



**SOQUEL CREEK WATER DISTRICT**

# **Water Rate Study**

**EXECUTIVE SUMMARY / DECEMBER 15, 2023**





December 15, 2023

Leslie Strohm  
Finance and Business Services Manager  
Soquel Creek Water District  
5180 Soquel Drive  
Soquel, CA 95073

**Subject: Executive Summary of the Rate Study Report**

Dear Ms. Strohm:

Raftelis is pleased to provide this Executive Summary of the Water Rate Study Report for the Soquel Creek Water District (SqCWD or District). The proposed utility rates were developed following industry standard rate methodologies and in conjunction with the District's legal counsel to ensure that rates are fair, cost-justified, and aligned with the requirements of California's Proposition 218. The study develops a ten-year financial plan and designs water rates for implementation over the next four years, beginning March 1, 2024.

The major objectives of the study include the following:

- Develop a ten-year financial plan to promote financial sustainability, meet operation and maintenance costs, ensure sufficient funding for capital replacement and refurbishment needs, and achieve financial reserve targets adopted by the Board of Directors
- Develop equitable cost of service-based water commodity rates, monthly fixed charges, and private fire service charges that align with Proposition 218 and other applicable legal requirements
- Review the current rate structure and evaluate alternative water rate structures to better align with the District's policy priorities
- Update water emergency shortage rates for implementation in times of declared shortage to ensure financial sufficiency in periods of reduced water demand
- Receive feedback and consensus from the District's ad hoc Water Rates Advisory Committee<sup>1</sup> (WRAC) to relay to the Board of Directors to inform rate structure changes and policy decisions

This Executive Summary outlines the study background, results, and recommendations related to the development of long-range financial plan, cost of service analysis, and proposed rates. It has been a pleasure working with you, and we thank you, the SqCWD staff, WRAC, and Board of Directors for the support provided during this study.

Sincerely,



**Kevin Kostiuk**  
*Senior Manager*

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<sup>1</sup> The Board of Directors delegated the task of assisting the development of the rates to an ad hoc committee of two Directors. This ad hoc committee invited ten public members to assist in all meetings and deliberations.

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# 1. Executive Summary

## 1.1. Background of the Study

The Soquel Creek Water District (SqCWD or District) serves an area of approximately 17 square miles in coastal Santa Cruz County. The District was founded in 1961 and serves potable water to roughly 40,000 people through 16,250 water and fire service connections. The District relies solely on local groundwater to meet customer demands of approximately 2,600 acre feet (AF) per year, and it operates and maintains 15 production wells and a distribution network of 166 miles of mains.

The District's current rates, last updated January 1, 2023, were developed in the 2018 Rate Study by Raftelis (adopted and implemented February 2019). The rate structure for the District's water service charges has two components: a fixed monthly service charge component and a variable water quantity (commodity) charge component. The monthly service charge is determined based on customer class and the meter size serving a property; the charge increases with meter size. The volumetric component of a customer's water bill is calculated based on the number of units of water delivered to a property, measured in one hundred cubic feet (HCF<sup>2</sup>), multiplied by rates that vary by customer class and tier. The volumetric component is an inclining rate structure for Residential users to incentivize conservation and water use efficiency.

As part of the 2023 Study, the District would like to propose four years of revenue and rate adjustments for adoption by the Board, as well as a ten-year financial plan.

In early 2019, the Board adopted five years of rates based on the study developed by Raftelis. In 2023, the District contracted Raftelis to conduct a new Water Rate Study (Study) to include an updated ten-year financial planning horizon, updated cost of service (COS) analysis, and updated rate design. This Executive Summary presents the financial plan results and resulting water rates proposed for adoption, with implementation assumed in March 2024. In addition to presenting the proposed multi-year rates the Executive Summary contains a description of the rates study process, legal requirements in California, financial drivers, rate structure alternative selection, and rate-setting methodology.

The District wishes to establish fair and equitable rates that:

- Proportionately allocate the costs of providing service in accordance with Proposition 218
- Meet the District's fiscal needs in terms of operational expenses, reserve targets, and capital investment to maintain the physical water system and long-term health and reliability of the groundwater basin
- Maintain affordable charges for customers, with a price signal for those whose higher demands place additional stressors on the District's water system and groundwater basin
- Provide revenue stability and financial sufficiency in times of mandatory conservation
- Are fair and equitable between different types of water users, both current and future users

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<sup>2</sup> One HCF equals 748 gallons of water

## 1.2. Objectives of the Study

The primary components of the Study include:

1. **Financial Plan:** A ten-year financial plan to determine the amount of revenue required from water rates. The financial plan should ensure financial sufficiency including all operating and maintenance (O&M) costs, funding of financial reserves to policy targeted levels, fund imminent O&M and capital repayment of Pure Water Soquel (PWS), and fund the long-term capital improvement program (CIP).
2. **Cost of Service Analysis:** Allocate costs to water system components and then to various customer classes based on the costs incurred to serve, and the user characteristics, of each.
3. **Rate Design:** Develop rates that generate sufficient revenues based on the results of the financial plan and cost of service analysis and communicate the policy preferences of the District, maintaining that rates are cost-justified.
4. **Administrative Record Preparation:** Develop an administrative record (Study Report) to document the results of the rate study comprehensively. This includes the source of underlying data and assumptions, the determination of the revenue requirements, the basis for reasonable cost allocations, the basis for any rate structure modifications, and the cost-justification of proposed rates.
5. **Rate Adoption:** Follow and assist SqCWD staff with the procedural and substantive requirements of Proposition 218 including the Study Report, development of the notice to all affected parcels, and a Public Hearing on rate adoption.

This Study was completed using the principles established by the American Water Works Association's (AWWA) *Principles of Water Rates, Fees, and Charges: Manual of Water Supply Practices M1, 7th edition* (M1 Manual). The M1 Manual's general principles of rate structure design and the objectives of the Study are described below.

According to the M1 Manual, the first step in the ratemaking process is to determine the adequate and appropriate level of funding for a given utility. This is referred to as determining the "revenue requirement." This analysis considers the short-term and long-term service objectives of the utility over a given planning horizon, including capital facilities, system operations and maintenance, and financial reserve policies to determine the adequacy of a utility's existing rates to recover its costs. Several factors may affect these projections, including the number of customers served, water-use trends, nonrecurring sales, weather, water availability, conservation, use restrictions, inflation, interest rates, capital finance needs, and other changes in operating and economic conditions, among others.

