	5,258	1,140	1,211
8	Total Potable Water System	3,177,702	8,706		26,875	18,169		40,972	14,097	22,999	97,524	1,211
	Non-Potable Water											
9	Group 4	1,544,202	4,231	297%	12,565	8,334	356%	15,061	2,496	1,800	3,912	0
10	Group 6	377,665	1,035	320%	3,311	2,276	384%	3,973	662	639	336	0
11	Subtotal	1,921,867	5,265		15,876	10,611		19,035	3,158	2,439	4,248	-
12	Total Non-Potable Water System	1,921,867	5,265		15,876	10,611		19,035	3,158	2,439	4,248	-

Table 3-12
FY 2022 Units Cost of Service (Potable Water)

Line No.	Description	Total Costs	Common to All Customers					Fire Protection	Water Production	Debt Service
			Base	Extra Capacity		Customer				
			Base	Max. Day	Max. Hour	Meters	Cust/Bill.			
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		($)	($)	($)	($)	($)	($)	($)		
	Potable Water - Unit Cost of Service									
1	Net Operating Expense (Per Table 3-4)	12,961,600	9,652,200	1,375,800	254,700	274,200	363,000	134,900	906,800	0
2	Debt Service	830,200	581,100	0	0	0	0	0	0	249,100
3	Capital Costs	1,500,000	775,900	487,700	79,000	75,000	0	63,900	18,500	0
4	Total Cost of Service	$ 15,291,800	$ 11,009,200	$ 1,863,500	$ 333,700	$ 349,200	$ 363,000	$ 198,800	$ 925,300	$ 249,100
5	Units of Service (Per Table 3-11)		3,177,702	18,169	14,097	22,999	97,524	1,211	17,741	17,741
6	Units of Measure		HCF	HCF/Day	HCF/Day	Eq. Meter	Bill	Eq. Hydrant	Eq. Meter	Eq. Meter
7	Cost per Unit (Line 4 / Line 5)		$ 3.46	$ 102.57	$ 23.67	$ 15.18	$ 3.72	$ 164.19	$ 52.16	$ 14.04
8	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	Per Eq. Hydrant	per Eq. Meter	per Eq. Meter

Table 3-13
FY 2022 Distribution of Costs to Customer Classes (Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production [1]	(9) Debt Service [1]
		($)	($)	($)	($)	($)	($)	($)		
1	Cost per Unit (Per Table 3-12)		$ 3.46	$ 102.57	$ 23.67	$ 15.18	$ 3.72	$ 164.19	$ 52.16	$ 14.04
2	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	Per Eq. Hydrant	per Eq. Meter	per Eq. Meter
	Potable Water									
	Group 1									
3	Units		11,326	109	47	236	192	0	236	236
4	Allocation of costs of service	71,400	39,200	11,200	1,100	3,600	700	0	12,300	3,300
	Group 2									
5	Units		2,005,067	10,547	5,383	13,324	87,300	0	13,324	13,324
6	Allocation of costs of service	9,565,000	6,946,600	1,081,800	127,400	202,300	324,900	0	694,900	187,100
	Group 3									
7	Units		1,161,310	7,031	3,373	4,181	8,892	0	4,181	4,181
8	Allocation of costs of service	5,197,900	4,023,400	721,100	79,900	63,500	33,200	0	218,100	58,700
	Public Fire									
9	Units		0	430	4,735	0	0	1,083	0	0
10	Allocation of costs of service	334,100	0	44,200	112,100	0	0	177,800	0	0
	Fire Service (PP5)									
11	Units		0	51	559	5,258	1,140	128	0	0
12	Allocation of costs of service	123,400	0	5,200	13,200	79,800	4,200	21,000	0	0
13	TOTAL COSTS OF SERVICE	$ 15,291,800	$ 11,009,200	$ 1,863,500	$ 333,700	$ 349,200	$ 363,000	$ 198,800	$ 925,300	$ 249,100
	Reference for Table 4-9.									
	Group 2 Tier 1									
14	Units			4,149	2,286					
15	Allocation of costs of service	479,700		425,600	54,100					
	Group 2 Tier 2									
16	Units			6,402	3,097					
17	Allocation of costs of service	729,900		656,600	73,300					

[1] Units for Water Production and Debt Service are equivalent Meters units as the allocation is based on Equivalent Meters. The exception is that Water Production and Debt Service have no Fire Service Allocation thus no units.

Table 3-14
FY 2022 Units Cost of Service (Non-Potable Water)

Line No.	Description	Total Costs	Common to All Customers					Blended Agricultural	Debt Service
			Base	Extra Capacity		Customer			
			Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		($)	($)	($)	($)	($)	($)	($)	($)
	Non-Potable Water - Unit Cost of Service								
1	Net Operating Expense (Per Table 3-8)	3,719,700	1,504,000	761,500	522,600	117,700	138,300	675,600	0
2	Debt Service	30,900	24,700	0	0	0	0	0	6,200
3	Capital Costs	1,500,000	576,000	520,400	231,500	12,700	0	159,400	0
4	Total Cost of Service	$ 5,250,600	$ 2,104,700	$ 1,281,900	$ 754,100	$ 130,400	$ 138,300	$ 835,000	$ 6,200
5	Units of Service (Per Table 3-11)		1,544,202	10,611	3,158	2,439	4,248	377,665	2,439
6	Units of Measure		HCF	HCF/Day	HCF/Day	Eq. Meter	Bill	HCF	Eq. Meter
7	Cost per Unit (Line 4 / Line 5)		$ 1.36	$ 120.81	$ 238.77	$ 53.47	$ 32.56	$ 2.21	$ 2.54
8	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	per HCF	per Eq. Meter

Table 3-15
FY 2022 Distribution of Costs to Customer Classes (Non-Potable Water)

Line No.	Description	Total Costs	Common to All Customers					Blended Agricultural	Debt Service [2]
			Base	Extra Capacity		Customer			
			Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		($)	($)	($)	($)	($)	($)	($)	
1	Cost per Unit (Per Table 3-14)		$ 1.36	$ 120.81	$ 238.77	$ 53.47	$ 32.56	$ 2.21	$ 2.54
2	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	per HCF	per Eq. Meter
	Non-Potable Water								
	Group 4								
3	Units		1,544,202	8,334	2,496	1,800	3,912	0	1,800
4	Allocation of costs of service	3,935,800	2,104,700	1,006,900	596,000	96,200	127,400	0	4,600
	Group 6 [1]								
5	Units		0	2,276	662	639	336	377,665	639
6	Allocation of costs of service	1,314,800	0	275,000	158,100	34,200	10,900	835,000	1,600
7	TOTAL COSTS OF SERVICE	$ 5,250,600	$ 2,104,700	$ 1,281,900	$ 754,100	$ 130,400	$ 138,300	$ 835,000	$ 6,200

[1] Base costs associated with Group 6 are different from other customer classes, therefore direct assignment for base is shown in Column 7.
[2] Units for Debt Service are equivalent Meters units as the allocation is based on Equivalent Meters.

Table 3-16
FY 2022 Cost of Service by Customer Class Summary

Line No.	Description	(1) Cost of Service [1]	(2) Re-Allocation of Public Fire Protection [2]	(3) Adjusted Cost of Service
		($)	($)	($)
	Potable and Non-Potable Water Customers			
1	Group 1	71,400	1,600	73,000
2	Group 2	9,565,000	215,400	9,780,400
3	Group 3	5,197,900	117,100	5,315,000
4	Group 4	3,935,800		3,935,800
5	Group 6	1,314,800		1,314,800
6	Subtotal	20,084,900	334,100	20,419,000
7	Public Fire	334,100	(334,100)	0
8	PP5 Fire Service	123,400		123,400
9	Subtotal	457,500	(334,100)	123,400
10	**Total Water System**	**$ 20,542,400**	**$ 0**	**$ 20,542,400**

[1] Cost of service values from Tables 3-13 and 3-15
[2] Public fire protection costs re-allocated based on proportionate share of costs for Groups 1, 2 &3.
For example, Group 1's porportionate share = Line 9 * Line 1 / (Line 1 + Line 2 + Line 3)
Group 1's share = $334,100 * $71,400 / ($71,400 + $9,565,000 + $5,197,900)

Table 4-1
FY 2022 Costs within the Monthly Service Charge

Customer Class	Meters Svcs, Public Fire Protection & Billing, Debt Svc							Total Service Charge
	Meters Unit Cost [1]	Fire Unit Cost [2]	Water Production [3]	Debt Unit Cost [4]	Ratio*	Billing Unit Cost [5]	Ratio*	
	per EM	per EM	per EM	per EM		per Bill		$/month
Potable Water								
Master Metered	1.57	1.57	4.35	1.38	0.25	4.93	0.85	6.35
3/4"	1.57	1.57	4.35	1.38	1.00	4.93	1.00	13.58
1"	1.57	1.57	4.35	1.38	2.11	4.93	1.00	23.19
1.5"	1.57	1.57	4.35	1.38	4.88	4.93	1.00	47.17
2"	1.57	1.57	4.35	1.38	8.22	4.93	1.00	76.09
3"	1.57	1.57	4.35	1.38	18.80	4.93	1.00	167.68
4"	1.57	1.57	4.35	1.38	32.69	4.93	1.00	287.92
6"	1.57	1.57	4.35	1.38	49.38	4.93	1.00	432.41
8"	1.57	1.57	4.35	1.38	82.74	4.93	1.00	721.21

* Ratio is based on equivalent meters. Bill ratios are typically 1.0 except for master metered.
[1] Meter unit cost = (Table 3-12, Column 5, Line 4 + Table 3-14, Column 5, Line 4) / (Table 3-12, Column 5, Line 5 + Table 3-14, Column 5, Line 5) / 12 = ($349,200 + $130,400) /(22,999 + 2,439) /12
[2] Fire unit cost = (Table 3-13, Column 1, Line 10) / (Table 3-11, Column 9, Line 4) / 12 = $334,100 / 17,741
[3] Water Production unit cost = (Table 3-12, Column 8, Line 7) / 12 = $52.16 / 12
[4] Debt unit cost = (Table 3-12, Column 9, Line 7) / 12 = ($14.04) / 12
[5] Billing unit cost = (Table 3-12, Column 6, Line 4 + Table 3-14, Column 6, Line 4) /(Table 3-12, Column 6, Line 5 + Table 3-14, Column 6, Line 5) / 12 = ($363,000 + $138,300) / (97,524 + 4,248) / 12

Customer Class	Meters Svcs, Public Fire Protection & Billing, Debt Svc						Total Service Charge
	Meters Unit Cost [1]	Fire Unit Cost [2]	Debt Unit Cost [4]	Ratio*	Billing Unit Cost [5]	Ratio*	
	per EM	per EM	per EM		per Bill		$/month
Non-Potable Water							
Master Metered	1.57	1.57	0.21	0.25	4.93	0.85	5.02
3/4"	1.57	1.57	0.21	1.00	4.93	1.00	8.28
1"	1.57	1.57	0.21	2.11	4.93	1.00	12.00
1.5"	1.57	1.57	0.21	4.88	4.93	1.00	21.29
2"	1.57	1.57	0.21	8.22	4.93	1.00	32.48
3"	1.57	1.57	0.21	18.80	4.93	1.00	67.95
4"	1.57	1.57	0.21	32.69	4.93	1.00	114.51
6"	1.57	1.57	0.21	49.38	4.93	1.00	170.47
8"	1.57	1.57	0.21	82.74	4.93	1.00	282.30

* Ratio is based on equivalent meters. Bill ratios are typically 1.0 except for master metered.
[1] Meter unit cost = (Table 3-12, Column 5, Line 4 + Table 3-14, Column 5, Line 4) / (Table 3-12, Column 5, Line 5 + Table 3-14, Column 5, Line 5) / 12 = ($349,200 + $130,400) /(22,999 + 2,439) /12
[2] Fire unit cost = (Table 3-13, Column 1, Line 10) / (Table 3-11, Column 9, Line 4) / 12 = $334,100 / 17,741
[4] Debt unit cost = (Table 3-14, Column 8, Line 7) / 12 = $1,600.00 / 12
[5] Billing unit cost = (Table 3-12, Column 6, Line 4 + Table 3-14, Column 6, Line 4) /(Table 3-12, Column 6, Line 5 + Table 3-14, Column 6, Line 5) / 12 = ($363,000 + $138,300) / (97,524 + 4,248) / 12

Table 4-2
Proposed Multi-Year Monthly Service Charge

Customer Class	Monthly Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Potable Water						
Master Metered [1]	6.55	6.21	6.19	6.21	6.35	6.57
3/4"	13.64	12.79	12.77	13.26	13.58	14.08
1"	22.72	21.41	21.40	22.63	23.19	24.06
1.5"	45.46	42.94	42.93	46.02	47.17	48.96
2"	72.73	68.89	68.89	74.22	76.09	78.99
3"	159.09	151.09	151.12	163.54	167.68	174.10
4"	272.73	259.02	259.09	280.82	287.92	298.98
6"	409.10	388.69	388.81	421.73	432.41	449.02
8"	681.83	647.90	648.11	703.38	721.21	748.93

[1] Master Metered accounts are charged on a per unit basis rather than meter size.

