

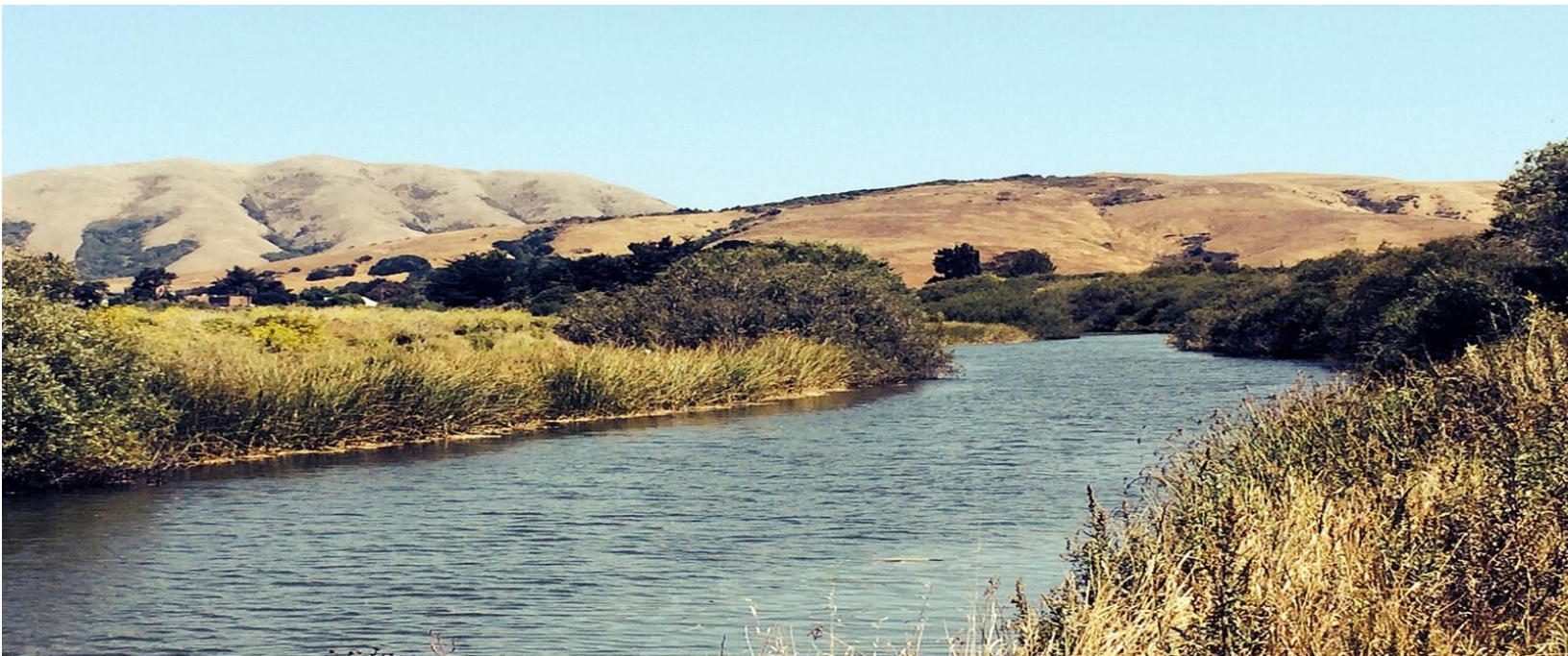


UNION PUBLIC UTILITY DISTRICT

2022 Water Rate Study

Final Report

December 8, 2022



HILDEBRAND
CONSULTING

December 8, 2022



Ms. Summer Nicotero
General Manager
Union Public Utilities District
339 Main St.
Murphys, CA 95247

Re: Union Public Utilities District 2022 Water Rate Study

Dear Ms. Nicotero,

Hildebrand Consulting is pleased to present this 2022 Water Rate Study (Study) for Union Public Utilities District (District). We appreciate the helpful assistance provided by you and all of the members of the District staff who participated in the Study.

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 to the District 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', written in a cursive style.

Mark Hildebrand
Hildebrand Consulting, LLC

Enclosure

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List of Acronyms

AF	acre-foot (351,851 gallons)
AWWA	American Water Works Association
CIP	capital improvement program
COSA	cost-of-service analysis
DWR	Department of Water Resources
FERC	Federal Energy Regulation Commission
FY	fiscal year (which ends on June 30 for the District)
gpm	gallons per minute
hcf	hundred cubic feet (748 gallons)
O&M	operations and maintenance
pay-go	“pay as you go” (i.e., cash financing for capital projects)
UWPA	Utica Water & Power Authority

Section 1. INTRODUCTION

Hildebrand Consulting, LLC has been retained by Union Public Utilities District (District) to conduct a water rate study (Study). This Report describes in detail the assumptions, procedures, and results of the Study, including conclusions and recommendations.

1.1 UTILITY BACKGROUND

The Union Public Utility District was formed on July 26, 1946, as an independent special district. The District was formed to provide agricultural and domestic water services. In 1961 the District acquired its water supply and distribution system from the Calaveras Water Users Association. The boundaries of UPUD begin at the Utica Canal, north of Murphys, and encompass the community of Murphys, Douglas Flat and Vallecito extending south along Red Hill Road to include the community of Carson Hill. The District has a boundary area of approximately 19.1 square miles.

The District's water supply is provided through a Joint Powers Agreement (JPA) between the District and the City of Angels. The JPA, known as Utica Water and Power Authority (UWPA), has served the District and its partner agency since 1995, when the JPA purchased 27-miles of flumes, ditches and two powerhouses from PG&E as well as the associated water rights.

The UPUD water treatment plant has a capacity of two million gallons per day and the District residential demand in 2021 was 2,291 acre feet (AF). As of 2021, the District has 1,668 connections, which include 1,563 domestic connections and 105 irrigation connections.

1.2 UTICA WATER AND POWER AUTHORITY

From 1995 to 2013, communities served by UWPA received water from the North Fork Stanislaus River at little to no cost. The water was inexpensive for three reasons: (1) that

period of time provided adequate water for hydro-power generation, (2) the energy markets were favorable to hydro-powered electricity, and (3) there was minimal investment made in maintaining the gold-mine era distribution system.

Today, UWPA faces financial critical challenges. Deferred maintenance is no longer an option for reducing costs, the utility is nearly due for an obligatory (and expensive) relicensing process through the Federal Energy Regulation Commission (FERC), and the renewable energy market has been disrupted by advances in alternative renewable energy sources and competition from natural gas. In addition, the region has been experiencing unprecedented dry years, which limits the generation of the hydro-powered electricity. When combined, these factors have resulted in UWPA's reserves being drained and an increase in reliance on revenue from the water operations to support the water conveyance infrastructure.

Nevertheless, UWPA member agencies have an interest in maintaining the UWPA water conveyance infrastructure and water supply. As such, since 1995 District customers have paid UWPA fees. For more details regarding the UWPA fees, see Section 4.1.

1.3 SCOPE & OBJECTIVES OF STUDY

The scope of this Study is to prepare a multi-year financial plan, conduct a cost-of-service analysis (COSA), review the existing rate structure, and propose a 5-year rate schedule.

The primary objectives of this Study are to:

- i. Develop a multi-year financial management plan that integrate operational and capital project funding needs.
- ii. Identify future rate adjustments to water rates to help ensure adequate revenues to meet the District's ongoing financial obligations.
- iii. Determine the cost of providing water service using industry-accepted methodologies.

- iv. Recommend specific modifications to the District’s existing rate structures in order to ensure that the rates are equitably recovering the cost of service and comports with industry standards and California’s legal requirements.

1.4 STUDY METHODOLOGY

This Study applied methodologies that are aligned with industry standard practices for rate setting as laid out in the American Water Works Association (AWWA) M1 Manual, and all applicable laws, 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 utility’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, 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 the District’s financial dynamics and latest available data for the utility’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 2021/22) were then used to perform a detailed COSA. The COSA and rate structure design were conducted based upon principles outlined by AWWA, legal requirements (Proposition 218) and other generally accepted industry practices to develop rates that reflect the cost of providing service.

Section 2. FINANCIAL PLAN

This section presents the 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 associated with operation of the water system, including historical and budgeted operating costs and a multi-year capital improvement program (CIP). 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 both District staff and the District’s Board. As a result of this process, the Study has produced a robust financial plan that will allow the District to meet revenue requirements and achieve financial performance objectives throughout the planning 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.

2.1 BEGINNING FUND BALANCES

The ending cash balances for FY 2020/21 were used to establish the FY 2021/22 beginning balances, as outlined in **Table 1**.

Table 1: District FY 2021/22 Beginning Cash Balance

SRFL Reserve at US Bank	\$153,000
District Reserve	\$785,000
District Surplus	\$430,000
Capital Replacement	\$61,000
Irrigation Fund	\$117,000
Capital Improvement	\$186,000
UWPA Reserve	\$194,000
Total Reserves:	\$1,926,000

The UWPA Reserve is funded by virtue of the District retaining a portion of the UWPA fee revenue (see Section 4).

2.2 CUSTOMER GROWTH

In the recent past the District has typically collected about \$100 thousand in Connection Fee¹ revenue from developers connecting to the system. This level of revenue corresponds to about seven (7) new connections per year, or a growth rate of about 0.42 percent. Due to a large new development (Murphys Oak Subdivision), the District has collected about \$427 thousand during the current fiscal year (30 new connections plus one accessory dwelling unit). This Study assumes that there will be another seven (7) connections in FY 22/23, and then growth will slow to a rate of 0.24% (or four connections per year) for the remainder of the 10-year planning period. Future growth is impossible to predict, therefore this Study recognizes that actual growth may turn out to be materially higher or lower.

2.3 WATER RATE REVENUE

Rate revenue is the revenue generated from customers for water service. The District collects rate revenue from water customers based on a monthly fixed “Service Charge,” a water usage based “Usage Rate,” and a fixed monthly UWPA fee. The financial plan

¹ The District’s “Connection Fees” are known as “Capacity Charges” per Government Code Section 66013.

starts with FY 2021/22 budgeted rate revenues. Future rate revenues include assumed customer growth (see Section 2.2) as well as the annual rate revenue adjustments proposed by this Study. Budgeted and projected rate revenues (including proposed rate adjustments) are detailed in **Schedule 1**.