After determination of the revenue requirement, the next step is the cost of service analysis. Utilizing an agency's approved budgets, financial reports, operating data, engineering data, and capital improvement plans, a rate study categorizes (i.e., functionalizes) the system costs (e.g., supply, treatment, storage, distribution, etc.), including O&M and asset costs, among major operating functions to determine the cost of service.

After the assets and the costs of operating those assets are properly categorized by function, these "functionalized costs" are allocated first to cost causation components, and then to the various customer classes (e.g., single-family residential, multi-family residential, commercial, and irrigation/outdoor use) by determining the characteristics of those classes and the contribution of each to incurred costs such as supply costs, base delivery costs, peaking costs, fire protection costs, and customer support costs, among others.

Rate design is the final step of the M1 Manual’s rate-making process and uses the revenue requirement and cost of service analysis to determine appropriate rates for each customer class. Rates utilize “rate components” that build-up to rates for commodity charges, and rates for fixed charges, for the various customer classes and meter sizes serving customers. In the case of inclining tier water rates, the rate components themselves allocate the cost of service *within* each class of customer, effectively treating each tier as a sub-class and determining the cost to serve each tier.

## **1.3. Legal Requirements and Rate Setting Methodology**

### **1.3.1. California Constitution – Article XIII D, Section 6 (Proposition 218)**

Proposition 218 was enacted by voters in 1996 to ensure, in part, that fees and charges imposed for ongoing delivery of a service to a property (property-related fees and charges) are proportional to and do not exceed the cost of providing service. Water service fees and charges are property-related fees and charges subject to the provisions of California Constitution Article XIII D, Section 6. The principal requirements, as they relate to public water service fees and charges are as follows:

1. Revenues derived from the fee or charge shall not exceed the costs required to provide the property-related service.
2. Revenues derived by the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
3. The amount of the fee or charge imposed upon any parcel shall not exceed the proportional cost of service attributable to the parcel.
4. No fee or charge may be imposed for a service unless that service is actually used or immediately available to the owner of property.
5. A written notice of the proposed fee or charge shall be mailed to the record owner of each parcel not less than 45 days prior to a public hearing, when the agency considers all written protests against the charge.

As stated in AWWA’s M1 Manual, “water rates and charges should be recovered from classes of customers in proportion to the cost of serving those customers.” Raftelis follows industry standard rate setting methodologies set forth by the AWWA M1 Manual to ensure this Study aligns with the requirements of Proposition 218 and creates rates that do not exceed the proportionate cost of providing water services on a parcel basis.

### **1.3.2. California Constitution – Article X, Section 2**

Article X, Section 2 of the California Constitution states the following:

*“It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.”*

Article X, Section 2 of the State Constitution establishes the need to preserve the State’s water supplies and to discourage the waste or unreasonable use of water by encouraging conservation. By definition, public agencies

are constitutionally mandated to maximize the beneficial use of water, prevent waste, and encourage conservation.

In addition, Section 106 of the California Water Code declares that the highest priority use of water is for domestic purposes, with irrigation secondary. To meet the objectives of Article X, Section 2, Water Code Section 375 et seq., a water purveyor may utilize its water rate design to incentivize the efficient use of water. The District established tiered water rates (also known as “inclining tier” or “inclining block”) water rates to incentivize customers to use water in an efficient manner. The inclining tier rates (as well as rates for uniform rate classes) need to be based on the proportionate costs incurred to provide water to customer classes and on a parcel basis within each customer class to achieve compliance with Proposition 218.

The District is charged with mandates by the State of California to achieve reduced per capita water use. In 2008, Governor Schwarzenegger signed into law a bill referred to as SBX7-7. SBX7-7 required all urban water suppliers to reduce per capita water use by 20 percent by the year 2020. The District’s rate structure is one of the means by which it has achieved this statutory mandate.

The recurrence of drought and other water scarcity challenges emphasizes the finite nature of California's water resources, necessitating responsible management for sustainable future water supplies. In response to these concerns, the Sustainable Groundwater Management Act (SGMA) was enacted in 2014, designating the Santa Cruz Mid-County Groundwater Basin (Mid-County Basin) as a high-priority critically over drafted basin. As the sole source of supply for this region, the Mid-County Basin is witnessing declines in groundwater elevation, active seawater intrusion, saltwater contamination, and escalating threats from climate change and sea level rise, leading to its classification as critically over drafted by the State. Recognizing the unsustainability of these conditions, the state has mandated the restoration of the basin to sustainability by 2040. The District is a member of the Santa Cruz Mid-County Groundwater Agency (MGA), serving as the groundwater sustainability agency for the Mid-County Basin. The MGA has developed a Groundwater Sustainability Plan to meet the state mandate. Given the cyclical nature of droughts, SGMA requirements, local groundwater conditions, and the absence of reliable connections to other sources, it is evident that water conservation should be a integral component of a water-supply reliability portfolio.

“Inclining” tier rate structures (which are synonymous with “increasing” tier rate structures and “tiered” rates), when properly designed and differentiated by customer class, allow a water utility to send conservation price signals to customers while proportionately allocating the costs of service. Due to the necessity to reduce water use and increase efficiency, tiered water rates have gained widespread use, especially in relatively water-scarce regions like California, and more specifically in critically overdrawn basins like the Mid-County Basin. Tiered rates meet the requirements of Proposition 218 as long as the tiered rates reasonably reflect the proportionate cost of providing service, on a parcel basis, in each tier.

### **1.3.3. Cost-Based Rate-Setting Methodology**

There are four major steps to develop water rates that align with Proposition 218 and industry standards while meeting other guiding principles and objectives of the District.

### **1.3.3.1. Calculate the Revenue Requirement**

The rate-making process starts by determining the base year (rate-setting year) revenue requirement, which for this Study is fiscal year (FY) 2024 which runs from July 1, 2023, to June 30, 2024<sup>3</sup>. The revenue requirement should sufficiently fund the utility's O&M expenses, debt service, capital expenditures, and reserve funding.

### **1.3.3.2. Cost of Service (COS) Analysis**

The annual cost of providing water service is distributed among customer classes commensurate with their service requirements. A COS analysis involves the following:

1. **Functionalize costs.** Examples of functions are supply, treatment, transmission, distribution, storage, meter servicing, and customer billing.
2. **Allocate functionalized cost to cost causation components.** Example cost causation components include supply, base, maximum day, maximum hour<sup>4</sup>, conservation, public fire protection, meter service, and customer servicing and billing costs.
3. **Distribute cost components.** Distribute cost components, using unit costs, to customer classes in proportion to their demands and burdens on the water system. This is described in the M1 Manual published by AWWA.