Customer Class	Monthly Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Non-Potable Water						
Master Metered [1]	0	4.89	4.88	4.91	5.02	5.20
3/4"	0	7.51	7.52	8.09	8.28	8.60
1"	0	10.28	10.32	11.72	12.00	12.51
1.5"	0	17.19	17.30	20.78	21.29	22.25
2"	0	25.52	25.72	31.70	32.48	33.99
3"	0	51.90	52.40	66.30	67.95	71.19
4"	0	86.54	87.43	111.72	114.51	120.02
6"	0	128.16	129.51	166.30	170.47	178.70
8"	0	211.35	213.63	275.39	282.30	295.99

[1] Master Metered accounts are charged on a per unit basis rather than meter size.

Table 4-3
FY 2022 Costs within the Fire Service Charge

Customer Class	Private Fire Protection		Total Service Charge
	Fire Unit Cost	Ratio	
	per EM		$/month
Fire Service			
4"	1.96	32.7	63.93
6"	1.96	49.4	96.58
8"	1.96	82.7	161.82
10"	1.96	220.0	430.27

Table 4-4
Proposed Multi-Year Fire Service Charge

Customer Class	Fire Service Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Fire Service						
4"	51.45	51.03	51.65	61.96	63.93	67.46
6"	102.86	77.09	78.03	93.60	96.58	101.90
8"	185.17	129.17	130.74	156.84	161.82	170.74
10"	308.69	343.45	347.63	417.02	430.27	453.98

Table 4-5
FY 2022 Water Supply Unit Costs

Description	Production Allocation*	Production Costs	Total Volume	Supply Unit Costs
	%	$	HCF	$/HCF
Water Source				
Calleguas Municipal Water District	52%	6,330,509	1,652,405	$ 3.83
Groundwater	48%	516,291	1,525,297	0.34
Subtotal	100%	$ 6,846,800	3,177,702	
Weighted Average Costs				$ 2.15

* The production costs come from Table 3-4, Column 2, Line 2 & 3.

Table 4-6
FY 2022 Water Sold by Customer Class

Description	Group 1	Group 2 Tier 1	Group 2 Tier 2	Group 3	Total Volume
Total Usage	11,326	988,355	1,016,712	1,161,310	3,177,703
% of Usage	0.4%	31.1%	32.0%	36.5%	100.0%

Table 4-7
FY 2022 Water Supply Unit Costs by Customer Class

Description	Supply Unit Costs	Group 1	Group 2 Tier 1	Group 2 Tier 2	Group 3	Total Volume
		HCF	HCF	HCF	HCF	HCF
Water Source						
Calleguas Municipal Water District	$ 3.83	10,193	474,410	545,136	622,666	1,652,406
Groundwater	0.34	1,133	513,945	471,576	538,644	1,525,297
Subtotal		11,326	988,355	1,016,712	1,161,310	3,177,703
Weighted Average Unit Costs	$ 2.15	$ 3.48	$ 2.01	$ 2.21	$ 2.21	

Table 4-8
FY 2022 Water Delivery Unit Costs

Description	Delivery Unit Rate	
	$	
	Group 1-3	
Base Costs	$11,009,200	(from Table 3-12, Line 4, Column 2)
Less Water Supply Cost	(6,846,800)	(from Table 3-4, Line 2+Line 3 in Column 2)
Subtotal	$4,162,400	
Water Supply (HCF)	3,177,702	
Unit Costs	$1.31	

Description	Delivery Unit Rate	Delivery Unit Rate	
	$	$	
	Group 4	Group 6	
Base Costs	$2,104,700	$835,000	(from Table 3-14, Line 4, Column 2 & 7)
Less Water Supply Cost	(1,144,000)	(889,700)	(from Table 3-8, Line 2+Line 3 in Columns 2 & 7)
Subtotal	$960,700	($54,700)	
Water Supply (HCF)	1,544,202	377,665	
Unit Costs	$0.62	($0.14)	

Note: Group 6 is negative because the offsets in shown in Table 3-8, Line 15 and 16 are all applied to delivery.

Table 4-9
FY 2022 Common Water Peaking Unit Costs

Description	Peaking Costs [1]	Usage	Peaking Unit Rate
	$	HCF	$/HCF
Customer Class			
Group 1	12,300	11,326	$ 1.09
Group 2 Tier 1	479,700	988,355	0.49
Group 2 Tier 2 and Group 3	1,530,900	2,178,022	0.70
Subtotal	$ 2,022,900	3,177,703	

[1] Peaking costs derived in Table 3-13.

Description	Peaking Costs [1]	Usage	Peaking Unit Rate
	$	HCF	$/HCF
Customer Class			
Group 4	1,602,900	1,544,202	1.04
Group 6	433,100	377,665	1.15
Subtotal	$ 2,036,000	1,921,867	

[1] Peaking costs derived in Table 3-15.

Table 4-10
FY 2022 Individual Potable Water Unit Costs

	(1)	(2)	(3)	(4)
Description	Supply Unit Rate	Delivery Unit Rate	Peaking Unit Rate	Total Unit Rate
	$/HCF	$/HCF	$/HCF	$/HCF
Customer Class				
Group 1	$ 3.48	$ 1.31	$ 1.09	$ 5.88
Group 2 Tier 1	2.01	1.31	0.49	3.81
Group 2 Tier 2 and Group 3	2.21	1.31	0.70	4.22

Table 4-11
FY 2022 Individual Potable Water Unit Costs

Description	(1) Supply Unit Rate [1]	(2) Delivery Unit Rate [2]	(3) Peaking Unit Rate	(4) Total Unit Rate
	$/HCF	$/HCF	$/HCF	$/HCF
Customer Class				
Group 4	$ 0.74	$0.62	$ 1.04	$ 1.66
Group 6	2.36	(0.14)	1.15	1.00

[1] Supply Unit Costs is derived from Table 3-8, Line 2+Line 3 in Columns 2 for Group 4 and Column 7 for Group 6 divided by their respective volumes seen in Table 3-11, Column 1.

Table 4-12
Proposed Multi-Year Commodity Charges

Customer Class	Commodity Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/HCF	$/HCF	$/HCF	$/HCF	$/HCF	$/HCF
Potable Water						
Residential and Master Meter						
Tier 1 - First 12 Units	3.08	3.28	3.47	3.61	3.81	4.01
Tier 2 - 13 Units and Higher	3.34	3.65	3.82	4.01	4.22	4.45
Commercial/Industrial and Public	3.34	3.65	3.82	4.01	4.22	4.45
Municipal Irrigation	3.34	3.65	3.82	4.01	4.22	4.45
Other	3.34	3.65	3.82	4.01	4.22	4.45
Agricultural Irrigation, Domestic Ag	3.34	3.65	3.82	4.01	4.22	4.45
Temp Construction and Temp Agricult	3.34	4.91	5.29	5.60	5.88	6.17
Temporary Municipal	4.08	4.91	5.29	5.60	5.88	6.17
Emergency Water Service	5.05	4.91	5.29	5.60	5.88	6.17
Surplus Water (Served Outside District)	3.50	4.91	5.29	5.60	5.88	6.17
Non-Potable Water						
Non-Potable Irrigation Water	1.64	1.92	2.08	2.19	2.40	2.59
Blended Non-Potable Agricultural	2.88	2.46	2.70	3.15	3.36	3.67
Non-Potable Residential Landscape (SR	1.64	1.92	2.08	2.19	2.40	2.59
Recycled Landscape Irrigation	1.64	1.92	2.08	2.19	2.40	2.59
Outside District)	1.64	1.92	2.08	2.19	2.40	2.59

Camrosa Water District
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Table 3-1
FY 2023 Cost of Service Revenue from Rates (Potable Water)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expenses	5,465,600	0	5,465,600
2	Water Supply	8,516,100	0	8,516,100
3	Debt Service	0	830,000	830,000
4	Transfer to Capital Replacement		1,680,000	1,680,000
5	Transfer to Rate Stabilization	390,000		390,000
6	Subtotal	14,371,700	2,510,000	16,881,700
	Less Revenue Requirements Met from Other Sources			
7	Other Operating Revenue	(63,800)	0	(63,800)
8	Other Non-Operating Revenue	(392,600)	0	(392,600)
9	Subtotal	(456,400)	0	(456,400)
	Adjustments			
10	Adjustment for Annual Cash Balance	(124,200)	0	(124,200)
11	Adjustment to Annualize Rate Increa	(100)	0	(100)
12	Subtotal	(124,300)	0	(124,300)
13	Cost of Service to be Recovered from R	$ 13,791,000	$ 2,510,000	$ 16,301,000

Camrosa Water District
Water and Wastewater Financial Planning & Rate Design
Tables - COS/Rate Design

Table 3-2
FY 2023 Cost of Service Revenue from Rates (Non-Potable Water)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expenses	2,716,300	0	2,716,300
2	Water Supply	2,743,500	0	2,743,500
3	Debt Service	0	30,800	30,800
4	Transfer to Capital Replacement		1,690,000	1,690,000
5	Transfer to Rate Stabilization	110,000		110,000
6	Subtotal	5,569,800	1,720,800	7,290,600
	Less Revenue Requirements Met from Other Sources			
7	PVCWD Revenue	(704,700)	0	(704,700)
8	Other Operating Revenue	(638,500)	0	(638,500)
9	Other Non-Operating Revenue	(227,400)	0	(227,400)
10	Subtotal	(1,570,600)	0	(1,570,600)
	Adjustments			
11	Adjustment for Annual Cash Balance	(9,100)	0	(9,100)
12	Adjustment to Annualize Rate Increa	(100)	0	(100)
13	Subtotal	(9,200)	0	(9,200)
14	Cost of Service to be Recovered from R	$ 3,990,000	$ 1,720,800	$ 5,710,800

Table 3-3
FY 2023 Allocation of O&M Expenditures (Potable Water)

Line No.	Description	Common to All Customers					Fire Protection	Water Production	Allocation Basis
		Base	Extra Capacity		Customer				
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	
	Operating Expenses								
1	Production								
2	Water Purchase	87.96%	0.00%	0.00%	0.00%	0.00%	0.00%	12.04%	[1]
3	Production Power	87.96%	0.00%	0.00%	0.00%	0.00%	0.00%	12.04%	[1]
4	Salaries and Benefits	30.30%	28.20%	11.10%	7.60%	19.80%	3.00%	0.00%	[2]
5	Contracts & Professional Services								
6	Outside Contracts	73.90%	16.80%	6.30%	0.00%	0.00%	3.00%	0.00%	[2]
7	Professional Services	73.90%	16.80%	6.30%	0.00%	0.00%	3.00%	0.00%	[2]
8	Services & Supplies	62.93%	4.10%	0.00%	29.97%	0.00%	3.00%	0.00%	[2]
9	Utilities	88.00%	9.00%	0.00%	0.00%	0.00%	3.00%	0.00%	[2]
10	Pipeline Repairs	27.70%	25.70%	4.80%	38.80%	0.00%	3.00%	0.00%	[2]
11	Materials & Supplies	50.70%	46.00%	0.00%	0.30%	0.00%	3.00%	0.00%	[2]
12	Repair Parts & Equipment Maint	50.70%	46.00%	0.00%	0.30%	0.00%	3.00%	0.00%	[2]
13	Transfers	87.96%	0.00%	0.00%	0.00%	0.00%	0.00%	12.04%	[1]

[1] Fixed/Variable Import Water Charges
[2] Allocations are based on actual costs for FY 2017. See Appendix A for more details.

