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**Water and Sewer Rate Study**

**for the**

**Auburn Valley**

**Community Services District**

**Draft Report**

**January 7, 2025**



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**Table of Contents**

[Section 1: INTRODUCTION AND EXECUTIVE SUMMARY 1](#_Toc187160968)

[1.1 Background 1](#_Toc187160969)

[1.2 Requirements of Proposition 218 1](#_Toc187160970)

[1.3 Rate Study Process 2](#_Toc187160971)

[1.4 Proposed Rates 3](#_Toc187160972)

[Section 2: CUSTOMER BASE AND CURRENT RATE REVENUES 6](#_Toc187160973)

[2.1 Current Rates 6](#_Toc187160974)

[2.2 Current Rate Revenues 7](#_Toc187160975)

[2.3 Typical Bills 7](#_Toc187160976)

[Section 3: COST OF SERVICE 9](#_Toc187160977)

[3.1 Revenues 9](#_Toc187160978)

[3.2 Expenses 9](#_Toc187160979)

[3.3 Cost of Service 11](#_Toc187160980)

[3.4 Water Cash Flow 13](#_Toc187160981)

[3.5 Sewer Cash Flow 16](#_Toc187160982)

[Section 4: RATE DESIGN 19](#_Toc187160983)

[4.1 Water Cost Allocation Methodology 19](#_Toc187160984)

[4.2 Water Rate Calculation 20](#_Toc187160985)

[4.3 Proposed Rates 22](#_Toc187160986)

[4.4 Bill Impacts 22](#_Toc187160987)

**List of Tables**

[Table 1: Proposed Utility Rates 4](#_Toc187160988)

[Table 2: History of Past Rate Increases (Quarterly Rates) 6](#_Toc187160989)

[Table 3: Current Quarterly Water and Sewer Rates and Annual Revenues 7](#_Toc187160990)

[Table 4: Typical Winter Period Bill 8](#_Toc187160991)

[Table 5: Typical Summer Period Bill 8](#_Toc187160992)

[Table 6: Average Bill 8](#_Toc187160993)

[Table 7: Capital Improvement Plan 10](#_Toc187160994)

[Table 8: Operating Cost Increases 11](#_Toc187160995)

[Table 9: Existing Reserves 12](#_Toc187160996)

[Table 10: Water Cash Flow 14](#_Toc187160997)

[Table 11: FY2024/25 Water Rate Revenue 15](#_Toc187160998)

[Table 12: Sewer Cash Flow 17](#_Toc187160999)

[Table 13: FY2024/25 Sewer Rate Revenue 18](#_Toc187161000)

[Table 14: Water Cost Allocation 20](#_Toc187161001)

[Table 15: Water Rate Calculation 21](#_Toc187161002)

[Table 16: Proposed Utility Rates 22](#_Toc187161003)

[Table 17: Current and Proposed Sample Bills 23](#_Toc187161004)

# INTRODUCTION AND EXECUTIVE SUMMARY

## Background

The Auburn Valley Community Services District (AVCSD or District) was formed in 1998. The District is located six miles north of the City of Auburn and is responsible for the wastewater discharge and potable water systems for the homes and businesses within its boundaries. The District provides water and sewer services to 142 single family residential customers and the Auburn Valley Golf Club. AVCSD retains professional engineering firms to maintain these systems, conducts required quality testing, and makes required reports to Placer County and the State of California. The District is governed by a volunteer Board of Directors.

The goal of this rate study is to determine a rate plan to cover the District’s cost of service for the next five years beginning in fiscal year 2024/25 through 2028/29. The cost of service includes operations, maintenance, infrastructure needs, and repayment of a projected new short term debt issuance to fund capital projects. The District bills customers quarterly meaning that each bill represents three months of service. Rates were last increased October 1, 2023.

## Requirements of Proposition 218

The implementation of public agency utility rates in California is governed by the substantive and procedural requirements of Proposition 218 the “Right to Vote on Taxes Act” which is codified as Articles XIIIC and XIIID of the California Constitution. The District must follow the procedural requirements of Proposition 218 for all utility rate increases. These requirements include:

1. **Noticing Requirement** –The District must mail a notice of the proposed rate increases to all affected property owners or ratepayers. The notice must specify the amount of the fees, the basis upon which they were calculated, the reason for the fees, and the date/time/location of a public rate hearing at which the proposed rates will be considered/adopted.
2. **Public Hearing** – The District must hold a public hearing prior to adopting the proposed rate increases. The public hearing must be held not less than 45 days after the required notices are mailed.
3. **Rate Increases Subject to Majority Protest** – At the public hearing, the proposed rate increases are subject to majority protest. If more than 50% of affected property owners or ratepayers submit written protests against the proposed rate increases, the increases cannot be adopted.

Proposition 218 also established substantive requirements that apply to water and sewer rates and charges, including:

1. **Cost of Service** – Revenues derived from the fee or charge cannot exceed the funds required to provide the service. In essence, fees cannot exceed the “cost of service”.
2. **Intended Purpose** – Revenues derived from the fee or charge can only be used for the purpose for which the fee was imposed.
3. **Proportional Cost Recovery** – The amount of the fee or charge levied on any customer shall not exceed the proportional cost of service attributable to that customer.
4. **Availability of Service** – No fee or charge may be imposed for a service unless that service is used by, or immediately available to, the owner of the property.
5. **General Government Services** – No fee or charge may be imposed for general governmental services where the service is available to the public at large.

Charges for water and sewer service are exempt from additional voting requirements of Proposition 218, provided the charges do not exceed the cost of providing service and are adopted pursuant to the procedural requirements of Proposition 218.

## Rate Study Process

A summary of the rate study process is provided in Figure 1.

|  |  |  |  |
| --- | --- | --- | --- |
| Figure 1: Rate Study Process | | | |
|  |  |  |  |

t of Service Study Process

Graphical user interface, application

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The following is a brief description of the rate study process:

* **Revenue Requirement** – Revenue requirements are analyzed via cash flow projections based on the best information currently available such as the District’s historical operating results, budgets, and audits. The cash flows serve as a roadmap for funding future operating costs and capital expenditures while maintaining long-term fiscal stability.
* **Cost of Service Allocation** - The cost of service process builds on the revenue requirement analysis and assigns water costs to functional cost components: *metering and* *customer service*, *base demand,* and *extra demand*.
* **Rate Design** - Rate design involves developing a rate structure that fairly recovers costs from customers. Final rate recommendations are designed to fund the District’s short- and long-term costs of providing service and fairly allocate costs to all customers and customer classes.

