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2021 Retail Water Rate Study Report

March 21, 2022



March 21, 2022

Donna Silva, Director of Finance
San Juan Water District
9935 Auburn Folsom Rd.
Granite Bay, CA 95746



Re: 2021 Retail Water Rate Study

Dear Ms. Silva,

Hildebrand Consulting is pleased to present this 2021 Retail Water Rate Study (Study) for the San Juan Water District (District). We appreciate the fine assistance provided by you and all of the members of the District staff who participated in the Study, as well as the input and guidance provided by the Water Rate Structure Committee.

Schedule 2 of this report has been corrected from the January 31, 2022 version.

If you or others at the District have any questions, please do not hesitate to contact me at:

mhildebrand@hildco.com
(510) 316-0621

We appreciate the opportunity to be of service and look forward to the possibility of doing so again in the near future.

Sincerely,

A handwritten signature in blue ink, appearing to read 'M. Hildebrand', is written over a light blue circular watermark that contains the word 'Hildebrand'.

Mark Hildebrand
Hildebrand Consulting, LLC

Enclosure

Executive Summary

Hildebrand Consulting, LLC has been retained by San Juan Water District (District) to conduct a water rate study (Study) for the District’s retail water system. The full report describes in detail the assumptions, procedures, and results of the Study, including conclusions and recommendations. The scope of this Study is to prepare a multi-year financial plan, review the water rate structure, propose a 3-year rate schedule, and update the District’s Water Shortage Charges. This Study applied methodologies that are aligned with industry standard practices for rate setting as laid out in the AWWA M1 Manual, and all applicable law, including California Constitution Article XIII D, Section 6(b), commonly known as Proposition 218.

Financial Plan

A 10-year Financial Plan was developed through several interactive work sessions with District staff. The analysis identifies a revenue shortfall in upcoming years which leads to a conclusion that revenue adjustments are required for the District. The District collects rate revenue bimonthly from water customers in the form of a fixed “Base Charge” assessed based on meter size and a water “Usage Rate” applied to actual water use. In addition to rate revenue, the District receives additional “non-rate revenue” from sources such as miscellaneous service fees, property taxes, leases, Capital Facilities Charges revenue, and interest revenue on investments. The District’s expenses include operating and maintenance expenses, debt service, and capital spending.

The District plans to increase its average annual spending from \$2.8 million to \$8.3 million in order to pro-actively address water system rehabilitation needs associated with aging pipes, pump stations, water tanks, and other system deficiencies. This level of spending is aligned with the District’s 2020 Retail Master Plan. While the District typically follows a policy of cash financing capital projects whenever possible, there are instances when debt financing is appropriate. Such instances are typified by

abnormally large spikes in capital spending. Given the District's current reserves it is recommended that the District issuing new debt for about \$22 million to fund a portion of FY2022, FY2023, and FY2024 projects (namely the Kokila Reservoir, Eureka Rd Transmission Line and the proposed Retail Groundwater Production Facility). Issuing this debt will allow the District to simultaneously cash finance the rest of the capital projects over the next 10 years and establish larger reserve targets (which promotes pay-as-you-go capital funding) while minimizing water rate increases.

All of the above information was entered into a financial planning model to produce a 10-year projection of the sufficiency of current rate revenues to meet projected financial requirements and determine the level of rate revenue increases necessary in each year of the projection period. This Study proposes 3 years of 8% annual rate adjustments.

Cost of Service and Rate Design

The Cost-of-Service (COS) analysis evaluates the cost of providing water and allocates those costs to rate structure components to ensure the proposed rates are aligned with the costs to provide service. The COS analysis is performed in order to comply with Proposition 218, which requires water rates to be equitably apportioned and proportional to the cost of providing water service. This Study employed a COS methodology that is consistent with the "commodity-demand" COSA methodology promulgated in AWWA's *Manual M1: Principles of Water Rates, Fees, and Charges (M1)*. This is a well-established methodology as recognized by the AWWA and other accepted industry standards.

The cost allocation methodology begins by assigning all costs to one of three revenue recovery categories, including the account charge, the meter charge and the usage charge. The District's Base Charge was then calculated based on a combination of the account charge and meter charge identified through the cost of service analysis. Base Charges apply to all customer water bills, regardless of the amount of water actually used. In calculating Base Charges, the account charge is allocated equally to all customers and the meter charge is allocated to customers based on their meter size.

Under the proposed water rates for CY 2022, the uniform water rate would be \$0.92 per CCF. The 3-year schedule of proposed water rates are presented in the table below.

	Proposed Implementation Dates			
	Current	Feb 1, 2022	Jan 1, 2023	Jan 1, 2024
Overall Rate Revenue Increase -->		8%	8%	8%
Daily Base Charges				
Up to 1" meter	\$2.23	\$2.50	\$2.70	\$2.92
1 1/2" meter	\$5.78	\$6.30	\$6.80	\$7.34
2" meter	\$9.20	\$9.95	\$10.75	\$11.61
3" meter	\$17.13	\$18.46	\$19.94	\$21.54
4" meter	\$28.48	\$30.62	\$33.07	\$35.72
6" meter	\$56.88	\$61.03	\$65.91	\$71.18
8" meter	\$90.94	\$97.51	\$105.31	\$113.73
Water Usage Charge (\$/CCF)				
All water usage	\$0.92	\$0.92	\$0.99	\$1.07

Water Shortage Charges

The Study calculated an update to the District’s existing Water Shortage Charges, which are designed to be overlain on then-current water usage rates during water shortage events, as declared by the District. Water Shortage Charges are temporary and affect only the Usage Charge and not the fixed Base Charge. The Water Shortage Charge is a tool the District would use to reduce the financial impacts associated with reduced water sales and increases in operating costs during a drought event.

Water Shortage Contingency Plan Stages:	Normal Supply Conditions	Stage 1 - Alert	Stage 2 - Warning	Stage 3 - Crisis	Stage 4 - Emergency
Corresponding State Mandated Shortage Levels:	(normal)	Stage 1	Stages 2 & 3	Stages 3, 4 & 5	Stage 6
Use Reduction Goal -->	n/a	0% to 10%	10% to 25%	25% to 50%	Greater than 50%
Assumed Water Use Reduction -->		5%	17.5%	37.5%	50%
Drought Rate Surcharge -->	n/a	0%	5%	10%	20%

Private Fire Line Rates

The District assesses a charge for separate private service connections that provide fire suppression capabilities to structures and property (e.g., serving automatic internal sprinkler systems). The District provides maintenance and replacement services up to the backflow device for private fire service lines, which is a service that is not provided to other customers. The monthly Private Fire Line Rates are summarized in the table below and are calculated based on the cost of regular maintenance and the cost of replacing the line.

Service Line Size:	4"	6"	8"	10"	12"
Daily Charge:	\$1.03	\$1.20	\$1.34	\$1.46	\$1.60

It is recommended that the District increase the above rates by 3% per year, which is equal to forecasted annual cost inflation over the next 2 years.

Conclusion

This Study used methodologies that are aligned with industry standard practices for rate setting as promulgated by AWWA and all applicable laws, including California's Proposition 218. The proposed annual adjustments to the water rates are expected to enable the District to continue to provide reliable service to customers while meeting the state's mandates.

The water rates, including the Water Shortage Charges, will need to be adopted in accordance with Proposition 218, which will require a detailed notice describing the proposed charges to be mailed to each affected property owner or customer at least 45 days prior to conducting a public hearing to adopt the rates.

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List of Acronyms

AF	acre-feet (measure of water volume)
AWWA	American Water Works Association
CAFR	Comprehensive Annual Financial Report
CCF	hundreds of cubic feet (measure of water volume)
CIP	capital improvement program
COS	cost of service
CY	calendar year
DCR	debt service coverage ratio
FY	fiscal year (which ends on June 30 for the District)
O&M	operations and maintenance
OPEB	Other Post-Employment Benefits
pay-go	“pay as you go” (i.e., cash financing for capital projects)
WSCP	water shortage contingency plan

Section 1. INTRODUCTION

Hildebrand Consulting, LLC has been retained by San Juan Water District (District) to conduct a water rate study (Study) for the District's retail water system. Hildebrand Consulting retained The Reed Group, Inc. as a subconsultant. This report describes in detail the assumptions, procedures, and results of the Study, including conclusions and recommendations.

1.1 UTILITY BACKGROUND

The District is a community services district formed under Section 61000 et seq., Title 5, Division 3 of the California Government Code. The District provides both wholesale and retail water service. The wholesale area (which includes the District's 17 square mile retail area) covers approximately forty six square miles in northeastern Sacramento and southeastern Placer Counties. The District wholesales water to San Juan Retail, Citrus Heights and Fair Oaks Water Districts, Orange Vale Water Company, and to the City of Folsom for its customers north of the American River. The retail system serves over 10,000 residential accounts and nearly five hundred commercial accounts.

The District's existing water supply consists of three separate raw water contracts. The first source of water is a settlement contract with the U.S. Bureau of Reclamation (Reclamation) that provides, in perpetuity, for the delivery of 33,000 acre-feet of water from the American River based upon the District's water rights, which date from 1853 and 1928. The second source is a repayment contract with Reclamation for 24,200 acre-feet of Central Valley Project water. The third source is a contract with Placer County Water Agency for up to 25,000 acre-feet of water. All sources of surface water are either stored or flow through Folsom Lake and delivery is taken at Folsom Dam outlets, either by gravity or pumped by Reclamation's Folsom Pumping Plant.

This current rate study directly addresses District’s Strategic Plan goal to “Operate the District Sustainably and in a Financially Sound Manner while Maintaining a Fair Rate Structure.”

The District’s retail water rate study was conducted by The Reed Group in 2017 and the last rate adjustment was made in January of 2021.

1.2 SCOPE & OBJECTIVES OF STUDY

The scope of this Study is to prepare a multi-year financial plan, review the water rate structure, propose a 3-year rate schedule, and update the District’s Water Shortage Charges.

The primary objectives of this Study are to:

- i. Develop a multi-year financial plan that integrates operational and capital project funding needs with a funding strategy.
- ii. Identify future annual adjustments to water rates to help ensure adequate revenues to meet the District’s ongoing financial obligations.
- iii. Update the cost of providing water service using industry-accepted methodologies.
- iv. Recommend specific updates to the District’s existing rate structures in order to ensure that the District is equitably recovering the cost of service and comporting with industry standards¹ and California’s legal requirements.

¹ As promulgated the American Water Work Association (AWWA) M1 Manual: Principles of Water Rates, Fees and Charges: Manual of Water Supply Practices M1, (7th edition), which documents many of the standards used by professionals in the utility rate-setting industry.

1.3 STUDY METHODOLOGY

This Study applied methodologies that are aligned with industry standard practices for rate setting as laid out in the AWWA M1 Manual, and all applicable law, including California Constitution Article XIII D, Section 6(b), commonly known as Proposition 218.

The Study began with a review of the District's current financial dynamics and latest available data for the District's operations. A multi-year financial management plan was then developed to determine the level of annual rate revenue required to cover projected annual operating expenses, debt service (including coverage targets), and capital cost requirements while maintaining adequate reserves. This portion of the Study was conducted using an MS Excel©-based financial planning model which was customized to reflect financial dynamics and latest available data for the District's operations in order to develop a long-term financial management plan, inclusive of projected annual revenue requirements and corresponding annual rate adjustments.

Revenue requirements calculated for fiscal year ending June 2022 (FY 2021/22²) were then used to perform a detailed cost-of-service (COS) analysis. The COS analysis and rate structure design were conducted based upon principles outlined by the AWWA, legal requirements (Proposition 218) and other generally accepted industry practices to develop rates that reflect the cost of providing service.

² Fiscal years are sometimes indicated by their ending years. For example, FY 2021/22, starts on July 1, 2021, and ends on June 30, 2022, can also be expressed as FY 2022.