Table 3-4
FY 2023 Allocation of $ O&M Expenditures (Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production
		($)	($)	($)	($)	($)	($)	($)	($)
	Operating Expenses								
1	Production								
2	Water Purchase	7,880,500	6,931,700	0	0	0	0	0	948,800
3	Production Power	635,600	319,800	296,700	0	0	0	19,100	0
4	Salaries and Benefits	2,007,500	608,300	566,100	222,800	152,600	397,500	60,200	0
5	Contracts & Professional Services								
6	Outside Contracts	580,800	429,200	97,600	36,600	0	0	17,400	0
7	Professional Services	182,200	134,600	30,600	11,500	0	0	5,500	0
8	Services & Supplies	290,000	182,500	11,900	0	86,900	0	8,700	0
9	Utilities	58,400	51,300	5,300	0	0	0	1,800	0
10	Pipeline Repairs	146,300	40,500	37,600	7,000	56,800	0	4,400	0
11	Materials & Supplies	457,400	231,900	210,400	0	1,400	0	13,700	0
12	Repair Parts & Equipment Maint	536,200	271,800	246,700	0	1,600	0	16,100	0
13	Transfers	390,000	343,000	0	0	0	0	0	47,000
14	Total O&M Expenses	$ 13,164,900	$ 9,544,600	$ 1,502,900	$ 277,900	$ 299,300	$ 397,500	$ 146,900	$ 995,800
	Less Other Revenue								
15	Miscellaneous Revenues	456,400	330,900	52,100	9,600	10,400	13,800	5,100	34,500
16	Other Adjustments	124,300	90,100	14,200	2,600	2,800	3,800	1,400	9,400
17	Net Operating Expenses	$ 12,584,200	$ 9,123,600	$ 1,436,600	$ 265,700	$ 286,100	$ 379,900	$ 140,400	$ 951,900

Table 3-5
FY 2023 Allocation of Capital Costs (Potable Water)

Line No.	Description	Common to All Customers					Fire Protection	Water Production	Allocation Basis
		Base	Extra Capacity		Customer				
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	
	Plant Assets								
1	Water Production	87.96%	0.00%	0.00%	0.00%	0.00%	0.00%	12.04%	[1]
2	Pumping	87.96%	0.00%	0.00%	0.00%	0.00%	0.00%	12.04%	[1]
3	Treatment	50.31%	46.69%	0.00%	0.00%	0.00%	3.00%	0.00%	[2]
4	Transmission & Distribution	42.18%	39.16%	15.67%	0.00%	0.00%	3.00%	0.00%	[3]
5	Meters	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	[4]
6	Fire Hydrants	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	[5]
7	Land	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	[6]
8	General Plant	46.35%	32.51%	5.27%	10.40%	0.00%	4.26%	1.21%	[7]

[1] Fixed/Variable Import Water Charges
[2] Base/Max Day (adj for Fire)
[3] Base/Max Hour/Max Day (adj for Fire)
[4] Meters
[5] Fire Hydrants
[6] Base
[7] Average of above

Table 3-6
FY 2023 Allocation of $ Capital Costs (Potable Water)

Line No.	Description	(1) Total Costs (Net Book Value)	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production
		($)	($)	($)	($)	($)	($)	($)	($)
	Plant Assets								
1	Water Production	1,638,500	1,441,200	0	0	0	0	0	197,300
2	Pumping	600,900	528,600	0	0	0	0	0	72,300
3	Treatment	9,263,500	4,660,800	4,324,800	0	0	0	277,900	0
4	Transmission & Distribution	7,512,100	3,168,400	2,941,400	1,176,900	0	0	225,400	0
5	Meters	2,324,300	0	0	0	2,324,300	0	0	0
6	Fire Hydrants	449,100	0	0	0	0	0	449,100	0
7	Land	560,500	560,500	0	0	0	0	0	0
8	General Plant	477,900	221,400	155,400	25,200	49,700	0	20,400	5,800
9	Total Plant Assets	$ 22,826,800	$ 10,580,900	$ 7,421,600	$ 1,202,100	$ 2,374,000	$ 0	$ 972,800	$ 275,400
	Less Other Revenue								
10	Miscellaneous Revenues	0	0	0	0	0	0	0	0
11	Other Adjustments	0	0	0	0	0	0	0	0
12	Net Capital Expenses	$ 22,826,800	$ 10,580,900	$ 7,421,600	$ 1,202,100	$ 2,374,000	$ 0	$ 972,800	$ 275,400
13	Proxy for Allocation of Capital Costs (%)		46.4%	32.5%	5.3%	10.4%	0.0%	4.3%	1.2%

Table 3-7
FY 2023 Allocation of O&M Expenditures (Non-Potable Water)

Line No.	Description	Common to All Customers					Blended Agricultural	Allocation Basis
		Base	Extra Capacity		Customer			
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(%)	(%)	(%)	(%)	(%)	(%)	
	Operating Expenses							
1	Production							
2	Water Purchase	43.78%	0.00%	0.00%	0.00%	0.00%	56.22%	[1]
3	Production Power	43.95%	53.05%	0.00%	0.00%	0.00%	3.00%	[2]
4	Salaries and Benefits	15.50%	18.80%	35.30%	7.60%	19.80%	3.00%	[3]
5	Contracts & Professional Services							
6	Outside Contracts	22.60%	25.40%	47.40%	1.60%	0.00%	3.00%	[3]
7	Professional Services	22.60%	25.40%	47.40%	1.60%	0.00%	3.00%	[3]
8	Services & Supplies	46.22%	9.08%	1.36%	40.31%	0.00%	3.03%	[3]
9	Utilities	97.00%	0.00%	0.00%	0.00%	0.00%	3.00%	[3]
10	Pipeline Repairs	27.70%	33.40%	26.50%	9.40%	0.00%	3.00%	[3]
11	Materials & Supplies	28.50%	34.20%	32.80%	1.50%	0.00%	3.00%	[3]
12	Repair Parts & Equipment Mainte	28.50%	34.20%	32.80%	1.50%	0.00%	3.00%	[3]
13	Transfers	43.78%	0.00%	0.00%	0.00%	0.00%	56.22%	[1]

[1] Fixed/Variable Import Water Charges
[2] Max Day/Base (adj for Blended Ag)
[3] Allocations are based on actual costs for FY 2017. See Appendix A for more details.

Table 3-8
FY 2023 Allocation of $ O&M Expenditures (Non-Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers: Base: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Customer: Meters	(6) Customer: Cust/Bill.	(7) Blended Agricultural
		($)	($)	($)	($)	($)	($)	($)
	Operating Expenses							
1	Production							
2	Water Purchase	1,545,000	676,400	0	0	0	0	868,600
3	Production Power	1,198,500	504,600	635,700	0	0	0	58,200
4	Salaries and Benefits	1,080,800	167,600	203,200	381,500	82,100	214,000	32,400
5	Contracts & Professional Services							
6	Outside Contracts	329,900	74,500	83,800	156,400	5,300	0	9,900
7	Professional Services	178,600	40,200	45,400	84,700	2,900	0	5,400
8	Services & Supplies	198,200	91,600	18,000	2,700	79,900	0	6,000
9	Utilities	10,200	9,900	0	0	0	0	300
10	Pipeline Repairs	36,100	9,900	12,100	9,600	3,400	0	1,100
11	Materials & Supplies	90,900	25,900	31,100	29,800	1,400	0	2,700
12	Repair Parts & Equipment Mainter	423,200	120,700	144,700	138,800	6,300	0	12,700
13	Transfers	110,000	48,200	0	0	0	0	61,800
14	Total O&M Expenses	$ 5,201,400	$ 1,769,500	$ 1,174,000	$ 803,500	$ 181,300	$ 214,000	$ 1,059,100
	Less Other Revenue							
15	Miscellaneous Revenues	1,570,600	534,400	354,500	242,600	54,700	64,600	319,800
16	Other Adjustments	9,200	3,100	2,100	1,400	300	400	1,900
17	Net Operating Expenses	$ 3,621,600	$ 1,232,000	$ 817,400	$ 559,500	$ 126,300	$ 149,000	$ 737,400

Table 3-9
FY 2023 Allocation of Capital Costs (Non-Potable Water)

Line No.	Description	Common to All Customers					Blended Agricultural	Allocation Basis
		Base	Extra Capacity		Customer			
		Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(%)	(%)	(%)	(%)	(%)	(%)	
	Plant Assets							
1	Water Production	43.8%	0.0%	0.0%	0.0%	0.0%	56.2%	[1]
2	Pumping	43.8%	0.0%	0.0%	0.0%	0.0%	56.2%	[1]
3	Treatment	44.0%	53.0%	0.0%	0.0%	0.0%	3.0%	[2]
4	Transmission & Distribution	21.7%	26.3%	49.0%	0.0%	0.0%	3.0%	[3]
5	Meters	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	[4]
6	Land	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	[5]
7	General Plant	38.3%	34.7%	15.4%	0.8%	0.0%	10.7%	[6]

[1] Fixed/Variable Import Water Charges
[2] Base/Max Day (adj for Blended Ag)
[3] Base/Max Hour/Max Day (adj for Blended Ag)
[4] Meters
[5] Base
[6] Average of above

Table 3-10
FY 2023 Allocation of $ Capital Costs (Non-Potable Water)