The rates developed in this report are based on the best available information gathered from District budgets, audits, and input from staff. The cost allocations proposed herein are based on American Water Works Association methodologies and industry standard practice. The proposed rates are based on the reasonable cost of providing service and do not exceed the proportional cost of the service attributable to the parcel.

## Proposed Rates

Current and proposed rates are provided in Table 1. The water and sewer rate structures are not proposed to be adjusted in this study. However, rate increases are proposed to keep up with the cost of service. The rate adjustments are intended to realign rates with the cost of service and to fund needed capital repairs. If approved, the new rates will become effective April 1, 2025 with subsequent increases going into effect January 1 of each year from 2026 through 2029. The proposed rates are based on the reasonable cost of providing service and do not exceed the proportional cost of the service attributable to each parcel.

Figure 2 provides a bill survey comparing the current and proposed water bill of the average District customer to the typical bills charged by comparable agencies. The District’s current bill is in the lower mid-range of comparable agencies and would move to the upper mid-range under the proposed water rates.

Figure 3 compares the District’s current and proposed residential sewer bills with the sewer bills of comparable agencies. The District’s sewer bill is currently in the upper mid-range of comparable agencies and would be the highest bill of the surveyed agencies under the proposed sewer rates.

Table 1: Proposed Utility Rates

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **RATE CATEGORY** |  | **PROPOSED QUARTERLY RATES** | | | | |
|  | Current | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 |
|  |  |  |  |  |  |  |
| [1] |  | +10% | +10% | +10% | +10% | +10% |
| Sewer Base Fee | $444.21 | $489.33 | $538.11 | $591.46 | $650.91 | $716.46 |
|  |  |  |  |  |  |  |
| [1] |  | +15% | +15% | +10% | +5% | +5% |
| Water Base Fee | $160.20 | $183.56 | $211.13 | $232.40 | $244.22 | $256.82 |
| Volume Fee | $2.50 | $2.89 | $3.32 | $3.66 | $3.84 | $4.04 |
|  |  |  |  |  |  |  |

1 - rate increase percentages are approximate due to rounding

Figure 2: Water Bill Survey

A graph of water prices

Description automatically generated with medium confidence

**Figure 3: Sewer Bill Survey**

A graph of a number of individuals

Description automatically generated with medium confidence

# CUSTOMER BASE AND CURRENT RATE REVENUES

## Current Rates

The District’s current rates as well as a history of past rate increases are provided in Table 2. The District bills customers quarterly meaning that each bill represents three months of service.

For water service, customers are billed a minimum fee of $160.20 per quarter. In addition, metered water service provided by AVCSD is billed $2.50 per hundred cubic foot (ccf; one ccf is 748 gallons). Sewer service is billed as a fixed charge per equivalent dwelling unit (EDU). Each EDU represents the capacity used in the system by a typical single family connection. The current sewer charge is $444.21 per quarter. The rates were last increased October 1, 2023, at which time the District implemented increases to the fixed fees but did not increase the water volume rate.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table 2: History of Past Rate Increases (Quarterly Rates)** | | | | | | |
| **Date** | **Sewer O&M** | **Water O&M** | **Water Meter Charge** | **Total Fixed Fee (Most Customers)** |  | **Water Volume Rate ($/ccf)** |
| 4/3/2004 | $80.25 |  |  | $80.25 |  |  |
| 1/1/2006 | $219.00 | $63.00 |  | $282.00 |  |  |
| 1/6/2007 | $232.14 | $66.78 | $9.54 | $308.46 |  | $2.00 |
| 7/1/2007 | $270.00 | $135.00 | $9.54 | $414.54 |  | $2.00 |
| 7/1/2010 | $270.00 | $135.00 | $28.62 | $433.62 |  | $2.00 |
| 8/1/2014 | $321.00 | $135.00 | $28.62 | $484.62 |  | $2.00 |
| 7/1/2017 | $337.50 | $144.00 | $28.62 | $510.12 |  | $2.40 |
| 10/1/2018 | $337.50 | $144.00 |  | $481.50 |  | $2.40 |
| 10/1/2019 | $345.00 | $120.00 |  | $465.00 |  | $2.40 |
| 10/1/2020 | $345.00 | $120.00 |  | $465.00 |  | $2.40 |
| 10/1/2021 | $375.00 | $135.00 |  | $510.00 |  | $2.40 |
| 7/1/2022 | $382.50 | $137.70 |  | $520.20 |  | $2.45 |
| 7/1/2023 | $390.15 | $140.46 |  | $530.61 |  | $2.50 |
| 10/1/2023 | $444.21 | $160.20 |  | $604.41 |  | $2.50 |
| ccf – hundred cubic feet; 1 ccf = 748 gallons | | | | | | |

## Current Rate Revenues

Based on current rates and water usage, AVCSD is projected to collect about $203,000 in annual water rate revenues and about $291,000 in sewer rate revenues, see Table 3. The District serves 142 single family residential customers and one commercial account. The commercial account consists of the local golf course, clubhouse, restrooms, and maintenance yard and is assigned 22 water and sewer equivalent dwelling units. Thus, the water and sewer systems provide service to 164 total EDUs.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 3: Current Quarterly Water and Sewer Rates and Annual Revenues | | | | |
|  |  |  |  |  |
| **Fee or Charge** | **Quarterly Amount** | **Unit** | **Count of Units** | **Estimated Annual**  **Rate Revenue** |
| Base Water Fee | $160.20 | per EDU | 164 | $105,091 |
| Water Volume Rate | $2.50 | per ccf | 39,000 | $97,500 |
| Total Water Rate Revenues | | | | $202,591 |
|  |  |  |  |  |
| Sewer Rate | $444.21 | per EDU | 164 | $291,402 |
|  |  |  |  |  |
| ccf - hundred cubic feet; 1 ccf = 748 gallons | | | | |
| EDU - equivalent dwelling unit; each single family residential customer is assigned one EDU; the golf course is assigned 22 EDUs | | | | |