A COS analysis considers both the average quantity of water consumed (base costs) and the peak rate at which it is consumed (peaking or capacity costs as identified by maximum day and maximum hour demands<sup>5</sup>). Peaking costs are incurred during peak times of consumption. There are additional costs associated with designing, constructing, and operating and maintaining facilities to meet peak demands. These peak demand costs need to be allocated to those customers whose water usage patterns generate additional costs for the utility. In other words, not all customer classes and not all customers share the same responsibility for peaking-related costs.

### **1.3.3.3. Rate Design and Calculations**

Rates do more than simply recover costs. Within the legal framework and industry standards, properly designed rates should support and optimize a blend of utility objectives, such as conservation, financial stability, fairness, and customer understanding, among other objectives. Rates act as a public information tool in communicating these objectives to customers.

### **1.3.3.4. Rate Adoption**

Rate adoption is the last step of the rate-making process. Raftelis documents the rate study results in a Study Report which reflect the basis upon which the rates were calculated, the rationale and justifications behind the proposed charges, any changes to rate structures, and their anticipated financial impacts on ratepayers.

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<sup>3</sup> If adopted, proposed rates would become effective March 1, 2024, for the remaining four months of the current fiscal year 2023-2024.

<sup>4</sup> Collectively maximum day and maximum hour costs are known as peaking costs or capacity costs.

<sup>5</sup> System capacity is the system's ability to supply water to all delivery points at the time when demanded. Coincidental peaking factors are calculated for each customer class at the time of greatest system demand. The time of greatest demand is known as peak demand. Both the operating costs and capital asset-related costs incurred to accommodate peaks are allocated to each customer class based upon the class's relative demands during the peak month, day, and hour event.

## 1.4. Proposed Financial Plan

Raftelis conducted a status quo cash flow analysis to evaluate whether existing water rates adequately fund the District’s costs over the ten-year planning horizon and the four-year Study period. Annual projections of rate and non-rate revenues, O&M expenses, debt service payments, and capital expenditures through FY 2033 were developed in conjunction with District staff. Raftelis projects that with no rate increases over the four-year study period, the District’s reserves will become negative and fail to meet minimum debt coverage beginning in FY 2026. This demonstrates a clear need for revenue adjustments (i.e. gross water rate revenue increases relative to existing rate revenues). Raftelis worked with District staff, the Ad Hoc Water Rates Advisory Committee (WRAC), and the Board of Directors, to develop the proposed revenue adjustments over the study period.

Table 1-1 shows the four-year schedule of proposed revenue adjustments used to calculate proposed rates. Although Table 1-1 shows anticipated revenue adjustments for FY 2024 through FY 2027, the District will review and confirm the revenue adjustments on an annual basis<sup>6</sup>. The first revenue adjustment of 10% is proposed for implementation in March 2024. Revenue adjustments of 12% in FY 2025 through FY 2027 will take effect in January of each fiscal year beginning in January 2025.

Table 1-1: Proposed Annual Revenue Adjustments

	A	B	C	D	E
Line	Revenue Adjustments	FY 2024	FY 2025	FY 2026	FY 2027
1	Effective Month	March	January	January	January
2	Percent Adjustment	10%	12%	12%	12%

### 1.4.1. Factors Affecting Revenue Requirements

The following items affect the District’s revenue requirement (i.e., costs) and thus its water rates. The District’s expenses include current and projected O&M expenses, cash funded capital expenditures, annual debt service payments, and cash reserve funding.

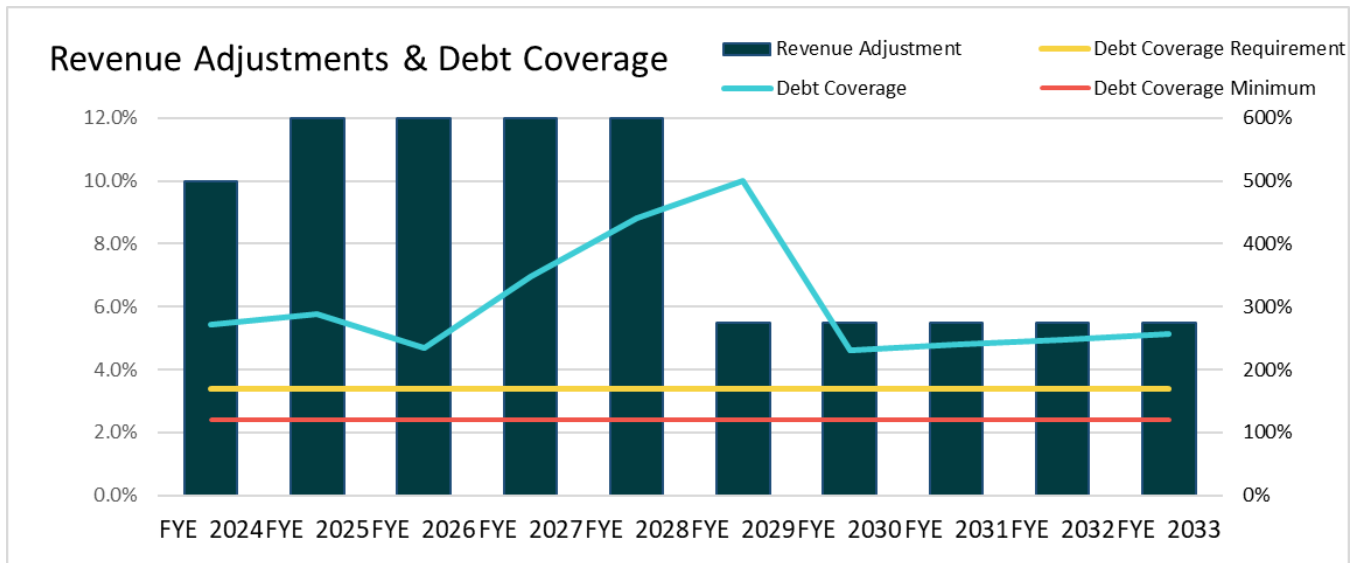
- » **Inflationary Pressure:** The District’s operating environment is not immune to the effects of inflation. The costs of materials, chemicals, construction, professional services, and other costs increased at a historic pace over the past two years. The financial plan assumes inflationary pressure at heightened levels over the first two years of projections before returning to a long-term rate of about 3% per year.
- » **Baseline Water Demand Estimates:** With 60% of water rate revenues from water sales, the District is sensitive to reductions in water demands, which have declined over the past several years. Declines have been driven by a number of factors including a multi-year drought in 2019 to 2022, a near-record winter in 2023, long-term conservation outreach and messaging, passive conservation, and improved water use efficiency, among others. Based on experienced declines and to be conservative in long-range projections, water demand is projected to remain consistent at approximately 2,600 acre feet per year (AFY). This is a decline of 300 AFY relative to the prior rate study which assumed a baseline water demand of 2,900 AFY.