2.4 NON-RATE REVENUES

In addition to rate revenue, the District receives “non-rate revenue” from sources such as miscellaneous service fees, rentals, property taxes, Connection Fees², and interest revenue on investments. Projections of all non-rate revenues were based on FY 2021/22 budgeted revenues with the exception of interest income which was calculated annually based upon projected fund balances and assumed interest rate of 1.07% on invested funds, which is consistent with the District’s recent interest earnings. Actual revenues for FY 20/21 (because FY 21/22 is expected to have anomalous Connection Fee revenue) are depicted in Figure 2 below and revenues projections are listed in detail in Schedule 1.

² The District’s Connection Fees were last updated August 21, 2008, based on a study by Weber, Ghio, and Associates. According to District staff, the Connection Fees were designed to reimburse the District for past investments and are therefore not restricted to pay for new growth-related projects.

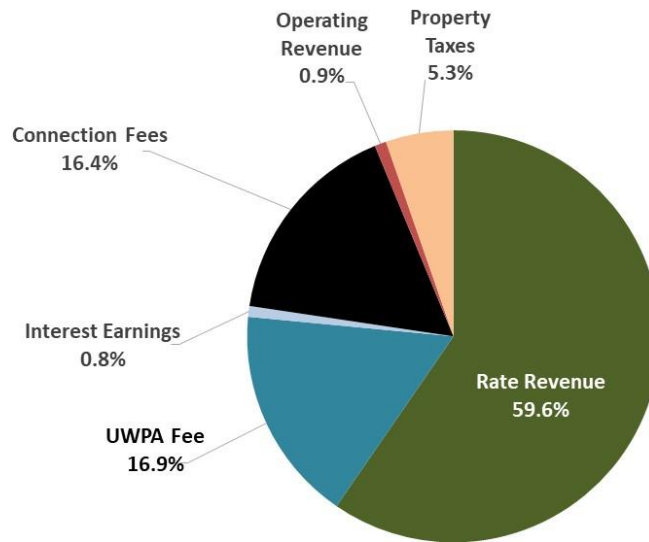


Figure 1: Actual Revenue Categories (FY 2020/21)

2.5 OPERATING EXPENSES

The District’s expenses include operating and maintenance (O&M) expenses and capital spending. The District current has no debt (a State Revolving Fund loan was paid off in FY 19/20). Capital spending is addressed in Section 2.7. Future operating expenses were projected based upon the budgeted expenditures from FY 2021/22 and adjusted for inflation (see Section 2.6).

Budgeted expense categories for FY 2021/22 are depicted in **Figure 2**. Budgeted and projected operating expenses are listed in detail in **Schedule 2**.

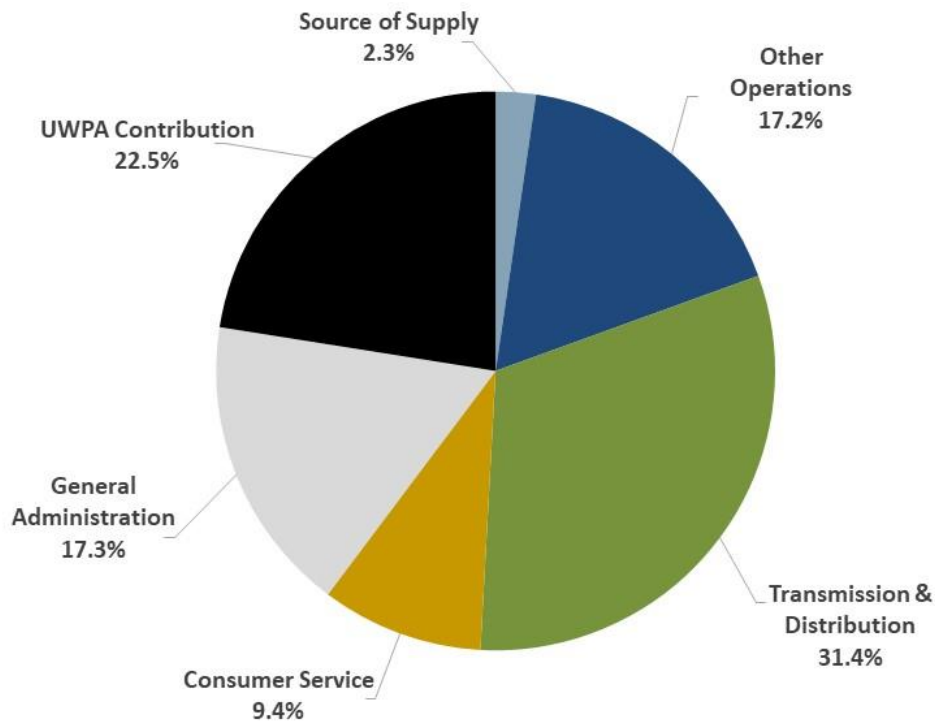


Figure 2: Budgeted Expense Categories (FY 2021/22)

2.6 COST ESCALATION

Annual cost escalation factors for 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, most expenses are projected to increase at 3.0 percent per year. Exceptions include utility costs, which are expected to increase by 20.0 percent in FY 22/23 (then back to 3.0 percent per year thereafter) and chemicals which are expected to increase by 5.0 percent per year in FY 22/23 and FY 23/24 (then back to 3.0 percent per year thereafter).

2.7 CAPITAL IMPROVEMENT PROGRAM

Figure 3 shows that total actual capital spending from FY 2018/19 to FY 2020/21 has averaged \$250 thousand per year. Over the next 11 years, from FY 2022/23 through FY 2032/23, the District is planning to increase capital spending to \$1.1 million per year, as

detailed in **Schedule 3**. The need for this increase in capital spending is driven mainly by the age of the domestic and irrigation systems. Over the next 20 years the district will focus on replacing pipelines, upgrading technology, and maintaining the water treatment plant. This capital plan lays the foundation for a well-managed, level spending plan for years to come, focusing on proactive maintenance and necessary upgrades.”

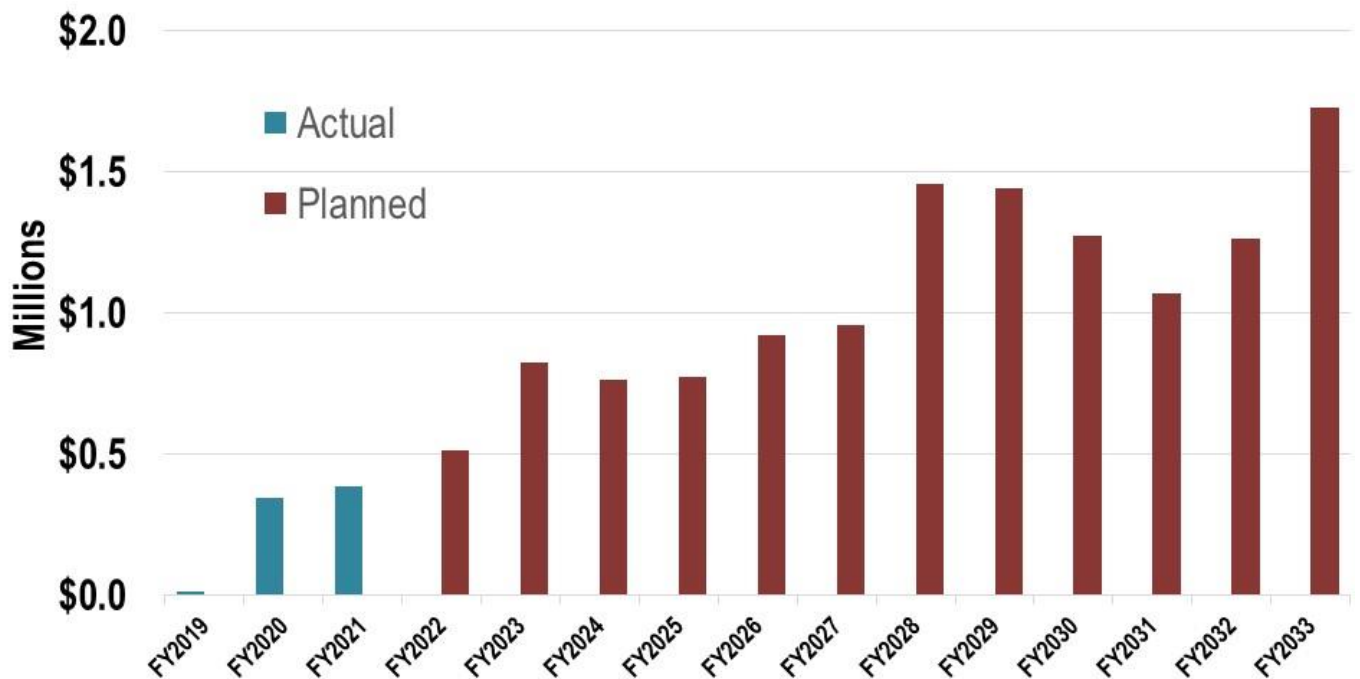


Figure 3: Historic and projected capital spending

The District’s capital spending forecasts were provided in current dollars and were assumed to inflate at a rate of 3.0 percent per year.

2.8 RESERVES AND TARGETS

Target reserves for utilities are cash balances retained for specific cash flow needs. The target for reserves is an important component when developing a multi-year financial plan. Utilities rely on reserves for financial stability; credit rating agencies evaluate utilities in part on their adherence to formally adopted reserve targets; and lending

agencies require utilities to maintain specific debt reserves for outstanding loans (not applicable in this case).

Given that the District does not have formal reserve policies, this Study recommends target reserve levels that are consistent with 1) the findings of reserve studies conducted by AWWA; 2) 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 3) Hildebrand Consulting's industry experience for similar systems.

Operating Reserve – The Operating Reserve is comprised of a minimum of three months of budgeted operating expenditures (or 25 percent of the annual operating budget). This reserve serves to ensure adequate cash for operating costs and unanticipated cash flow needs that arise during the year. Given the FY 2021/22 O&M budget of \$1.85 million, the Operating Reserve target is currently **\$463 thousand**. The Operating Reserve is treated as a “minimum” reserve, meaning that the District should never plan to drop below the target level (with the understanding that it might happen nevertheless).