## Typical Bills

The tables on the following page calculate typical customer bills based on average winter period and summer period water usage as well as the average usage over all four quarters of the year. The average customer uses significantly more water in the summer than in the winter, making the typical summer period bill much higher. The sewer charge remains the same regardless of water usage.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 4: Typical Winter Period Bill** | | | | |
| **Fee or Charge** | **Quarterly Amount** | **Unit** | **Count of Units** | **Total** |
| Base Water Fee | $160.20 | per EDU | 1 | $160.20 |
| Water Volume Charges | $2.50 | per ccf | 38 | $95.00 |
| Total Water Bill | | | | $255.20 |
|  |  |  |  |  |
| Sewer Bill | $444.21 | per EDU | 1 | $444.21 |
|  |  |  |  |  |
| **Total Quarterly Bill** |  |  |  | **$699.41** |
| Monthly Equivalent Bill |  |  |  | $233.14 |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 5: Typical Summer Period Bill** | | | | |
| **Fee or Charge** | **Quarterly Amount** | **Unit** | **Count of Units** | **Total** |
| Base Water Fee | $160.20 | per EDU | 1 | $160.20 |
| Water Volume Charges | $2.50 | per ccf | 140 | $350.00 |
| Total Water Bill | | | | $510.20 |
|  |  |  |  |  |
| Sewer Bill | $444.21 | per EDU | 1 | $444.21 |
|  |  |  |  |  |
| **Total Quarterly Bill** |  |  |  | **$954.41** |
| Monthly Equivalent Bill |  |  |  | $318.14 |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 6: Average Bill** | | | | |
| **Fee or Charge** | **Quarterly Amount** | **Unit** | **Count of Units** | **Total** |
| Base Water Fee | $160.20 | per EDU | 1 | $160.20 |
| Water Volume Charges | $2.50 | per ccf | 60 | $150.00 |
| Total Water Bill | | | | $310.20 |
|  |  |  |  |  |
| Sewer Bill | $444.21 | per EDU | 1 | $444.21 |
|  |  |  |  |  |
| **Total Quarterly Bill** |  |  |  | **$754.41** |
| Monthly Equivalent Bill |  |  |  | $251.47 |
|  |  |  |  |  |

# COST OF SERVICE

This section provides an analysis of revenues and expenses to determine the total cost of service to be recovered via rates. The cost of service for each utility is expressed in a cash flow table that illustrates revenue increases needed to keep up with expenses and maintain financial health. Over the five-year rate study period, rate increases are proposed such that the water and sewer utilities fund operating costs, fund debt service payments on a projected new short term debt issuance, fund capital costs, and maintain reserves.

## Revenues

The District’s main revenue source is rates paid for water and sewer service. For FY2024/25, rate revenues will reflect three quarters service at the current rates and one quarter of revenues under the proposed increased rates that will be in effect from April 1, 2025 to June 30, 2025. Thereafter, rate adjustments are proposed to go into effect January 1 of each year. Each fiscal year will reflect two quarters under one set of rates and two quarters under an increased set of rates. Apart from rate revenues, the District’s only additional projected revenue source for the year is an estimated $2,000 in penalty revenues for each utility.

## Expenses

### Operating Costs

Major expenses include operations, repairs and maintenance, utilities, and admin and overhead. System operations will cost the District about $48,000 for the water system and about $161,000 for the sewer system in FY2024/25. These costs are subject to contract negotiations with the outside vendors who operate the systems. Costs associated with the General Manager are split between the water and sewer systems. AVCSD’s five Board members are not paid for their service.

### Capital Costs

Table 7 provides the District’s capital improvement plan by year through FY2027/28. The projects are divided according to whether they will be funded through the water or sewer fund. Future projects are anticipated to be funded through a combination of rate revenues and a line of credit taken out in FY2027/28 to fund sewer system projects. Major projects include primary lift station upgrades and rehabilitating the sewer pipes for inflow and infiltration reduction. The bulk of capital improvement projects are planned for FY2026/27 and FY2027/28.

**Table 7: Capital Improvement Plan**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Project #** | **Project Name** | **Priority Level** | **FY2024/25** | **FY2025/26** | **FY2026/27** | **FY2027/28** |
| W-2 | Feasibility Study: NID Piped Water Supply (Bell Rd-Gambah Dr.) [1] | 1 | $13,300 | - | - | - |
| W-3 | Install Isolation Valves (Viewridge & Fairway) already on stock | 2 | $10,000 | - | - | - |
| W-6 | Pump House Electronics | 2 | - |  | - | $54,000 |
| W-7 | Pumps for Wells 3, 6 & 8 | 2 | - | $18,000 | $18,000 | $18,000 |
| W-8 | Well #4 VFD | 3 | $30,000 | - | - | - |
| New | Water Rate Study |  | $5,000 | - | - | - |
|  | **TOTAL WATER PROJECTS** |  | **$58,300** | **$18,000** | **$18,000** | **$72,000** |
| WW-2 | Sanitary Sewer I&I Reduction | 2 | - | - | $30,000 | $120,000 |
| WW-3 | Primary Lift Station Upgrades | 2 | - | - | - | $120,000 |
| WW-4 | Disposal Field Repairs | 2 | - | - | $30,000 | $30,000 |
| WW-5 | Treatment Plant Pump Replacement | 2 | - | - | $12,000 | $12,000 |
| WW-7 | Air Blowers | 2 | - | - | $12,000 | - |
| WW-8 | Pipe Line Camera & Reels | 2 | - | - | $12,000 | - |
| WW-9 | Secondary Lift Station Transmitter | 3 | - | - | $12,000 | - |
| New | Sewer Rate Study |  | $5,000 | - | - | - |
|  | **TOTAL SEWER PROJECTS** |  | **$5,000** | **$0** | **$108,000** | **$282,000** |

