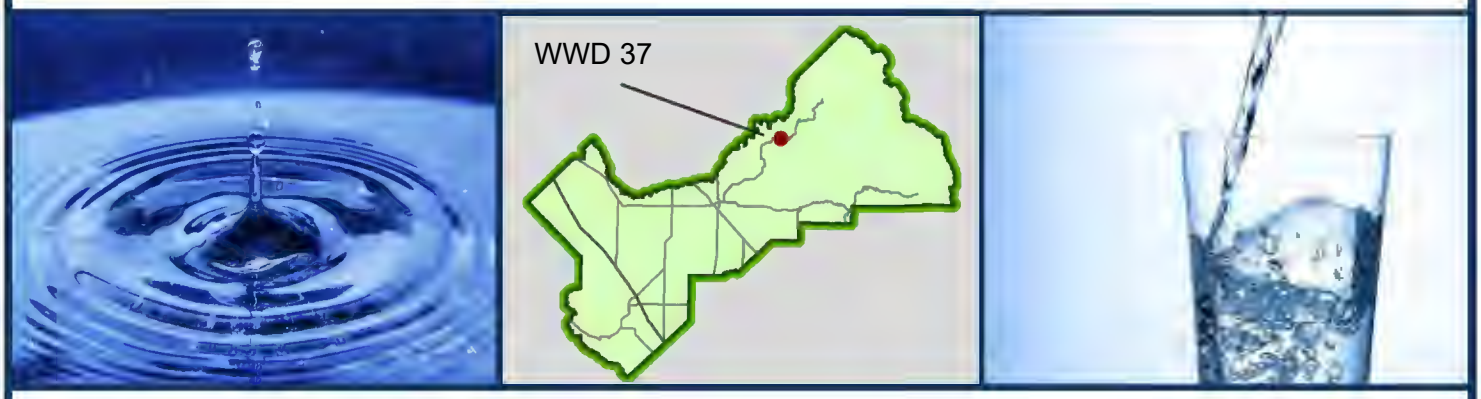



# Water Rate Study
## for the Fresno County Waterworks District 37 (Mile High)

**Final Report**
**October 25, 2024**

LECHOWICZ + TSENG
MUNICIPAL CONSULTANTS
909 Marina Village Parkway #135
Alameda, CA 94501
(510) 545-3182
www.LTmuniconsultants.com

# TABLE OF CONTENTS



# LIST OF TABLES

# SECTION 1: INTRODUCTION AND EXECUTIVE SUMMARY

## 1.1 Background

The Fresno County Waterworks District 37 (District) was established in 1961 to provide water service for the subdivision known as Mile High, near Meadow Lakes, and includes a portion of Bald Mountain Road near Auberry Road. Currently, 41 parcels receive water service. There is only one class of rate payers, which is single-family residential parcels. The current rate structure was adopted pursuant to Proposition 218 requirements on June 3, 2014, with fees having become effective on July 1, 2014. Fiscal Year (FY) 2018/19 was the last fee inflation increase associated with the District's 2014 Proposition 218 noticing process. The District's rate structure consists of a base fee which includes the first 13,500 gallons of monthly water use. Use above the first 13,500 gallons is billed based on a tiered water rate structure charged to each 1,000 gallons.

In recent years, the District has spent down its existing reserves and is not collecting sufficient revenue to fund annual expenses. One goal of this study is to determine a rate plan to cover the District's cost of service for the next five years. The cost of service includes operations, maintenance, capital improvements, and the accumulation of reserves. A second goal of this rate study is to revise the rate structure to recover costs more fairly from customers. The current rate structure has little differentiation in price between low and high use customers because a large portion of water use is included in the base fee. The proposed rate structure redefines the District's water usage rates and, if adopted, would bill customers for each 1,000 gallons of consumption.