Capital Reserve – Capital reserves are intended to help protect the District from both the financial risk associated with major disruptive events such as earthquakes, fires, and floods and also help mitigate against the inherent volatility of capital spending (see Figure 3). Ideally the target reserve level would be based, in part, on an engineer's assessment of the replacement cost of the District's critical infrastructure. The targeted reserve should also be based on the historic and projected annual variance in capital spending. Given the projected annual capital spending as low as \$500 thousand and as high as \$1.6 million, this Study recommends a target reserve level of \$1 million. The Capital Reserve should be treated as a target reserve, meaning that the District does not always need to meet the targeted level. The reserve is designed to give the District some “cushion” in order to smooth out the peaks and valleys in the pay-go capital spending program. It makes sense to draw down on this reserve during years of higher-than-average pay-go spending and replenish the reserve during years with lower-than-average spending.

The reserves targets by year are shown in the 10-Year Cash Flow Proforma (see **Schedule 4**, rows 26 and 27), which shows that (given the proposed rate revenue increases) the projected cash reserves are not expected to fall below the Minimum Reserves during the planning period.

UWPA Emergency Reserve – The District has been assessing a UWPA fee since 1996. Since that time, the District has always assessed at least one dollar per account / dwelling unit and kept one dollar in a reserve account (as directed by Ordinance #3 – 1996). All additional revenue from the UWPA has been passed through to UWPA. The balance in the UWPA reserve was \$194 thousand at the beginning of FY 2021/22 (see Section 2.1). See Section 4 for a more detailed discussion of the UWPA fee and reserves.

2.9 DEBT STRATEGY

While the option of issuing debt to finance some capital projects was considered by this Study, it was concluded that debt is not a recommended strategy for the District at this time. Debt can be a useful tool when faced with a large spike in capital spending event or a sudden increase in capital spending. In this case, while there is an increase in capital spending, the increase has been strategically phased in. It is expected that the increase in capital spending will be the “new normal,” therefore the District is best served by increasing its rates to be able to cash finance the reoccurring annual capital spending.

2.9.1 Proposed Rate Revenue Increases

All of the above information was entered into the financial planning model to produce a 10-year projection of the sufficiency of revenues to meet current and projected financial requirements and determine the level of rate revenue increases³ necessary in each year of the projection period. Based upon the previously discussed financial data, assumptions, and policies, this Study proposes a 5-year schedule of rate adjustments as detailed in **Table 2**. After the final recommended increase on January 1, 2027, it is

³ This does not include the UWPA fee, which is addressed separately in Section 4.

projected that minimal (approximately inflationary) increases will be necessary going forward, barring unforeseen emergencies or changes in infrastructure/operational needs.

It is important to note that these rate revenue increases are separate and independent from any changes to the UWPA fee, which is addressed separately in Section 4.

The numbers provided in **Schedule 4** (cash flow proforma) are summarized graphically in **Figure 4**, which shows that cash reserves are maintained over the course of the planning period.

Table 2: Recommended Rate Revenue Increase

Rate Adjustment Date	Rate Revenue Increase
January 1, 2023	11.0%
January 1, 2024	11.0%
January 1, 2025	10.0%
January 1, 2026	10.0%
January 1, 2027	10.0%

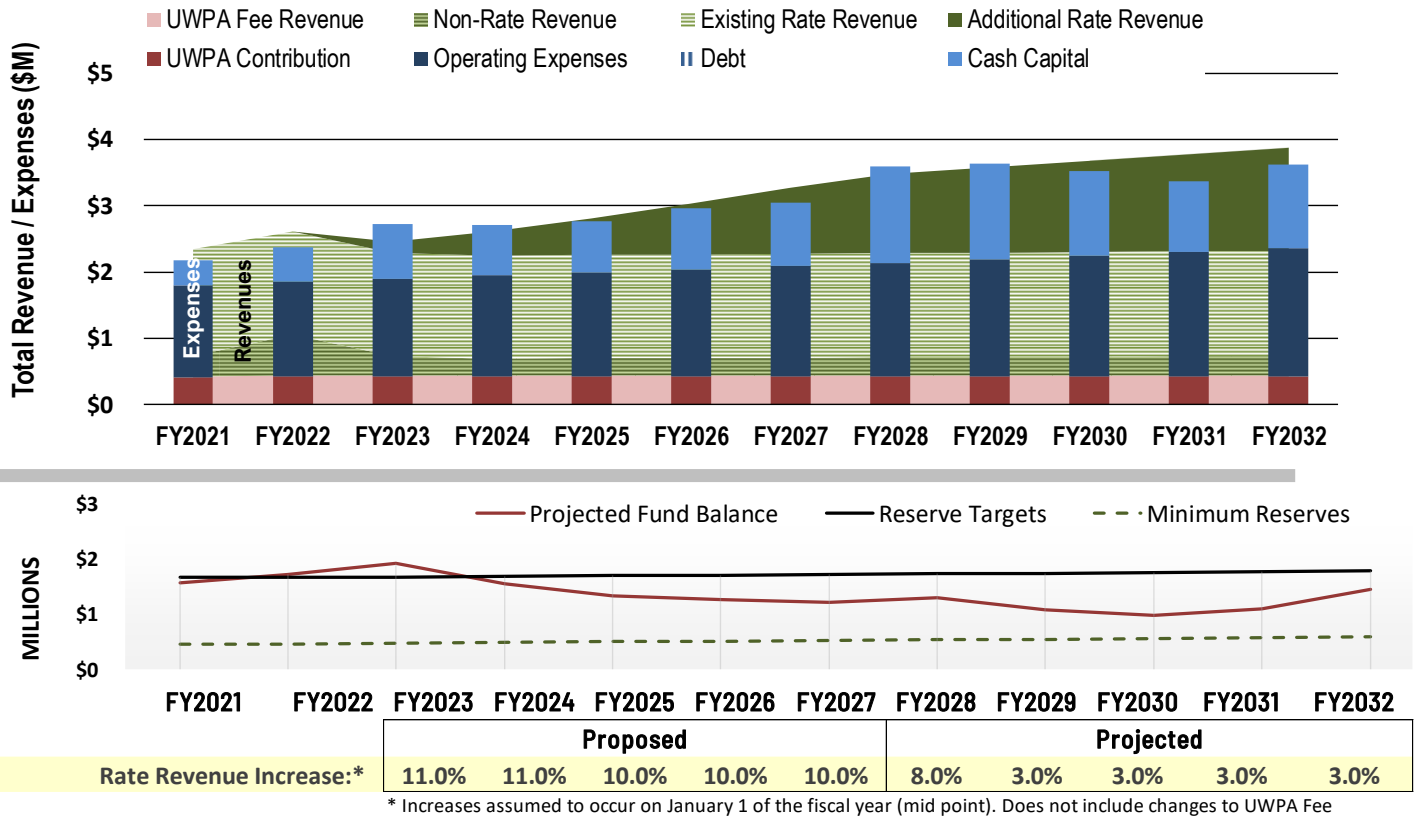


Figure 4: Financial Projection with Recommended Rate Increases

Section 3. COST OF SERVICE & RATE STRUCTURE

The cost-of-service analysis (COSA) evaluates the cost of providing water service and allocates those costs to rate structure components to ensure the proposed rates are aligned with costs to provide service. The COSA is done 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 COSA, a rate structure analysis was performed to evaluate rate structure modifications and calculate specific rate schedules for implementation in FY 2022/23. The complete schedule of proposed rates for FY 2022/23 through FY 2026/27 is detailed in **Schedule 6**.

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 utility fixed costs.

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

The following does not address the UWPA fees, which are addressed separately in Section 4.

3.1 CURRENT RATES

The District bills water service on a monthly basis. The structure for the District’s current domestic and irrigation water rates follow a common industry practice with a two-part structure that is comprised of a fixed Service Charge and a consumption-based Usage Charge.

The fixed Service Charge varies based on meter size for domestic customers and varies based on the season for irrigation customers. This basic service charge recognizes the fact that even when a customer does not use any water, the District incurs fixed costs in connection with the ability or readiness to serve each connection.

Table 3: Current Fixed Monthly Service Charges

<u>Domestic</u>	
5/8" x 3/4"	\$49.00
1"	\$68.00
1.5"	\$97.00
2"	\$131.00
3"	\$194.00
4"	\$257.00
6"	\$352.00
<u>Irrigation</u>	
May - October	\$41.00
November - April	\$49.00

Customer also pay a fixed UWPA Fee per account (or per dwelling unit for residential accounts), which is largely a pass-through to UWPA. This fee is discussed in Section 4.

A metered variable charge (Usage Charge) is billed water usage over a given water allotment. Domestic accounts are charged for water usage over ten hundred cubic feet (“hcf” which is equal to 748 gallons) for domestic customers and over 500 hcf for irrigation customers). The quantity charge is intended to recover costs that vary based on the amount of water consumed as well as some of the District's fixed operating costs. These variable costs can include utilities, chemicals, etc. The Usage Charge varies based on whether the water is potable or non-potable (aka, domestic or irrigation water) and are shown in **Table 4**.

Table 4: Current Usage Charges

Domestic (after 10 HCF)	\$1.70
Irrigation (after 500 HCF)	\$0.06

3.2 PROPOSED RATE STRUCTURE CHANGES

This Study has found that the District’s current rate structures are generally consistent with common industry practices and recommends the following modifications and updates.

1. Update the meter equivalency schedule (see Section 3.2.1)
2. Add a fixed customer charge to the monthly Service Charge (see Section 3.2.2)
3. Removed the seasonal rates for irrigation and replace with a meter equivalency schedule like domestic customers (see Section 3.2.3)
4. Charge for all water usage by eliminating the “minimum” water usage service charges (see Section 3.2.4)

The above proposed changes are explained in more detail in the following subsections.

3.2.1 Meter Equivalency

The District’s monthly Service Charge is a fixed fee that increases with meter size. It is designed to recover the fixed costs that change as a function of meter size. These are costs that increase with the size of the water system, including capital costs, system maintenance, and meter repairs.

The sizing of the water system is based on the potential demand that each customer could place on the water system. Capacity-related 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 total system demands. A customer with a large meter size will be assigned a larger share of fixed capacity-related costs than one with a smaller meter. Costs that are driven by the size of water system include capital projects, maintenance, and certain fixed operating costs.