Line No.	Description	(1) Total Costs (Net Book Value)	(2) Common to All Customers – Base – Base	(3) Common to All Customers – Extra Capacity – Max. Day	(4) Common to All Customers – Extra Capacity – Max. Hour	(5) Customer – Meters	(6) Customer – Cust/Bill.	(7) Blended Agricultural
		($)	($)	($)	($)	($)	($)	($)
	Plant Assets							
1	Water Production	1,708,500	748,000	0	0	0	0	960,500
2	Pumping	141,600	62,000	0	0	0	0	79,600
3	Treatment	6,294,700	2,766,800	3,339,100	0	0	0	188,800
4	Transmission & Distribution	3,979,600	864,700	1,045,500	1,950,000	0	0	119,400
5	Meters	107,400	0	0	0	107,400	0	0
6	Land	405,200	405,200	0	0	0	0	0
7	General Plant	224,600	86,100	77,900	34,700	1,900	0	24,000
8	Total Plant Assets	$ 12,861,600	$ 4,932,800	$ 4,462,500	$ 1,984,700	$ 109,300	$ 0	$ 1,372,300
	Less Other Revenue							
9	Miscellaneous Revenues	0	0	0	0	0	0	0
10	Other Adjustments	0	0	0	0	0	0	0
11	Net Capital Expenses	$ 12,861,600	$ 4,932,800	$ 4,462,500	$ 1,984,700	$ 109,300	$ 0	$ 1,372,300
12	Proxy for Allocation of Capital Costs (%)		38.4%	34.7%	15.4%	0.8%	0.0%	10.7%

Table 3-11
FY 2023 Units of Service (Potable Water and Non-Potable Water)

Line No.	Description	Consumption		Maximum Day			Maximum Hour			Meters	Cust/Bills	Fire Protection
		Annual	Avg. Day	Factor	Total	Extra	Factor	Total	Extra			
	Column Reference	(1)	(2)=(1)/365	(3)	(4)=(2)x(3)	(5)=(4)-(2)	(6)	(7)=(2)x(6)	(8)=(7)-(4)	(9)	(10)	(11)
	Units of Measure	(HCF)	(HCF/day)		(HCF/day)	(HCF/day)		(HCF/day)	(HCF/day)	(EMs)	(bills)	(EHs)
	Potable Water											
1	Group 1	11,326	31	451%	140	109	602%	187	47	236	192	0
2	Group 2	2,056,685	5,635	292%	16,453	10,819	390%	21,976	5,522	13,489	89,280	0
3	Group 3	1,161,310	3,182	321%	10,213	7,031	427%	13,586	3,373	4,181	8,892	0
4	Subtotal	3,229,321	8,847		26,807	17,959		35,748	8,941	17,906	98,364	
	Potable Fire Service											
5	Public Fire	0	0		430	430		5,166	4,735	0	0	1,083
6	Fire Service (PP5)	0	0		51	51		609	559	5,258	1,140	128
7	Subtotal	0	0		481	481		5,775	5,294	5,258	1,140	1,211
8	Total Potable Water System	3,229,321	8,847		27,288	18,440		41,523	14,236	23,164	99,504	1,211
	Non-Potable Water											
9	Group 4	1,556,399	4,264	297%	12,664	8,400	356%	15,180	2,516	1,831	4,092	0
10	Group 6	377,665	1,035	320%	3,311	2,276	384%	3,973	662	639	336	0
11	Subtotal	1,934,064	5,299		15,975	10,677		19,153	3,178	2,471	4,428	-
12	Total Non-Potable Water System	1,934,064	5,299		15,975	10,677		19,153	3,178	2,471	4,428	-

Table 3-12
FY 2023 Units Cost of Service (Potable Water)

Line No.	Description	Total Costs	Common to All Customers					Fire Protection	Water Production	Debt Service
			Base	Extra Capacity		Customer				
			Base	Max. Day	Max. Hour	Meters	Cust/Bill.			
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		($)	($)	($)	($)	($)	($)	($)		
	Potable Water - Unit Cost of Service									
1	Net Operating Expense (Per Table 3-4)	13,791,000	10,330,400	1,436,600	265,700	286,100	379,900	140,400	951,900	0
2	Debt Service	830,000	581,000	0	0	0	0	0	0	249,000
3	Capital Costs	1,680,000	869,400	546,200	88,500	84,000	0	71,600	20,300	0
4	Total Cost of Service	$ 16,301,000	$ 11,780,800	$ 1,982,800	$ 354,200	$ 370,100	$ 379,900	$ 212,000	$ 972,200	$ 249,000
5	Units of Service (Per Table 3-11)		3,229,321	18,440	14,236	23,164	99,504	1,211	17,906	17,906
6	Units of Measure		HCF	HCF/Day	HCF/Day	Eq. Meter	Bill	Eq. Hydrant	Eq. Meter	Eq. Meter
7	Cost per Unit (Line 4 / Line 5)		$ 3.65	$ 107.52	$ 24.88	$ 15.98	$ 3.82	$ 175.10	$ 54.30	$ 13.91
8	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	Per Eq. Hydrant	per Eq. Meter	per Eq. Meter

Table 3-13
FY 2023 Distribution of Costs to Customer Classes (Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers: Base	(3) Common to All Customers: Extra Capacity: Max. Day	(4) Common to All Customers: Extra Capacity: Max. Hour	(5) Common to All Customers: Customer: Meters	(6) Common to All Customers: Customer: Cust/Bill.	(7) Fire Protection	(8) Water Production [1]	(9) Debt Service [1]
		($)	($)	($)	($)	($)	($)	($)		
1	Cost per Unit (Per Table 3-12)		$ 3.65	$ 107.52	$ 24.88	$ 15.98	$ 3.82	$ 175.10	$ 54.30	$ 13.91
2	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	Per Eq. Hydrant	per Eq. Meter	per Eq. Meter
	Potable Water									
	Group 1									
3	Units		11,326	109	47	236	192	0	236	236
4	Allocation of costs of service	74,800	41,300	11,700	1,200	3,800	700	0	12,800	3,300
	Group 2									
5	Units		2,056,685	10,819	5,522	13,489	89,280	0	13,489	13,489
6	Allocation of costs of service	10,280,000	7,502,900	1,163,300	137,400	215,500	340,900	0	732,400	187,600
	Group 3									
7	Units		1,161,310	7,031	3,373	4,181	8,892	0	4,181	4,181
8	Allocation of costs of service	5,462,300	4,236,600	756,000	83,900	66,800	33,900	0	227,000	58,100
	Public Fire									
9	Units		0	430	4,735	0	0	1,083	0	0
10	Allocation of costs of service	353,700	0	46,300	117,800	0	0	189,600	0	0
	Fire Service (PP5)									
11	Units		0	51	559	5,258	1,140	128	0	0
12	Allocation of costs of service	130,200	0	5,500	13,900	84,000	4,400	22,400	0	0
13	TOTAL COSTS OF SERVICE	$ 16,301,000	$ 11,780,800	$ 1,982,800	$ 354,200	$ 370,100	$ 379,900	$ 212,000	$ 972,200	$ 249,000
	Reference for Table 4-9.									
	Group 2 Tier 1									
14	Units			4,247	2,340					
15	Allocation of costs of service	514,900		456,700	58,200					
	Group 2 Tier 2									
16	Units			6,579	3,183					
17	Allocation of costs of service	786,600		707,400	79,200					

[1] Units for Water Production and Debt Service are equivalent Meters units as the allocation is based on Equivalent Meters. The exception is that Water Production and Debt Service have no Fire Service Allocation thus no units.

Table 3-14
FY 2023 Units Cost of Service (Non-Potable Water)

Line No.	Description	Total Costs	Common to All Customers					Blended Agricultural	Debt Service
			Base	Extra Capacity		Customer			
			Base	Max. Day	Max. Hour	Meters	Cust/Bill.		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		($)	($)	($)	($)	($)	($)	($)	($)
	Non-Potable Water - Unit Cost of Service								
1	Net Operating Expense (Per Table 3-8)	3,990,000	1,600,400	817,400	559,500	126,300	149,000	737,400	0
2	Debt Service	30,800	24,600	0	0	0	0	0	6,200
3	Capital Costs	1,690,000	648,100	586,400	260,800	14,400	0	180,300	0
4	Total Cost of Service	$ 5,710,800	$ 2,273,100	$ 1,403,800	$ 820,300	$ 140,700	$ 149,000	$ 917,700	$ 6,200
5	Units of Service (Per Table 3-11)		1,556,399	10,677	3,178	2,471	4,428	377,665	2,471
6	Units of Measure		HCF	HCF/Day	HCF/Day	Eq. Meter	Bill	HCF	Eq. Meter
7	Cost per Unit (Line 4 / Line 5)		$ 1.46	$ 131.48	$ 258.12	$ 56.95	$ 33.65	$ 2.43	$ 2.51
8	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	per HCF	per Eq. Meter

Table 3-15
FY 2023 Distribution of Costs to Customer Classes (Non-Potable Water)

Line No.	Description	(1) Total Costs	(2) Common to All Customers – Base – Base	(3) Common to All Customers – Extra Capacity – Max. Day	(4) Common to All Customers – Extra Capacity – Max. Hour	(5) Common to All Customers – Customer – Meters	(6) Common to All Customers – Customer – Cust/Bill.	(7) Blended Agricultural	(8) Debt Service [2]
		($)	($)	($)	($)	($)	($)	($)	
1	Cost per Unit (Per Table 3-14)		$ 1.46	$ 131.48	$ 258.12	$ 56.95	$ 33.65	$ 2.43	$ 2.51
2	Units of Measure		per HCF	per HCF/Day	per HCF/Day	per Eq. Meter	per Bill	per HCF	per Eq. Meter
	Non-Potable Water								
	Group 4								
3	Units		1,556,399	8,400	2,516	1,831	4,092	0	1,831
4	Allocation of costs of service	4,273,600	2,273,100	1,104,500	649,400	104,300	137,700	0	4,600
	Group 6 [1]								
5	Units		0	2,276	662	639	336	377,665	639
6	Allocation of costs of service	1,437,200	0	299,300	170,900	36,400	11,300	917,700	1,600
7	TOTAL COSTS OF SERVICE	$ 5,710,800	$ 2,273,100	$ 1,403,800	$ 820,300	$ 140,700	$ 149,000	$ 917,700	$ 6,200

[1] Base costs associated with Group 6 are different from other customer classes, therefore direct assignment for base is shown in Column 7.
[2] Units for Debt Service are equivalent Meters units as the allocation is based on Equivalent Meters.