<sup>6</sup> The Board maintains the right to implement rates that are *lower* than adopted. If it is determined that a rate *higher* than what has been adopted is required, the Board will have to adopt new rates and the District will need to re-notice customers in accordance with Proposition 218.

- » **Capital Improvement Program (CIP):** The District has approximately \$29.3 million in capital expenditures over the next four fiscal years and \$80.2 million over the ten-year financial planning period. These reinvestment projects are proposed to be funded through cash and cash reserves from rates. Major capital projects include water main replacements, treatment facility upgrades, storage tank recoats, and other projects as identified in the District’s long-term CIP. These program costs exclude Pure Water Soquel (PWS), discussed separately.
- » **Pure Water Soquel:** The previous rate study was based on the Pure Water Soquel (PWS) Project funded by traditional loans (borrowing \$90M at 3% interest rate). The cost of the PWS Project, like many water infrastructure projects in CA and the US, was impacted by increasing construction costs due to the COVID pandemic and supply chain issues. The District has been very fortunate to have the financial support from state and federal agencies for PWS with funding through grants (\$65.25M grant from CA Prop 1 Groundwater Planning and Implementation Program and \$30M in grant from US Bureau of Reclamation Title XVI WaterSmart Program) to help finance the project such that the Project’s loan package is actually lower in this rate study than what was planned in the previous rate study (now borrowing \$99M at ~1.3% interest rate through low-interest loans from CA Seawater Intrusion Control Program and US EPA WIFIA Program). The Project’s is currently in construction and PWS operations are anticipated to commence in FY 2025. Upon project completion the District will begin to incur operating costs that average \$5.5 million annually over the four-year study period. To smooth the effects on rates, PWS O&M is pre-funded in FY 2024 to help offset the shift in cost structure in FY 2025 and beyond. Repayment of PWS capital construction costs funded through the low-interest loans will not begin until FY 2030, towards the final years of the current 10-year financial planning horizon.
- » **Reserve Funding:** The District has reserve policies to meet cash flow needs, ensure adequate funding of repairs and replacements in the event of asset failure or other unforeseen circumstances or events. The defined operating reserve policy is 40 percent of annual operating expenses in cash to meet cash flow needs, or roughly \$8.8 million in FY 2024; of the \$8.8 million, \$2 million of the operating reserve is dedicated to rate stabilization to reduce revenue volatility. The District has a debt reserve policy of one year of annual debt service, which for FY 2024 is approximately \$3.9 million. Lastly, the District has a capital replacement fund which currently does not have a minimum target balance. The total cash reserve target for the District in FY 2024 is \$12.7 million. Due to the increase in O&M and CIP expenses over the rate study, reserves will be drawn down below the District’s policies through FY 2026 before beginning to recover in FY 2027. Beyond FY 2027 net cash generation is positive to bring cash balances back to the adopted target levels.

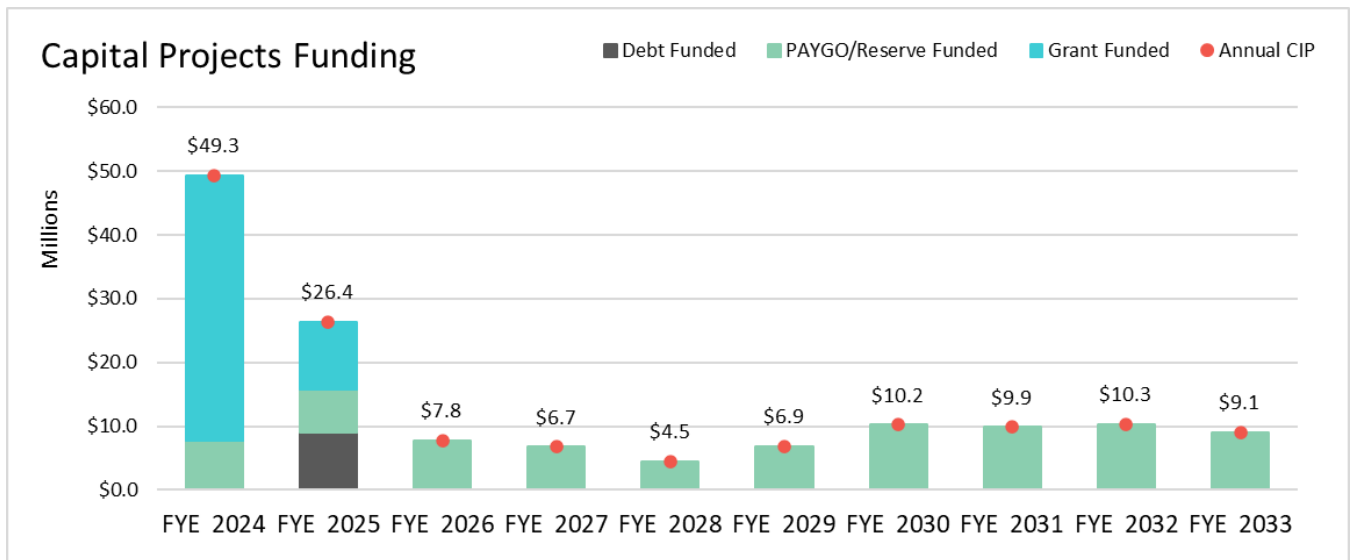
**Figure 1-1** shows the proposed annual revenue adjustments in percentages as dark blue bars, as well as the calculated, target, and minimum debt coverage requirements shown as blue, yellow, and red lines, respectively. The y-axis on the left is for the revenue adjustments, and the y-axis on the right is for the debt coverage. With the proposed financial plan, the District is able to achieve its target debt coverage requirement in all years of the plan. For **Figure 1-1** through **Figure 1-4**, 10 years are shown in the chart but this Study only proposes rates for adoption for the first four years through FY 2027.

**Figure 1-1: Proposed Water Revenue Adjustments and Calculated Debt Coverage**



**Figure 1-2** shows the proposed CIP financing plan over the study period. CIP in the first two years is predominantly the completion of PWS. PWS is funded through grants and a 1.3% low-interest Water Infrastructure Finance and Innovation Act (WIFIA) loan from the United States Environmental Protection Agency (US EPA) and 1.34% low-interest CA Seawater Intrusion Control loan. The District intends to fund all future non-PWS CIP with cash generated from rate revenues.