Section 2. FINANCIAL PLAN

This section presents the Retail System’s 10-year Financial Plan, including a description of the source data, assumptions, and the District’s financial policies. The District provided historical and budgeted financial information, including historical and budgeted operating costs, a multi-year capital improvement program (CIP), and outstanding debt service obligations. District staff also assisted in providing other assumptions and policies, such as reserve targets and escalation rates for operating costs (all of which are described in the following subsections).

The 10-year Financial Plan was developed through several interactive work sessions with District staff. As a result of this process, the Study has produced a robust financial plan that will enable the District to meet its future revenue requirements and achieve financial performance objectives throughout the projection period while striving to minimize rate increases.

The analysis identifies a revenue shortfall in upcoming years which leads to a conclusion that revenue adjustments are required for the District. The schedules attached to this report include detailed data supporting the Financial Plan discussed herein.

The Financial Plan reflects assumptions and estimates believed reasonable at the present time. However, conditions change. It is recommended that the District review its financial condition and scheduled rate adjustments as part of the annual budget process, as well as perform a more comprehensive financial plan and water rate update every 3 to 5 years, as conditions dictate.

2.1 FUND STRUCTURE

The Financial Plan is an annual cash flow model. As a cash flow model, it differs from standard accounting income statements, and balance sheets. The Financial Plan

models sources and uses of funds into, out of, and between the Retail Water funds. The Financial Plan model is based on the Retail Water fund structure and incorporates reserve policies for specified purposes. The reserve structure includes an Operating Reserve within the Operating Fund (Fund 50) and a Capital Reserve within the Capital Fund (Fund 55). **Figure 1** includes a schematic diagram of the funds/reserves and major cash flows associated with the financial plan model.

An understanding of the fund/reserve structure is helpful in understanding the financial plan worksheets that model estimated annual cash flows through Retail Water utility from one year to the next.

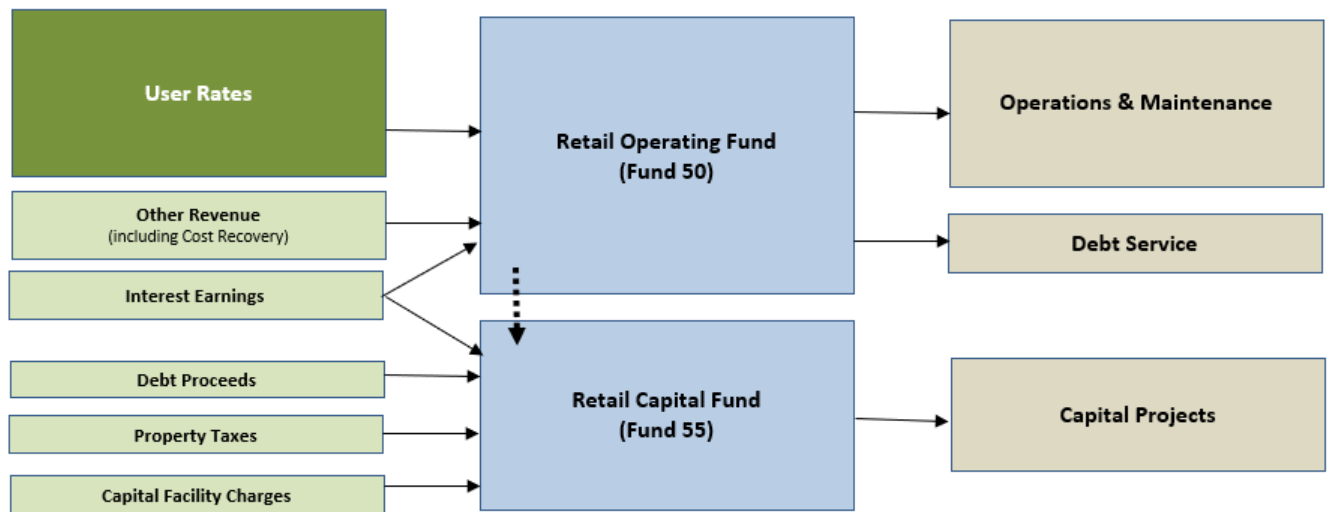


Figure 1: Schematic of Retail Water Funds and Cash Flows

2.2 BEGINNING FUND BALANCES

The budgeted ending cash balance for FY 2020/21 in the Retail Operating Fund was \$2,737,00 while in the Retail Capital Fund the ending cash balance was \$8,039,000. These cash balances were used to establish the “starting point” for the reserve levels for this 10-year financial plan. It should be noted that the amount of cash that the District keeps in reserves is a product of its reserve policies (see Section 2.5.4).

2.3 CUSTOMER GROWTH AND WATER USAGE

Over the period of 2016 to 2020 the District has collected an average of about \$315 thousand per year in Capital Facilities Charge revenue from new customers connecting to the system, which equates to a growth rate of approximately 0.23% per year. This rate of growth is consistent with a utility that is largely “built-out.” This Study assumes that this trend will continue for the duration of the next 10 years.

In the Spring of 2021, the governor declared a drought emergency in 41 counties, including Sacramento County. For purposes of this Financial Plan, it is assumed that water demand will decrease by 5% in FY 2021/22 and rebound the next year. If the decrease in water usage persists or intensifies the District will need to consider enacting its existing or updated Water Shortage Charge policy (see Section 4). It is impossible to reliably forecast future water use since so much depends on future weather conditions.

2.4 RATE REVENUE

Rate revenue is the revenue generated from customers for water service. The District collects rate revenue bimonthly from water customers in the form of a fixed “Base Charge” assessed based on meter size and a water “Usage Rate” applied to actual water use (measured in hundreds of cubic feet or “CCF,” which is equal to 748 gallons). The Financial Plan starts with rate revenue levels that were estimated based on mid-year projections during FY 2020/21. Estimated future water demand and rate revenues include the small amount of customer growth (see Section 2.3), changes in water usage (see Section 2.3), as well as the annual rate revenue adjustments proposed by this Study. Budgeted and projected rate revenues (including proposed rate adjustments) are listed in **Schedule 3**.

2.5 NON-RATE REVENUES

In addition to rate revenue, the District receives additional “non-rate revenue” from sources such as miscellaneous service fees, property taxes, leases, Capital Facilities

Charges³ revenue, and interest revenue on investments. Projections of all non-rate revenues were based on FY 2019/20 actual revenues with the exception of interest income which was calculated annually based upon projected fund balances and assumed interest rate of 1.5%, which is consistent with the District’s historical interest earnings relative to its total reserve levels. Capital facility fees were also updated based on year-to-date actuals. Property tax revenue is forecasted to increase by 2%. Budgeted non-rate revenues are depicted in **Figure 2** below and listed in detail in **Schedule 3**.

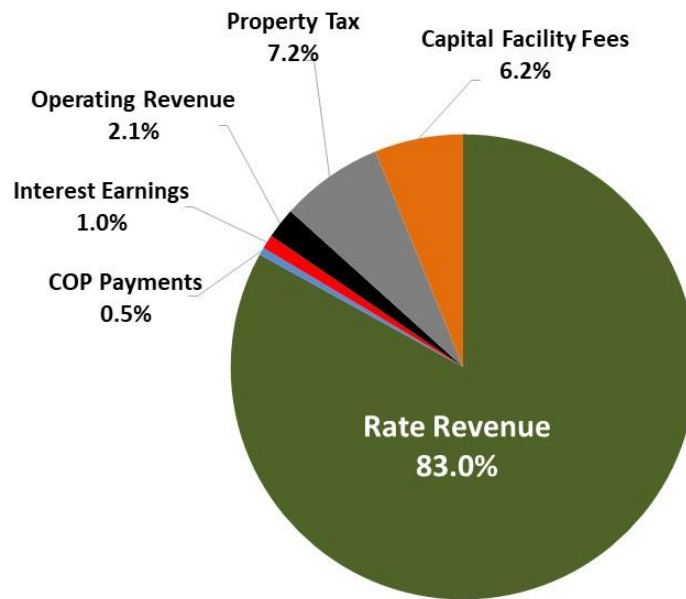


Figure 2: Budgeted Revenue Categories (FY 2020/21 Projections)

³ The District’s “Capital Facilities Charges” are known as “Capacity Charges” per Government Code Section 66013.

2.5.1 Operating and Existing Debt Expenses

The District’s expenses include operating and maintenance expenses, debt service, and capital spending. Capital spending is addressed separately in Section 2.5.3.

Future operating and maintenance expenses were projected based upon the actual expenditures from FY 2019/20, calibrated by certain FY 2020-21 expense trends and adjusted for inflation (see Section 2.5.2).

Major budgeted expense categories for FY 2020/21 are depicted in **Figure 3**. Projected operating and maintenance costs are listed in detail in **Schedule 1**. This schedule specifically breaks out salary and benefit costs since these expenses are forecasted to escalate at a different rate than other operating expenses (see Section 2.5.2).

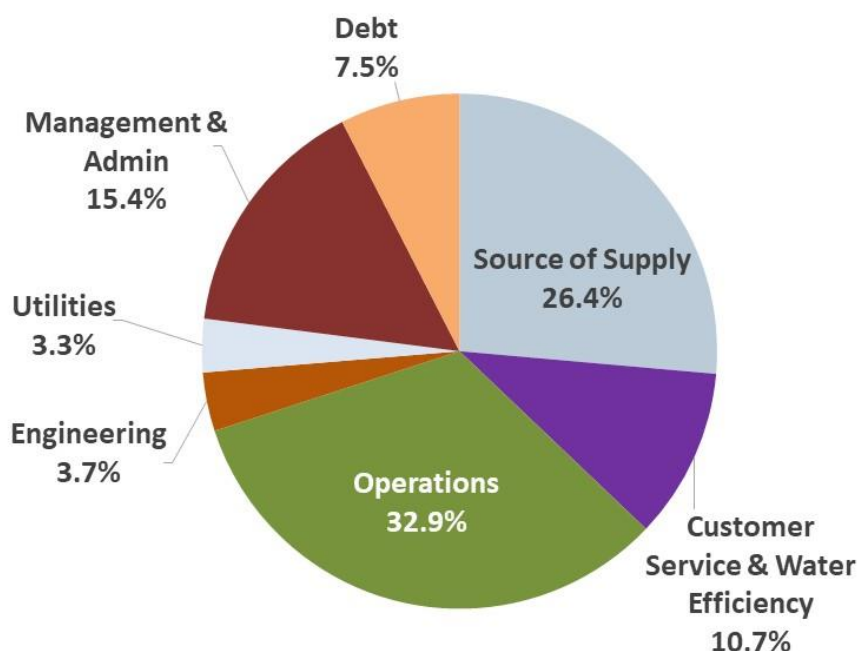


Figure 3: Operating & Existing Debt Expense Categories (Projected FY 2021)

The Retail enterprise’s current debt obligations include repayment of 2012 refunding revenue bonds and 2017 refunding revenue bonds. The retail portion of annual debt

service on the 2012 bonds totals about \$300,000 and is about \$560,000 on the 2017 refunding revenue bonds. The 2012 bond is scheduled to be paid off in 2033 while the 2017 bond is scheduled to be paid off in 2039.

2.5.2 Cost Escalation

Annual cost escalation factors for the various types of expenses were developed based upon a review of historical inflation trends, published inflation forecasts, industry experience, and discussions with District staff. During the projection period, expenses related to salaries and benefits are projected to increase at a rate of 5% per year while all other expenses (including Wholesale Rates) are projected to increase by 3% per year.