A meter equivalency schedule is an industry-standard factor used to represent the relative capacity associated with various meter sizes based on their hydraulic flow capacity (measured in gallons per minute (gpm)). A meter equivalency schedule allows

for indexing of each meter size in terms of multiples of the lowest common denominator (in this case a 5/8" x 3/4" meter). While the District does currently charge a larger Service Charge to domestic accounts with larger meters, the basis for the difference in the charge between different meter sizes is not well documented. This Study recommends a standard meter equivalency table as taken from AWWA's M1 manual as shown in **Table 5**. The application of this meter equivalency schedule is discussed further in Section 3.3.

Table 5: Meter Equivalency Schedule

Meter Size	Flow Capacity¹ (gpm)	Capacity Factor
5/8" x 3/4"	30	1.0
1"	50	1.67
1.5"	100	3.33
2"	160	5.33
3"	300	10.00
4"	500	16.67
6"	1000	33.33

¹AWWA Manual, 7th Edition, Table B-2

3.2.2 Fixed Customer Charge

Customer charges is a charge for fixed costs that do not change based on the size of the meter, but rather are driven by the number of accounts. These costs include meter reading, billing costs, customer service and other costs that the utility incurs equally per customer or per account. As detailed in Section 3.5, this Study recommends that the fixed monthly Service Charge for each customer be made up of both a meter charge and a customer charge.

3.2.3 Irrigation Service Charge

The District currently charges irrigation customers a fixed monthly Service Charge based on the season (summer or winter) and regardless of meter size. While the cost of producing non-potable water for irrigation accounts is less expensive than the potable water for domestic accounts (as reflected in the Usage Charges), the cost of maintaining

and operating the pumping and conveyance infrastructure to deliver the water is essentially the same. As such, this Study recommends that irrigation accounts be charged a fixed Service Charge that is similar to the charge to domestic customers.

3.2.4 Eliminate Water Allotments

The District currently provides allotments of water to each account on a monthly basis (10 hcf per month to each domestic account and 500 hcf per month to each irrigation account). This allotment ostensibly infers that the cost of the allotted water is “built into” each account’s monthly Service Charge. In order to comply with the most conservative interpretations of Proposition 218, this Report recommends that the policy allotment be eliminated so that all customers are charged for water that is actually used.

3.3 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 about 1,668 water service connections (customer accounts). The District delivers potable water to domestic accounts and non-potable water to irrigation accounts. Domestic customers comprise about 94 percent of the customer accounts and about 32 percent of annual water usage (see **Table 6**).

As discussed in Section 3.2.1, service connections with different meter sizes can place different demands on the water system. For example, ten times more water can be delivered through a 3” water meter than through a 5/8” x 3/4” meter. The proposed rate structure is based on hydraulic capacity factors which relate the potential demands on the water system from customers with different sized water meters.

As shown in Table 6, 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. Table 6 summarizes the number of meters by meter size, the rated flow

capacity of various meter size, and water usage data during FY 2020/21 (which was used in water rate calculations).

Table 6: Summary of Water Service Connections and Water Usage

	Meter Size							Total	Actual FY 2020/21
	3/4"	1"	1.5"	2"	3"	4"	6"		Water Use (HCF)
No. of Accounts									
Domestic	1,517	32	4	7	1	1	1	1,563	315,000
Irrigation	9	36	36	12	9	2	1	105	683,000
Total Accounts	1,526	68	40	19	10	3	2	1,668	998,000
Rated Flow Capacity ¹	30	50	100	160	300	500	1,000		
Hydraulic Capacity Factor	1.00	1.67	3.33	5.33	10.00	16.67	33.33		
1" Equivalent Meters	1,526	113	133	101	100	50	67	2,091	

Notes:

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

3.4 WATER RATE CALCULATION METHODOLOGY

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 one of the fixed charges or the usage rate.

3.4.1 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 FY 2022/23⁴, and reflects the proposed 11 percent overall rate revenue increase to be incorporated

⁴ The first proposed rate increases will occur on January 1, 2023, which is six months before the end of the fiscal year.

in the District's Financial Plan. The annual water rate revenue requirement with this rate adjustment is \$1,641,800 (see bottom of Table 7).

3.4.2 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 customers. The manner in which each customer is responsible for the water utility's costs is the determining factor in the COSA.

The cost allocation approach presented by this Study is commensurate with available data and the requirement to fairly and reasonably reflect the cost difference to provide services to different types of customers. The goal of the methodology was to allocate costs in a manner that satisfy not only the cost of service (proportionality) requirements Proposition 218, but also the objectives of revenue sufficiency and revenue stability.

3.5 ALLOCATION TO REVENUE RECOVERY COMPONENTS

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

- The customer charge is intended to recover fixed costs which tend to vary as a function of the number of customers being served, such as meter reading, customer service, and billing. Customer costs are allocated to customers based on the number of accounts. That is, every customer (regardless of customer type or meter size) will pay an equal share of customer-related costs.
- The meter charge is used to recover fixed costs which tend to vary in relation to the capacity of the water system which has been built to meet the potential demands of connected customers. The costs that are recovered through the meter charge include operations, maintenance, repairs, and capital projects. As explained in

Section 3.2.1, the size of each customer’s meter is used to measure their respective cost responsibility for these capacity-related costs. In the District’s case, the water system infrastructure is divided into its distribution infrastructure and water treatment infrastructure since the former benefits all customers and the latter benefits only domestic customers. As such, the meter charge is made up of a “distribution meter charge” and a “treatment meter charge” (which is only applied to domestic rates).

- The water supply charge is intended to recover the District’s costs associated with water purchases and is applied to both domestic and irrigation Usage Rates.
- The water treatment charge is intended to recover the District’s costs associated with treating non-potable water for domestic use. Given that only domestic accounts receive potable water, the domestic Usage Charge includes the treatment charge while the irrigation Usage Charge does not.

Table 7 summarizes how the FY 2022/23 revenue requirement is comprised of various functional categories of operating and maintenance costs 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 revenue recovery components, previously described.

The costs within each of the functional categories were derived from the District’s budget for FY 2022/23. In reviewing Table 7, we see that all water purchase costs (Row 1) are allocated to the water supply charge. Water treatment costs (Row 2) are split evenly between the treatment meter charge and the water treatment charge, such that half of those costs are recovered through the fixed charge and the other half through the variable rate. Similarly, transmission and distribution costs (Row 3) are split between the distribution meter charge and the water supply charge in order to recover half of those costs through the fixed rate and the other half through the variable rate. All customer service costs (Row 4) are recovered through the customer charge. Administrative costs (Row 5) are split evenly between the customer charge and the distribution meter charge based on the logic that about half of those fixed costs are driven by the number of customers that are served while the other half are driven by the

size of the system (which affects the number employees, etc.). The capital program indicates that most capital costs (Row 6) will be spent on the distribution system (65 percent), while 35 percent will be spent on the treatment facilities. Of the 35 percent being spent on the treatment facilities, the District has elected to recover 20 percent through the treatment meter charge and the remaining 15 percent through the water treatment charge. The Use of Reserves (Row 7) is credited based on the indirect method (based on the weighted average allocation of all previous direct costs). While the Use of Reserves technically is not a source of revenue, its important to account for changes in fund balance with calculating the appropriate unit rates. Finally, the District uses its discretion when crediting miscellaneous operating revenues. The majority of property tax and miscellaneous operating revenues (\$234 thousand, see Row 8) are allocated predominantly to the distribution meter charge (65 percent) and the remainder (35 percent) to the water supply charge, which has the effect of lowering the fixed Service Charge for all customers (and improving affordability). Not included in the above is \$50 thousand in property taxes which the Board of Directors has directed to subsidize the Irrigation customer Service Charges (shown in Table 8).

3.5.1 Calculate Unit Costs

Once functional cost categories are allocated to the revenue recovery components, the total for each component is divided by the number of associated units of demand to calculate unit costs (see Table 8). The units of demand include the number of customer accounts for the customer charge, number of 1” equivalent meters for the respective meter charges, and annual sales of potable and non-potable water.

Table 7: FY 2022/23 Allocation to Revenue Recovery Components

Revenue Requirement:	Test Year Budget	Revenue Recovery Allocation					Cost Category Value					
		Customer Charge	Distribution Meter Charge	Treatment Meter Charge	Water Supply Charge	Water Treatment Charge	Customer Charge	Distribution Meter Charge	Treatment Meter Charge	Water Supply Charge	Water Treatment Charge	
1 Source of Supply	\$44,000				100%					\$44,000		
2 Water Treatment	\$329,000			50%		50%				\$165,000		\$165,000
3 Transmission & Distribution	\$601,000		50%		50%				\$301,000		\$301,000	
4 Consumer Service	\$179,000	100%										
5 General Administration	\$330,000	50%	50%						\$165,000			
6 Capital Spending	\$825,000		65%	20%		15%			\$536,000	\$165,000		\$124,000
7 Use of Reserves	(\$382,200)	14.9%	43.4%	14.3%	14.9%	12.5%			(\$57,000)	(\$166,000)	(\$55,000)	(\$57,000) (\$48,000)
8 Non-Rate Revenue	(\$234,000)		50.0%		50.0%				(\$117,000)			(\$117,000)
9												
10	Total:	\$1,691,800							\$287,000	\$719,000	\$275,000	\$171,000 \$241,000

Table 8: FY 2021/22 Units Costs

	Service Charge				Usage Charge	
	Account Charge	Distribution Meter Charge	Treatment Meter Charge	Irrigation Meter Subsidy	Water Usage Charge	Potable Surcharge
Revenue Recovery:	\$287,000	\$719,000	\$275,000	(\$50,000)	\$171,000	\$241,000
Units:	1,668 Accounts	2,091 Equiv. Meter	1,681 Equiv. Meter	410 Equiv. Meter	998,000 All Water	315,000 Potable Water
Unit Costs:	\$14.34 per account per month	\$28.66 per equiv. meter per month	\$13.63 per equiv. meter per month	(\$10.17) per equiv. meter per month	\$0.17 per HCF water	\$0.77 per HCF potable water

3.5.1.1 SERVICE CHARGE

The proposed Service Charge is a combination of the customer charge and the meter charge(s), as described in Section 3.5. The Service Charge is a fixed monthly fee which apply to all customer water bills depending on the size of the meter and regardless of the amount of water actually used. Customers that use no water during a billing period are still required to pay the Service Charge because water service is immediately available to them. In calculating the Service Charge, the customer charge is allocated equally to all customers and the applicable meter charge(s) is allocated to customers based on their meter size.