## 1.2 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 rates and charges, including:

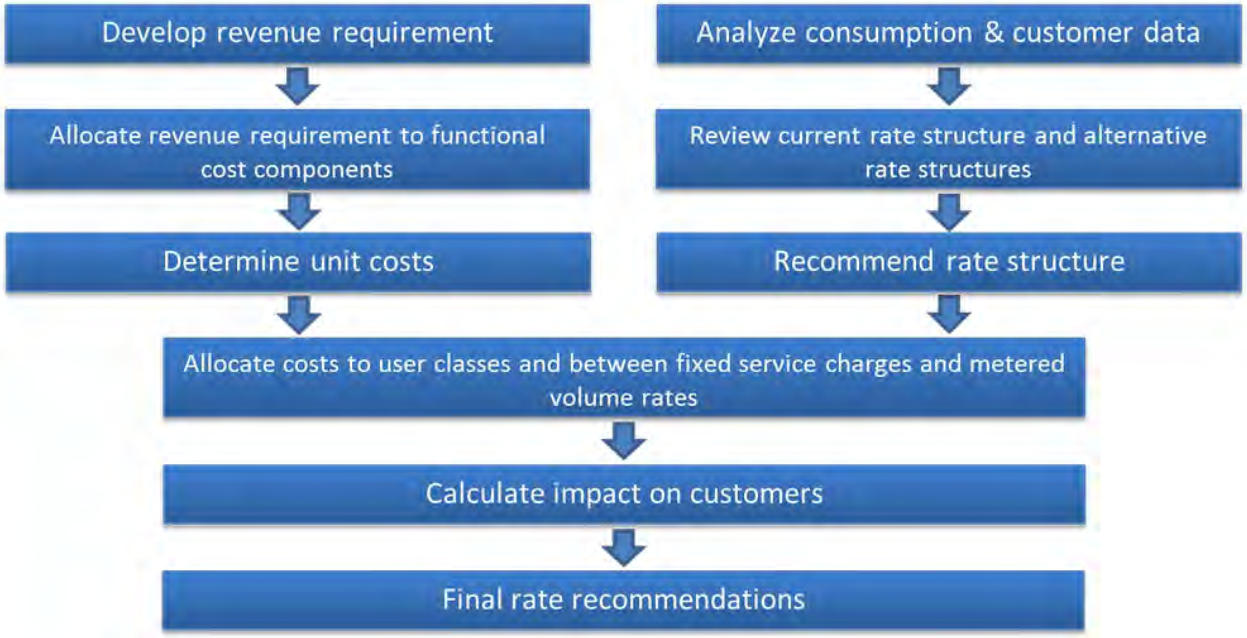
1. **Cost of Service** – Revenues derived from the fee or charge cannot exceed the funds required to provide the service. In essence, fees cannot exceed the "cost of service".
2. **Intended Purpose** – Revenues derived from the fee or charge can only be used for the purpose for which the fee was imposed.
3. **Proportional Cost Recovery** – The amount of the fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of service attributable to that parcel.
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 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.

## 1.3 Rate Study Process

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

**Figure 1: Rate Study Process**




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

- **Revenue Requirement** – Revenue requirements are analyzed via a cash flow projection based on the best information currently available such as the District's historical operating results, budgets, audits, and input from County staff. The cash flow serves as a roadmap for funding future operating costs and capital expenditures while maintaining long-term fiscal stability, all of which is calculated in this study to produce rates that will be necessary to recover only the actual cost of the water service per parcel under these proposed water rates.

- **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 but does not exceed the proportional cost of the service attributable to the parcel. 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.

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.

## 1.4 Proposed Rates

Current and proposed rates are provided in Table 1 on the following page. It is proposed that the new rates go into effect January 1, 2025 and remain in place through June 30, 2029. There will only be one class of rate payers, which is single-family residential parcels. It is proposed that the base fixed charge will no longer include a base amount of water consumption. The tiered rates are designed to better align with current consumption patterns and actual costs to serve each tiered level of water use so that the water service rates do not exceed the proportional cost of the service attributable to the parcel. Neither tier will subsidize the other tier.

**Table 1: Current and Proposed Monthly Water Rates**

| Fee Description | Current | Fee Description | Proposed January 1, 2025 |
|---|---|---|---|
| Base Fee | $85.19 | Base Fee | $117.90 |
| Overuse Rates | Charge per 1,000 gal | Usage Rates | Charge per 1,000 gal |
| 0 - 13,500 gal | $0.00 | Tier 1: 0 - 6,500 gal | $3.46 |
| 13,501 -18,500 gal | $2.00 | Tier 2: 6,501 and over | $5.76 |
| 18,501 - 23,500 gal | $2.50 | | |
| 23,501 and over | $3.00 | | |

Table 2 provides the current and proposed monthly bill of a typical customer using 6,500 gallons (average monthly water use). Under the proposed rates, the average bill will increase about $55 or about 65%.