2.5.3 Capital Improvement Program

Figure 4 shows that from FY 2015/16 to FY 2020/21 the District averaged \$2.8 million in cash financed (“pay-go”) capital spending. Going forward, the District is planning to increase its annual spending to an average of \$8.3 million per year. The District is increasing its capital spending in order to pro-actively address water system rehabilitation needs associated with aging pipes, pump stations, water tanks, and other system deficiencies. This level of spending is aligned with the District’s 2020 Retail Master Plan. A detailed list of capital projects and associated costs is provided in **Schedule 2**. Notable projects include the replacement of the Kokila Reservoir (\$9.5 million), multiple distribution mainline replacement projects on Cavitt Stallman (\$9.8 million), a transmission pipeline project on Eureka Rd (\$4.0 million), a new Field Services / Administration Building (\$4.4 million) needed to address ADA non-compliance, and a proposed Retail Groundwater Production Facility (\$5.2 million).

It is worth noting that the capital spending plan in Schedule 2 show that a number of projects are scheduled to complete the design phase well in advance (sometime multiple years) of the planned construction. This strategy will allow the District to plan more effectively and potentially position the District to qualify for grant-funding that favors “shovel-ready” projects.

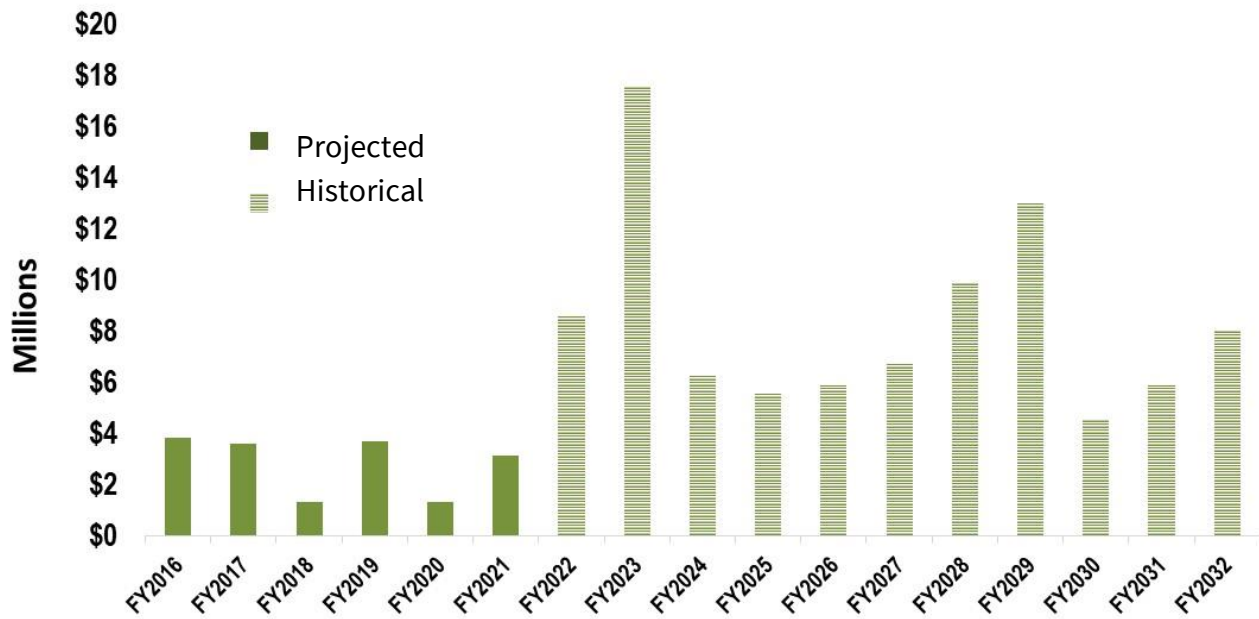


Figure 4: Historic and projected capital spending

2.5.4 Debt Strategy

As part of this study, we worked with District staff to evaluate alternative financing approaches for the above-mentioned capital expenses. While the District typically follows a policy of cash financing capital projects whenever possible, there are instances when debt financing is appropriate. Such instances are typified by abnormally large spikes in capital spending, as can be seen in FY2022/23 and FY2027/28 (see Figure 4). Such spikes in capital spending can either be addressed by drawing down on existing cash reserves or by issuing new debt. Given that the District’s current reserves are insufficient to fund both spikes in capital spending, it is recommended that the District issuing a new bond to fund some of the FY2022, FY2023, and FY 2024 projects (namely the Kokila Reservoir, Cavitt-Stallman #1, Eureka Rd. Transmission Line, general replacement (at Bacon), and Retail Groundwater Production Facilities). Issuing this debt will allow the District to simultaneously cash finance the rest of the capital projects over the next 10 years and establish larger reserve targets (which promotes pay-as-you-

go capital funding) while minimizing water rate increases. The total new debt would amount to about \$21.7 million. **Figure 5** shows how this debt strategy effectively “shaves” the need for cash in the immediate future.

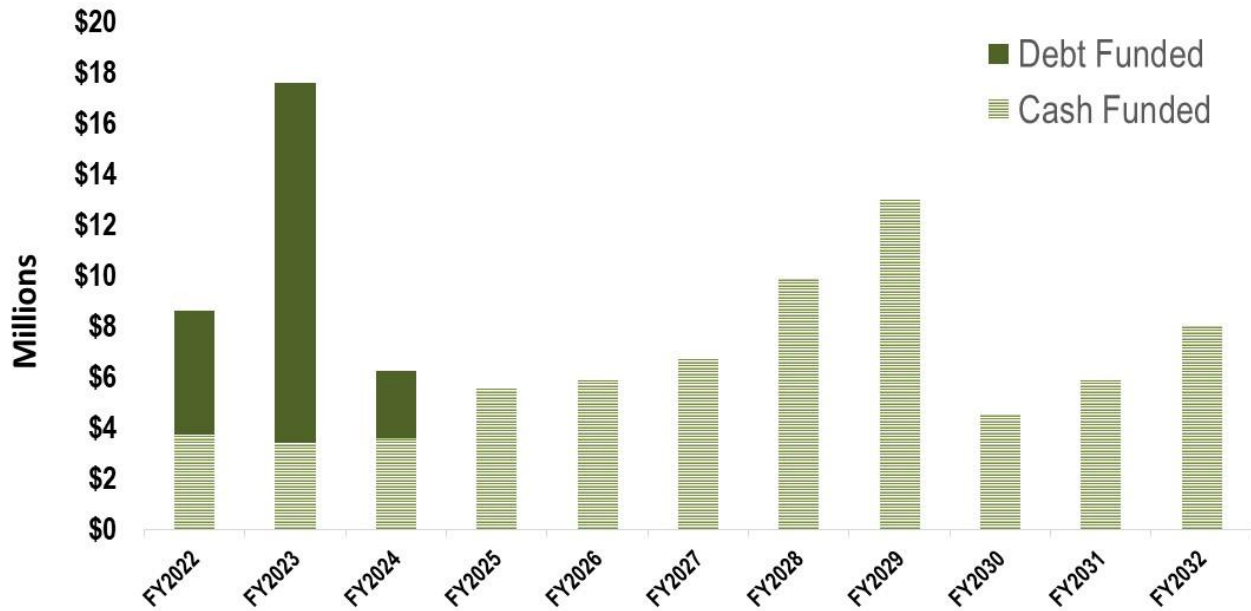


Figure 5: Forecasted Capital Spending with Debt Strategy

This Study assumes the debt will likely be in the form of low interest rate financing through the State of California’s Drinking Water Revolving Loan Fund (SRF) with a repayment period of 30-years and a fixed interest rate of 2.0%⁴.). Interest rates in this program are approximately half of the interest rate on a traditional bond issuance. If the District is unable to secure financing from the SRF it would seek traditional bond financing, which would be at a higher interest rate.

⁴ These assumptions were provided by District staff. Hildebrand Consulting is not a financial advisor and cannot provide guidance to the District regarding topics such as future interest rates for bonds.

Table 1 summarizes some of the details of the proposed new debt issues, including the timing and the ensuing annual debt service.

Table 1: Summary of Proposed Debt Issue

	SRF 1	SRF 2
Year of Issue	2022	2023
Bond Funded Projects	\$12,173,000	\$9,565,000
Total Bond Issue (including soft costs)	\$12,843,689	\$10,091,997
Interest Rate on Borrowings	2%	2%
Debt Maturity	30	30
First Payment Year	2023	2024
First Year of Interest Payment	2023	2024
Approx. Annual Debt Payments	\$573,000	\$451,000

2.5.5 Debt Service Coverage

The District’s 2017 bond requires the District to maintain a debt service coverage ratio (DCR) of at least 1.15. The DCR is calculated based on the combined financial capacity of both the retail enterprise and the wholesale enterprise. Based on recently published guidance from Fitch Ratings⁵, utility systems with *midrange* financial profiles should maintain a DCR greater than 1.5 times annual debt service. This Financial Plan demonstrates that a DCR of at least 2.9 will be maintained throughout the planning period.

2.5.6 Cash Reserve Policies

Cash reserve policies are cash balances targets that are retained for specific cash flow needs. The target for reserves is an important component when developing a multi-year Financial Plan and maintaining prudent reserves is an essential component of any sound financial management strategy. Utilities rely on reserves for financial stability; credit rating agencies evaluate utilities in part on their adherence to formally adopted

⁵ As published on July 31, 2013.

reserve targets; and lending agencies require utilities to maintain specific debt reserves for outstanding loans. The target levels of the policies below are consistent with 1) the District's established policies and practices; 2) the findings of reserve studies conducted by the AWWA; 3) a healthy level of reserves for a utility per the evaluation criteria published by rating agencies (e.g., Fitch, Moody's, and Standard & Poor's); and 4) Hildebrand Consulting and The Reed Group's industry experience for similar systems.

The following recommended reserve policies are based on Board-approved policies (Policy FIN 5.9). The policy recommendations are intended to help the District mitigate and manage financial risk while meeting service and financial obligations.

Retail Operating Reserve - The purpose of the Retail Operating Reserve is to provide sufficient funds (working capital) for operations of the District. The reserve will be maintained in an amount equal to at least 20% of the annual operating expenditures (excluding depreciation). This amounts to about \$2.2 million in FY 2021/22.

Retail Capital Reserve - The purpose of the reserve is to accumulate funds necessary to pay for the replacement of Retail's aged assets and to fund new Retail assets as deemed necessary by the Districts Master Plan and Capital Improvement Plan. As written, this reserve policy has two components:

- 1) The sum of all annual revenue sources into this reserve should be at least equal to the amount of annual depreciation for Retail's fixed assets.
- 2) The balance of the reserve should be equal to the accumulated depreciation for existing Retail assets, adjusted for inflation. If the Reserve balance is below this threshold, the District will work towards increasing the reserve balance or designate certain large capital replacement projects to be funded by the issuance of debt

The purpose of the second component is to avoid and/or minimize the future issuance of debt for capital asset replacement. The "cushion" provided by cash reserves allows the District to draw down on reserves during above-average capital spending years and build the reserve back up during subsequent years. In reviewing the District's

Comprehensive Annual Financial Report (CAFR) and discussing with District Staff, the Retail enterprise's accumulated depreciation is approximately \$29 million. While the District's long term goal of creating such healthy reserves is commendable, it is not reasonable to achieve such reserve levels within the next ten years. As such, this Report recommends a Capital Reserve target equal to 10-year average annual capital spending levels as an interim goal. This equates to a reserve target of \$8.4 million.

Target Reserves vs. Minimum Reserves – When discussing the two reserve policies above, it is important to discern between two types of reserve policies. A *minimum* reserve policy refers to a reserve level that the District should never *plan* to draw down. Such reserves (such as the Operating Reserve policy) should only be drawn down in the event of an unforeseen circumstance. On the other hand, *target* reserves (such as the Capital reserve) are designed to be drawn down and built up over the course of a planning period. The purpose of such a reserve is to give the District financial flexibility, not to create restrictions on minimum levels.

2.5.7 Proposed Rate Revenue Increases

All of the above information was entered into a financial planning model to produce a 10-year projection of the sufficiency of current rate revenues to meet projected financial requirements and determine the level of rate revenue increases necessary in each year of the projection period.