The proposed monthly Service Charge for Year 1 of the proposed 5-year rate schedule for a 5/8" x 3/4" domestic meter is \$56.63, as shown in **Table 9**. The Service Charge for same size meter for an irrigation account is \$32.83 (the difference is partially due to the fact that irrigation accounts are not supported by treatment infrastructure and partially due to the subsidy described in Section 3.5). The Service Charge for the irrigation account was calculated by adding the monthly customer charge of \$14.34 (per account) plus \$28.66 for the monthly distribution meter charge (for a 5/8" x 3/4" meter) less \$10.17 for the irrigation subsidy (for a 5/8" x 3/4" meter). The domestic Service Charge does not include the subsidy but does includes \$13.68 for the treatment meter charge (for a 5/8" x 3/4" meter). All of these rates are shown at the bottom of Table 9).

Table 9: Monthly Service Charges

	Meter Size						
	5/8" x 3/4"	1"	1.5"	2"	3"	4"	6"
Account Charge	\$14.34	\$14.34	\$14.34	\$14.34	\$14.34	\$14.34	\$14.34
Distribution Meter Charge	\$28.66	\$47.77	\$95.53	\$152.85	\$286.60	\$477.67	\$955.33
Treatment Meter Charge	\$13.63	\$22.72	\$45.43	\$72.69	\$136.30	\$227.17	\$454.33
Irrigation Meter Subsidy	-\$10.17	-\$16.95	-\$33.90	-\$54.24	-\$101.70	-\$169.50	-\$339.00
Domestic Service Charge:	\$56.63	\$84.82	\$155.31	\$239.89	\$437.24	\$719.17	\$1,424.01
Irrigation Service Charge:	\$32.83	\$45.16	\$75.97	\$112.95	\$199.24	\$322.51	\$630.67

3.5.1.2 WATER USAGE RATES

As discussed in Section 3.1, current water usage rates include different rates for irrigation and domestic customers. As explained in Section 3.5, the difference in the

rates is based on the cost of treating water to potable levels for domestic use. As shown in Table 8, the cost of water supply is \$0.17 per hcf, therefore that is the rate for non-potable irrigation water. The cost of treating water is \$0.77 per hcf, therefore the rate for domestic water is \$0.94 per hcf.

A summary of the proposed rate schedule for the 5-year planning period has been provided in **Schedule 5**.

Section 4. UWPA FEES

From 1995 through 2016 the District collected a UWPA fee of \$1.00 from District rate payers. In 2014 UWPA began requiring member agencies to contribute additional funds towards the JPA. The UWPA fee is currently structured to be a flat charge for each non-residential accounts, and for each residential dwelling unit, and for each parking space for mobile home accounts.

Member agencies, including the City of Angels, have the responsibility to ensure the financial viability of the JPA. The additional contributions come directly from the City's water operations budget, thereby reducing the City's capacity to invest in the operations and maintenance of its distribution system.

4.1 CURRENT UWPA FEES

The District's contributions to UWPA fluctuate depending on drought conditions and are dependent on water supply conditions, as declared by the Department of Water Resources. "Water Year" tiers range from Water Year 1 through Water Year 6 (severe drought conditions). UWPA provides update of financial deficits that occur by Water Year. These deficits are currently estimated by UWPA to range from \$500 thousand in a Water Year 1 to \$1.3 million in a Water Year No. 6. The contribution in FY 2021/22 was about \$417 thousand and required a UWPA fee of \$17.00 per month (plus an additional \$1.00 which was held in the District's UWPA reserve per District Ordinance 3 -1966).

4.2 PROPOSED UWPA FEE POLICY

Going forward, the District Board proposed to assess the UWPA Fee on a per-meter basis. This is a departure from the current practice of assessing the fee to each account and each "additional" dwelling unit. The UWPA fee is calculated by dividing the required UWPA contribution by the District's total number of meters.

The UWPA Fee is designed to be a “pass-through” that covers the costs of the District’s projected contribution amounts. The projected contributions are based on UWPA projections. This Study recommends establishing a pass-through policy that resets the UWPA fee every year based on the projected UWPA contributions for the following year.

The District would be required to notify customers of the proposed pass-through policy in a Proposition 218 notification letter. If the policy passes the Proposition 218 adoption requirements, the District will be authorized to recalculate the UWPA Fee to account for any changes in the UWPA contribution. Such an adjustment will not require a public hearing or any additional action by the District Board however the District will be required to provide customers with notice of the expected adjustment at least 30 days before the effective date of the adjustment.

Table 10 provides an example of how the UWPA Fee could be calculated given an example contribution to UWPA and example number of then-current number of meters in the District (based on billing data).

Table 10: Example of UWPA Fee Pass-Through Calculation

Example UWPA contribution:	\$500,000
Then-current District meters:	1,668
Cost per meter per month:	\$24.98

4.3 PROPOSED UWPA FEE RESERVE POLICY

As previously explained in Section 4.1, the District currently has an ordinance that authorizes the District to set aside \$1.00 of the UWPA fee into a reserve account. While this Report does not make any specific recommendations regarding the amount the District should annually contribute to this reserve (if any), it is recommended that the District more clearly define the purpose of the reserve and the reserve target, so that the reserve contributions can be tied to a specific financial need. It is our understanding that the most relevant current need for the reserve is a fund that will give the District the financial means to retain its water rights in the future, either by relicensing the hydroelectricity plant or by funding the decommissioning of the plant. A better

understanding of the magnitude and timing of those costs would be helpful when making a specific recommendation on the contribution amounts and the target reserve levels.

Section 5. 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 rates will allow the District to continue to provide reliable service to customers while meeting operational and infrastructure needs of the service area. The modifications to the rate structure will provide revenue stability, improve the defensibility of the water rates, and continue to equitably and proportionately recover costs from the customers. A complete schedule of rates over the 5-year planning period are summarized in Schedule 5.

It is important to note that this study proposes changes to both the total amount of rate revenue being collected by the District as well as the structure of the rates. As a result, the results of the rate changes will vary among different customers in Year 1 due to the proposed rate structure adjustments. To be clear, some customers' bills will increase by more than rate revenue increase of 11% in Year 1 (on January 1, 2023), while other customer's bills will increase by less than that amount. Starting with the second rate increase (on January 1, 2024), all customers will experience the same uniform percentage change to their bill.

5.1 ADOPTION OF PROPOSED RATES

The 5-year schedule of proposed water rates are presented in Schedule 5. The rates in Year 1 are proposed to be effective as of January 1, 2023 (6 months before the end of the fiscal year) and thereafter the rate increases are proposed to occur on January 1 of their respective fiscal year. The District will need to complete the procedural requirements of Proposition 218 prior to adopting the proposed rates, which includes mailing a Public Hearing notification to all property owners 45 days prior to the Public Hearing and then holding the protest hearing.

SCHEDULES

Schedule 1 – Budgeted and Projected Cash Inflows

Schedule 2 - Budgeted and Projected Cash Outflows

Schedule 3 - Capital Spending Plan

Schedule 4 - Cash Flow Pro Forma

Schedule 5 – Schedule of Proposed Rates

Schedule 1 – Budgeted and Projected Cash Inflows

	FY2021/22	FY2022/23	FY2023/24	FY2024/25	FY2025/26	FY2026/27	FY2027/28	FY2028/29	FY2029/30	FY2030/31	FY2031/32
1 Growth in Water Accounts	0.42%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
2 Proposed Water Rate Revenue Increase		11.0%	11.0%	10.0%	10.0%	10.0%	8.0%	3.0%	3.0%	3.0%	3.0%
Rate Revenue											
3 Water Service Charge	\$1,549,800	\$1,549,800	\$1,727,000	\$1,921,000	\$2,118,000	\$2,335,000	\$2,575,000	\$2,787,000	\$2,878,000	\$2,971,000	\$3,068,000
4 Increase due to growth		\$7,000	\$4,000	\$5,000	\$5,000	\$6,000	\$6,000	\$7,000	\$7,000	\$7,000	\$7,000
5 Increase due to new rate adjustments		\$85,000	\$95,000	\$96,000	\$106,000	\$117,000	\$103,000	\$42,000	\$43,000	\$45,000	\$46,000
6 UWPA Fee Revenue	\$440,000	\$440,000	\$440,000	\$440,000	\$440,000	\$440,000	\$440,000	\$440,000	\$440,000	\$440,000	\$440,000
7 Total Rate Revenue	\$1,989,800	\$2,081,800	\$2,266,000	\$2,462,000	\$2,669,000	\$2,898,000	\$3,124,000	\$3,276,000	\$3,368,000	\$3,463,000	\$3,561,000
Other Revenue:											
8 Other Water Related	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
9 Meter Reset Fees	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
10 Non-Operating Income	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
11 Interest Earned (LAIF & Bank Accts)	\$22,000	\$22,236	\$22,475	\$22,717	\$22,961	\$23,208	\$23,457	\$23,710	\$23,964	\$24,222	\$24,222
12 Property Taxes	\$138,000	\$142,140	\$146,404	\$150,796	\$155,320	\$159,980	\$164,779	\$169,723	\$174,814	\$180,059	\$180,059
13 Garage Rentals	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200
14 NCPA Facilities Use Agreement	\$2,500	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200
15 Forest Meadows-Div.Wtr	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50
16 Total Other Revenue	\$183,750	\$186,826	\$191,330	\$195,963	\$200,731	\$205,638	\$210,687	\$215,882	\$221,229	\$226,731	\$226,731
17 TOTAL REVENUE	\$2,173,550	\$2,268,626	\$2,457,330	\$2,657,963	\$2,869,731	\$3,103,638	\$3,334,687	\$3,491,882	\$3,589,229	\$3,689,731	\$3,787,731

Schedule 2: Budgeted and Projected Operating Expenses

(1 of 3)