Table 3-16
FY 2023 Cost of Service by Customer Class Summary

Line No.	Description	(1) Cost of Service [1]	(2) Re-Allocation of Public Fire Protection [2]	(3) Adjusted Cost of Service
		($)	($)	($)
	Potable and Non-Potable Water Customers			
1	Group 1	74,800	1,700	76,500
2	Group 2	10,280,000	229,900	10,509,900
3	Group 3	5,462,300	122,100	5,584,400
4	Group 4	4,273,600		4,273,600
5	Group 6	1,437,200		1,437,200
6	Subtotal	21,527,900	353,700	21,881,600
7	Public Fire	353,700	(353,700)	0
8	PP5 Fire Service	130,200		130,200
9	Subtotal	483,900	(353,700)	130,200
10	**Total Water System**	**$ 22,011,800**	**$ 0**	**$ 22,011,800**

[1] Cost of service values from Tables 3-13 and 3-15
[2] Public fire protection costs re-allocated based on proportionate share of costs for Groups 1, 2 &3.
For example, Group 1's porportionate share = Line 9 * Line 1 / (Line 1 + Line 2 + Line 3)
Group 1's share = $353,700 * $74,800 / ($74,800 + $10,280,000 + $5,462,300)

Table 4-1
FY 2023 Costs within the Monthly Service Charge

Customer Class	Meters Svcs, Public Fire Protection & Billing, Debt Svc							Total Service Charge
	Meters Unit Cost [1]	Fire Unit Cost [2]	Water Production [3]	Debt Unit Cost [4]	Ratio*	Billing Unit Cost [5]	Ratio*	
	per EM	per EM	per EM	per EM		per Bill		$/month
Potable Water								
Master Metered	1.66	1.65	4.52	1.37	0.25	5.09	0.85	6.57
3/4"	1.66	1.65	4.52	1.37	1.00	5.09	1.00	14.08
1"	1.66	1.65	4.52	1.37	2.11	5.09	1.00	24.06
1.5"	1.66	1.65	4.52	1.37	4.88	5.09	1.00	48.96
2"	1.66	1.65	4.52	1.37	8.22	5.09	1.00	78.99
3"	1.66	1.65	4.52	1.37	18.80	5.09	1.00	174.10
4"	1.66	1.65	4.52	1.37	32.69	5.09	1.00	298.98
6"	1.66	1.65	4.52	1.37	49.38	5.09	1.00	449.02
8"	1.66	1.65	4.52	1.37	82.74	5.09	1.00	748.93

* Ratio is based on equivalent meters. Bill ratios are typically 1.0 except for master metered.
[1] Meter unit cost = (Table 3-12, Column 5, Line 4 + Table 3-14, Column 5, Line 4) / (Table 3-12, Column 5, Line 5 + Table 3-14, Column 5, Line 5) / 12 = ($370,100 + $140,700) /(23,164 + 2,471) /12
[2] Fire unit cost = (Table 3-13, Column 1, Line 10) / (Table 3-11, Column 9, Line 4) / 12 = $353,700 / 17,906
[3] Water Production unit cost = (Table 3-12, Column 8, Line 7) / 12 = $54.30 / 12
[4] Debt unit cost = (Table 3-12, Column 9, Line 7) / 12 = ($13.91) / 12
[5] Billing unit cost = (Table 3-12, Column 6, Line 4 + Table 3-14, Column 6, Line 4) /(Table 3-12, Column 6, Line 5 + Table 3-14, Column 6, Line 5) / 12 = ($379,900 + $149,000) / (99,504 + 4,428) / 12

Customer Class	Meters Svcs, Public Fire Protection & Billing, Debt Svc						Total Service Charge
	Meters Unit Cost [1]	Fire Unit Cost [2]	Debt Unit Cost [4]	Ratio*	Billing Unit Cost [5]	Ratio*	
	per EM	per EM	per EM		per Bill		$/month
Non-Potable Water							
Master Metered	1.66	1.65	0.21	0.25	5.09	0.85	5.20
3/4"	1.66	1.65	0.21	1.00	5.09	1.00	8.60
1"	1.66	1.65	0.21	2.11	5.09	1.00	12.51
1.5"	1.66	1.65	0.21	4.88	5.09	1.00	22.25
2"	1.66	1.65	0.21	8.22	5.09	1.00	33.99
3"	1.66	1.65	0.21	18.80	5.09	1.00	71.19
4"	1.66	1.65	0.21	32.69	5.09	1.00	120.02
6"	1.66	1.65	0.21	49.38	5.09	1.00	178.70
8"	1.66	1.65	0.21	82.74	5.09	1.00	295.99

* Ratio is based on equivalent meters. Bill ratios are typically 1.0 except for master metered.
[1] Meter unit cost = (Table 3-12, Column 5, Line 4 + Table 3-14, Column 5, Line 4) / (Table 3-12, Column 5, Line 5 + Table 3-14, Column 5, Line 5) / 12 = ($370,100 + $140,700) /(23,164 + 2,471) /12
[2] Fire unit cost = (Table 3-13, Column 1, Line 10) / (Table 3-11, Column 9, Line 4) / 12 = $353,700 / 17,906
[4] Debt unit cost = (Table 3-14, Column 8, Line 7) / 12 = $1,600.00 / 12
[5] Billing unit cost = (Table 3-12, Column 6, Line 4 + Table 3-14, Column 6, Line 4) /(Table 3-12, Column 6, Line 5 + Table 3-14, Column 6, Line 5) / 12 = ($379,900 + $149,000) / (99,504 + 4,428) / 12

Table 4-2
Proposed Multi-Year Monthly Service Charge

Customer Class	Monthly Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Potable Water						
Master Metered [1]	6.55	6.21	6.19	6.21	6.35	6.57
3/4"	13.64	12.79	12.77	13.26	13.58	14.08
1"	22.72	21.41	21.40	22.63	23.19	24.06
1.5"	45.46	42.94	42.93	46.02	47.17	48.96
2"	72.73	68.89	68.89	74.22	76.09	78.99
3"	159.09	151.09	151.12	163.54	167.68	174.10
4"	272.73	259.02	259.09	280.82	287.92	298.98
6"	409.10	388.69	388.81	421.73	432.41	449.02
8"	681.83	647.90	648.11	703.38	721.21	748.93

[1] Master Metered accounts are charged on a per unit basis rather than meter size.

Customer Class	Monthly Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Non-Potable Water						
Master Metered [1]	0	4.89	4.88	4.91	5.02	5.20
3/4"	0	7.51	7.52	8.09	8.28	8.60
1"	0	10.28	10.32	11.72	12.00	12.51
1.5"	0	17.19	17.30	20.78	21.29	22.25
2"	0	25.52	25.72	31.70	32.48	33.99
3"	0	51.90	52.40	66.30	67.95	71.19
4"	0	86.54	87.43	111.72	114.51	120.02
6"	0	128.16	129.51	166.30	170.47	178.70
8"	0	211.35	213.63	275.39	282.30	295.99

[1] Master Metered accounts are charged on a per unit basis rather than meter size.

Table 4-3
FY 2023 Costs within the Fire Service Charge

Customer Class	Private Fire Protection		Total Service Charge
	Fire Unit Cost	Ratio	
	per EM		$/month
Fire Service			
4"	2.06	32.7	67.46
6"	2.06	49.4	101.90
8"	2.06	82.7	170.74
10"	2.06	220.0	453.98

Table 4-4
Proposed Multi-Year Fire Service Charge

Customer Class	Fire Service Service Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo	$/mo	$/mo	$/mo	$/mo	$/mo
Fire Service						
4"	51.45	51.03	51.65	61.96	63.93	67.46
6"	102.86	77.09	78.03	93.60	96.58	101.90
8"	185.17	129.17	130.74	156.84	161.82	170.74
10"	308.69	343.45	347.63	417.02	430.27	453.98

Table 4-5
FY 2023 Water Supply Unit Costs

Description	Production Allocation*	Production Costs	Total Volume	Supply Unit Costs
	%	$	HCF	$/HCF
Water Source				
Calleguas Municipal Water District	52%	6,710,284	1,679,247	$ 4.00
Groundwater	48%	541,216	1,550,074	0.35
Subtotal	100%	$ 7,251,500	3,229,321	
Weighted Average Costs				$ 2.25

* The production costs come from Table 3-4, Column 2, Line 2 & 3.

Table 4-6
FY 2023 Water Sold by Customer Class

Description	Group 1	Group 2 Tier 1	Group 2 Tier 2	Group 3	Total Volume
Total Usage	11,326	1,011,739	1,044,947	1,161,310	3,229,322
% of Usage	0.4%	31.3%	32.4%	36.0%	100.0%

Table 4-7
FY 2023 Water Supply Unit Costs by Customer Class

Description	Supply Unit Costs	Group 1	Group 2 Tier 1	Group 2 Tier 2	Group 3	Total Volume
		HCF	HCF	HCF	HCF	HCF
Water Source						
Calleguas Municipal Water District	$ 4.00	10,193	485,635	560,502	622,918	1,679,248
Groundwater	0.35	1,133	526,104	484,445	538,392	1,550,074
Subtotal		11,326	1,011,739	1,044,947	1,161,310	3,229,322
Weighted Average Unit Costs	$ 2.25	$ 3.63	$ 2.10	$ 2.31	$ 2.31	

Table 4-8
FY 2023 Water Delivery Unit Costs

Description	Delivery Unit Rate	
	$	
	Group 1-3	
Base Costs	$11,780,800	(from Table 3-12, Line 4, Column 2)
Less Water Supply Cost	(7,251,500)	(from Table 3-4, Line 2+Line 3 in Column 2)
Subtotal	$4,529,300	
Water Supply (HCF)	3,229,321	
Unit Costs	$1.40	

Description	Delivery Unit Rate	Delivery Unit Rate	
	$	$	
	Group 4	Group 6	
Base Costs	$2,273,100	$917,700	(from Table 3-14, Line 4, Column 2 & 7)
Less Water Supply Cost	(1,181,000)	(926,800)	(from Table 3-8, Line 2+Line 3 in Columns 2 & 7)
Subtotal	$1,092,100	($9,100)	
Water Supply (HCF)	1,556,399	377,665	
Unit Costs	$0.70	($0.02)	

Note: Group 6 is negative because the offsets in shown in Table 3-8, Line 15 and 16 are all applied to delivery.

Table 4-9
FY 2023 Common Water Peaking Unit Costs

Description	Peaking Costs [1]	Usage	Peaking Unit Rate
	$	HCF	$/HCF
Customer Class			
Group 1	12,900	11,326	$ 1.14
Group 2 Tier 1	514,900	1,011,739	0.51
Group 2 Tier 2 and Group 3	1,626,500	2,206,257	0.74
Subtotal	$ 2,154,300	3,229,322	

[1] Peaking costs derived in Table 3-13.

Description	Peaking Costs [1]	Usage	Peaking Unit Rate
	$	HCF	$/HCF
Customer Class			
Group 4	1,753,900	1,556,399	1.13
Group 6	470,200	377,665	1.25
Subtotal	$ 2,224,100	1,934,064	

[1] Peaking costs derived in Table 3-15.

Table 4-10
FY 2023 Individual Potable Water Unit Costs

Description	(1) Supply Unit Rate	(2) Delivery Unit Rate	(3) Peaking Unit Rate	(4) Total Unit Rate
	$/HCF	$/HCF	$/HCF	$/HCF
Customer Class				
Group 1	$ 3.63	$ 1.40	$ 1.14	$ 6.17
Group 2 Tier 1	2.10	1.40	0.51	4.01
Group 2 Tier 2 and Group 3	2.31	1.40	0.74	4.45

Table 4-11
FY 2023 Individual Potable Water Unit Costs

Description	(1) Supply Unit Rate [1]	(2) Delivery Unit Rate [2]	(3) Peaking Unit Rate	(4) Total Unit Rate
	$/HCF	$/HCF	$/HCF	$/HCF
Customer Class				
Group 4	$ 0.76	$0.70	$ 1.13	$ 1.83
Group 6	2.45	(0.02)	1.25	1.22

[1] Supply Unit Costs is derived from Table 3-8, Line 2+Line 3 in Columns 2 for Group 4 and Column 7 for Group 6 divided by their respective volumes seen in Table 3-11, Column 1.