**Table 2: Current and Proposed Typical Monthly Bill**

| CURRENT | | | | | PROPOSED | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Fee Description | Fee | | # of Units | Total Charges | Fee Description | Fee | | # of Units | Total Charges | |
| Base Fee | $85.19 | X | 1 | $85.19 | Base Fee | $117.90 | X | 1 | $117.90 | |
| Overuse Rate | $/1,000 gal | | | | Usage Rate | $/1,000 gal | | | | |
| 0 - 13,500 gal | $0.00 | X | 6.5 | $0.00 | 0 - 6,500 gal | $3.46 | X | 6.5 | $22.49 | |
| 13,501 -18,500 gal | $2.00 | X | 0 | $0.00 | 6,501 and over | $5.76 | X | 0 | $0.00 | |
| 18,501 - 23,500 gal | $2.50 | X | 0 | $0.00 | | | | 6.5 | $22.49 | |
| 23,501 and over | $3.00 | X | 0 | $0.00 | | | | | | |
| | | | 6.5 | $0.00 | | | | | | |
| | | | | | | | | | | Increase |
| Total Monthly Bill | | | | $85.19 | | | | | $140.39 | $55.20 |
| | | | | | | | | | | 65% |

# SECTION 2: CUSTOMER BASE AND CURRENT RATE REVENUES

## 2.1 Current Rates

The District's current water rates are provided in Table 3. The current rate structure was adopted pursuant to Proposition 218 requirements on June 3, 2014, with fees having become effective on July 1, 2014. Fiscal Year (FY) 2018/19 was the last fee inflation increase associated with the District's 2014 Proposition 218 noticing process. Customers are billed a base charge of $85.19 that includes up to the first 13,500 gallons of usage. Usage above the first 13,500 gallons is billed based on a tiered rate structure as shown below.

**Table 3: Current Monthly Water Rates**

| | Effective Date |
|---|---|
| **Fee Description** | **7/1/2018** |
| Base Fee | $85.19 |
| Overuse Rates | Charge per 1,000 gal |
| 0 - 13,500 gal (included) | $0.00 |
| 13,501 -18,500 gal | $2.00 |
| 18,501 - 23,500 gal | $2.50 |
| 23,501 and over | $3.00 |

## 2.2 Rate Revenues

The District currently serves 41 single family residential customers. In the recent past, the District served 44 residences, but three were destroyed in a fire. Table 4 provides historic customer counts, water usage data, and annual rate revenues. With 41 customers, current rates generate about $43,600 annually. Based on a historical review of District customer's bills during FY2018/19 through FY2022/23, about 2/3 of water consumption occurs in the first tier of up to 13,500 gallons and about 1/3 of water consumption falls in the upper tiers. Tiered rates generated about $1,700 in FY 2022/23.

**Table 4: Historical Water Rate Revenues**

| Rate Description | Charge | FY2018/19 # of Units | FY2018/19 Annual Revenue | FY2018/19 % of Revenue | FY2019/20 # of Units | FY2019/20 Annual Revenue | FY2019/20 % of Revenue | FY2020/21 # of Units | FY2020/21 Annual Revenue | FY2020/21 % of Revenue |
|---|---|---|---|---|---|---|---|---|---|---|
| Base Fee | | accounts | | | accounts | | | accounts | | |
| Per account | $85.19 | 44 | $44,980 | 98.3% | 44 | $44,980 | 97.4% | 41 | $41,913 | 95.7% |
| | Charge per | | | | | | | | | |
| Overuse Rates | 1,000 gal | 1,000 gal | | | 1,000 gal | | | 1,000 gal | | |
| 0 - 13,500 gal | $0.00 | 2,366 | $0 | 0.0% | 2,701 | $0 | 0.0% | 2,698 | $0 | 0.0% |
| 13,501 -18,500 gal | $2.00 | 175 | $350 | 0.8% | 267 | $534 | 1.2% | 317 | $634 | 1.4% |
| 18,501 - 23,500 gal | $2.50 | 80 | $200 | 0.4% | 148 | $370 | 0.8% | 206 | $515 | 1.2% |
| 23,501 and over | $3.00 | 76 | $228 | 0.5% | 92 | $276 | 0.6% | 243 | $729 | 1.7% |
| | | 2,697 | $778 | 1.7% | 3,208 | $1,180 | 2.6% | 3,464 | $1,878 | 4.3% |
| **Total Annual Rate Revenue** | | | $45,758 | 100% | | $46,160 | 100% | | $43,791 | 100% |