Based upon the previously discussed financial data, assumptions, policies, and debt strategy, this Study proposes a 3-year schedule of annual rate adjustments as detailed in **Table 2**.

Table 2: Recommended Water Rate Revenue Increase

Date	Proposed Rate Revenue Adjustment
February 1, 2022	8.0%
January 1, 2023	8.0%
January 1, 2024	8.0%

The numbers provided in **Schedule 3** (cash flow proformas) are summarized graphically in **Figure 6**, which shows that the reserves are maintained over the course of the planning period and the DCR remains above 2.9 at all times.

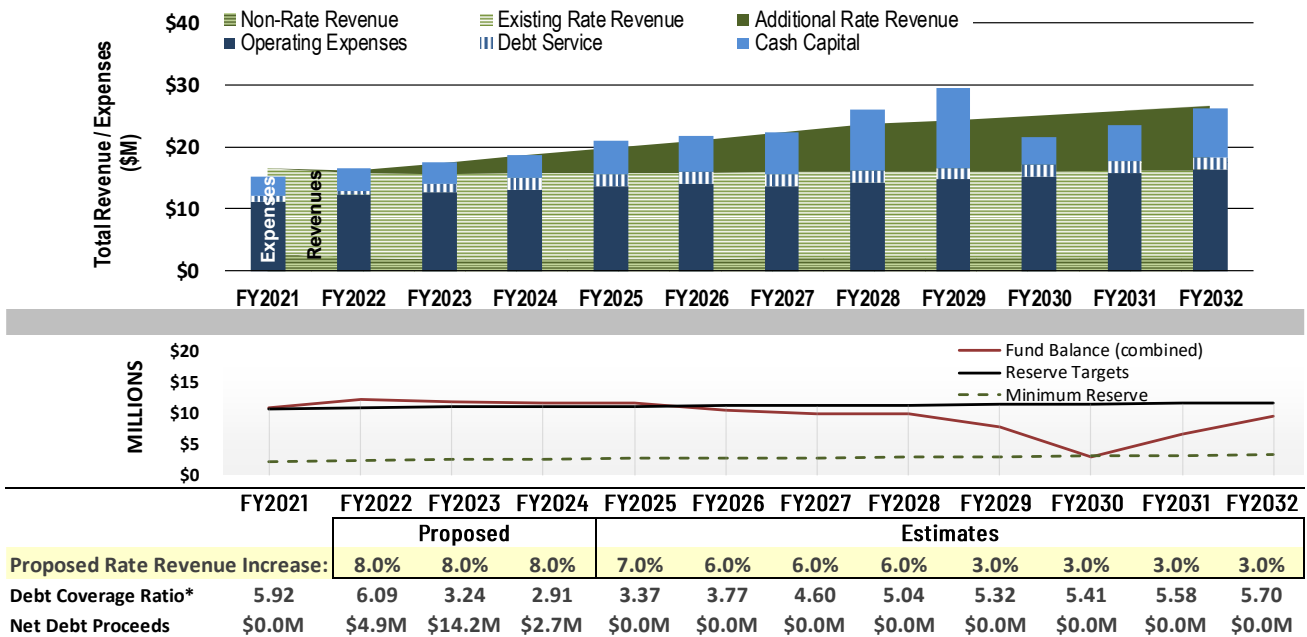


Figure 6: Financial Projection with Recommended Rate Increases

It is important to understand that the rate increases that are being proposed are necessary in order to recalibrate the District’s revenue to be able to support a more

proactive capital spending program, which is increasing from \$2.8 million per year to over \$8.3 million per year as outlined by the 2020 Retail Master Plan. The projected rate increases after FY 2024/25 shown in Figure 6 are only estimates to demonstrate that, based on current forecasts, larger rate increases are not anticipated for that time period.

This Study proposes a 3-year rate schedule rather than a 5-year schedule in part because of anticipated state mandates regarding water usage allocations. The financial impacts of those pending water limitations are not yet understood. Once the impacts are better understood, the District will need to consider potential modifications to its rate structure and the possibility of penalty rates in order to respond to the State's decision.

Section 3. COST OF SERVICE & RATE STRUCTURE

The Cost-of-Service (COS) analysis evaluates the cost of providing water and allocates those costs to rate structure components to ensure the proposed rates are aligned with the costs to provide service. The COS analysis is performed in order to comply with Proposition 218, which requires water rates to be equitably apportioned and proportional to the cost of providing water service.

Upon completion of the COS analysis, a rate structure analysis was performed to evaluate rate structure modifications and calculate specific rate schedules for implementation in FY 2020/21. The complete schedule of proposed rates for FY 2021/22 through FY 2023/24 is detailed in **Schedule 4**.

The rate structure proposed by this Study is designed to:

- ▶ Fairly and equitably recover costs through rates
- ▶ Conform to accepted industry practice and legal requirements
- ▶ Provide fiscal stability and recovery of system fixed costs
- ▶ Meet other rate setting objectives, as described in Section 1.4

This Study employed a COS methodology that is consistent with the “commodity-demand” COSA methodology promulgated in AWWA’s *Manual M1: Principles of Water Rates, Fees, and Charges (M1)*. This is a well-established methodology as recognized by the AWWA and other accepted industry standards.

3.1 CURRENT RATES

The structure for the District’s current water rates follow a common industry practice with a two-part structure that is comprised of a fixed Base Charge and a consumption-based Usage Charge. The Base Charge is scaled based on the individual account’s meter size and currently recovers approximately 68% of rate revenue. The current Base

Charge schedule is summarized in **Table 3**. Bills are sent to customers every two months.

Table 3: Current Daily Base Charge

<i>Meter Size</i>	<i>Daily Base Charges</i>
Up to 1" meter	\$2.23
1 1/2" meter	\$5.78
2" meter	\$9.20
3" meter	\$17.13
4" meter	\$28.48
6" meter	\$56.88
8" meter	\$90.94

The Usage Charge is assessed based on actual water usage (measured in CCF). The Usage Charge is a flat (or “uniform”) rate of \$0.92 per CCF.

The District also charges a base charge for private fire services which is further addressed in Section 5.

3.2 CUSTOMER STATISTICS

Water rate calculations are based on a number of factors related to the District’s customer base. Factors include the number of customers, customer classes, meter size, and actual water usage. The District provides water service through 10,675 water service connections (customer accounts). Single family, duplex and triplex customers comprise about 95.6 percent of the customer accounts and about 87.0 percent of annual water usage. Multi-family (4 or more units) and commercial customer accounts make up the remaining 4.6 percent of the customer accounts and 13.0 percent of annual water usage.

While there are extremes on both the low and high ends, average bimonthly single-family water usage is about 68.8 CCF (about 857 gallons per day). Water usage for condominium units and multi-family dwellings is lower than for single family residences for a variety of reasons including fewer people per household and limited landscape irrigation (or irrigation that is separately metered). Non-residential water

usage can vary dramatically, and non-residential customers are served by meters of varying sizes to accommodate the differences in water demands.

Service connections with different meter sizes can place different demands on the water system. For example, eight times more water can be delivered through a 3” water meter than through a 1” meter. The current rate structure is based on hydraulic capacity factors which relate the potential demands on the water system from customers with different sized water meters. These factors are used to determine the number of equivalent meters represented by the total customer base with variable meter sizes.

Typically, the smallest meter size is assigned a hydraulic capacity factor of 1.0 and the ratios of rated flow capacities of the various meter sizes compared to the capacity of that smallest meter are used to determine the capacity factors for other meter sizes. This capacity relationship across meter sizes is used to allocate capacity-related fixed costs to various customers. This is also a common rate-setting practice used in the water industry. In this particular case the District has a mix of 5/8”, 3/4”, and 1” meter sizes for single family homes since the standard size has changed over the years. Previous cost of service studies took the weighted average of those capacity factors to establish a factor of 0.75 for the average single family home. **Table 4** presents the rated flow capacity of various meter sizes and how these are used to develop hydraulic capacity factors.

Table 4: Rated Flow Capacity by Meter Size

Meter Size	Rated Flow Capacity (gpm) ¹	Hydraulic Capacity Factor
1" and below	38 ²	0.75
1 1/2"	100	2.0
2"	160	3.2
3"	300	6.0
4"	500	10.0
6"	1000	20.0
8"	1600	32.0

¹ AWWA M1 Manual, 7th Edition, Table B-2

² Inferred based on calculated hydraulic capacity factor

Table 5 summarizes customer account and water usage data used in water rate calculations for FY 2021/22. Account information is based on the utility billing data from FY 2019/20.

Table 5: Summary of Water Service Connections and Water Usage

	1" and below	1 1/2"	2"	3"	4"	6"	8"	Total	Actual FY 2019/20 Water Use (CCF)
No. of Accounts									
Single Family Residential	10,143	23	19	2				10,187	4,078,686
Multi-Fam. & Non-Resid.	236	89	139	22	2			488	610,647
Total Accounts	10,379	112	158	24	2	-	-	10,675	4,689,333
Hydr. Cap. Factor	0.75	2.0	3.2	6.0	10.0	20.0	32.0		
1" Equivalent Meters	7,784	224	506	144	20	-	-	8,678	

3.3 WATER RATE CALCULATIONS

There were two primary steps in calculating the proposed water rates. These are:

- Determine annual water rate revenue requirements
- Analyze the cost of providing service and proportionately allocate costs to be recovered from customers either through the Base Charge or the Usage Charge.

3.3.1 Water Rate Revenue Requirements

The 10-year Financial Plan was used to identify the water rate revenue required to meet financial obligations for each fiscal year of the planning period. The water rate calculations presented herein are based on the revenue to be generated in CY 2022⁶, and reflects the proposed 8 percent overall rate increase to be incorporated in the District’s Financial Plan. The annual water rate revenue requirement with this rate adjustment is \$14,673,600.

⁶ The proposed rate increases will occur on February 1, which is past the mid-point of the fiscal year.

3.3.2 Cost-of-Service Analysis

Once the annual water rate revenue requirement was determined using the financial planning model, the next step in the rate-setting process was to allocate costs to be recovered through the various rate elements. Water rate calculations contained herein are intended to generate water rate revenue equal to the revenue requirement from the District's water service customers. The manner in which each customer is responsible for the water utility's costs is the determining factor in the cost-of-service analysis.

The cost allocation approach presented by this Study is consistent with the methodology that was used in the 2017 rate study. Used herein the methodology is commensurate with the available data and the requirement to fairly and reasonably reflect the cost difference to provide services to different types of customers.

The cost allocation methodology begins by assigning all costs to one of three revenue recovery categories. The cost allocation process is performed with data available in the District's detailed budget and other documents. The three categories include:

- The Account Charge recovers customer costs such as meter reading and billing that are fixed costs that tend to vary as a function of the number of customers being served. Customer costs are allocated to customers based on the number of accounts. That is, every customer will pay an equal share of customer-related costs.
- The Meter Charge recovers capacity costs that are also fixed costs; however, these tend to vary in relation to the capacity of the water system and the ability to serve the demands of active customers. Customers that place greater or lesser burdens on the capacity of the water system should bear greater or lesser shares of these costs. The sizing of the water system is based on the potential demand that each customer could place on the water system. Capacity costs are allocated to customers based on the hydraulic capacity of the water meter. The hydraulic capacity reflects the potential demand that a customer could place on the water system at any given time and is a general indicator of each customer's capacity requirement. A customer with a large meter size will be assigned a large share of

fixed capacity-related costs than one with a smaller meter. Capacity costs include costs associated with the water system's capacity including contributions to the capital program, debt service, maintenance, and certain fixed operating costs.

- The Usage Charge recovers commodity costs that include costs that vary entirely or substantially in response to the amount of actual water use or are reasonably allocated on the basis of water use. Water purchase costs and energy costs are two typical examples. Even though some commodity costs are fixed, rather than variable, it is reasonable to recover a portion of fixed costs from customers through usage rates.