1 – Carry over from FY2023/24

## Cost of Service

### Operating Expenses

The District’s operating expenses are projected to increase by 5% per year during the study period, as shown in Table 8. Costs of operating the systems are subject to contract negotiations with outside service providers.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 8: Operating Cost Increases** | | | | |
|  | **FY2025/26** | **FY2026/27** | **FY2027/28** | **FY2028/29** |
| **Water System Operating Costs** | | | |  |
| System Operations | 5% | 5% | 5% | 5% |
| Admin & Overhead | 5% | 5% | 5% | 5% |
| General Manager | 5% | 5% | 5% | 5% |
| Repairs & Maint. | 5% | 5% | 5% | 5% |
| Water Testing | 5% | 5% | 5% | 5% |
| Utilities | 5% | 5% | 5% | 5% |
|  |  |  |  |  |
| **Sewer System Operating Costs** | | | | |
| WWTP Operations | 5% | 5% | 5% | 5% |
| Collection System | 5% | 5% | 5% | 5% |
| Admin & Overhead | 5% | 5% | 5% | 5% |
| General Manager | 5% | 5% | 5% | 5% |
| Repairs & Maint. | 5% | 5% | 5% | 5% |
| State License / Fees | 5% | 5% | 5% | 5% |
| Utilities | 5% | 5% | 5% | 5% |

### Debt Financing

It is assumed that the District will issue new short term debt in FY2027/28 to fund sewer capital improvements. It is assumed that $250,000 in project costs will be funded through the future debt which is projected to be a line of credit. It is estimated that the District would repay the line of credit over 5 years at 8% interest. Given this projected debt issuance, AVCSD should consider its future debt coverage ratio when setting rates. Debt coverage is calculated as:

*(Revenue - Operating Expenses) / (Debt Service)*

Most forms of debt available to utilities, such as bonds, bank loans, and State Revolving Fund (SRF) loans, have legal requirements that obligate the borrower to maintain a debt coverage ratio typically ranging from 1.1 to 1.25. Essentially, this means that the borrower has a 10% to 25% financial buffer in excess of the debt payment amount. The 10% to 25% debt service buffer can be used to fund capital improvements or be added to reserves. The rates proposed in this report are projected to allow AVCSD to meet and exceed typical debt coverage requirements beginning in FY2028/29 when debt service payments are estimated to begin.

### Reserves

Table 9 summarizes the District’s current reserve balances. As of July 1, 2024, AVCSD had approximately $125,000 in its reserve account and $60,000 in its operations and maintenance account. The District has an additional reserve account containing approximately $225,000 as of July 1, 2024. However, this fund is restricted and is not included in the rate study. The District intermingles its reserve funds between the water and sewer enterprises. Based on audited operating results for each enterprise over the past two years, it was determined that 52.6% of existing unrestricted reserves should be allocated to the water utility and the remaining 47.4% be allocated to the sewer utility for the purposes of this rate study.

|  |  |  |
| --- | --- | --- |
| **Table 9: Existing Reserves** | | |
| US Bank MM #8501-Restr for Bond | $225,420 | not included in the rate study |
|  |  |  |
|  |  |  |
| US Bank Ops #6991 | $59,942 | Source: Draft Audit  as of June 30, 2024 |
| US Bank Money Market #1805 | $125,313 |
| Total Reserves | $185,254 |
|  |  |  |
| 52.6% Allocation to Water Utility [1] | $97,387 | July 1, 2024 Beginning Balance |
| 47.4% Allocation to Sewer Utility [1] | $87,867 | July 1, 2024 Beginning Balance |
|  |  |  |
|  |  |  |

1 - Currently, the District comingles its water and sewer cash balances. The allocation shown

here is based on operating results over the past two years.

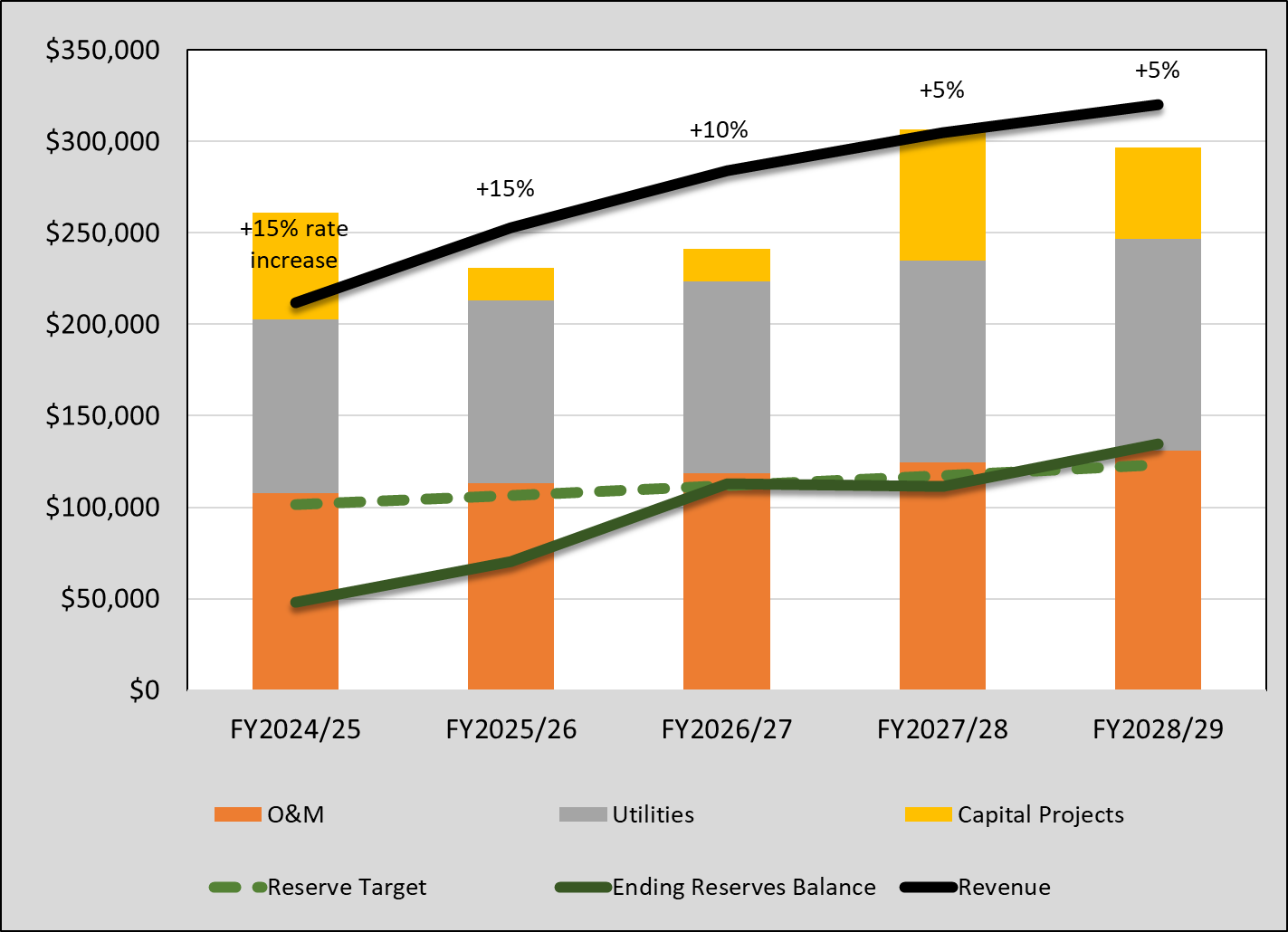
The accumulation of reasonable reserves is another factor to consider when determining the cost of