**Figure 1-2: Capital Financing Plan**



**Figure 1-3** shows the proposed versus status quo operating financial plan. Revenues under the proposed financial plan and status quo financial plan are represented by the dotted and solid black lines, respectively. Revenue requirements including O&M expenses, debt service, rate funded CIP, and reserve funding are represented by the various stacked bars. O&M includes cost centers related to groundwater production, system operations, District personnel, customer service, administration, and future Pure Water Soquel operating costs. Revenue adjustments (i.e., gross rate revenue increases) are required to generate additional

revenue to fully recover O&M expenses, capital expenditures, debt service payments, and reserve funding over the study period.

Figure 1-3: Proposed Financial Plan

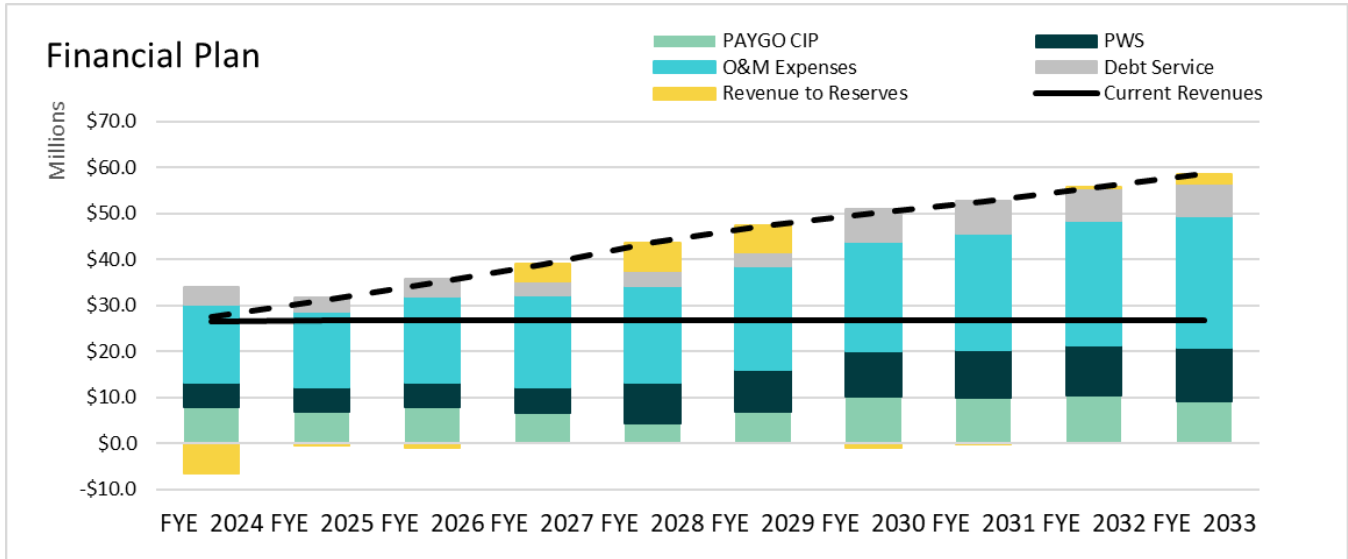
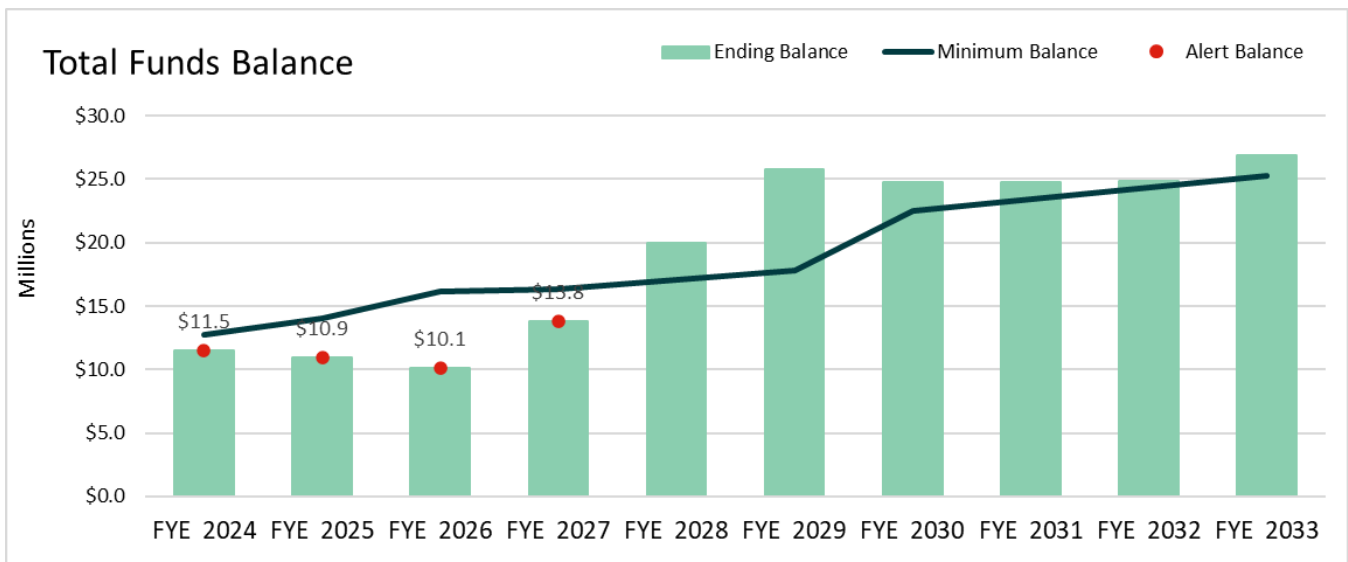


Figure 1-4 shows the District’s projected fiscal year-end cash balance with the proposed financial plan. The green bars indicate the ending balance on June 30 of each year. The reserve target is represented by the dark blue line. The District is projected to draw down its reserves through FY 2026. While the ending balances fall below the reserve target in all four years, the ending balances are greater than the operating reserve target alone in each year, and reserves start to increase in FY 2027. Reserve targets are achieved in each year after FY 2027.