Table 6 summarizes how the FY 2021/22 revenue requirement is comprised of various functional categories of operating and maintenance costs, debt service obligations, and capital spending with offsetting revenues and the application of available reserves. It also illustrates how these functional cost categories are each assigned to one or more of the three revenue recovery components, previously described.

The costs within each of the functional categories were derived from the line-item detailed actuals for FY 2019/20, which were then forecasted into a FY 2021/22 budget. In reviewing Table 6, we see that half of Customer Service Costs are recovered through the account charge. All source of supply costs and 17 percent of field services (which is mostly made up of variable costs such as electricity) are recovered through the usage charge. The Use of Reserves (bottom row) is allocated based on the indirect method (based on the weighted average allocation of all previous costs).

The final allocations result in 6.0 percent of costs are recovered through the account charge, 65.6 percent are recovered through the meter charge, and 28.4 percent through usage charge. These percentages are similar but not identical to those developed in the 2017 water rate study. Changes to these allocation percentages is a natural by-product of shifts in the District's cost profile (such as the increase in capital spending).

Once functional cost categories are allocated to the components, the total for each component is divided by the number of units to arrive at total unit costs for each component. The units of demand include the number of customer accounts (service

connections), number of 1” equivalent meters, and annual water sales for the customer, capacity, and commodity components, respectively.

Table 6: FY 2021/22 Units Cost of Service

		Revenue Recovery		
		Account Charge	Meter Charge	Usage Charge
Administration	\$231,200		\$231,200	
	<i>Allocation:</i>		<i>100%</i>	
Board of Directors	\$32,000		\$32,000	
	<i>Allocation:</i>		<i>100%</i>	
Water Efficiency	\$472,000		\$472,000	
	<i>Allocation:</i>		<i>100%</i>	
Customer Service	\$873,400	\$873,400		
	<i>Allocation:</i>	<i>100%</i>		
Engineering	\$462,600		\$462,600	
	<i>Allocation:</i>		<i>100%</i>	
Executive	\$133,500		\$133,500	
	<i>Allocation:</i>		<i>100%</i>	
Field Services	\$4,748,300		\$3,941,000	\$807,000
	<i>Allocation:</i>		<i>83.0%</i>	<i>17.0%</i>
Finance	\$440,000		\$440,000	
	<i>Allocation:</i>		<i>100%</i>	
Human Resources	\$754,200		\$754,200	
	<i>Allocation:</i>		<i>100%</i>	
Information Technology	\$307,300		\$307,300	
	<i>Allocation:</i>		<i>100%</i>	
Operations	\$404,700		\$404,700	
	<i>Allocation:</i>		<i>100%</i>	
Public Relations	\$76,600		\$76,600	
	<i>Allocation:</i>		<i>100%</i>	
Source of Supply	\$3,289,100			\$3,289,100
	<i>Allocation:</i>			<i>100%</i>
Capital Spending	\$3,730,000		\$3,730,000	
	<i>Allocation:</i>		<i>100%</i>	
Debt Service	\$596,000		\$596,000	
Total:	<i>Allocation:</i>		<i>100%</i>	
Non-Rate Revenue	-\$2,122,000		-\$2,122,000	
Total:	<i>Allocation:</i>		<i>100%</i>	
Use of Reserves	\$245,000		\$171,000	\$74,000
Total:	<i>Allocation:</i>		<i>69.8%</i>	<i>30.2%</i>
Total Revenue Requirement:	\$14,673,900	\$873,400	\$9,630,100	\$4,170,100
Units of Service:		10,675	8,678	4,520,130
		accounts	Equivalent Meters	CCF
Unit Rate:		\$0.22	\$3.04	\$0.92
		per account	per EM	per CCF

3.3.2.1 BASE CHARGES

Base charges are a combination of the account charge and meter charge identified through the cost of service analysis. Base Charges apply to all customer water bills, regardless of the amount of water actually used. Customers that use no water during a billing period should still be required to pay the Base Charge, as service is immediately available to them. In calculating Base Charges, the account charge is allocated equally to all customers and the meter charge is allocated to customers based on their meter size.

The proposed daily Base Charge in CY 2022 for a 1” meter is \$2.50, as shown in **Table 7**. This value was calculated by adding the daily account charge of \$0.22 plus 75% of \$3.04, which is the daily meter charge per equivalent meter (both at the bottom of **Table 6**).

For larger meters, the meter charge portion of the Base Charge increases in proportion to the meter equivalency, while the account charge remains the same for all meter sizes. The variation of service charges through meter sizes reflects the fact that a small portion of water system costs are directly related to the number of customers served. A majority of fixed costs are allocated on a capacity basis as reflected by the meter size. The changes to the Base Charges across the range of meter sizes more objectively reflect a consistent proportioning of the cost of providing service to customers of varying meter sizes.

Table 7: Calculation of Proposed Daily Base Charges

<i>Meter Size</i>	<i>Customer Charge</i>	<i>Hydraulic Capacity Factor</i>	<i>Meter Charge</i>	<i>Daily Base Charge</i>
Up to 1" meter	\$0.22	0.75	\$2.28	\$2.50
1 1/2" meter	\$0.22	2.00	\$6.08	\$6.30
2" meter	\$0.22	3.20	\$9.73	\$9.95
3" meter	\$0.22	6.00	\$18.24	\$18.46
4" meter	\$0.22	10.00	\$30.40	\$30.62
6" meter	\$0.22	20.00	\$60.81	\$61.03
8" meter	\$0.22	32.00	\$97.29	\$97.51

3.3.2.2 WATER USAGE RATES

Current water rates include a uniform usage rate for all customer classes of \$0.92 per CCF. Under the proposed water rates for CY 2022, the uniform water rate would remain at \$0.92 per CCF (as calculated at the bottom of **Table 6**).

3.3.3 Bill Impacts of Proposed Water Rates

Table 8 summarizes how the proposed water rates for CY 2022, with the proposed rate structure changes, would affect a sampling of customers. In most cases, water bills will increase by slightly more or less than the average 8% rate revenue increase for Year 1. These variations are a natural occurrence in the first year after a cost of service update.

Table 8: Bill Impacts for a Sampling of Customers

	Meter Size	Water Use (CCF)	Current Bill	Proposed Bill ¹	Change	
					\$	%
Residential						
Low Use	1"	30	\$161.40	\$177.60	\$16.20	10.0%
Median Use	1"	50	\$179.80	\$196.00	\$16.20	9.0%
Average	1"	69	\$197.28	\$213.48	\$16.20	8.2%
High Use	1"	120	\$244.20	\$260.40	\$16.20	6.6%
Multi-family	1 1/2"	200	\$530.80	\$562.00	\$31.20	5.9%
Multi-family	2"	400	\$920.00	\$965.00	\$45.00	4.9%
Multi-family	3"	800	\$1,763.80	\$1,843.60	\$79.80	4.5%
Retail Business	1"	25	\$156.80	\$173.00	\$16.20	10.3%
Restaurant	2"	400	\$920.00	\$965.00	\$45.00	4.9%
Institution	3"	800	\$1,763.80	\$1,843.60	\$79.80	4.5%
Irrigation	2"	400	\$920.00	\$965.00	\$45.00	4.9%

¹ With Year 1 rate increases

3.4 ADOPTION OF PROPOSED RATES

The 3-year schedule of proposed water rates are presented in Schedule 4). The first rate increase is proposed to be effective as of February 1, 2022 while subsequent increases are proposed to occur each January 1 (halfway through their respective fiscal year).

Section 4. WATER SHORTAGE CHARGE

This section presents recommended updates to the District's existing Water Shortage Charge, which are to be overlaid on then-current water usage rates during the time that a water shortage is declared by the District. Water Shortage Charges would be temporary and affect only the Usage Charge and not the fixed Base Charge.

The Water Shortage Charge is a tool the District would use to reduce the (potentially severe) financial impacts associated with reduced water sales and increases in operating costs during a drought event. The multi-pronged approach includes implementing the temporary surcharge, reducing capital spending, and relying (modestly) on reserves to help bridge the financial deficit.

The proposed updates to the District's Water Shortage Charges addresses the requirements of (recently passed) Senate Bill (SB) 606, which has directed water utilities to establish water shortage contingency plans (WSCP). The District's current WSCP defines four stages of water shortage and how those water shortage stages correspond to the 6-stages of water shortage defined by the State.

Table 9 presents:

- 1) The water usage reduction goals (by District stage and corresponding State stage)
- 2) The assumed actual water use reduction during each respective stage
- 3) The proposed Water Shortage Charge expressed as a percent increase to the Usage Charge
- 4) The changes in revenue for each respective stage
- 5) The changes in expenditures for each respective stage including the proposed reduction in capital spending
- 6) The financial deficit that will occur even with the mitigating measures.

The Water Shortage Charges and reduction in capital spending have been calibrated to yield an overall deficit of approximately \$100 thousand to \$200 thousand per year. This means that the surcharge and the reduction in capital spending will not totally offset the financial impact of the water shortage event. Given the District's reserve policies, this size of a deficit was deemed sustainable for the duration of an extended drought (up to 6 – 8 years).

It should be noted that the capital program will need to be modestly curtailed during the various stages. Based on its recent experience during the historical drought from 2012 to 2016, the District assumes that the cost of its conservation will increase by \$10 thousand per stage.

It should be further noted that the temporary Water Shortage Charges would only partially assist in covering the costs of providing water service during shortage conditions. Revenue from the surcharges would help bridge the financial deficit and would not exceed the cost of providing service.

Table 9: Proposed Water Shortage Surcharges and Capital Spending Reductions

	Normal Supply Conditions¹	Stage 1 - Alert	Stage 2 - Warning	Stage 3 - Crisis	Stage 4 - Emergency
Corresponding State Mandated Shortage Levels:	(normal)	Stage 1	Stages 2 & 3	Stages 3, 4 & 5	Stage 6
1 Overall Use Reduction Goal -->	n/a	0% to 10%	10% to 25%	25% to 50%	Greater than 50%
2 Assumed Water Use Reduction -->	-	5.0%	17.5%	37.5%	50.0%
Revenues					
3 Base Charge Revenues	\$10,503,500	\$10,503,500	\$10,503,500	\$10,503,500	\$10,503,500
4 Usage Charge Revenue ²	\$4,158,520	\$3,951,000	\$3,431,000	\$2,599,000	\$2,079,000
5 Drought Surcharge Revenue	Percentage:	0%	5%	10%	20%
6	Revenue:	\$0	\$172,000	\$260,000	\$416,000
7 Other Revenue and Transfers In	\$2,122,000	\$2,122,000	\$2,122,000	\$2,122,000	\$2,122,000
8 Use of Reserves ³	\$782,393	\$782,393	\$782,393	\$782,393	\$782,393
9 Total Revenue	\$17,566,413	\$17,358,893	\$17,010,893	\$16,266,893	\$15,902,893
10 (% of Normal)		99%	97%	93%	91%
Expenditures and Transfers					
11 Source of Supply - Fixed ⁴	2,237,642	\$2,237,642	\$2,237,642	\$2,237,642	\$2,237,642
12 Source of Supply - Usage	\$1,051,358	\$998,790	\$867,370	\$657,099	\$525,679
13 Operations	\$4,736,000	\$4,736,000	\$4,736,000	\$4,736,000	\$4,736,000
Other Operations	\$0				
14 Customer Service & Water Efficiency	\$1,345,000	\$1,345,000	\$1,345,000	\$1,345,000	\$1,345,000
Water Conservation ⁵	\$0	\$10,000	\$20,000	\$30,000	\$40,000
General Administration	\$0	\$0	\$0	\$0	\$0
15 Management & Admin	\$1,975,000	\$1,975,000	\$1,975,000	\$1,975,000	\$1,975,000
16 Engineering	\$463,000	\$463,000	\$463,000	\$463,000	\$463,000
17 Utilities ⁶	\$417,000	\$398,235	\$351,323	\$276,263	\$229,350
18 Debt Service	\$910,000	\$910,000	\$910,000	\$910,000	\$910,000
19 Average Cash Capital Spending	\$4,431,413	\$4,431,413	\$4,342,785	\$4,099,057	\$3,988,272
20 Capital Spending Reduction	\$0	0%	2%	7.5%	10%
21		\$0	-\$88,628	-\$332,356	-\$443,141
22 Revenue Requirement	\$17,566,413	\$17,505,080	\$17,159,491	\$16,396,704	\$16,006,801
23 (% of Normal)		100%	98%	93%	91%
24 Surplus/Deficit	\$0	-\$146,187	-\$148,598	-\$129,811	-\$103,908

¹ Analysis based on FY 2021-22 budget and assumed that current usage reflects normal water supply conditions.