service. Utilities should maintain reserves to fund issues such as unexpected expenses or emergency repairs, to provide cash flow in case of customer billing or revenue collection issues, and to provide financial stability in case of lower water sales due to drought. It is recommended that AVCSD maintain a reserve equal to one half of its annual O&M expenses (corresponding to two billing periods) plus its annual debt service cost. The rate projection developed in this report accumulates the proposed reserve over five years.

## Water Cash Flow

Table 10 and Figure 4 provide the water fund cash flow projection for FY2024/25 to FY2028/29. To cover operating expenses, fund capital improvements, and generate reserves, it is recommended that the District implement a series of rate increases. It is proposed that the first rate increase be implemented on April 1, 2025 and subsequent rate increases be implemented on January 1 of each year from 2026 through 2029. The proposed rates are described in more detail in the following section.

Figure 4: Water Cash Flow Chart



**Table 10: Water Cash Flow**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Projected: Years 1 - 5 (Prop 218 Period)** | | | | |
|  | **FY2024/25** | **FY2025/26** | **FY2026/27** | **FY2027/28** | **FY2028/29** |
| Rate Increase | 15.0% | 15.0% | 10.0% | 5.0% | 5.0% |
| Date of Rate Change | April 1, 2025 | Jan 1, 2026 | Jan 1, 2027 | Jan 1, 2028 | Jan 1, 2029 |
|  |  |  |  |  |  |
| **Beginning Fund Balance** | $97,400 | $48,300 | $70,400 | $112,900 | $111,200 |
|  |  |  |  |  |  |
| Revenues w/July 1 Effective Date | 233,000 | 268,000 | 295,000 | 310,000 | 326,000 |
|  |  |  |  |  |  |
| **REVENUES** |  |  |  |  |  |
| Water Rate Revenues [1] | 209,900 | 251,000 | 282,000 | 303,000 | 318,000 |
| Penalty Revenues | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Subtotal Operating Revenues | 211,900 | 253,000 | 284,000 | 305,000 | 320,000 |
|  |  |  |  |  |  |
| **EXPENSES** |  |  |  |  |  |
| *Operating & Maintenance* |  |  |  |  |  |
| System Operations | 47,700 | 50,100 | 52,600 | 55,200 | 58,000 |
| Admin & Overhead | 30,000 | 31,500 | 33,100 | 34,800 | 36,500 |
| General Manager (Split) | 12,000 | 12,600 | 13,200 | 13,900 | 14,600 |
| Repairs & Maint. | 10,000 | 10,500 | 11,000 | 11,600 | 12,200 |
| Water Testing | 8,000 | 8,400 | 8,800 | 9,200 | 9,700 |
| Utilities | 95,000 | 99,800 | 104,800 | 110,000 | 115,500 |
| Subtotal O&M | 202,700 | 212,900 | 223,500 | 234,700 | 246,500 |
|  |  |  |  |  |  |
| Net Operating Revenues  (Operating Rev less O&M) | 9,200 | 40,100 | 60,500 | 70,300 | 73,500 |
|  |  |  |  |  |  |
| **Capital Improvements [2]** | 58,300 | 18,000 | 18,000 | 72,000 | 50,000 |
|  |  |  |  |  |  |
| **Total Expenses** | 261,000 | 230,900 | 241,500 | 306,700 | 296,500 |
|  |  |  |  |  |  |
| Total Net Revenues | (49,100) | 22,100 | 42,500 | (1,700) | 23,500 |
|  |  |  |  |  |  |
| **Ending Fund Balance** | $48,300 | $70,400 | $112,900 | $111,200 | $134,700 |
|  |  |  |  |  |  |
| Reserve Fund Target [3] | 101,350 | 106,450 | 111,750 | 117,350 | 123,250 |
| Target Met? | No | No | Yes | No | Yes |
|  |  |  |  |  |  |

1 – Water rate revenues for each fiscal year are prorated based on the date of implementation. For example, in FY2025/26, the total rate revenue collected will reflect six months of rate revenue at the prior year’s rate (July 1, 2025 to December 31, 2025) and six months at the new rate (January 1, 2026 to June 30, 2026).

2 – Table 7: Capital Improvement Plan; assumed cost of $50,000 in FY2028/29

3 – 50% of operating costs

It should be noted that the *Water Rate Revenues* shown in Table 10 for each fiscal year are prorated based on the proposed implementation date for each rate increase. The revenue collection schedule for FY2024/25 is shown in Table 11 as an example. The first rate increase is proposed to go into effect for the billing period beginning April 1, 2025. At this time, three of the fiscal year’s billing periods will have been billed at the current rates. Total revenues collected will thus reflect three billing periods at the current rates and one billing period at the new rates. Future rate adjustments are proposed to go into effect January 1 of each year and annual revenues are estimated based on two billing periods at the prior rates and two billing periods at the new rates.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 11: FY2024/25 Water Rate Revenue** | | | | |
|  | | Rate | Revenue |  |
| Current Water Base Fee if Billed July 1, 2024 to March 31, 2025 | | $160.20 | $78,818 |  |
| New Water Base Fee if Billed April 1, 2025 to June 30, 2025 | | $183.56 | $30,103 |  |
| Total Base Revenue |  |  | $108,921 |  |
|  |  |  |  |  |
|  | Usage (ccf) |  |  |  |
| Current Usage Rate if Billed 3 Quarters | 30,110 | $2.50 | $75,275 |  |
| New Usage Fee if Billed Q2 of 2025 | 8,890 | $2.89 | $25,692 |  |
| Total Usage Revenue | 39,000 |  | $100,967 |  |
|  |  |  |  |  |
| Total FY2024/25 |  |  | $209,889 |  |

## Sewer Cash Flow

Table 12 and Figure 5 provide a sewer cash flow projection for FY2024/25 to FY2028/29. Rate increases are needed to cover operating expenses and generate funds for capital improvements. In FY2027/28, it is projected the District will need $282,000 available to rehabilitate sewer pipes for inflow and infiltration reduction and conduct lift station improvements. It is estimated AVCSD will fund the bulk of these capital improvements through a $250,000 line of credit that will be repaid over five years beginning in FY2028/29.