Table 4-12
Proposed Multi-Year Commodity Charges

Customer Class	Commodity Charge					
	Existing	Proposed				
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/HCF	$/HCF	$/HCF	$/HCF	$/HCF	$/HCF
Potable Water						
Residential and Master Meter						
Tier 1 - First 12 Units	3.08	3.28	3.47	3.61	3.81	4.01
Tier 2 - 13 Units and Higher	3.34	3.65	3.82	4.01	4.22	4.45
Commercial/Industrial and Public	3.34	3.65	3.82	4.01	4.22	4.45
Municipal Irrigation	3.34	3.65	3.82	4.01	4.22	4.45
Other	3.34	3.65	3.82	4.01	4.22	4.45
Agricultural Irrigation, Domestic Ag	3.34	3.65	3.82	4.01	4.22	4.45
Temp Construction and Temp Agricult	3.34	4.91	5.29	5.60	5.88	6.17
Temporary Municipal	4.08	4.91	5.29	5.60	5.88	6.17
Emergency Water Service	5.05	4.91	5.29	5.60	5.88	6.17
Surplus Water (Served Outside District)	3.50	4.91	5.29	5.60	5.88	6.17
Non-Potable Water						
Non-Potable Irrigation Water	1.64	1.92	2.08	2.19	2.40	2.59
Blended Non-Potable Agricultural	2.88	2.46	2.70	3.15	3.36	3.67
Non-Potable Residential Landscape (SR	1.64	1.92	2.08	2.19	2.40	2.59
Recycled Landscape Irrigation	1.64	1.92	2.08	2.19	2.40	2.59
Outside District)	1.64	1.92	2.08	2.19	2.40	2.59

Appendix C – Sewer Cost of Service Tables for 2020-2023

Camrosa Water District
Water and Wastewater Financial Planning & Rate Design
Tables - COS/Rate Design

Table 6-1
FY 2020 Cost of Service Revenue from Rates (Sewer)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expense	3,058,000	0	3,058,000
2	Debt Service Requirements	0	412,200	412,200
3	Transfers	35,000	400,000	435,000
4	Subtotal	$ 3,093,000	$ 812,200	$ 3,905,200
	Less Revenue Requirements Met from Other Sources			
5	Other Operating Revenue	(20,500)	0	(20,500)
6	Interest from Operations	(46,000)	0	(46,000)
7	Subtotal	$ (66,500)	$ 0	$ (66,500)
	Adjustments			
8	Adjustment for Annual Cash Balance	(71,200)	0	(71,200)
9	Adjustment to Annualize Rate Increase	0	0	0
10	Subtotal	$ (71,200)	$ 0	$ (71,200)
11	Cost of Service to be Recovered from Rates	$ 2,955,300	$ 812,200	$ 3,767,500

Camrosa Water District
Water and Wastewater Financial Planning & Rate Design
Tables - COS/Rate Design

Table 6-2
FY 2020 Allocation of O&M Expenditures (Sewer)

Line No.	Description	Common to All Customers					Allocation Basis
		Volume	BOD	TSS	Customer	T.O.	
		(%)	(%)	(%)	(%)	(%)	
	Operation & Maintenance						
1	Water Production	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
2	Salaries and Benefits	30.00%	25.00%	25.00%	20.00%	0.00%	[2]
3	Contracts & Professional Services						
4	Outside Contracts	49.20%	24.61%	24.61%	0.00%	1.58%	[3]
5	Professional Services	50.00%	25.00%	25.00%	0.00%	0.00%	[4]
6	Services & Supplies	28.85%	23.99%	23.99%	23.18%	0.00%	[5]
7	Utilities	50.00%	25.00%	25.00%	0.00%	0.00%	[4]
8	Materials & Supplies	60.00%	20.00%	20.00%	0.00%	0.00%	[6]
9	Repair Parts & Equipment Maintenanc	60.00%	20.00%	20.00%	0.00%	0.00%	[6]

[1] All Volume
[2] Volume/Strength/Customer
[3] Volume/Strength/Customer/TO
[4] Volume/Strength
[5] Volume/Strength/Customer (avg of all other cost items)
[6] Volume/Strength

Table 6-3
FY 2020 Allocation of $ O&M Expenditures (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
		($)	($)	($)	($)	($)	($)
	Operation & Maintenance						
1	Water Production	21,500	21,500	0	0	0	0
2	Salaries and Benefits	1,665,300	499,600	416,300	416,300	333,100	0
3	Contracts & Professional Services						
4	Outside Contracts	645,700	317,700	158,900	158,900	0	10,200
5	Professional Services	74,300	37,100	18,600	18,600	0	0
6	Services & Supplies	234,700	67,700	56,300	56,300	54,400	0
7	Utilities	25,900	12,900	6,500	6,500	0	0
8	Materials & Supplies	123,900	74,300	24,800	24,800	0	0
9	Repair Parts & Equipment Maintenanc	149,400	89,600	29,900	29,900	0	0
10	Total O&M Expenses	$ 2,940,700	$ 1,120,400	$ 711,300	$ 711,300	$ 387,500	$ 10,200
	Less Other Revenue						
11	Miscellaneous Revenues	66,500	25,800	16,000	16,000	8,700	0
12	Other Adjustments	71,200	27,700	17,100	17,100	9,300	0
13	Net Operating Expenses	$ 2,803,000	$ 1,066,900	$ 678,200	$ 678,200	$ 369,500	$ 10,200

Camrosa Water District
Water and Wastewater Financial Planning & Rate Design
Tables - COS/Rate Design

Table 6-4
FY 2020 Allocation of Capital Costs (Sewer)

Line No.	Description	Common to All Customers					Allocation Basis
		Volume	BOD	TSS	Customer	T.O.	
		(%)	(%)	(%)	(%)	(%)	
	Plant Assets						
1	Collection	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
2	Lift Station	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
3	Treatment	50.00%	25.00%	25.00%	0.00%	0.00%	[2]
4	Land	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
5	General Plant	80.00%	10.00%	10.00%	0.00%	0.00%	[2]

[1] All Volume
[2] Volume/Strength

Table 6-5
FY 2020 Allocation of $ Capital Costs (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
		($)	($)	($)	($)	($)	($)
	Plant Assets						
1	Collection	5,414,500	5,414,500	0	0	0	0
2	Lift Station	113,800	113,800	0	0	0	0
3	Treatment	10,075,900	5,037,900	2,519,000	2,519,000	0	0
4	Land	407,300	407,300	0	0	0	0
5	General Plant	319,600	255,600	32,000	32,000	0	0
6	Total Plant Assets	$ 16,331,100	$ 11,229,100	$ 2,551,000	$ 2,551,000	$ 0	$ 0
	Less Other Revenue						
7	Miscellaneous Revenues	0	0	0	0	0	0
8	Other Adjustments	0	0	0	0	0	0
9	Net Operating Expenses	$ 16,331,100	$ 11,229,100	$ 2,551,000	$ 2,551,000	$ 0	$ 0
10	Proxy for Allocation of Capital Costs (%)		68.8%	15.6%	15.6%	0.0%	0.0%

Table 6-6
FY 2020 Units of Service (Sewer)

Line No.	Description	Contributed Units	Contributed Volume	Treated Volume	BOD Loadings Factor	BOD Loadings Loading	TSS Loadings Factor	TSS Loadings Loading	Bills
	Units of Measure	(EDUs)	(HCF)	(HCF)	(mg/L)	(lbs)	(mg/L)	(lbs)	(bills)
1	Customers Served by District	8,820	1,644,977	620,797	250	968,200	200	774,600	105,840
2	Customers Served by Thousand Oaks	18	17,576	5,359	250	8,400	200	6,700	216
3	Total	8,838	1,662,553	626,155		976,600		781,300	106,056
4	Total Wastewater System		1,662,553	626,155		976,600		781,300	106,056
5	Total Wastewater System (less through CWD)		1,644,977	620,797		968,200		774,600	105,840

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Table 6-7
FY 2020 Units Cost of Service (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
1	Net Operating Expense	2,955,300	1,219,200	678,200	678,200	369,500	10,200
2	Debt Service [1]	412,200	283,400	64,400	64,400	0	0
3	Capital Costs	435,000	299,200	67,900	67,900	0	0
4	Total Cost of Service	$ 3,802,500	$ 1,801,800	$ 810,500	$ 810,500	$ 369,500	$ 10,200
5	Units of Service (Per Table 6-6)		620,797	968,200	774,600	105,840	5,359
6	Units of Measure		HCF	lbs	lbs	bills	HCF
7	Cost per Unit (Line 4/Line 5)		$ 2.90	$ 0.84	$ 1.05	$ 3.49	$ 1.90
8	Units of Measure		per HCF	per lbs	per lbs	per bill	per HCF

[1] Allocated based on Table 6-5, Line 10

Table 6-8
FY 2020 Distribution of Costs to Customer Classes (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
1	Cost per Unit (Per Table 6-7)		$ 2.90	$ 0.84	$ 1.05	$ 3.49	$ 1.90
2	Units of Measure		per HCF	per lbs	per lbs	per bill	per HCF
	Customers Served by District						
3	Units		620,797	968,200	774,600	105,840	0
4	Allocation of costs of service	$ 3,792,300	1,801,800	810,500	810,500	369,500	0
	Customers Served by Thousand Oaks						
5	Units		0	0	0	0	5,359
6	Allocation of costs of service	$ 10,200	0	0	0	0	10,200
7	TOTAL COSTS OF SERVICE	$ 3,802,500	$ 1,801,800	$ 810,500	$ 810,500	$ 369,500	$ 10,200

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Table 7-1
FY 2020 Determination of Monthly Service Charge

Description	Total Costs	Number of EDUs	Total Unit Rate*
	$	EDU	$/mo/EDU
Customer Class			
Customers Served by District	3,792,300	8,820	35.83
Customers Served by Thousand Oaks	10,200	18	47.22
Subtotal	$ 3,802,500	8,838	

* Divided by 12 to represent monthly bill.

Table 7-2
Proposed Multi-Year Monthly Service Charge

Customer Class	Sewer Service Charge						
	Existing	Proposed					
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU
Customers Served by District	31.32	33.49	35.83	38.37	40.62	43.05
Customers Served by Thousand Oaks	43.23	46.76	47.22	47.69	48.15	48.61

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Table 6-1
FY 2021 Cost of Service Revenue from Rates (Sewer)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expense	3,152,300	0	3,152,300
2	Debt Service Requirements	0	194,000	194,000
3	Transfers	80,000	800,000	880,000
4	Subtotal	$ 3,232,300	$ 994,000	$ 4,226,300
	Less Revenue Requirements Met from Other Sources			
5	Other Operating Revenue	(20,500)	0	(20,500)
6	Interest from Operations	(46,000)	0	(46,000)
7	Subtotal	$ (66,500)	$ 0	$ (66,500)
	Adjustments			
8	Adjustment for Annual Cash Balance	(51,900)	0	(51,900)
9	Adjustment to Annualize Rate Increase	0	0	0
10	Subtotal	$ (51,900)	$ 0	$ (51,900)
11	Cost of Service to be Recovered from Rates	$ 3,113,900	$ 994,000	$ 4,107,900

Table 6-2
FY 2021 Allocation of O&M Expenditures (Sewer)

Line No.	Description	Common to All Customers					Allocation Basis
		Volume	BOD	TSS	Customer	T.O.	
		(%)	(%)	(%)	(%)	(%)	
	Operation & Maintenance						
1	Water Production	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
2	Salaries and Benefits	30.00%	25.00%	25.00%	20.00%	0.00%	[2]
3	Contracts & Professional Services						
4	Outside Contracts	49.20%	24.62%	24.62%	0.00%	1.56%	[3]
5	Professional Services	50.00%	25.00%	25.00%	0.00%	0.00%	[4]
6	Services & Supplies	28.93%	23.97%	23.97%	23.14%	0.00%	[5]
7	Utilities	50.00%	25.00%	25.00%	0.00%	0.00%	[4]
8	Materials & Supplies	60.00%	20.00%	20.00%	0.00%	0.00%	[6]
9	Repair Parts & Equipment Maintenanc	60.00%	20.00%	20.00%	0.00%	0.00%	[6]