² Water usage revenue would decline in proportion to water sales.

³ Represents the calculated change in fund balance during such a test year, which is hypothetical since it uses average capital spending.

⁴ Assumes that wholesale water purchases costs are 68% fixed per 2021 wholesale rate study

⁵ Estimated water conservation program costs increase by \$10,000 with each shortage stage

⁶ Assumes that 90% of the utility bill is proportionately affected by changes in water usage

Section 5. PRIVATE FIRE LINE RATES

The District assesses a charge for separate private service connections that provide fire suppression capabilities to structures and property (e.g., serving automatic internal sprinkler systems)⁷. In effect, these connections extend the public fire suppression capabilities of the water distribution systems (i.e., provided through public fire hydrants) to private property. Fire flow capacity is built into the water distribution system (in pipelines, distribution storage, and pumping capabilities) as an essential public health and safety benefit to the entire community. The costs of maintaining the fire flow capacity within the general system are inextricably embedded in the costs of maintaining the water system and incorporated in the capacity cost component of water rates generally.

The District provides maintenance and replacement services up to the backflow device for private fire service lines, which is a service that is not provided to other customers. Maintenance primarily requires periodic exercising of valves but may also include visual inspection of the surface ancillaries such as valve boxes and covers, corrosion inspection and vault pumping. Replacement of standby fire services, up to the line of responsibility (typically the backflow device), is done by the District or an on-call contractor.

The proposed monthly Private Fire Line Rate is summarized in Table 10 and are calculated based on the cost of regular maintenance and the cost of replacing the line. Based on District staff estimates the maintenance costs for each service are approximately \$95 every 5 years (therefore \$19.00 per year). The replacement costs depend on the size of the service line as summarized in Table 10. The expected useful

⁷ Customers who have private fire service connections also have general water service connections for ongoing water use.

life of ductile iron pipe is 100 years, and the average length of the service line was assumed to be 40 linear feet.

The Private Fire Line Rates are estimated the generate about \$47 thousand per year.

Table 10: Private Fire Line Rate Calculation and Schedule

Service Line Size:	4"	6"	8"	10"	12"
Annual Maintenance	\$19.00	\$19.00	\$19.00	\$19.00	\$19.00
Replacement Cost ¹	\$35,800	\$42,000	\$47,100	\$51,300	\$56,600
Annual Replacement ²	\$358.00	\$420.00	\$471.00	\$513.00	\$566.00
Total Annual Charge	\$377.00	\$439.00	\$490.00	\$532.00	\$585.00
Daily Charge	\$1.03	\$1.20	\$1.34	\$1.46	\$1.60

¹ Assumes 40 linear feet of ductile iron pipe

² Assumes 100-year expected useful life

It is recommended that the District increase the above rates by 3% per year, which is equal to forecasted annual cost inflation over the next 2 years. The complete 3-year rate schedule is provided in Schedule 4.

Section 6. CONCLUSION

This Study used methodologies that are aligned with industry standard practices for rate setting as promulgated by AWWA and all applicable laws, including California's Proposition 218. The proposed annual adjustments to the water rates are expected to enable the District to continue to provide reliable service to customers while meeting the state's mandates.

The water rates, including the Water Shortage Charges, will need to be adopted in accordance with Proposition 218, which will require a detailed notice describing the proposed charges to be mailed to each affected property owner or customer at least 45 days prior to conducting a public hearing to adopt the rates. The District should consult with its legal counsel on the appropriate procedures for those fees.

As with past practice, the District should monitor financial conditions and needs on an ongoing (annual) basis and update the financial plan model if conditions or plans change sufficiently to warrant an update. Actual future conditions, such as water demand, water sales revenue, operating and maintenance expenses, capital project costs/timing, project financing, etc., may differ from the financial plan assumptions reflected herein. Material differences affecting the overall financial condition of the retail water system may warrant closer review and/or an earlier update. The need for and magnitude of annual retail water rate increases may also be affected by differences between assumed and actual conditions.

SCHEDULES

Schedule 1 – Projected Operating Expenses

Schedule 2 - Capital Spending Plan

Schedule 3 - Cash Flow Pro Forma (Operating Fund and Capital Fund)

Schedule 4 – 3-Year Schedule of Proposed Water Rates

Schedule 1 –Projected Operating Expense

	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029	Forecast FY 2030	Forecast FY 2031	Forecast FY 2032
1 Administration	\$217,100	\$223,600	\$230,300	\$237,200	\$244,300	\$251,600	\$259,100	\$266,900	\$274,900	\$283,100	\$291,600	\$300,300
2 Salaries & Benefits	\$6,100	\$6,300	\$6,600	\$6,900	\$7,200	\$7,500	\$7,800	\$8,100	\$8,400	\$8,700	\$9,000	\$9,400
3 Health	\$1,200	\$1,300	\$1,400	\$1,500	\$1,600	\$1,700	\$1,800	\$1,900	\$2,000	\$2,100	\$2,200	\$2,300
4 Board of Directors	\$7,500	\$7,700	\$7,900	\$8,100	\$8,300	\$8,500	\$8,800	\$9,100	\$9,400	\$9,700	\$10,000	\$10,300
5 Salaries & Benefits	\$23,400	\$24,300	\$25,300	\$26,300	\$27,400	\$28,500	\$29,600	\$30,800	\$32,000	\$33,300	\$34,600	\$36,000
6 Water Efficiency	\$47,200	\$48,600	\$50,100	\$51,600	\$53,100	\$54,700	\$56,300	\$58,000	\$59,700	\$61,500	\$63,300	\$65,200
7 Salaries & Benefits	\$327,700	\$340,800	\$354,400	\$368,600	\$383,300	\$398,600	\$414,500	\$431,100	\$448,300	\$466,200	\$484,800	\$504,200
8 Health	\$78,700	\$82,600	\$86,700	\$91,000	\$95,600	\$100,400	\$105,400	\$110,700	\$116,200	\$122,000	\$128,100	\$134,500
9 Customer Service	\$257,700	\$265,400	\$273,400	\$281,600	\$290,000	\$298,700	\$307,700	\$316,900	\$326,400	\$336,200	\$346,300	\$356,700
10 Salaries & Benefits	\$458,200	\$476,500	\$495,600	\$515,400	\$536,000	\$557,400	\$579,700	\$602,900	\$627,000	\$652,100	\$678,200	\$705,300
11 Health	\$125,200	\$131,500	\$138,100	\$145,000	\$152,300	\$159,900	\$167,900	\$176,300	\$185,100	\$194,400	\$204,100	\$214,300
12 Engineering	\$39,300	\$40,500	\$41,700	\$43,000	\$44,300	\$45,600	\$47,000	\$48,400	\$49,900	\$51,400	\$52,900	\$54,500
13 Salaries & Benefits	\$352,500	\$366,600	\$381,300	\$396,600	\$412,500	\$429,000	\$446,200	\$464,000	\$482,600	\$501,900	\$522,000	\$542,900
14 Health	\$52,900	\$55,500	\$58,300	\$61,200	\$64,300	\$67,500	\$70,900	\$74,400	\$78,100	\$82,000	\$86,100	\$90,400
15 Executive	\$11,700	\$12,100	\$12,500	\$12,900	\$13,300	\$13,700	\$14,100	\$14,500	\$14,900	\$15,300	\$15,800	\$16,300
16 Salaries & Benefits	\$98,300	\$102,200	\$106,300	\$110,600	\$115,000	\$119,600	\$124,400	\$129,400	\$134,600	\$140,000	\$145,600	\$151,400
17 Health	\$18,300	\$19,200	\$20,200	\$21,200	\$22,300	\$23,400	\$24,600	\$25,800	\$27,100	\$28,500	\$29,900	\$31,400
18 Field Services	\$1,375,500	\$1,416,800	\$1,459,300	\$1,503,100	\$1,548,200	\$1,594,600	\$1,642,400	\$1,691,700	\$1,742,500	\$1,794,800	\$1,848,600	\$1,904,100
19 Salaries & Benefits	\$1,793,400	\$1,865,100	\$1,939,700	\$2,017,300	\$2,098,000	\$2,181,900	\$2,269,200	\$2,360,000	\$2,454,400	\$2,552,600	\$2,654,700	\$2,760,900
20 Health	\$418,200	\$439,100	\$461,100	\$484,200	\$508,400	\$533,800	\$560,500	\$588,500	\$617,900	\$648,800	\$681,200	\$715,300
21 Energy Costs	\$405,100	\$417,300	\$429,800	\$442,700	\$456,000	\$469,700	\$483,800	\$498,300	\$513,200	\$528,600	\$544,500	\$560,800
22 Finance	\$44,700	\$46,000	\$47,400	\$48,800	\$50,300	\$51,800	\$53,400	\$55,000	\$56,700	\$58,400	\$60,200	\$62,000
23 Salaries & Benefits	\$315,200	\$327,800	\$340,900	\$354,500	\$368,700	\$383,400	\$398,700	\$414,600	\$431,200	\$448,400	\$466,300	\$485,000
24 Health	\$63,000	\$66,200	\$69,500	\$73,000	\$76,700	\$80,500	\$84,500	\$88,700	\$93,100	\$97,800	\$102,700	\$107,800
25 Human Resources	\$36,900	\$38,000	\$39,100	\$40,300	\$41,500	\$42,700	\$44,000	\$45,300	\$46,700	\$48,100	\$49,500	\$51,000
26 Salaries & Benefits	\$405,600	\$421,800	\$438,700	\$456,200	\$474,400	\$493,400	\$513,100	\$533,600	\$554,900	\$577,100	\$600,200	\$624,200
27 Health	\$2,500	\$2,600	\$2,700	\$2,800	\$2,900	\$3,000	\$3,200	\$3,400	\$3,600	\$3,800	\$4,000	\$4,200
28 Contribution to PERS Liability	\$244,791	\$291,800	\$319,000	\$340,800	\$366,200	\$374,900	\$25,000	\$25,800	\$26,600	\$27,400	\$28,200	\$29,000
29 Information Technology	\$192,900	\$198,700	\$204,700	\$210,800	\$217,100	\$223,600	\$230,300	\$237,200	\$244,300	\$251,600	\$259,100	\$266,900
30 Salaries & Benefits	\$101,900	\$106,000	\$110,200	\$114,600	\$119,200	\$124,000	\$129,000	\$134,200	\$139,600	\$145,200	\$151,000	\$157,000
31 Health	\$2,500	\$2,600	\$2,700	\$2,800	\$2,900	\$3,000	\$3,200	\$3,400	\$3,600	\$3,800	\$4,000	\$4,200
32 Operations	\$29,500	\$30,400	\$31,300	\$32,200	\$33,200	\$34,200	\$35,200	\$36,300	\$37,400	\$38,500	\$39,700	\$40,900
33 Salaries & Benefits	\$298,800	\$310,800	\$323,200	\$336,100	\$349,500	\$363,500	\$378,000	\$393,100	\$408,800	\$425,200	\$442,200	\$459,900
34 Health	\$60,500	\$63,500	\$66,700	\$70,000	\$73,500	\$77,200	\$81,100	\$85,200	\$89,500	\$94,000	\$98,700	\$103,600
35 Public Relations	\$74,400	\$76,600	\$78,900	\$81,300	\$83,700	\$86,200	\$88,800	\$91,500	\$94,200	\$97,000	\$99,900	\$102,900
36 Purchasing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
37 Source of Supply	\$3,193,300	\$3,289,100	\$3,387,800	\$3,489,400	\$3,594,100	\$3,701,900	\$3,813,000	\$3,927,400	\$4,045,200	\$4,166,600	\$4,291,600	\$4,420,300
38 Total	\$11,181,691	\$11,614,900	\$12,042,800	\$12,479,600	\$12,935,300	\$13,389,600	\$13,502,200	\$13,982,400	\$14,480,000	\$14,996,100	\$15,530,800	\$16,085,400