Figure 5: Sewer Cash Flow Chart

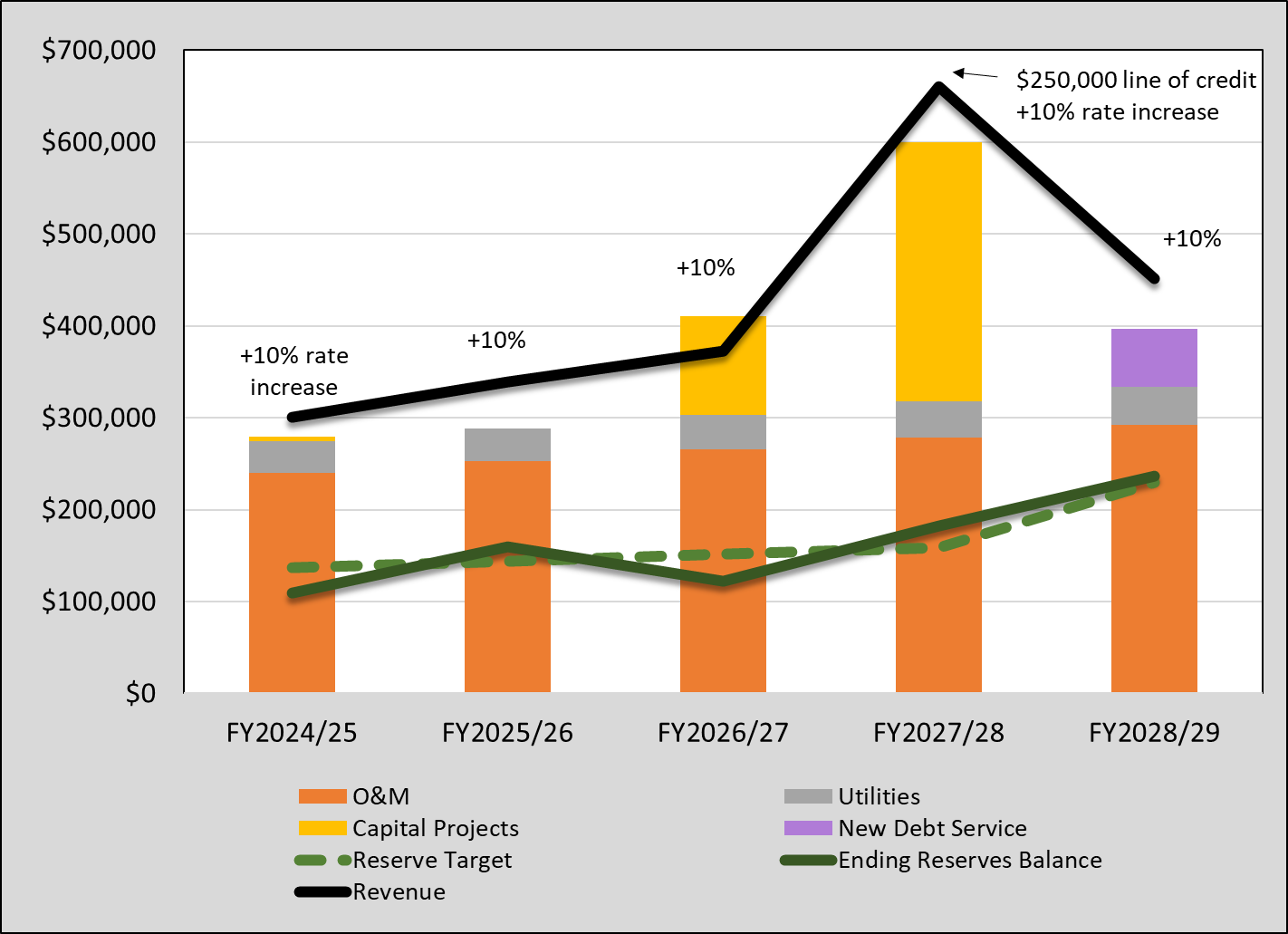


Table 12: Sewer Cash Flow

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Projected: Years 1 - 5 (Prop 218 Period)** | | | | |
|  | **FY2024/25** | **FY2025/26** | **FY2026/27** | **FY2027/28** | **FY2028/29** |
| Rate Increase | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% |
| Date of Rate Change | April 1, 2025 | Jan 1, 2026 | Jan 1, 2027 | Jan 1, 2028 | Jan 1, 2029 |
|  |  |  |  |  |  |
| **Beginning Fund Balance** | $87,900 | $109,300 | $160,000 | $122,200 | $182,200 |
|  |  |  |  |  |  |
| Revenues with July 1 Effective Date | 321,000 | 353,000 | 388,000 | 427,000 | 470,000 |
| Proposed Rate | $489.33 | $538.11 | $591.46 | $650.91 | $716.46 |
|  |  |  |  |  |  |
| **REVENUES** |  |  |  |  |  |
| Sewer Rate Revenues [1] | 298,800 | 337,000 | 371,000 | 408,000 | 449,000 |
| Penalty Revenues | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Subtotal Operating Revenues | 300,800 | 339,000 | 373,000 | 410,000 | 451,000 |
|  |  |  |  |  |  |
| Line of Credit | 0 | 0 | 0 | 250,000 | 0 |
|  |  |  |  |  |  |
| **Total Revenues** | 300,800 | 339,000 | 373,000 | 660,000 | 451,000 |
|  |  |  |  |  |  |
| **EXPENSES** |  |  |  |  |  |
| *Operating & Maintenance* |  |  |  |  |  |
| WWTP Operations | 161,000 | 169,100 | 177,600 | 186,500 | 195,800 |
| Collection System | 1,400 | 1,500 | 1,600 | 1,700 | 1,800 |
| Admin & Overhead | 28,000 | 29,400 | 30,900 | 32,400 | 34,000 |
| General Manager (Split) | 12,000 | 12,600 | 13,200 | 13,900 | 14,600 |
| Repairs & Maint. | 25,000 | 26,300 | 27,600 | 29,000 | 30,500 |
| State License / Fees | 13,000 | 13,700 | 14,400 | 15,100 | 15,900 |
| Utilities | 34,000 | 35,700 | 37,500 | 39,400 | 41,400 |
| Subtotal O&M | 274,400 | 288,300 | 302,800 | 318,000 | 334,000 |
|  |  |  |  |  |  |
| Net Operating Revenues | 26,400 | 50,700 | 70,200 | 92,000 | 117,000 |
|  |  |  |  |  |  |
| **Capital Improvements** | 5,000 | 0 | 108,000 | 282,000 | 0 |
|  |  |  |  |  |  |
| Debt Service [2] |  |  |  |  | 62,600 |
| Coverage Ratio |  |  |  |  | 1.87 |
|  |  |  |  |  |  |
| **Total Expenses** | 279,400 | 288,300 | 410,800 | 600,000 | 396,600 |
|  |  |  |  |  |  |
| Total Net Revenues | 21,400 | 50,700 | (37,800) | 60,000 | 54,400 |
|  |  |  |  |  |  |
| **Ending Fund Balance** | 109,300 | 160,000 | 122,200 | 182,200 | 236,600 |
|  |  |  |  |  |  |
| Reserve Fund Target [3] | 137,200 | 144,200 | 151,400 | 159,000 | 229,600 |
| Target Met? | No | Yes | No | Yes | Yes |
|  |  |  |  |  |  |

1 – Sewer rate revenues for each fiscal year are prorated based on the date of implementation. For example, in FY2025/26, the total rate revenue collected will reflect six months of rate revenue at the prior year’s rate (July 1, 2025 to December 31, 2025) and six months at the new rate (January 1, 2026 to June 30, 2026).

2 – The line of credit is assumed to be repaid over 5 years at 8%

3 – 50% of operating costs + annual debt service payment

The sewer cash flow projection shown in Table 12 also provides the proposed rates. The proposed rates are calculated by dividing the *Revenues with July 1 Effective Date* for each year by the District’s 164 EDUs then dividing that number by 4 to generate a quarterly fixed rate per EDU. To be conservative, it is assumed that no new customers will connect to the system in the next five years. For FY2024/25, the proposed quarterly rate is $489.33 per EDU.