[1] All Volume
[2] Volume/Strength/Customer
[3] Volume/Strength/Customer/TO
[4] Volume/Strength
[5] Volume/Strength/Customer (avg of all other cost items)
[6] Volume/Strength

Table 6-3
FY 2021 Allocation of $ O&M Expenditures (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
		($)	($)	($)	($)	($)	($)
	Operation & Maintenance						
1	Water Production	21,500	21,500	0	0	0	0
2	Salaries and Benefits	1,726,700	518,000	431,700	431,700	345,300	0
3	Contracts & Professional Services						
4	Outside Contracts	658,500	324,000	162,100	162,100	0	10,300
5	Professional Services	75,800	37,800	19,000	19,000	0	0
6	Services & Supplies	241,600	69,900	57,900	57,900	55,900	0
7	Utilities	26,700	13,300	6,700	6,700	0	0
8	Materials & Supplies	127,600	76,600	25,500	25,500	0	0
9	Repair Parts & Equipment Maintenanc	152,400	91,400	30,500	30,500	0	0
10	Total O&M Expenses	$ 3,030,800	$ 1,152,500	$ 733,400	$ 733,400	$ 401,200	$ 10,300
	Less Other Revenue						
11	Miscellaneous Revenues	66,500	26,500	15,700	15,700	8,600	0
12	Other Adjustments	51,900	20,600	12,300	12,300	6,700	0
13	Net Operating Expenses	$ 2,912,400	$ 1,105,400	$ 705,400	$ 705,400	$ 385,900	$ 10,300

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Table 6-4
FY 2021 Allocation of Capital Costs (Sewer)

Line No.	Description	Common to All Customers					Allocation Basis
		Volume	BOD	TSS	Customer	T.O.	
		(%)	(%)	(%)	(%)	(%)	
	Plant Assets						
1	Collection	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
2	Lift Station	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
3	Treatment	50.00%	25.00%	25.00%	0.00%	0.00%	[2]
4	Land	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
5	General Plant	80.00%	10.00%	10.00%	0.00%	0.00%	[2]

[1] All Volume
[2] Volume/Strength

Table 6-5
FY 2021 Allocation of $ Capital Costs (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
		($)	($)	($)	($)	($)	($)
	Plant Assets						
1	Collection	5,414,500	5,414,500	0	0	0	0
2	Lift Station	113,800	113,800	0	0	0	0
3	Treatment	10,075,900	5,037,900	2,519,000	2,519,000	0	0
4	Land	407,300	407,300	0	0	0	0
5	General Plant	319,600	255,600	32,000	32,000	0	0
6	Total Plant Assets	$ 16,331,100	$ 11,229,100	$ 2,551,000	$ 2,551,000	$ 0	$ 0
	Less Other Revenue						
7	Miscellaneous Revenues	0	0	0	0	0	0
8	Other Adjustments	0	0	0	0	0	0
9	Net Operating Expenses	$ 16,331,100	$ 11,229,100	$ 2,551,000	$ 2,551,000	$ 0	$ 0
10	Proxy for Allocation of Capital Costs (%)		68.8%	15.6%	15.6%	0.0%	0.0%

Table 6-6
FY 2021 Units of Service (Sewer)

Line No.	Description	Contributed Units	Contributed Volume	Treated Volume	BOD Loadings Factor	BOD Loadings Loading	TSS Loadings Factor	TSS Loadings Loading	Bills
	Units of Measure	(EDUs)	(HCF)	(HCF)	(mg/L)	(lbs)	(mg/L)	(lbs)	(bills)
1	Customers Served by District	9,073	1,649,031	622,322	250	970,600	200	776,500	108,876
2	Customers Served by Thousand Oaks	18	17,613	5,371	250	8,400	200	6,700	216
3	Total	9,091	1,666,644	627,692		979,000		783,200	109,092
4	Total Wastewater System		1,666,644	627,692		979,000		783,200	109,092
5	Total Wastewater System (less through CWD)		1,649,031	622,322		970,600		776,500	108,876

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Table 6-7
FY 2021 Units Cost of Service (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
1	Net Operating Expense	3,113,900	1,306,900	705,400	705,400	385,900	10,300
2	Debt Service [1]	194,000	133,400	30,300	30,300	0	0
3	Capital Costs	880,000	605,000	137,500	137,500	0	0
4	Total Cost of Service	$ 4,187,900	$ 2,045,300	$ 873,200	$ 873,200	$ 385,900	$ 10,300
5	Units of Service (Per Table 6-6)		622,322	970,600	776,500	108,876	5,371
6	Units of Measure		HCF	lbs	lbs	bills	HCF
7	Cost per Unit (Line 4/Line 5)		$ 3.29	$ 0.90	$ 1.12	$ 3.54	$ 1.92
8	Units of Measure		per HCF	per lbs	per lbs	per bill	per HCF

[1] Allocated based on Table 6-5, Line 10

Table 6-8
FY 2021 Distribution of Costs to Customer Classes (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
1	Cost per Unit (Per Table 6-7)		$ 3.29	$ 0.90	$ 1.12	$ 3.54	$ 1.92
2	Units of Measure		per HCF	per lbs	per lbs	per bill	per HCF
	Customers Served by District						
3	Units		622,322	970,600	776,500	108,876	0
4	Allocation of costs of service	$ 4,177,600	2,045,300	873,200	873,200	385,900	0
	Customers Served by Thousand Oaks						
5	Units		0	0	0	0	5,371
6	Allocation of costs of service	$ 10,300	0	0	0	0	10,300
7	TOTAL COSTS OF SERVICE	$ 4,187,900	$ 2,045,300	$ 873,200	$ 873,200	$ 385,900	$ 10,300

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Table 7-1
FY 2021 Determination of Monthly Service Charge

Description	Total Costs	Number of EDUs	Total Unit Rate*
	$	EDU	$/mo/EDU
Customer Class			
Customers Served by District	4,177,600	9,073	38.37
Customers Served by Thousand Oaks	10,300	18	47.69
Subtotal	$ 4,187,900	9,091	

* Divided by 12 to represent monthly bill.

Table 7-2
Proposed Multi-Year Monthly Service Charge

Customer Class	Sewer Service Charge						
	Existing	Proposed					
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU
Customers Served by District	31.32	33.49	35.83	38.37	40.62	43.05
Customers Served by Thousand Oaks	43.23	46.76	47.22	47.69	48.15	48.61

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Table 6-1
FY 2022 Cost of Service Revenue from Rates (Sewer)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expense	3,249,800	0	3,249,800
2	Debt Service Requirements	0	193,500	193,500
3	Transfers	80,000	1,000,000	1,080,000
4	Subtotal	$ 3,329,800	$ 1,193,500	$ 4,523,300
	Less Revenue Requirements Met from Other Sources			
5	Other Operating Revenue	(20,500)	0	(20,500)
6	Interest from Operations	(46,000)	0	(46,000)
7	Subtotal	$ (66,500)	$ 0	$ (66,500)
	Adjustments			
8	Adjustment for Annual Cash Balance	(12,500)	0	(12,500)
9	Adjustment to Annualize Rate Increase	0	0	0
10	Subtotal	$ (12,500)	$ 0	$ (12,500)
11	Cost of Service to be Recovered from Rates	$ 3,250,800	$ 1,193,500	$ 4,444,300

Table 6-2
FY 2022 Allocation of O&M Expenditures (Sewer)

Line No.	Description	Common to All Customers					Allocation Basis
		Volume	BOD	TSS	Customer	T.O.	
		(%)	(%)	(%)	(%)	(%)	
	Operation & Maintenance						
1	Water Production	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
2	Salaries and Benefits	30.00%	25.00%	25.00%	20.00%	0.00%	[2]
3	Contracts & Professional Services						
4	Outside Contracts	49.23%	24.61%	24.61%	0.00%	1.55%	[3]
5	Professional Services	50.00%	25.00%	25.00%	0.00%	0.00%	[4]
6	Services & Supplies	28.94%	23.95%	23.95%	23.15%	0.00%	[5]
7	Utilities	50.00%	25.00%	25.00%	0.00%	0.00%	[4]
8	Materials & Supplies	60.00%	20.00%	20.00%	0.00%	0.00%	[6]
9	Repair Parts & Equipment Maintenanc	60.00%	20.00%	20.00%	0.00%	0.00%	[6]

[1] All Volume
[2] Volume/Strength/Customer
[3] Volume/Strength/Customer/TO
[4] Volume/Strength
[5] Volume/Strength/Customer (avg of all other cost items)
[6] Volume/Strength

Table 6-3
FY 2022 Allocation of $ O&M Expenditures (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
		($)	($)	($)	($)	($)	($)
	Operation & Maintenance						
1	Water Production	21,500	21,500	0	0	0	0
2	Salaries and Benefits	1,790,500	537,200	447,600	447,600	358,100	0
3	Contracts & Professional Services						
4	Outside Contracts	671,600	330,600	165,300	165,300	0	10,400
5	Professional Services	77,300	38,700	19,300	19,300	0	0
6	Services & Supplies	248,800	72,000	59,600	59,600	57,600	0
7	Utilities	27,500	13,700	6,900	6,900	0	0
8	Materials & Supplies	131,400	78,800	26,300	26,300	0	0
9	Repair Parts & Equipment Maintenanc	155,400	93,200	31,100	31,100	0	0
10	Total O&M Expenses	$ 3,124,000	$ 1,185,700	$ 756,100	$ 756,100	$ 415,700	$ 10,400
	Less Other Revenue						
11	Miscellaneous Revenues	66,500	26,400	15,700	15,700	8,700	0
12	Other Adjustments	12,500	4,900	3,000	3,000	1,600	0
13	Net Operating Expenses	$ 3,045,000	$ 1,154,400	$ 737,400	$ 737,400	$ 405,400	$ 10,400

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Table 6-4
FY 2022 Allocation of Capital Costs (Sewer)

Line No.	Description	Common to All Customers					Allocation Basis
		Volume	BOD	TSS	Customer	T.O.	
		(%)	(%)	(%)	(%)	(%)	
	Plant Assets						
1	Collection	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
2	Lift Station	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
3	Treatment	50.00%	25.00%	25.00%	0.00%	0.00%	[2]
4	Land	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
5	General Plant	80.00%	10.00%	10.00%	0.00%	0.00%	[2]

[1] All Volume
[2] Volume/Strength

Table 6-5
FY 2022 Allocation of $ Capital Costs (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
		($)	($)	($)	($)	($)	($)
	Plant Assets						
1	Collection	5,414,500	5,414,500	0	0	0	0
2	Lift Station	113,800	113,800	0	0	0	0
3	Treatment	10,075,900	5,037,900	2,519,000	2,519,000	0	0
4	Land	407,300	407,300	0	0	0	0
5	General Plant	319,600	255,600	32,000	32,000	0	0
6	Total Plant Assets	$ 16,331,100	$ 11,229,100	$ 2,551,000	$ 2,551,000	$ 0	$ 0
	Less Other Revenue						
7	Miscellaneous Revenues	0	0	0	0	0	0
8	Other Adjustments	0	0	0	0	0	0
9	Net Operating Expenses	$ 16,331,100	$ 11,229,100	$ 2,551,000	$ 2,551,000	$ 0	$ 0
10	Proxy for Allocation of Capital Costs (%)		68.8%	15.6%	15.6%	0.0%	0.0%

Table 6-6
FY 2022 Units of Service (Sewer)