	Budget FY2021/22	Forecast FY2022/23	Forecast FY2023/24	Forecast FY2024/25	Forecast FY2025/26	Forecast FY2026/27	Forecast FY2027/28	Forecast FY2028/29	Forecast FY2029/30	Forecast FY2030/31	Forecast FY2032/33
Water Purchased											
1 Water Purchases	\$43,163	\$44,500	\$45,800	\$47,200	\$48,600	\$50,000	\$51,500	\$53,100	\$54,700	\$56,300	\$58,000
Treatment Accounts											
2 Labor	\$77,250	\$79,600	\$82,000	\$84,400	\$86,900	\$89,600	\$92,200	\$95,000	\$97,900	\$100,800	\$103,800
3 Overtime	\$5,150	\$5,300	\$5,500	\$5,600	\$5,800	\$6,000	\$6,100	\$6,300	\$6,500	\$6,700	\$6,900
4 On-Call	\$18,416	\$19,000	\$19,500	\$20,100	\$20,700	\$21,300	\$22,000	\$22,600	\$23,300	\$24,000	\$24,800
5 WT Cert Bonus	\$1,545	\$1,600	\$1,600	\$1,700	\$1,700	\$1,800	\$1,800	\$1,900	\$2,000	\$2,000	\$2,100
6 Temp Labor	\$7,210	\$7,400	\$7,600	\$7,900	\$8,100	\$8,400	\$8,600	\$8,900	\$9,100	\$9,400	\$9,700
7 FICA/Medicare (6.2%/1.45% Emplr)	\$8,343	\$8,600	\$8,900	\$9,100	\$9,400	\$9,700	\$10,000	\$10,300	\$10,600	\$10,900	\$11,200
8 Repairs & Maintenance	\$5,150	\$5,300	\$5,500	\$5,600	\$5,800	\$6,000	\$6,100	\$6,300	\$6,500	\$6,700	\$6,900
9 Equipment Repairs	\$3,605	\$3,700	\$3,800	\$3,900	\$4,100	\$4,200	\$4,300	\$4,400	\$4,600	\$4,700	\$4,800
10 Supplies	\$46,350	\$47,700	\$49,200	\$50,600	\$52,200	\$53,700	\$55,300	\$57,000	\$58,700	\$60,500	\$62,300
11 Utilities	\$6,695	\$8,000	\$8,300	\$8,500	\$8,800	\$9,000	\$9,300	\$9,600	\$9,900	\$10,200	\$10,500
12 Capital Expenditures/Equipment Purchase	\$7,210	\$7,400	\$7,600	\$7,900	\$8,100	\$8,400	\$8,600	\$8,900	\$9,100	\$9,400	\$9,700
13 Permits	\$30,900	\$31,800	\$32,800	\$33,800	\$34,800	\$35,800	\$36,900	\$38,000	\$39,100	\$40,300	\$41,500
14 Equipment Rental	\$2,060	\$2,100	\$2,200	\$2,300	\$2,300	\$2,400	\$2,500	\$2,500	\$2,600	\$2,700	\$2,800
15 Uniforms	\$258	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300
16 Water Analysis	\$20,600	\$21,200	\$21,900	\$22,500	\$23,200	\$23,900	\$24,600	\$25,300	\$26,100	\$26,900	\$27,700
17 Other	\$515	\$500	\$500	\$600	\$600	\$600	\$600	\$600	\$700	\$700	\$700
18 Equipment Purchase to \$999	\$1,030	\$1,100	\$1,100	\$1,100	\$1,200	\$1,200	\$1,200	\$1,300	\$1,300	\$1,300	\$1,400
19 Education	\$1,030	\$1,100	\$1,100	\$1,100	\$1,200	\$1,200	\$1,200	\$1,300	\$1,300	\$1,300	\$1,400
20 Autogate Expense - Crestview	\$1,648	\$1,700	\$1,700	\$1,800	\$1,900	\$1,900	\$2,000	\$2,000	\$2,100	\$2,200	\$2,200
21 Health Insurance	\$33,990	\$35,000	\$36,100	\$37,100	\$38,300	\$39,400	\$40,600	\$41,800	\$43,100	\$44,300	\$45,700
22 Worker's Comp	\$5,665	\$5,800	\$6,000	\$6,200	\$6,400	\$6,600	\$6,800	\$7,000	\$7,200	\$7,400	\$7,600
23 (Employer & Employee Contributions)	\$19,055	\$19,600	\$20,200	\$20,800	\$21,400	\$22,100	\$22,800	\$23,400	\$24,100	\$24,900	\$25,600
24 Travel & Mileage	\$309	\$300	\$300	\$300	\$300	\$400	\$400	\$400	\$400	\$400	\$400
25 Telephone	\$4,120	\$4,200	\$4,400	\$4,500	\$4,600	\$4,800	\$4,900	\$5,100	\$5,200	\$5,400	\$5,500
26 Professional Services - Other	\$9,785	\$10,100	\$10,400	\$10,700	\$11,000	\$11,300	\$11,700	\$12,000	\$12,400	\$12,800	\$13,200

Schedule 2: Budgeted and Projected Operating Expenses

(2 of 3)

	Budget FY2021/22	Forecast FY2022/23	Forecast FY2023/24	Forecast FY2024/25	Forecast FY2025/26	Forecast FY2026/27	Forecast FY2027/28	Forecast FY2028/29	Forecast FY2029/30	Forecast FY2030/31	Forecast FY2032/33
Transmission & Distribution											
27 Labor	\$221,450	\$228,100	\$234,900	\$242,000	\$249,200	\$256,700	\$264,400	\$272,400	\$280,500	\$288,900	\$297,600
28 Overtime	\$6,901	\$7,100	\$7,300	\$7,500	\$7,800	\$8,000	\$8,200	\$8,500	\$8,700	\$9,000	\$9,300
29 On-Call	\$11,248	\$11,600	\$11,900	\$12,300	\$12,700	\$13,000	\$13,400	\$13,800	\$14,200	\$14,700	\$15,100
30 TD Cert Bonus	\$515	\$500	\$500	\$600	\$600	\$600	\$600	\$600	\$700	\$700	\$700
31 Temp Labor	\$2,060	\$2,100	\$2,200	\$2,300	\$2,300	\$2,400	\$2,500	\$2,500	\$2,600	\$2,700	\$2,800
32 FICA/Medicare (6.2%/1.45% Emplr)	\$18,540	\$19,100	\$19,700	\$20,300	\$20,900	\$21,500	\$22,100	\$22,800	\$23,500	\$24,200	\$24,900
33 Repairs & Maintenance	\$2,060	\$2,100	\$2,200	\$2,300	\$2,300	\$2,400	\$2,500	\$2,500	\$2,600	\$2,700	\$2,800
34 Equipment Repairs	\$7,725	\$8,000	\$8,200	\$8,400	\$8,700	\$9,000	\$9,200	\$9,500	\$9,800	\$10,100	\$10,400
35 Supplies	\$20,600	\$21,200	\$21,900	\$22,500	\$23,200	\$23,900	\$24,600	\$25,300	\$26,100	\$26,900	\$27,700
36 Utilities	\$5,150	\$6,200	\$6,400	\$6,600	\$6,800	\$7,000	\$7,200	\$7,400	\$7,600	\$7,800	\$8,100
37 Capital Expenditures/Equipment Purchase	\$10,300	\$10,600	\$10,900	\$11,300	\$11,600	\$11,900	\$12,300	\$12,700	\$13,000	\$13,400	\$13,800
38 Memberships	\$515	\$500	\$500	\$600	\$600	\$600	\$600	\$600	\$700	\$700	\$700
39 Permits	\$258	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300
40 Equipment Rental	\$2,060	\$2,100	\$2,200	\$2,300	\$2,300	\$2,400	\$2,500	\$2,500	\$2,600	\$2,700	\$2,800
41 Uniforms	\$773	\$800	\$800	\$800	\$900	\$900	\$900	\$1,000	\$1,000	\$1,000	\$1,000
42 Gas, Oil & Fuel	\$15,450	\$15,900	\$16,400	\$16,900	\$17,400	\$17,900	\$18,400	\$19,000	\$19,600	\$20,200	\$20,800
43 Other	\$206	\$200	\$200	\$200	\$200	\$200	\$200	\$300	\$300	\$300	\$300
44 Equipment (to \$999)	\$1,288	\$1,300	\$1,400	\$1,400	\$1,400	\$1,500	\$1,500	\$1,600	\$1,600	\$1,700	\$1,700
45 Education & Training	\$1,030	\$1,100	\$1,100	\$1,100	\$1,200	\$1,200	\$1,200	\$1,300	\$1,300	\$1,300	\$1,400
46 Health Insurance	\$84,460	\$87,000	\$89,600	\$92,300	\$95,100	\$97,900	\$100,800	\$103,900	\$107,000	\$110,200	\$113,500
47 Worker's Comp	\$17,510	\$18,000	\$18,600	\$19,100	\$19,700	\$20,300	\$20,900	\$21,500	\$22,200	\$22,800	\$23,500
48 (Employer & Employee Contributions)	\$49,440	\$50,900	\$52,500	\$54,000	\$55,600	\$57,300	\$59,000	\$60,800	\$62,600	\$64,500	\$66,400
49 Travel & Mileage	\$155	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200
50 Telephone	\$6,695	\$6,900	\$7,100	\$7,300	\$7,500	\$7,800	\$8,000	\$8,200	\$8,500	\$8,700	\$9,000
51 Professional Services - Engineer	\$77,250	\$79,600	\$82,000	\$84,400	\$86,900	\$89,600	\$92,200	\$95,000	\$97,900	\$100,800	\$103,800
52 Professional Services - Other	\$18,540	\$19,100	\$19,700	\$20,300	\$20,900	\$21,500	\$22,100	\$22,800	\$23,500	\$24,200	\$24,900