Figure 1-4: Projected Ending Balances



## 1.5. Proposed Water Rate Modifications

The District's existing water rate structure consists of a fixed water service charge (based on meter size) and a variable water usage rate (per hundred cubic feet [HCF] of water delivered). The two rate components recover different degrees of revenue and recover those revenues from distinct water system cost components. This section details the update to basin sustainability cost allocations within the cost of service analysis, as well as how that update, along with changes to fixed revenue recovery and the residential water use rate structure, affects rates. Throughout the Study, Raftelis worked closely with District staff, legal counsel, the WRAC, and the Board of Directors to evaluate potential changes to the existing water rate structures. The following changes are proposed:

- » **Basin Sustainability Costs:** The prior study differentiated basin sustainability costs between water reliability and Basinwide management costs. This study maintains the same concept but modifies the approach based on the actual PWS project in construction and soon to come online, updated customer water demands, and proposed changes to how basin sustainability costs are recovered.

The prior study identified and allocated 80% of basin sustainability costs to water reliability based on a planned project. These costs are currently recovered from Tier 2 water use within the Residential water use rates and from every unit of water within the Commercial & Irrigation/Outdoor Use uniform water use rates. The remaining 20% of costs are currently recovered as Basinwide benefit, related to the District's cost share of managing the Santa Cruz Mid-County Groundwater Sustainability Agency (MGA); and these Basin wide benefit costs are currently recovered from every unit of water within the supply cost component.

The updated allocation proposed in this study is 45% to water reliability in the form of supplemental water supply and the remaining 55% to Basin wide benefit (replenishment of the overdrafted condition, protection against further seawater intrusion, and aiding in meeting the basin sustainability mandate) . This allocation is explained in further detail below.

PWS will be operational in FY 2025 and will generate an estimated 1,500 AFY of water for the District. This volume of water is required in part for customer demands in excess of the basin's sustainable yield and in part for replenishment and protection as a seawater intrusion barrier. Raftelis, District staff, and legal counsel discussed approaches to reasonably allocating the costs between these two benefits of the project. The proposed allocation is:

- **Supplemental Supply:** Raftelis analyzed District water demand data and aggregated all customer demands greater than 6 HCF per month per connection. 6 HCF represents the available water per connection per month at the Basin pre-recovery safe yield of 2,300 AFY. The total volume of water demanded by District customers greater than 6 HCF is 680 AFY, which expressed in percentage terms is 45% of the 1,500 AFY which the project will be delivering. Therefore, 45% of PWS costs are allocated in the form of supplemental water supply and differentiated within the water use rates.
- **Basinwide Benefit:** The remaining water received from PWS (55% of the project costs) represents the Basin wide sustainability benefit for replenishment of the critically overdrafted basin, protection against further seawater intrusion and aiding in meeting the state's mandate of basin sustainability. Whether an overlying property uses 2 HCF of water, 12 HCF of water, or no water at all, the parcel benefits from the a sustainable basin. . Due to this type of benefit, the proposed rates recover the Basinwide benefit from the fixed service charges to acknowledge the proportional benefit to all customers in protecting the existing water supply from further seawater intrusion; and that the

benefit is proportional to the size of a property, for which the meter size is used as a proxy.

» **Fixed Meter-based Charges:** The prior rate study designed the monthly water service charges to recover 40% of total rate revenues from fixed sources, including meter-based service charges and private fire service charges. The current rate study and proposed rates are adjusted so that the fixed monthly water service charges recover 60% of overall rate revenues from fixed rates. The change in fixed revenue recovery is an affirmative policy decision of the Board of Directors to ensure financial sustainability of the District by better aligning the share of fixed revenues with the degree of fixed costs the District incurs.

» **Water Use Rates**

- **Residential Tiers:** The study proposes replacing the existing two-tier rate structure with a three-tier rate structure. With the new structure, Tier 1 would include all water use below 4 units per month (up to 3.99 HCF), Tier 2 would include water use from 4 to 8 units (up to 7.99 HCF), and Tier 3 would include all water use at and above 8 units. These tier breakpoints were determined based on an analysis of the District’s actual Single Family Residential seasonal demand patterns and the extrapolation of efficient indoor and outdoor use for a typical household in the service area from those seasonal demands.
- **Supply Component:** The proposed rates differentiate the supply component of the water usage rate by source. All use up to 6 HCF per month is calculated using traditional groundwater costs. This amount is derived from the District’s previously established sustainable pumping goal of 2,300 acre feet per year (AFY). Water use in excess of 6 HCF per year is calculated using supplemental supply costs provided by Pure Water Soquel. Because the proposed tier breaks are at 4 HCF and 8 HCF for residential customers, the Tier 1 rate will consist of the groundwater unit cost, Tier 3 will consist of the supplemental supply unit cost, and the Tier 2 rate will be a blend of the two (groundwater and supplemental supply unit costs) based on availability.

As a result of the new supply component calculation, the uniform rate for Commercial and Irrigation/Outdoor Use customers will now be different, as the two classes have distinct demand patterns relative to the two sources of supply available and each classes’ use above or below 6 HCF per connection per month.

**1.5.1. Proposed Rates**

Table 1-2 through Table 1-5 show the current and proposed rates for the monthly service charges and the commodity water use rates starting in 2024. The rates for the current and proposed monthly fixed charges are based on the size of the meter serving a property and the class of customer served.

The rates for the current and proposed fire service charges are based on the diameter of the fire protection line serving a property. There are three components that comprise the meter based fixed charges: meter servicing costs, basin-wide sustainability benefit costs, and customer service costs. The meter services component collects servicing-related costs, peaking costs, and a portion of base costs. The basin-wide sustainability (BWS) benefit component collects costs related to the Basin wide sustainability benefit for replenishment of the critically over drafted basin, protection against further seawater intrusion and aiding in meeting the state’s mandate of basin sustainability. The customer service component recovers costs associated with meter reading, customer billing and collection, as well as answering customer service calls. These costs are uniform for all meter sizes and

classes as it costs the same to bill a small meter as it does a large meter and the same for a Residential user as it does an Irrigation user.

The rates for the current and proposed commodity charge are based on the amount of water delivered in one hundred cubic feet (HCF). Supply costs are related to the pumping and production of groundwater to meet customer demand. Delivery costs are associated with obtaining and treating water to ready it for transmission and distribution, as well as the operating and capital costs associated with delivering water to all customers at a constant average rate of use – also known as serving customers under average daily demand conditions. Conservation costs are related to direct conservation efforts made by the District.

Proposed charges represent year one rates for implementation which include the effects of the updated cost of service analysis, rate re-design, and revenue adjustments from the financial plan. The proposed revenue adjustments are annualized based on the effective month and represent the increase in total revenue. The proposed adjustment to each individual rate will vary based on the COS analysis. In future years, the proposed rates are adjusted by the revenue adjustment percentage found in **Table 1-1**. All rates are rounded up to the nearest whole penny.