The *Revenues with July 1 Effective Date* represent the hypothetical annualized revenue the District would collect if each year’s proposed rate was in place for a full fiscal year. The actual rate revenues AVCSD will collect each fiscal year are estimated based on the implementation date for each proposed rate increase and are included in Table 12 as *Sewer Rate Revenues*. For example, the first rate adjustment is proposed to go into effect for the billing period beginning April 1, 2025. Thus, rate revenues for FY2024/25 are estimated based on three billing periods at the current rates and one billing period at the new rates, see Table 13. Future rate adjustments are proposed to go into effect annually on January 1 so revenues for each fiscal year are estimated based on two billing periods at the prior calendar year’s rates and two billing periods at the new rates.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 13: FY2024/25 Sewer Rate Revenue** | | | | |
|  |  |  |  |  |
| Current Sewer Fee if Billed July 1, 2024 to March 31, 2025 | | $444.21 | $218,551 |  |
| New Sewer Base Fee if Billed April 1, 2025 to June 30, 2025 | | $489.33 | $80,250 |  |
| Total FY2024/25 Sewer Rate Revenues |  |  | $298,801 |  |
|  |  |  |  |  |

# RATE DESIGN

Proposition 218 requires that agencies providing “property-related services” (including water and sewer utility service) set rates and charges that are based on the cost of providing those services and are proportional to how customers use the system. The prior section determined the total cost of providing service to customers. In this section, the cost of service is allocated to rates to fairly recover costs based on how customers use the system.

## Water Cost Allocation Methodology

The American Water Works Association (AWWA) recommends methods to classify costs among various customers. The base-extra capacity method was selected for this study. Costs are allocated to the following categories: (a) base, (b) extra, and (c) metering and customer service. The base category is intended to encompass expenses related to providing water under average conditions (“base”). The extra category includes costs related to providing water above the system average (i.e. related to peak or “extra” usage). The base and extra categories are combined into one category for cost allocation purposes because the District’s rate structure consists of uniform volume rates. The metering and customer service category encompasses costs related to administration and maintaining the infrastructure in the system to supply water at all times.

FY2024/25 was selected as the test year for cost allocation. Costs for operations, maintenance, administration, and overhead were allocated between the customer service & meters and base & extra categories based on how the District incurs these expenses. As shown in Table 14, about 51.7% of AVCSD’s expenses are related to customer service and metering. About 48.3% are related to base and extra demand.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 14: Water Cost Allocation | | | | | |
|  | **Projected** | **Base +** | **Meters &** | **Base +** | **Meters &** |
| **Operating Expense** | **2024/25** | **Extra** | **Customer Service** | **Extra** | **Customer Service** |
| System Operations | $47,700 | 50.0% | 50.0% | $23,850 | $23,850 |
| Admin & Overhead | $30,000 | 0.0% | 100.0% | $0 | $30,000 |
| General Manager (Split) | $12,000 | 0.0% | 100.0% | $0 | $12,000 |
| Repairs & Maint. | $10,000 | 0.0% | 100.0% | $0 | $10,000 |
| Water Testing | $8,000 | 0.0% | 100.0% | $0 | $8,000 |
| Utilities | $95,000 | 100.0% | 0.0% | $95,000 | $0 |
| Total O&M | $202,700 |  |  | $118,850 | $83,850 |
|  |  |  |  |  |  |
| 5-year average CIP | $43,260 | 0.0% | 100.0% | $0 | $43,260 |
|  |  |  |  |  |  |
| Total | $245,960 |  |  | $118,850 | $127,110 |
| Total % | 100.0% |  |  | 48.3% | 51.7% |
|  |  |  |  |  |  |

## Water Rate Calculation

It is proposed that the metering and customer service expense be recovered through AVCSD’s quarterly base fee and the base and extra expense be recovered through the volume rate. Based on the District’s existing policies, the golf course is assigned 22 EDUs. To be conservative, it is assumed that no new customers will connect to the system in the next five years and that water consumption will remain the same.