Schedule 2: Budgeted and Projected Operating Expenses

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	Budget FY2021/22	Forecast FY2022/23	Forecast FY2023/24	Forecast FY2024/25	Forecast FY2025/26	Forecast FY2026/27	Forecast FY2027/28	Forecast FY2028/29	Forecast FY2029/30	Forecast FY2030/31	Forecast FY2032/33
Customer Service											
53 Labor	\$108,150	\$111,400	\$114,700	\$118,200	\$121,700	\$125,400	\$129,100	\$133,000	\$137,000	\$141,100	\$145,300
54 Overtime	\$2,060	\$2,100	\$2,200	\$2,300	\$2,300	\$2,400	\$2,500	\$2,500	\$2,600	\$2,700	\$2,800
55 FICA/Medicare (6.2%/1.45% Emplr)	\$8,755	\$9,000	\$9,300	\$9,600	\$9,900	\$10,100	\$10,500	\$10,800	\$11,100	\$11,400	\$11,800
56 Health Insurance	\$28,325	\$29,200	\$30,000	\$31,000	\$31,900	\$32,800	\$33,800	\$34,800	\$35,900	\$37,000	\$38,100
57 Worker's Comp	\$773	\$800	\$800	\$800	\$900	\$900	\$900	\$1,000	\$1,000	\$1,000	\$1,000
58 Unemployment	\$6,180	\$6,400	\$6,600	\$6,800	\$7,000	\$7,200	\$7,400	\$7,600	\$7,800	\$8,100	\$8,300
59 CalPERS Contributions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60 (Employer & Employee Contributions)	\$19,570	\$20,200	\$20,800	\$21,400	\$22,000	\$22,700	\$23,400	\$24,100	\$24,800	\$25,500	\$26,300
Administration & General											
61 Labor	\$83,000	\$85,500	\$88,100	\$90,700	\$93,400	\$96,200	\$99,100	\$102,100	\$105,100	\$108,300	\$111,500
62 Overtime	\$7,500	\$7,700	\$8,000	\$8,200	\$8,400	\$8,700	\$9,000	\$9,200	\$9,500	\$9,800	\$10,100
63 FICA/Medicare	\$8,000	\$8,200	\$8,500	\$8,700	\$9,000	\$9,300	\$9,600	\$9,800	\$10,100	\$10,400	\$10,800
64 Repairs & Maintenance	\$1,000	\$1,000	\$1,100	\$1,100	\$1,100	\$1,200	\$1,200	\$1,200	\$1,300	\$1,300	\$1,300
65 Equipment Repairs	\$300	\$300	\$300	\$300	\$300	\$300	\$400	\$400	\$400	\$400	\$400
66 Office & Billing Supplies	\$10,000	\$10,300	\$10,600	\$10,900	\$11,300	\$11,600	\$11,900	\$12,300	\$12,700	\$13,000	\$13,400
67 Copier Expense	\$5,000	\$5,200	\$5,300	\$5,500	\$5,600	\$5,800	\$6,000	\$6,100	\$6,300	\$6,500	\$6,700
68 Utilities	\$3,500	\$4,200	\$4,300	\$4,500	\$4,600	\$4,700	\$4,900	\$5,000	\$5,200	\$5,300	\$5,500
69 Capital Expenditures/Equipment Purchases	\$40,000	\$41,200	\$42,400	\$43,700	\$45,000	\$46,400	\$47,800	\$49,200	\$50,700	\$52,200	\$53,800
70 Memberships	\$3,000	\$3,100	\$3,200	\$3,300	\$3,400	\$3,500	\$3,600	\$3,700	\$3,800	\$3,900	\$4,000
71 Permits & Fees	\$800	\$800	\$800	\$900	\$900	\$900	\$1,000	\$1,000	\$1,000	\$1,000	\$1,100
72 Postage	\$10,000	\$10,300	\$10,600	\$10,900	\$11,300	\$11,600	\$11,900	\$12,300	\$12,700	\$13,000	\$13,400
73 Banking Fees	\$15,000	\$15,500	\$15,900	\$16,400	\$16,900	\$17,400	\$17,900	\$18,400	\$19,000	\$19,600	\$20,200
74 Other	\$500	\$500	\$500	\$500	\$600	\$600	\$600	\$600	\$600	\$700	\$700
75 Equipment (to \$999)	\$2,000	\$2,100	\$2,100	\$2,200	\$2,300	\$2,300	\$2,400	\$2,500	\$2,500	\$2,600	\$2,700
76 Education & Training	\$2,000	\$2,100	\$2,100	\$2,200	\$2,300	\$2,300	\$2,400	\$2,500	\$2,500	\$2,600	\$2,700
77 Health Insurance	\$28,000	\$28,800	\$29,700	\$30,600	\$31,500	\$32,500	\$33,400	\$34,400	\$35,500	\$36,500	\$37,600
78 Worker's Comp	\$675	\$700	\$700	\$700	\$800	\$800	\$800	\$800	\$900	\$900	\$900
79 General Insurance	\$25,000	\$25,800	\$26,500	\$27,300	\$28,100	\$29,000	\$29,900	\$30,700	\$31,700	\$32,600	\$33,600
80 CalPERS Contributions (Employer & Emp)	\$25,000	\$25,800	\$26,500	\$27,300	\$28,100	\$29,000	\$29,900	\$30,700	\$31,700	\$32,600	\$33,600
81 Travel & Mileage	\$1,000	\$1,000	\$1,100	\$1,100	\$1,100	\$1,200	\$1,200	\$1,200	\$1,300	\$1,300	\$1,300
82 Telephone	\$5,500	\$5,700	\$5,800	\$6,000	\$6,200	\$6,400	\$6,600	\$6,800	\$7,000	\$7,200	\$7,400
83 Professional Services - Legal	\$3,000	\$3,100	\$3,200	\$3,300	\$3,400	\$3,500	\$3,600	\$3,700	\$3,800	\$3,900	\$4,000
84 Professional Services - Accounting	\$10,000	\$10,300	\$10,600	\$10,900	\$11,300	\$11,600	\$11,900	\$12,300	\$12,700	\$13,000	\$13,400
85 Professional Services - Other	\$30,000	\$30,900	\$31,800	\$32,800	\$33,800	\$34,800	\$35,800	\$36,900	\$38,000	\$39,100	\$40,300
86 UWPA Contribution	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000
87 Total Operating Expenses	\$1,853,816	\$1,899,600	\$1,944,100	\$1,990,000	\$2,037,400	\$2,086,100	\$2,135,500	\$2,186,900	\$2,240,600	\$2,294,700	\$2,351,200

Schedule 3 - Capital Spending Plan (in 2022 dollars)

(1 of 2)

	Cost Estimate	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
Water Treatment Plant												
1A	Tules problem Cadematori removal vegetation late fall	\$37,000	\$38,110	\$38,110	\$38,110	\$38,110	\$38,110	\$38,110	\$38,110	\$38,110	\$38,110	\$38,110
1B	Increase power at WTP	\$125,000	\$125,000									
1C	Coat & re-coat filters	\$380,000			\$380,000							
1D	Replace surface wash piping plumbing	\$390,000				\$390,000						
1E	Paint / Coat Storage Tanks (Interior & Exterior)	\$1,050,000									\$630,000	\$420,000
1F	Backwash Project	\$1,550,000		\$155,000								
1G	Surveillance System at WTP and Corp Yard	\$50,000		\$50,000								
Distribution System												
2A	Rebuild the 13 PRV Stations, piping, valves, lids	\$1,300,000		\$300,000	\$300,000	\$300,000	\$400,000					
2B.1	6" Pipe, Vallecito Bypass to Hwy 4 Existing Main	\$46,800	\$46,800									
2B.2	6" Pipe, Algiers Street - Church St. to Gold Street, Murphys	\$65,000	\$65,000									
2B.3	2.5" Pipe, Tanner Street, Murphys	\$18,000	\$18,000									
2C.1	8" Pipe, Coyote Dr, Sheet 5	\$53,760							\$53,760			
2C.2	12" Pipe, N Hwy 4, Sheet 1	\$80,850							\$80,850			
2C.3	8" Pipe, Apple Blossom Dr, Sheet 1/2	\$176,800								\$176,800		
2C.4	6" Pipe, S Algiers St, Sheet 3	\$27,560							\$27,560			
2C.5	6" Pipe, Main St, Sheet 4	\$39,260							\$39,260			
2C.6	6" Pipe, Woodland Dr, Sheet 4	\$46,800							\$46,800			
2C.7	6" Pipe, Woodland Dr, Sheet 4	\$51,220								\$51,220		
2C.8	6" Pipe, Watkins St, Sheet 4	\$34,320								\$34,320		
2C.9	8" Pipe, Fair Oaks Ln / Allen Ln, Sheets 4/7	\$555,360										
2C.10	8" Pipe, Green Meadow Ct, Sheet 6	\$361,920										
2D.1	10" Pipe, S Hwy 4, Sheet 7	\$209,760										
2D.2	10" Pipe, S Hwy 4 / Main St, Sheet 8	\$934,990										
2D.3	10" Pipe, S Hwy 4, Sheet 9	\$1,221,130										
2D.4	10" Pipe, Hwy 4 / Vallecito Bypass Rd, Sheet 10	\$782,800										
2D.5	8" Pipe, Red Hill Rd / Poag Rd, Sheet 10	\$754,400										
2D.6	8" Pipe, Church St / Angels Rd, Sheet 10	\$246,560								\$246,560		
2D.7	10" Pipe, Hwy 4 / Main St / Church St, Sheet 10	\$670,130										
2E	Replace wharf hydrants	\$2,550,000										\$255,000
2F	Add mixer at Eltringham Tank	\$40,000						\$40,000				
2G	New Hydrants	\$620,000	\$124,000	\$124,000	\$124,000	\$124,000						
2H	Add remote read meter & meter box	\$1,500,000					\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	
2I	Meter software and hardware for automatic meter reading	\$28,000					\$28,000					
2J	Replacement of all galvanized water service lines	\$1,306,250					\$130,625	\$130,625				
2K	SCADA upgrades (tank level monitoring)	\$250,000										
2L	Lead & Copper Program Implementation (per service)	\$1,125,000					\$112,500	\$112,500				

Schedule 3 - Capital Spending Plan (in 2022 dollars)

(2 of 2)