Line No.	Description	Contributed Units	Contributed Volume	Treated Volume	BOD Loadings Factor	BOD Loadings Loading	TSS Loadings Factor	TSS Loadings Loading	Bills
	Units of Measure	(EDUs)	(HCF)	(HCF)	(mg/L)	(lbs)	(mg/L)	(lbs)	(bills)
1	Customers Served by District	9,261	1,653,094	623,850	250	973,000	200	778,400	111,132
2	Customers Served by Thousand Oaks	18	17,650	5,383	250	8,400	200	6,700	216
3	Total	9,279	1,670,744	629,233		981,400		785,100	111,348
4	Total Wastewater System		1,670,744	629,233		981,400		785,100	111,348
5	Total Wastewater System (less through CWD)		1,653,094	623,850		973,000		778,400	111,132

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Table 6-7
FY 2022 Units Cost of Service (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
1	Net Operating Expense	3,250,800	1,360,200	737,400	737,400	405,400	10,400
2	Debt Service [1]	193,500	133,100	30,200	30,200	0	0
3	Capital Costs	1,080,000	742,600	168,700	168,700	0	0
4	Total Cost of Service	$ 4,524,300	$ 2,235,900	$ 936,300	$ 936,300	$ 405,400	$ 10,400
5	Units of Service (Per Table 6-6)		623,850	973,000	778,400	111,132	5,383
6	Units of Measure		HCF	lbs	lbs	bills	HCF
7	Cost per Unit (Line 4/Line 5)		$ 3.58	$ 0.96	$ 1.20	$ 3.65	$ 1.93
8	Units of Measure		per HCF	per lbs	per lbs	per bill	per HCF

[1] Allocated based on Table 6-5, Line 10

Table 6-8
FY 2022 Distribution of Costs to Customer Classes (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
1	Cost per Unit (Per Table 6-7)		$ 3.58	$ 0.96	$ 1.20	$ 3.65	$ 1.93
2	Units of Measure		per HCF	per lbs	per lbs	per bill	per HCF
	Customers Served by District						
3	Units		623,850	973,000	778,400	111,132	0
4	Allocation of costs of service	$ 4,513,900	2,235,900	936,300	936,300	405,400	0
	Customers Served by Thousand Oaks						
5	Units		0	0	0	0	5,383
6	Allocation of costs of service	$ 10,400	0	0	0	0	10,400
7	TOTAL COSTS OF SERVICE	$ 4,524,300	$ 2,235,900	$ 936,300	$ 936,300	$ 405,400	$ 10,400

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Table 7-1
FY 2022 Determination of Monthly Service Charge

Description	Total Costs	Number of EDUs	Total Unit Rate*
	$	EDU	$/mo/EDU
Customer Class			
Customers Served by District	4,513,900	9,261	40.62
Customers Served by Thousand Oaks	10,400	18	48.15
Subtotal	$ 4,524,300	9,279	

* Divided by 12 to represent monthly bill.

Table 7-2
Proposed Multi-Year Monthly Service Charge

Customer Class	Sewer Service Charge						
	Existing	Proposed					
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU
Customers Served by District	31.32	33.49	35.83	38.37	40.62	43.05
Customers Served by Thousand Oaks	43.23	46.76	47.22	47.69	48.15	48.61

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Table 6-1
FY 2023 Cost of Service Revenue from Rates (Sewer)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expense	3,350,300	0	3,350,300
2	Debt Service Requirements	0	192,000	192,000
3	Transfers	85,000	1,000,000	1,085,000
4	Subtotal	$ 3,435,300	$ 1,192,000	$ 4,627,300
	Less Revenue Requirements Met from Other Sources			
5	Other Operating Revenue	(20,500)	0	(20,500)
6	Interest from Operations	(46,000)	0	(46,000)
7	Subtotal	$ (66,500)	$ 0	$ (66,500)
	Adjustments			
8	Adjustment for Annual Cash Balance	234,900	0	234,900
9	Adjustment to Annualize Rate Increase	(100)	0	(100)
10	Subtotal	$ 234,800	$ 0	$ 234,800
11	Cost of Service to be Recovered from Rates	$ 3,603,600	$ 1,192,000	$ 4,795,600

Table 6-2
FY 2023 Allocation of O&M Expenditures (Sewer)

Line No.	Description	Common to All Customers					Allocation Basis
		Volume	BOD	TSS	Customer	T.O.	
		(%)	(%)	(%)	(%)	(%)	
	Operation & Maintenance						
1	Water Production	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
2	Salaries and Benefits	30.00%	25.00%	25.00%	20.00%	0.00%	[2]
3	Contracts & Professional Services						
4	Outside Contracts	49.23%	24.62%	24.62%	0.00%	1.53%	[3]
5	Professional Services	50.00%	25.00%	25.00%	0.00%	0.00%	[4]
6	Services & Supplies	28.78%	24.01%	24.01%	23.19%	0.00%	[5]
7	Utilities	50.00%	25.00%	25.00%	0.00%	0.00%	[4]
8	Materials & Supplies	60.00%	20.00%	20.00%	0.00%	0.00%	[6]
9	Repair Parts & Equipment Maintenanc	60.00%	20.00%	20.00%	0.00%	0.00%	[6]

[1] All Volume
[2] Volume/Strength/Customer
[3] Volume/Strength/Customer/TO
[4] Volume/Strength
[5] Volume/Strength/Customer (avg of all other cost items)
[6] Volume/Strength

Table 6-3
FY 2023 Allocation of $ O&M Expenditures (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
		($)	($)	($)	($)	($)	($)
	Operation & Maintenance						
1	Water Production	21,500	21,500	0	0	0	0
2	Salaries and Benefits	1,856,600	556,900	464,200	464,200	371,300	0
3	Contracts & Professional Services						
4	Outside Contracts	684,900	337,200	168,600	168,600	0	10,500
5	Professional Services	78,800	39,400	19,700	19,700	0	0
6	Services & Supplies	256,100	73,700	61,500	61,500	59,400	0
7	Utilities	28,300	14,100	7,100	7,100	0	0
8	Materials & Supplies	135,300	81,100	27,100	27,100	0	0
9	Repair Parts & Equipment Maintenanc	158,500	95,100	31,700	31,700	0	0
10	Total O&M Expenses	$ 3,220,000	$ 1,219,000	$ 779,900	$ 779,900	$ 430,700	$ 10,500
	Less Other Revenue						
11	Miscellaneous Revenues	66,500	26,400	15,700	15,700	8,700	0
12	Other Adjustments	(234,800)	(92,900)	(55,600)	(55,600)	(30,700)	0
13	Net Operating Expenses	$ 3,388,300	$ 1,285,500	$ 819,800	$ 819,800	$ 452,700	$ 10,500

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Table 6-4
FY 2023 Allocation of Capital Costs (Sewer)

Line No.	Description	Common to All Customers					Allocation Basis
		Volume	BOD	TSS	Customer	T.O.	
		(%)	(%)	(%)	(%)	(%)	
	Plant Assets						
1	Collection	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
2	Lift Station	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
3	Treatment	50.00%	25.00%	25.00%	0.00%	0.00%	[2]
4	Land	100.00%	0.00%	0.00%	0.00%	0.00%	[1]
5	General Plant	80.00%	10.00%	10.00%	0.00%	0.00%	[2]

[1] All Volume
[2] Volume/Strength

Table 6-5
FY 2023 Allocation of $ Capital Costs (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
		($)	($)	($)	($)	($)	($)
	Plant Assets						
1	Collection	5,414,500	5,414,500	0	0	0	0
2	Lift Station	113,800	113,800	0	0	0	0
3	Treatment	10,075,900	5,037,900	2,519,000	2,519,000	0	0
4	Land	407,300	407,300	0	0	0	0
5	General Plant	319,600	255,600	32,000	32,000	0	0
6	Total Plant Assets	$ 16,331,100	$ 11,229,100	$ 2,551,000	$ 2,551,000	$ 0	$ 0
	Less Other Revenue						
7	Miscellaneous Revenues	0	0	0	0	0	0
8	Other Adjustments	0	0	0	0	0	0
9	Net Operating Expenses	$ 16,331,100	$ 11,229,100	$ 2,551,000	$ 2,551,000	$ 0	$ 0
10	Proxy for Allocation of Capital Costs (%)		68.8%	15.6%	15.6%	0.0%	0.0%

Table 6-6
FY 2023 Units of Service (Sewer)

Line No.	Description	Contributed Units	Contributed Volume	Treated Volume	BOD Loadings Factor	BOD Loadings Loading	TSS Loadings Factor	TSS Loadings Loading	Bills
	Units of Measure	(EDUs)	(HCF)	(HCF)	(mg/L)	(lbs)	(mg/L)	(lbs)	(bills)
1	Customers Served by District	9,428	1,657,169	625,383	250	975,300	200	780,300	113,136
2	Customers Served by Thousand Oaks	18	17,687	5,395	250	8,400	200	6,700	216
3	Total	9,446	1,674,856	630,778		983,700		787,000	113,352
4	Total Wastewater System		1,674,856	630,778		983,700		787,000	113,352
5	Total Wastewater System (less through CWD)		1,657,169	625,383		975,300		780,300	113,136

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Table 6-7
FY 2023 Units Cost of Service (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
1	Net Operating Expense	3,603,600	1,500,800	819,800	819,800	452,700	10,500
2	Debt Service [1]	192,000	132,000	30,000	30,000	0	0
3	Capital Costs	1,085,000	746,000	169,500	169,500	0	0
4	Total Cost of Service	$ 4,880,600	$ 2,378,800	$ 1,019,300	$ 1,019,300	$ 452,700	$ 10,500
5	Units of Service (Per Table 6-6)		625,383	975,300	780,300	113,136	5,395
6	Units of Measure		HCF	lbs	lbs	bills	HCF
7	Cost per Unit (Line 4/Line 5)		$ 3.80	$ 1.05	$ 1.31	$ 4.00	$ 1.95
8	Units of Measure		per HCF	per lbs	per lbs	per bill	per HCF

[1] Allocated based on Table 6-5, Line 10

Table 6-8
FY 2023 Distribution of Costs to Customer Classes (Sewer)

Line No.	Description	Total Cost	Common to All Customers				
			Volume	BOD	TSS	Customer	T.O.
1	Cost per Unit (Per Table 6-7)		$ 3.80	$ 1.05	$ 1.31	$ 4.00	$ 1.95
2	Units of Measure		per HCF	per lbs	per lbs	per bill	per HCF
	Customers Served by District						
3	Units		625,383	975,300	780,300	113,136	0
4	Allocation of costs of service	$ 4,870,100	2,378,800	1,019,300	1,019,300	452,700	0
	Customers Served by Thousand Oaks						
5	Units		0	0	0	0	5,395
6	Allocation of costs of service	$ 10,500	0	0	0	0	10,500
7	TOTAL COSTS OF SERVICE	$ 4,880,600	$ 2,378,800	$ 1,019,300	$ 1,019,300	$ 452,700	$ 10,500

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Table 7-1
FY 2023 Determination of Monthly Service Charge

Description	Total Costs	Number of EDUs	Total Unit Rate*
	$	EDU	$/mo/EDU
Customer Class			
Customers Served by District	4,870,100	9,428	43.05
Customers Served by Thousand Oaks	10,500	18	48.61
Subtotal	$ 4,880,600	9,446	

* Divided by 12 to represent monthly bill.

Table 7-2
Proposed Multi-Year Monthly Service Charge

Customer Class	Sewer Service Charge						
	Existing	Proposed					
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU	$/mo/EDU
Customers Served by District	31.32	33.49	35.83	38.37	40.62	43.05
Customers Served by Thousand Oaks	43.23	46.76	47.22	47.69	48.15	48.61