Table 15 provides the water rate calculation. For FY2024/25, as described in this report, the rate revenue requirement is approximately $210,000. However, total rate revenues in FY2024/25 will reflect only one billing period at the new rates and three billing periods at the current rates (see Table 11). To account for the fact that the proposed rates will only be in effect for a portion of the fiscal year, the new rates are based on the hypothetical annualized revenue requirement of $233,000. Of this amount, 51.7% is proposed to be collected from the base fee and 48.3% is proposed to be collected from the volume rates based on the cost allocation in Table 14.

The FY2024/25 volume rate was calculated at $2.89/ccf by dividing the total water volume revenue requirement by annual water consumption. The FY2024/25 quarterly base meter fee was calculated at $183.56 per EDU by dividing the total base fee revenue requirement by the number of EDUs, then dividing that number by 4 to generate a fixed rate per quarterly billing period.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table 15: Water Rate Calculation** | | | | | | |
|  |  | **PROJECTED** | | | | |
|  | **FY2024/25** | **FY2025/26** | **FY2026/27** | **FY2027/28** | **FY2028/29** |
|  |  |  |  |  |  |  |
| **REVENUE REQUIREMENT** | Allocation % | [1] |  |  |  |  |
| Base Fee | 51.7% | $120,412 | $138,500 | $152,453 | $160,205 | $168,474 |
| Volume Charge | 48.3% | $112,588 | $129,500 | $142,547 | $149,795 | $157,526 |
| Total Water Revenue Requirement | 100.0% | $233,000 | $268,000 | $295,000 | $310,000 | $326,000 |
|  |  |  |  |  |  |  |
| **WATER FIXED (BASE) CHARGE** | | | | | | |
|  |  |  |  |  |  |  |
| Total Base Fee Revenue Requirement | 7.8% | $120,412 | $138,500 | $152,453 | $160,205 | $168,474 |
| Total No. of EDUs |  | 164 | 164 | 164 | 164 | 164 |
| Total Proposed Quarterly Base Fee | $160.20 | $183.56 | $211.13 | $232.40 | $244.22 | $256.82 |
| *Percent Change* |  | *14.6%* | *15.0%* | *10.1%* | *5.1%* | *5.2%* |
|  |  |  |  |  |  |  |
| **WATER VOLUME FEE** | | | | | | |
|  |  |  |  |  |  |  |
| Total Volume Charge Rev Requirement | 7.8% | $112,588 | $129,500 | $142,547 | $149,795 | $157,526 |
| Total Consumption (ccf) |  | 39,000 | 39,000 | 39,000 | 39,000 | 39,000 |
| Total Proposed Volume Charge | $2.50 | $2.89 | $3.32 | $3.66 | $3.84 | $4.04 |
| *Percent Change* |  | *15.6%* | *14.9%* | *10.2%* | *4.9%* | *5.2%* |
|  |  |  |  |  |  |  |

1 – Hypothetical rate revenue if collected over 12 months; actual rates will only be in effect a portion of the fiscal year – see Table 10

## Proposed Rates

The 5-year plan of proposed rates including water and sewer rates is provided in Table 16. All customers are proposed to continue to be assessed water and sewer base fees according to their number of EDUs, with each single family residential customer assigned one EDU and the golf course assigned 22 EDUs.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table 16: Proposed Utility Rates** | | | | | | |
| **RATE CATEGORY** |  | **PROPOSED QUARTERLY RATES** | | | | |
|  | Current | FY2024/25 | FY2025/26 | FY2026/27 | FY2027/28 | FY2028/29 |
| Sewer Base Fee | $444.21 | $489.33 | $538.11 | $591.46 | $650.91 | $716.46 |
| Water Base Fee | $160.20 | $183.56 | $211.13 | $232.40 | $244.22 | $256.82 |
| Volume Fee | $2.50 | $2.89 | $3.32 | $3.66 | $3.84 | $4.04 |
|  |  |  |  |  |  |  |

## Bill Impacts

Table 17 provides sample bill impacts for the typical average quarterly bill under the proposed FY2024/25 rates. For the typical customer using 60 ccf of water per quarterly billing period, the total bill will increase from $754.41 to $846.29, an increase of about 12%. Bill impacts for the typical customer will vary throughout the year as water consumption varies seasonally.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 17: Current and Proposed Sample Bills** | | | | | | | | | | | |
| **Current** | | | | | **Proposed FY2024/25** | | | | | | |
| **Fee or Charge** | **Quarterly Amount** | **Unit** | **Count of Units** | **Total** | **Fee or Charge** | **Quarterly Amount** | **Unit** | **Count of Units** | | **Total** | **% Increase** |
| Base Water Fee | $160.20 | per EDU | 1 | $160.20 | Base Water Fee | $183.56 | per EDU | 1 | | $183.56 |  |
| Water Volume | $2.50 | per ccf | 60 | $150.00 | Water Volume | $2.89 | per ccf | 60 | | $173.40 |  |
| Total Water Bill |  |  |  | $310.20 | Total Water Bill |  |  |  | | $356.96 | 15% |
|  |  |  |  |  |  |  |  |  | |  |  |
| Sewer Fee | $444.21 | per EDU | 1 | $444.21 | Sewer Fee | $489.33 | per EDU | 1 | | $489.33 | 10% |
|  |  |  |  |  |  |  |  |  | |  |  |
| **Total Quarterly Bill** | | |  | **$754.41** | **Total Quarterly Bill** | | |  | **$846.29** | | 12% |
| Monthly Equivalent Bill | | |  | $251.47 |  |  |  |  | | $282.10 |  |
|  |  |  |  |  |  |  |  |  | |  |  |