Capital Spending Plan (1 of 3)

Schedule 2

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Vehicles										
1 Executive - Vehicle #32 - Retail Share (2014 Ford Edge)	\$0	\$0	\$0	\$14,000	\$0	\$0	\$0	\$0	\$0	\$0
2 Customer Service - Vehicle #31 (2015 GEM)	\$0	\$0	\$16,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3 Customer Service - Vehicle #13 (2010 Chev Colorado)	\$38,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4 Conservation - Vehicle #16 (2010 Chevy Coloardo)	\$38,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5 Conservation - Vehicle #34 (2016 Chevy Coloardo)	\$0	\$0	\$0	\$0	\$0	\$44,000	\$0	\$0	\$0	\$0
6 Engineering - Vehicle #23 (2008 F-150 SuperCrew; Fut. 4x4)	\$45,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7 Engineering - Vehicle #33 (2016 F-150 SuperCab)	\$0	\$0	\$0	\$0	\$0	\$52,000	\$0	\$0	\$0	\$0
8 Field Ops - Vehicle #6 (2008 F-650 w/ 12' dump bed, diesel)	\$0	\$0	\$90,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9 Field Ops - Vehicle #12 (2011 F-250 SuperCab)	\$0	\$41,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10 Field Ops - Vehicle #15 (2010 F-150 SuperCrew)	\$0	\$41,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11 Field Ops - Vehicle #19 (2012 F-150 SuperCab)	\$45,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Field Ops - Vehicle #24 (2008 F-450 w/ CTEC Utility Bed)	\$96,100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12 Field Ops - Vehicle #35 (2017 F-450, used old V9 bed)	\$0	\$0	\$0	\$0	\$0	\$0	\$90,000	\$0	\$0	\$0
13 Field Ops - Vehicle #36 (2017 F-550 w/ Royal Utility Bed)	\$0	\$0	\$0	\$0	\$0	\$0	\$107,000	\$0	\$0	\$0
14 Field Ops - Vehicle #37 (2020 F-250 Crew Cab, 4x4)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$65,000
15 Field Ops - Vehicle #38 (2020 F-150 CrewCab, 4x2)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$52,000
16 Field Ops - Vehicle #39 (2020 F-450, used old V#28 bed)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$98,000
17 Field Ops - Equip #E09 (2011 Loader - John Deere)	\$0	\$0	\$0	\$0	\$0	\$151,000	\$0	\$0	\$0	\$0
18 Field Ops - Equip #E18 (2007 Forklift)	\$0	\$41,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
19 Field Ops - Equip #E125 (1998 Mud Trailer)	\$7,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20 Field Ops - Vehicle #E168-15 (2015 Safety Trailer; Night Work; SWPPP)	\$0	\$0	\$0	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0
21 Field Ops - Vehicle #E172-16 (2016 Vermeer)	\$0	\$0	\$0	\$0	\$0	\$108,000	\$0	\$0	\$0	\$0
22 Field Ops - Equip #E178-17 (2017 Compressor) - replaced Veh #E59 in 2017	\$0	\$0	\$0	\$0	\$0	\$0	\$38,000	\$0	\$0	\$0
23 Field Ops - Vehicle #E180-17 (2017 - 270 Mud Trailer) - replaced Veh #E30 in 2017	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$0	\$0	\$0
24 Field Ops - Equip #E187-17 (2017 Mud Trailer) - replaced Veh #E70 in 2017	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$0	\$0	\$0
25 Field Ops - AC Pipe Snappers	\$8,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
26 Customer Service - Two Hand Held Meter Readers	\$12,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Distribution Mainline Replacements										
27 Cavitt Stallman (Oak Pine to Sierra Ponds, 2,000 LF of 12")	\$0	\$1,545,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
28 Cavitt Stallman (Sierra Ponds to Vogel Valley, 6,900 LF of 12")	\$0	\$0	\$0	\$0	\$383,000	\$0	\$3,654,000	\$4,182,000	\$0	\$0
29 Lakeland Dr from Douglas to East Granite (650-LF of 12-in)	\$0	\$0	\$0	\$90,000	\$0	\$542,000	\$0	\$0	\$0	\$0
30 Hidden Lakes 12-in Main (950-LF, 15 Serv, 7960 W Hidden Lakes to Haley)	\$0	\$0	\$0	\$123,000	\$0	\$739,000	\$0	\$0	\$0	\$0
31 Fuller Drive Pipeline Extension	\$0	\$0	\$0	\$74,000	\$0	\$443,000	\$0	\$0	\$0	\$0
32 Bacon - ARC-N Intertie at Bacon PS	\$0	\$0	\$0	\$0	\$40,000	\$0	\$241,000	\$0	\$0	\$0
33 Future Main Replacements (TBD based on condition and high No. of breaks)	\$0	\$300,000	\$312,500	\$337,500	\$362,500	\$1,025,000	\$1,087,500	\$1,162,500	\$1,237,500	\$1,325,000
34 Spahn Ranch Road Pipeline (2,980-LF of 8")	\$0	\$0	\$0	\$640,765	\$0	\$0	\$0	\$0	\$0	\$0
35 Cavitt Stallman (Mystery Creek to Oak Pines w/ PRS, 360-LF of 10")	\$413,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
36 Auburn Folsom Road (7975 to 8005, 250-LF of 6")	\$161,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
37 Kokila SJWD-PCWA Intertie (12" Intertie Pipeline)	\$331,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
38 North Glenn Bridge Crossing (100-LF of 8", Joint project with Placer County)	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39 Eckerman 8 inch tie-in to "The Park" Subdivision (100-LF of 8")	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
40 Douglas Pump Station & P6" to 12" Pipeline Improvements - Across AFR	\$0	\$0	\$0	\$0	\$78,000	\$720,000	\$0	\$0	\$0	\$0
41 Santa Juanita 3" Pipeline Replacement Project	\$0	\$0	\$0	\$76,000	\$709,000	\$0	\$0	\$0	\$0	\$0

Capital Spending Plan (2 of 3)

Schedule 2

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Distribution Appurtenances										
42 Woodminster Services Replacements (18 services)	\$266,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
43 Margo Drive Services Replacements (8 services)	\$180,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
44 Service Line Replacements (85 Planned Replacements/Yr)	\$0	\$1,420,000	\$1,490,000	\$1,560,000	\$2,070,000	\$1,600,000	\$1,720,000	\$1,780,000	\$1,850,000	\$1,930,000
45 Air Release Valve Replacements (20yrs @ 45 ARV Replacements/Yr, 878 Total)	\$0	\$840,000	\$891,000	\$918,000	\$945,000	\$974,000	\$1,003,000	\$1,033,000	\$1,064,000	\$1,096,000
46 Hydrant Replacements (5 Yrs @ 10 Replacements/Yr)	\$140,000	\$144,000	\$148,000	\$153,000	\$0	\$0	\$0	\$0	\$0	\$0
47 Wharf Hydrant Replacements (Total 109, 10-Yr Replacement)	\$218,000	\$225,000	\$231,000	\$238,000	\$245,000	\$253,000	\$260,000	\$268,000	\$276,000	\$284,000
Transmission Pipelines										
48 Eureka Rd. 18" T-main (3925-LF, Barton to Aub-Fols; Steel)	\$4,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Storage Tanks										
49 4.0 MG Kokila Reservoir (Replace Hypalon w/ Concrete Tank)	\$800,000	\$8,765,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
50 Mooney Ridge Hydro-Tank Recoating (Inside & Outside)	\$0	\$0	\$0	\$219,000	\$0	\$0	\$0	\$0	\$0	\$0
51 Mooney Tank Building New Roof	\$0	\$0	\$0	\$0	\$180,000	\$0	\$0	\$0	\$0	\$0
Pressure Reducing Stations										
52 Canyon Falls Village PRS Replacement	\$0	\$58,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pump Station Improvements										
53 Generator Replacements (Bacon)	\$68,000	\$1,333,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
54 Generator Replacement (UGB)	\$393,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
55 Douglas BPS Electrical Improvements (PG&E service panel)	\$54,900	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
56 Douglas BPS Pump Station Improvements	\$0	\$0	\$0	\$50,000	\$0	\$0	\$420,000	\$0	\$0	\$0
57 Bacon PS - new roof	\$0	\$0	\$106,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
58 Bacon Manifold Piping Modifications (Conn. Surge Valves to Suction)	\$0	\$21,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
59 Bacon Pump Station Security Improvements	\$0	\$31,000	\$127,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60 Sierra Pump Station - VFD #1 and #4 Relocation and new controls/components	\$70,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
61 ARC-N MCC Replacement/Control Enclosures (MCC next to ARC-N Main Breaker)	\$0	\$0	\$58,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62 ARC-N #1 and #2 - Relocation into new MCC	\$0	\$0	\$0	\$33,000	\$0	\$0	\$0	\$0	\$0	\$0
63 ARC-N# 3 - New VFD & Controls/Components	\$0	\$0	\$48,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
64 ARC-N #4 and #5 Relocation to Pit Room and new VFD/components	\$0	\$0	\$0	\$0	\$90,000	\$0	\$0	\$0	\$0	\$0
65 Bacon BPS #3 - New VFD/components into new Section w/ Bacon Generator	\$0	\$0	\$0	\$60,000	\$0	\$0	\$0	\$0	\$0	\$0
66 Bacon BPS #4 - New VFD/components into new Section w/ Bacon Generator	\$0	\$0	\$0	\$0	\$62,000	\$0	\$0	\$0	\$0	\$0
67 Bacon BPS #5 - New VFD/components into new Section w/ Bacon Generator	\$0	\$57,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
68 Bacon BPS #3 and #4 - New 200HP inverter rated motor	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
69 Pump Station Prssure Transmitters (E&H Pressure Transmitters)	\$0	\$36,000	\$37,000	\$38,000	\$0	\$0	\$0	\$0	\$0	\$0
70 ARC-S - 4 new pumps	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Capital Spending Plan (3 of 3)

Schedule 2

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Condition Assessment Projects										
71 Bacon Pump Station Manifold Evaluation	\$0	\$31,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
72 Condition Assessments (from Rtl MP)	\$0	\$0	\$0	\$0	\$0	\$90,000	\$1,230,000	\$90,000	\$100,000	\$1,040,000
SJWD Site Building Improvements										
73 Corp. Site Paving Improvements (RSA Share)	\$0	\$0	\$0	\$164,000	\$0	\$0	\$0	\$0	\$0	\$0
74 Containment Area for Vector Residuals & Materials	\$0	\$0	\$0	\$269,000	\$0	\$0	\$0	\$0	\$0	\$0
75 Field Services 3-Sided Parts Shelter (40x120)	\$480,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
76 Field Services 3-Sided Loose Materials and Equipment Shelter (30'x226')	\$0	\$0	\$0	\$74,000	\$689,000	\$0	\$0	\$0	\$0	\$0
77 Corp. Site Sewer Evaluation and Improvements	\$0	\$26,000	\$26,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0
78 Field Services Sewer Lift Station Improvements (includes Primex Programming)	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
79 Admin PG&E Electrical Service Upgrade (50/50 split W/R)	\$225,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
80 New Admin/Executive Building and modifications to existing Admin/Exec Bldg	\$0	\$0	\$0	\$439,000	\$0	\$0	\$0	\$4,450,000	\$0	\$0
Large Non-Capital Projects										
81 CARB Compliance Study (Zero Emission Vehicles)	\$0	\$52,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Miscellaneous CIP Items										
83 Leak Detection Equipment	\$0	\$21,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
84 Replace Engineering Survey Equipment	\$0	\$0	\$17,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
85 Tyler Content Management and Output Director	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
86 SCADA Cyber Security Study & Improvements	\$210,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
87 SCADA Cellular Improvements	\$68,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
88 Retail Groundwater Production Facilities	\$0	\$2,575,000	\$2,652,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
89 Total Capital Water Projects (value accounts for inflation)	\$8,598,300	\$17,603,000	\$6,250,000	\$5,570,265	\$5,873,500	\$6,741,000	\$9,870,500	\$12,965,500	\$4,527,500	\$5,890,000