	Cost Estimate	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	
Irrigation System													
3A.1	6" pipe, Church Street to Coyote Creek Road	\$130,500	\$130,500										
3A.2	6" pipe, Coyote Creek Rd. to End of Main, Vallecito - Sutton's Irrigation Service	\$152,250	\$152,250										
3A.3	12" pipe, Carson Hill - Association Res. To Exist. 8" ACP Main	\$86,710	\$86,710										
3A.4	12" pipe, Mosbaugh Irr. Service to PRV Station	\$64,960		\$64,960									
3B.1	12" pipe, Main St. DF & Hwy 4 East End to Main St. DF and Hwy 4 West End (DF = Douglas Flat)	\$495,755						\$495,755					
3B.2	12" pipe, Chatom Winery to Batten Rd	\$450,370						\$0	\$450,370				
3C.1	12" pipe, Chlorine Building to Stephens Reservoir	\$176,900										\$176,900	
3C.2	12" pipe, Seibel Reservoir to Wheeler (APN 68-056-002) - Green Meadow Court	\$626,255											
3C.3	12" pipe, Green Meadow Court from Gomez (APN 68-003-066) to Main Street DF & Hwy 4 (East End)	\$117,160											
3C.4	6" pipe, Angels Road, Vallecito	\$33,713											
3D	Add more fire hydrants to system	\$620,000										\$62,000	
3E	Add remote read meter & meter box	\$500,000										\$250,000	
3F	Clean out Siebel sediment and fix drain and outlet slide gates	\$50,000										\$50,000	
3G	Stephens slide gate replace (leak @ outlet)	\$15,000										\$15,000	
3H	Association clean & replace head gate valves	\$20,000										\$20,000	
Equipment													
4A	F550 4x4 dump bed	\$90,000						\$90,000					
4B	F150 Pickup (3)	\$120,000		\$120,000									
4C	F250 / F350 full box (Utility Truck)	\$75,000	\$75,000										
4D	Air compressor, gas/diesel (180 cfm)	\$25,000	\$25,000										
4E	Vac Trailer	\$125,000		\$125,000									
4F	Bumper Pull Dump Trailer	\$25,000	\$25,000										
4G	Mini Excavator	\$150,000		\$150,000									
4H	Skid Steer	\$80,000		\$80,000									
4I	Side by Side 4x4	\$20,000		\$20,000									
Totals:			\$826,683	\$745,844	\$734,095	\$844,136	\$854,137	\$1,261,263	\$1,209,019	\$1,038,740	\$849,041	\$970,142	\$1,289,043

Schedule 4 – Cash Flow Proforma

	Actual FY 2020	Budget FY 2021	Budget FY2022	Forecast FY2023	Forecast FY2024	Forecast FY2025	Forecast FY2026	Forecast FY2027	Forecast FY2028	Forecast FY2029	Forecast FY2030	Forecast FY2031	Forecast FY2032	Forecast FY2033	
	Rate Revenue Increase:			11.00%	11.00%	10.00%	10.00%	10.00%	8.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
Rate Revenue															
2	Service Charge Revenue	\$1,689,335	\$1,622,000	\$1,549,800	\$1,549,800	\$1,727,000	\$1,921,000	\$2,118,000	\$2,335,000	\$2,575,000	\$2,787,000	\$2,878,000	\$2,971,000	\$3,068,000	\$3,167,000
3	Change due to growth & use			\$7,000	\$4,000	\$5,000	\$5,000	\$6,000	\$6,000	\$7,000	\$7,000	\$7,000	\$7,000	\$8,000	\$8,000
4	Increase due to rate adjustments			\$85,000	\$95,000	\$96,000	\$106,000	\$117,000	\$103,000	\$42,000	\$43,000	\$45,000	\$46,000	\$48,000	
UWPA Fee															
5	... for contribution to UWPA	\$100,000	\$405,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000
6	... for reserves	\$6,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000
Non-Rate Revenues															
7	Interest Earnings	\$52,000	\$35,000	\$22,000	\$22,000	\$22,000	\$23,000	\$23,000	\$23,000	\$23,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000
8	Connection Fees	\$107,000	\$99,000	\$427,000	\$98,000	\$56,000	\$56,000	\$56,000	\$56,000	\$56,000	\$56,000	\$56,000	\$56,000	\$56,000	\$56,000
9	Operating Revenue	\$5,000	\$43,000	\$24,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
10	Property Taxes	\$124,000	\$123,000	\$138,000	\$142,000	\$146,000	\$151,000	\$155,000	\$160,000	\$165,000	\$170,000	\$175,000	\$180,000	\$180,000	\$180,000
11	Total Revenue	\$2,083,335	\$2,350,000	\$2,600,800	\$2,365,800	\$2,512,000	\$2,714,000	\$2,925,000	\$3,159,000	\$3,390,000	\$3,548,000	\$3,645,000	\$3,745,000	\$3,843,000	\$3,945,000
O&M Costs															
12	Source of Supply	\$0	\$42,000	\$43,000	\$44,000	\$46,000	\$47,000	\$49,000	\$50,000	\$52,000	\$53,000	\$55,000	\$56,000	\$58,000	\$60,000
13	Water Treatment	\$343,000	\$309,000	\$318,000	\$329,000	\$338,000	\$349,000	\$359,000	\$370,000	\$381,000	\$392,000	\$404,000	\$416,000	\$429,000	\$442,000
14	Transmission & Distribution	\$646,000	\$565,000	\$582,000	\$601,000	\$619,000	\$637,000	\$656,000	\$676,000	\$696,000	\$717,000	\$739,000	\$761,000	\$784,000	\$807,000
15	Consumer Service	\$343,683	\$169,000	\$174,000	\$179,000	\$184,000	\$190,000	\$196,000	\$201,000	\$208,000	\$214,000	\$220,000	\$227,000	\$234,000	\$241,000
16	General Administration	\$0	\$301,000	\$320,000	\$330,000	\$340,000	\$350,000	\$361,000	\$371,000	\$383,000	\$394,000	\$406,000	\$418,000	\$431,000	\$443,000
17	UWPA Contribution	\$100,000	\$405,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000	\$417,000
18	Total Operating Expenses	\$1,432,683	\$1,791,000	\$1,854,000	\$1,900,000	\$1,944,000	\$1,990,000	\$2,038,000	\$2,085,000	\$2,137,000	\$2,187,000	\$2,241,000	\$2,295,000	\$2,353,000	\$3,123,847
Capital Costs															
20	Cash Funded Capital Projects	\$346,157	\$388,289	\$516,000	\$825,000	\$766,000	\$777,000	\$920,000	\$959,000	\$1,460,000	\$1,441,000	\$1,275,000	\$1,073,000	\$1,263,000	\$1,730,000
22	Total Revenue Requirement	\$1,926,820	\$2,179,289	\$2,370,000	\$2,725,000	\$2,710,000	\$2,767,000	\$2,958,000	\$3,044,000	\$3,597,000	\$3,628,000	\$3,516,000	\$3,368,000	\$3,616,000	\$4,853,847
23	Beginning Year Balance	\$1,409,774	\$1,560,289	\$1,708,000	\$1,915,800	\$1,533,600	\$1,312,600	\$1,236,600	\$1,180,600	\$1,272,600	\$1,042,600	\$939,600	\$1,045,600	\$1,399,600	\$1,603,600
24	Surplus/(Shortfall)	\$150,515	\$147,711	\$207,800	(\$382,200)	(\$221,000)	(\$76,000)	(\$56,000)	\$92,000	(\$230,000)	(\$103,000)	\$106,000	\$354,000	\$204,000	(\$931,847)
25	End of Year Balance	\$1,560,289	\$1,708,000	\$1,915,800	\$1,533,600	\$1,312,600	\$1,236,600	\$1,180,600	\$1,272,600	\$1,042,600	\$939,600	\$1,045,600	\$1,399,600	\$1,603,600	\$671,753
26	Minimum Reserve Level	\$464,000	\$464,000	\$464,000	\$475,000	\$486,000	\$498,000	\$510,000	\$521,000	\$534,000	\$547,000	\$560,000	\$574,000	\$588,000	\$781,000
27	Reserve Target	\$1,658,000	\$1,658,000	\$1,658,000	\$1,669,000	\$1,680,000	\$1,692,000	\$1,704,000	\$1,715,000	\$1,728,000	\$1,741,000	\$1,754,000	\$1,768,000	\$1,782,000	\$1,975,000
28	Available Cash	\$257,800	\$257,800	\$257,800	(\$135,400)	(\$367,400)	(\$455,400)	(\$523,400)	(\$442,400)	(\$685,400)	(\$801,400)	(\$708,400)	(\$368,400)	(\$178,400)	(\$1,303,247)
29	UWPA Emergency Reserve	\$188,000	\$194,000	\$217,000	\$240,000	\$263,000	\$286,000	\$309,000	\$332,000	\$355,000	\$378,000	\$401,000	\$424,000	\$447,000	\$470,000

Schedule 5 – Proposed Rates for FY 2022/23 through FY 2026/27

	Effective Date				
	Jan 1, 2023	Jan 1, 2024	Jan 1, 2025	Jan 1, 2026	Jan 1, 2027
Water Usage Charges (per HCF)					
Potable	\$0.94	\$1.04	\$1.14	\$1.25	\$1.38
Nonpotable	\$0.17	\$0.19	\$0.21	\$0.23	\$0.25
Fixed Monthly Service Charge					
Domestic Service Charge					
5/8" x 3/4"	\$56.63	\$62.86	\$69.15	\$76.07	\$83.68
1"	\$84.82	\$94.15	\$103.57	\$113.93	\$125.32
1.5"	\$155.31	\$172.39	\$189.63	\$208.59	\$229.45
2"	\$239.89	\$266.28	\$292.91	\$322.20	\$354.42
3"	\$437.24	\$485.34	\$533.87	\$587.26	\$645.99
4"	\$719.17	\$798.28	\$878.11	\$965.92	\$1,062.51
6"	\$1,424.01	\$1,580.65	\$1,738.72	\$1,912.59	\$2,103.85
Irrigation Service Charge					
5/8" x 3/4"	\$32.83	\$36.44	\$40.08	\$44.09	\$48.50
1"	\$45.16	\$50.13	\$55.14	\$60.65	\$66.72
1.5"	\$75.97	\$84.33	\$92.76	\$102.04	\$112.24
2"	\$112.95	\$125.37	\$137.91	\$151.70	\$166.87
3"	\$199.24	\$221.16	\$243.28	\$267.61	\$294.37
4"	\$322.51	\$357.99	\$393.79	\$433.17	\$476.49
6"	\$630.67	\$700.04	\$770.04	\$847.04	\$931.74