**Table 1-2: Residential & Commercial Monthly Water Service Charges**

Line	A Meter Size	B Meter Component	C BWS Benefit	D Customer Component	E Proposed Monthly Charges	F Current Charges
1	5/8" Restricted	\$28.52	\$7.18	\$9.04	\$44.74	\$30.43
2	5/8"	\$57.04	\$14.36	\$9.04	\$80.44	\$52.34
3	1"	\$142.60	\$35.91	\$9.04	\$187.55	\$118.04
4	1.5"	\$285.19	\$71.82	\$9.04	\$366.05	\$227.53
5	2"	\$712.98	\$179.54	\$9.04	\$901.56	\$556.00
6	3"	\$1,425.96	\$359.09	\$9.04	\$1,794.09	\$1,103.48
7	4"	\$2,851.91	\$718.18	\$9.04	\$3,579.13	\$2,198.45
8	6"	\$4,563.06	\$1,149.09	\$9.04	\$5,721.19	\$3,512.39
9	8"	\$7,985.35	\$2,010.90	\$9.04	\$10,005.30	\$6,140.29

**Table 1-3: Irrigation Monthly Water Service Charges**

Line	A Meter Size	B Meter Component	C BWS Benefit	D Customer Component	E Proposed Monthly Charges	F Current Charges
1	5/8" Restricted	\$46.51	\$7.18	\$9.04	\$62.74	\$39.36
2	5/8"	\$93.03	\$14.36	\$9.04	\$116.43	\$70.20
3	1"	\$232.57	\$35.91	\$9.04	\$277.52	\$162.71
4	1.5"	\$465.13	\$71.82	\$9.04	\$545.99	\$316.90
5	2"	\$1,162.83	\$179.54	\$9.04	\$1,351.42	\$779.44
6	3"	\$2,325.67	\$359.09	\$9.04	\$2,693.80	\$1,550.33
7	4"	\$4,651.33	\$718.18	\$9.04	\$5,378.55	\$3,092.14
8	6"	\$7,442.13	\$1,149.09	\$9.04	\$8,600.26	\$4,942.30
9	8"	\$13,023.73	\$2,010.90	\$9.04	\$15,043.68	\$8,642.63

**Table 1-4: Monthly Private Fire Protection Line Service Charges**

Line	A Fireline Size	B Fire Component	C Customer Component	D Proposed Monthly Charges	E Current Charges
1	1"	\$2.48	N/A	\$2.48	\$1.71
2	1.5"	\$7.19	N/A	\$7.20	\$4.92
3	2"	\$15.33	N/A	\$15.33	\$10.43
4	2.5"	\$27.56	N/A	\$27.57	\$18.73
5	3"	\$44.52	N/A	\$44.52	\$30.22
6	4"	\$94.87	N/A	\$94.88	\$64.40
7	6"	\$275.58	N/A	\$275.59	\$187.02
8	8"	\$587.27	N/A	\$587.28	\$398.50

**Table 1-5: Commodity Water Use Rates**

Line	A Customer Class	B Supply	C Delivery	D Conservation	E Proposed Rate	F Current Rate
1	<b>Residential</b>					
2	Tier 1	\$4.41	\$4.74	\$0.00	\$9.16	\$9.10
3	Tier 2	\$5.53	\$4.74	\$0.00	\$10.27	\$41.23
4	Tier 3	\$8.39	\$4.74	\$3.09	\$16.22	N/A
5	<b>Uniform Rates</b>					
6	Commercial	\$7.57	\$4.74	\$0.24	\$12.56	\$15.25
7	Irrigation	\$7.85	\$4.74	\$0.24	\$12.84	\$15.25

### 1.5.2. Proposed Multi-Year Rate Schedule

Table 1-6 through Table 1-9 show the proposed multi-year rate schedule for FY 2024 through FY 2027. The first year of proposed rates show the cost of service rates from tables Table 1-2 through Table 1-5. All subsequent years' rates are increased based on the proposed annual revenue adjustments in Table 1-1.

**Table 1-6: Proposed Residential & Commercial Monthly Water Service Charge Schedule**

Line	A Meter Size	B Current	C Proposed March 2024	D Proposed January 2025	E Proposed January 2026	F Proposed January 2027
1	5/8" Restricted	\$30.43	\$44.74	\$50.11	\$56.13	\$62.87
2	5/8"	\$52.34	\$80.44	\$90.10	\$100.92	\$113.04
3	1"	\$118.04	\$187.55	\$210.06	\$235.27	\$263.51
4	1.5"	\$227.53	\$366.05	\$409.98	\$459.18	\$514.29
5	2"	\$556.00	\$901.56	\$1,009.75	\$1,130.92	\$1,266.64
6	3"	\$1,103.48	\$1,794.09	\$2,009.39	\$2,250.52	\$2,520.59
7	4"	\$2,198.45	\$3,579.13	\$4,008.63	\$4,489.67	\$5,028.44
8	6"	\$3,512.39	\$5,721.19	\$6,407.74	\$7,176.67	\$8,037.88
9	8"	\$6,140.29	\$10,005.30	\$11,205.94	\$12,550.66	\$14,056.74

**Table 1-7: Proposed Irrigation Monthly Water Service Charge Schedule**

Line	A Meter Size	B Current	C Proposed March 2024	D Proposed January 2025	E Proposed January 2026	F Proposed January 2027
1	5/8" Restricted	\$39.36	\$62.74	\$70.27	\$78.71	\$88.16
2	5/8"	\$70.20	\$116.43	\$130.41	\$146.06	\$163.59
3	1"	\$162.71	\$277.52	\$310.83	\$348.13	\$389.91
4	1.5"	\$316.90	\$545.99	\$611.51	\$684.90	\$767.09
5	2"	\$779.44	\$1,351.42	\$1,513.60	\$1,695.24	\$1,898.67
6	3"	\$1,550.33	\$2,693.80	\$3,017.06	\$3,379.11	\$3,784.61
7	4"	\$3,092.14	\$5,378.55	\$6,023.98	\$6,746.86	\$7,556.49
8	6"	\$4,942.30	\$8,600.26	\$9,632.30	\$10,788.18	\$12,082.77
9	8"	\$8,642.63	\$15,043.68	\$16,848.93	\$18,870.81	\$21,135.31