Schedule 3 (1 of 2) - Cash Flow Pro Forma for Retail Operating Fund

	Forecast FY 2021	Forecast FY2022	Forecast FY2023	Forecast FY2024	Forecast FY2025	Forecast FY2026	Forecast FY2027	Forecast FY2028	Forecast FY2029	Forecast FY2030	Forecast FY2031	Forecast FY2032
1 Proposed Rate Revenue Increase:		8.00%	8.00%	8.00%	7.00%	6.00%	6.00%	6.00%	3.00%	3.00%	3.00%	3.00%
2 Rate Revenue	\$13,757,800	\$13,757,800	\$14,675,000	\$16,064,000	\$17,387,000	\$18,645,000	\$19,806,000	\$21,040,000	\$22,351,000	\$23,073,000	\$23,818,000	\$24,587,000
3 Change due to growth & water use		(\$184,000)	\$215,000	\$37,000	\$40,000	\$43,000	\$46,000	\$49,000	\$52,000	\$53,000	\$55,000	\$57,000
4 Increase due to rate adjustments		\$459,000	\$587,000	\$643,000	\$609,000	\$559,000	\$594,000	\$631,000	\$335,000	\$346,000	\$357,000	\$369,000
Non-Rate Revenues												
5 COP Payments	\$86,000	\$86,000	\$86,000	\$86,000	\$86,000	\$86,000	\$86,000	\$86,000	\$86,000	\$86,000	\$86,000	\$0
6 Interest Earnings	\$41,000	\$64,000	\$37,000	\$38,000	\$39,000	\$41,000	\$42,000	\$41,000	\$43,000	\$44,000	\$46,000	\$47,000
7 Operating Revenue	\$355,000	\$348,000	\$358,000	\$369,000	\$380,000	\$391,000	\$403,000	\$415,000	\$427,000	\$440,000	\$453,000	\$467,000
8 Grants	\$0	\$300,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9 Total Revenue	\$14,239,800	\$14,830,800	\$15,958,000	\$17,237,000	\$18,541,000	\$19,765,000	\$20,977,000	\$22,262,000	\$23,294,000	\$24,042,000	\$24,815,000	\$25,527,000
O&M Costs												
10 Source of Supply	\$3,193,000	\$3,289,000	\$3,388,000	\$3,489,000	\$3,594,000	\$3,702,000	\$3,813,000	\$3,927,000	\$4,045,000	\$4,167,000	\$4,292,000	\$4,420,000
11 Operations	\$3,976,000	\$4,736,000	\$4,909,000	\$5,090,000	\$5,278,000	\$5,472,000	\$5,185,000	\$5,380,000	\$5,583,000	\$5,793,000	\$6,011,000	\$6,231,000
12 Customer Service & Water Efficiency	\$1,295,000	\$1,345,000	\$1,398,000	\$1,453,000	\$1,510,000	\$1,570,000	\$1,632,000	\$1,696,000	\$1,763,000	\$1,832,000	\$1,905,000	\$1,980,000
14 Management & Admin	\$1,868,000	\$1,975,000	\$2,064,000	\$2,151,000	\$2,243,000	\$2,321,000	\$2,043,000	\$2,119,000	\$2,198,000	\$2,279,000	\$2,364,000	\$2,452,000
15 Engineering	\$445,000	\$463,000	\$481,000	\$501,000	\$521,000	\$542,000	\$564,000	\$587,000	\$611,000	\$635,000	\$661,000	\$688,000
16 Utilities	\$405,000	\$417,000	\$430,000	\$443,000	\$456,000	\$470,000	\$484,000	\$498,000	\$513,000	\$529,000	\$545,000	\$561,000
17 Total Operating Expenses	\$11,182,000	\$12,225,000	\$12,670,000	\$13,127,000	\$13,602,000	\$14,077,000	\$13,721,000	\$14,207,000	\$14,713,000	\$15,235,000	\$15,778,000	\$16,332,000
Other Costs												
18 Existing Debt Service	\$910,000	\$596,000	\$864,000	\$864,000	\$863,000	\$863,000	\$864,000	\$864,000	\$864,000	\$866,000	\$864,000	\$865,000
19 New Debt Service	\$0	\$0	\$573,000	\$1,024,000	\$1,024,000	\$1,024,000	\$1,024,000	\$1,024,000	\$1,024,000	\$1,024,000	\$1,024,000	\$1,024,000
20 Transfer Out to Capital Fund	\$592,400	\$ 3,857,642	\$ 1,762,000	\$ 2,131,000	\$ 2,957,000	\$ 3,706,000	\$ 5,439,000	\$ 6,070,000	\$ 6,591,000	\$ 6,813,000	\$ 7,040,000	\$ 7,196,000
21 Total Revenue Requirement	\$12,684,400	\$16,678,642	\$15,869,000	\$17,146,000	\$18,446,000	\$19,670,000	\$21,048,000	\$22,165,000	\$23,192,000	\$23,938,000	\$24,706,000	\$25,417,000
22 Beginning Year Balance	\$2,737,442	\$4,292,842	\$2,445,000	\$2,534,000	\$2,625,000	\$2,720,000	\$2,815,000	\$2,744,000	\$2,841,000	\$2,943,000	\$3,047,000	\$3,156,000
23 Surplus/(Shortfall)	\$1,555,400	(\$1,847,842)	\$89,000	\$91,000	\$95,000	\$95,000	(\$71,000)	\$97,000	\$102,000	\$104,000	\$109,000	\$110,000
24 End of Year Balance	\$4,292,842	\$2,445,000	\$2,534,000	\$2,625,000	\$2,720,000	\$2,815,000	\$2,744,000	\$2,841,000	\$2,943,000	\$3,047,000	\$3,156,000	\$3,266,000
25 <i>Operating Reserve Target</i>	\$2,236,000	\$2,445,000	\$2,534,000	\$2,625,000	\$2,720,000	\$2,815,000	\$2,744,000	\$2,841,000	\$2,943,000	\$3,047,000	\$3,156,000	\$3,266,000
26 <i>Available Cash</i>	\$2,056,842	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
27 Debt Coverage Ratio	5.92	6.09	3.24	2.91	3.37	3.77	4.60	5.04	5.32	5.41	5.58	5.70

Schedule 3 (2 of 2) - Cash Flow Pro Forma for Retail Capital Fund

	Forecast 2021	Forecast 2022	Forecast 2023	Forecast 2024	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032
1 Capital Fund Beginning Balance	8,039,000	\$7,827,400	\$9,279,042	\$9,026,042	\$8,950,042	\$7,752,042	\$7,007,042	\$7,143,042	\$4,809,042	(\$106,958)	\$3,591,042	\$6,238,042
Revenues												
2 Property Tax Revenue	\$1,188,000	\$1,207,000	\$1,231,000	\$1,256,000	\$1,281,000	\$1,307,000	\$1,333,000	\$1,360,000	\$1,387,000	\$1,415,000	\$1,443,000	\$1,472,000
3 Tapping & Connection Fees	\$1,020,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4 Investment/Interest Income	\$121,000	\$117,000	\$139,000	\$135,000	\$134,000	\$116,000	\$105,000	\$107,000	\$72,000	(\$2,000)	\$54,000	\$94,000
5 Transfer In from Operations Fund	\$592,400	\$3,857,642	\$1,762,000	\$2,131,000	\$2,957,000	\$3,706,000	\$5,439,000	\$6,070,000	\$6,591,000	\$6,813,000	\$7,040,000	\$7,196,000
6 Total Revenues	\$2,921,400	\$5,181,642	\$3,132,000	\$3,522,000	\$4,372,000	\$5,129,000	\$6,877,000	\$7,537,000	\$8,050,000	\$8,226,000	\$8,537,000	\$8,762,000
Expenditures												
7 Total Capital Spending	\$3,133,000	\$8,598,000	\$17,603,000	\$6,250,000	\$5,570,000	\$5,874,000	\$6,741,000	\$9,871,000	\$12,966,000	\$4,528,000	\$5,890,000	\$7,999,000
8 Bond Proceeds	\$0	\$4,068,000	\$5,453,000	\$2,652,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9 SRF Proceeds	\$0	\$800,000	\$8,765,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10 Cash Funded Capital Projects	\$3,133,000	\$3,730,000	\$3,385,000	\$3,598,000	\$5,570,000	\$5,874,000	\$6,741,000	\$9,871,000	\$12,966,000	\$4,528,000	\$5,890,000	\$7,999,000
Surplus/(Shortfall)	(\$211,600)	\$1,451,642	(\$253,000)	(\$76,000)	(\$1,198,000)	(\$745,000)	\$136,000	(\$2,334,000)	(\$4,916,000)	\$3,698,000	\$2,647,000	\$763,000
11 Capital Fund Ending Balance	7,827,400	\$9,279,042	\$9,026,042	\$8,950,042	\$7,752,042	\$7,007,042	\$7,143,042	\$4,809,042	(\$106,958)	\$3,591,042	\$6,238,042	\$7,001,042
12 <i>Emergency Reserve Target</i>	\$8,390,000	\$8,390,000	\$8,390,000	\$8,390,000	\$8,390,000	\$8,390,000	\$8,390,000	\$8,390,000	\$8,390,000	\$8,390,000	\$8,390,000	\$8,390,000
13 <i>Available Cash</i>	(\$562,600)	\$889,042	\$636,042	\$560,042	(\$637,958)	(\$1,382,958)	(\$1,246,958)	(\$3,580,958)	(\$8,496,958)	(\$4,798,958)	(\$2,151,958)	(\$1,388,958)

Schedule 4 – 3-Year Schedule of Proposed Water Rates

	Current	Proposed Implementation Dates		
		Feb 1, 2022	Jan 1, 2023	Jan 1, 2024
Overall Rate Revenue Increase -->		8%	8%	8%
Daily Base Charges				
Up to 1" meter	\$2.23	\$2.50	\$2.70	\$2.92
1 1/2" meter	\$5.78	\$6.30	\$6.80	\$7.34
2" meter	\$9.20	\$9.95	\$10.75	\$11.61
3" meter	\$17.13	\$18.46	\$19.94	\$21.54
4" meter	\$28.48	\$30.62	\$33.07	\$35.72
6" meter	\$56.88	\$61.03	\$65.91	\$71.18
8" meter	\$90.94	\$97.51	\$105.31	\$113.73
Water Usage Charge (\$/CCF)				
All water usage	\$0.92	\$0.92	\$0.99	\$1.07
Daily Private Fire Line Rates*				
4" line	\$0.78	\$1.03	\$1.06	\$1.09
6" line	\$1.16	\$1.20	\$1.24	\$1.28
8" line	\$1.56	\$1.34	\$1.38	\$1.42
10" line	\$1.86	\$1.46	\$1.50	\$1.55
12" line	(na)	\$1.60	\$1.65	\$1.70

* Fire Line Rates are increased by 3% per year based on estimated cost inflation