**Table 1-8: Proposed Monthly Private Fire Service Charge Schedule**

Line	A Fire Line Size	B Current	C Proposed March 2024	D Proposed January 2025	E Proposed January 2026	F Proposed January 2027
1	1"	\$1.71	\$2.48	\$2.78	\$3.12	\$3.50
2	1.5"	\$4.92	\$7.20	\$8.07	\$9.04	\$10.13
3	2"	\$10.43	\$15.33	\$17.17	\$19.24	\$21.55
4	2.5"	\$18.73	\$27.57	\$30.88	\$34.59	\$38.75
5	3"	\$30.22	\$44.52	\$49.87	\$55.86	\$62.57
6	4"	\$64.40	\$94.88	\$106.27	\$119.03	\$133.32
7	6"	\$187.02	\$275.59	\$308.67	\$345.72	\$387.21
8	8"	\$398.50	\$587.28	\$657.76	\$736.70	\$825.11

**Table 1-9: Proposed Commodity Water Use Rate Schedule**

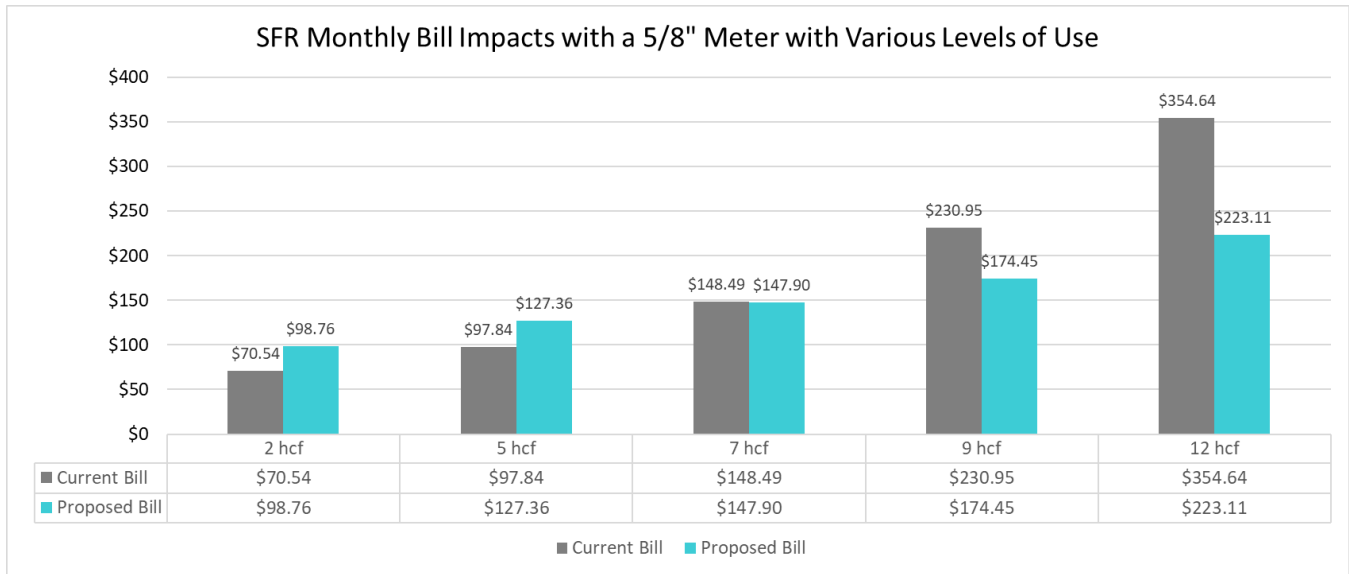
Line	A Class	B Current	C Proposed March 2024	D Proposed January 2025	E Proposed January 2026	F Proposed January 2027
1	<b>Residential</b>					
2	Tier 1	\$9.10	\$9.16	\$10.26	\$11.50	\$12.88
3	Tier 2	\$41.23	\$10.27	\$11.51	\$12.90	\$14.45
4	Tier 3	N/A	\$16.22	\$18.17	\$20.35	\$22.79
5	<b>Uniform Rates</b>					
6	Commercial	\$15.25	\$12.56	\$14.07	\$15.76	\$17.66
7	Irrigation	\$15.25	\$12.84	\$14.39	\$16.12	\$18.06

## 1.6. Water Bill Impacts

Figure 1-5 shows sample monthly water bills for Single Family Residential customers at varying levels of water use under both current and proposed FY 2024 rates. Note that actual bill impacts will vary based on individual water use; however, the values shown below are based on low, high, and typical volumes for a

Single Family Residential customer and reflect actual use patterns for District customers. For reference, 31% of all Single Family Residential bills use 2 HCF or less per month, 72% of all Single Family Residential bills use 5 HCF or less per month, and 98% of all Single Family Residential bills use 12 HCF or less per month.

**Figure 1-5: Single Family Residential Monthly Water Bill Impacts (FY 2024)**



## 1.7. Proposed Emergency Rates

**Table 1-10** shows the water shortage stages as defined in the District’s 2020 Urban Water Management Plan (UWMP). Rates developed in this Study represent the new Stage 0 – Baseline Conservation rates and updated long-term baseline water sales of 2,556 AFY.

**Table 1-10: Water Shortage Contingency Stages**

Line	A	B	C
Line	Stage	Stage Description	Curtalement Target
1	Stage 0	Baseline Conservation	0%
2	Stage 1	Water Shortage Alert	5%
3	Stage 2	Water Shortage Warning	15%
4	Stage 3	Emergency Water Shortage	25%
5	Stage 4	Severe Water Shortage	35%
6	Stage 5	Critical Water Shortage Emergency	50%

**Table 1-11** shows the proposed water shortage emergency rates, by declared stage, customer class, and tier. These charges will replace the base rates of the water commodity charge at each declared stage and are designed to recover the projected net revenue loss to the District at each shortage stage, which may be due to drought, natural disaster, or other event which requires a mandatory reduction in use by water customers. The development of emergency rates also incorporates variable cost savings - as less water is pumped and treated - as well as additional conservation program costs at each stage.

**Table 1-11: Water Shortage/Emergency Rates (FY 2024)**

	A	B	C	D	E	F	F
Line	Class	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
1	<b>Residential</b>						
2	Tier 1	\$9.16	\$9.61	\$10.73	\$12.16	\$14.04	\$18.20
3	Tier 2	\$10.27	\$10.78	\$12.03	\$13.63	\$15.74	\$20.40
4	Tier 3	\$16.22	\$17.02	\$19.00	\$21.53	\$24.85	\$32.22
5	<b>Uniform Rates</b>						
6	Commercial	\$12.56	\$13.18	\$14.71	\$16.67	\$19.24	\$24.95
7	Irrigation	\$12.84	\$13.47	\$15.04	\$17.04	\$19.67	\$25.51