| Rate Description | Charge | FY2021/22 # of Units | FY2021/22 Annual Revenue | FY2021/22 % of Revenue | FY2022/23 # of Units | FY2022/23 Annual Revenue | FY2022/23 % of Revenue |
|---|---|---|---|---|---|---|---|
| Base Fee | | accounts | | | accounts | | |
| Per account | $85.19 | 41 | $41,913 | 96.0% | 41 | $41,913 | 96.1% |
| Overuse Rates | per 1,000 gal | 1,000 gal | | | 1,000 gal | | |
| 0 - 13,500 gal | $0.00 | 2,326 | $0 | 0.0% | 2,353 | $0 | 0.0% |
| 13,501 -18,500 gal | $2.00 | 250 | $500 | 1.1% | 271 | $542 | 1.2% |
| 18,501 - 23,500 gal | $2.50 | 184 | $460 | 1.1% | 157 | $393 | 0.9% |
| 23,501 and over | $3.00 | 256 | $768 | 1.8% | 257 | $771 | 1.8% |
| | | 3,016 | $1,728 | 4.0% | 3,038 | $1,706 | 3.9% |
| **Total Annual Rate Revenue** | | | $43,641 | 100% | | $43,619 | 100% |

## 2.3 Typical Water Bills

Table 5 provides example monthly water bills. Average monthly use is 6,500 gallons which is fully included in the base fee of $85.19. The typical winter usage is 3,000 gallons which also results in a bill of $85.19. Typical summer usage is 14,500 gallons and results in a bill of $87.19. Although summer usage is more than twice the average usage, the summer bill is only $2.00 more than the average bill. The District's current rate structure results in very little difference in price between low and high water usage because such a large amount of usage (13,500 gallons) is included in the base fee.

**Table 5: Typical Bills Under Current Rates**

**AVERAGE MONTHLY BILL (6,500 gallons)**

| Fee Description | Current | | # of Units | Total Charges |
|---|---|---|---|---|
| Base Fee | $85.19 | X | 1 | $85.19 |
| | | | | |
| Overuse Rate | $/1,000 gal | | | |
| 0 - 13,500 gal | $0.00 | X | 6.5 | $0.00 |
| 13,501 -18,500 gal | $2.00 | X | 0 | $0.00 |
| 18,501 - 23,500 gal | $2.50 | X | 0 | $0.00 |
| 23,501 and over | $3.00 | X | 0 | $0.00 |
| | | | 6.5 | $0.00 |
| | | | | |
| Total Monthly Bill | | | | $85.19 |

**EXAMPLE WINTER MONTHLY BILL (3,000 gallons)**

| Fee Description | Current | | # of Units | Total Charges |
|---|---|---|---|---|
| Base Fee | $85.19 | X | 1 | $85.19 |
| | | | | |
| Overuse Rate | $/1,000 gal | | | |
| 0 - 13,500 gal | $0.00 | X | 3 | $0.00 |
| 13,501 -18,500 gal | $2.00 | X | 0 | $0.00 |
| 18,501 - 23,500 gal | $2.50 | X | 0 | $0.00 |
| 23,501 and over | $3.00 | X | 0 | $0.00 |
| | | | 3 | $0.00 |
| | | | | |
| Total Monthly Bill | | | | $85.19 |

**EXAMPLE SUMMER MONTHLY BILL (14,500 gallons)**

| Fee Description | Current | | # of Units | Total Charges |
|---|---|---|---|---|
| Base Fee | $85.19 | X | 1 | $85.19 |
| | | | | |
| Overuse Rate | $/1,000 gal | | | |
| 0 - 13,500 gal | $0.00 | X | 13.5 | $0.00 |
| 13,501 -18,500 gal | $2.00 | X | 1 | $2.00 |
| 18,501 - 23,500 gal | $2.50 | X | 0 | $0.00 |
| 23,501 and over | $3.00 | X | 0 | $0.00 |
| | | | 14.5 | $2.00 |
| | | | | |
| Total Monthly Bill | | | | $87.19 |

# SECTION 3: 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 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 so that the District can pay for operating costs, capital projects, and accumulate reasonable reserves, all of which is calculated in this study to produce rates that will be necessary to recover only the actual cost of the water service per parcel under these proposed water rates.

In recent years, the District has operated at a deficit meaning that expenses are greater than revenues. Due to deficit spending, the District has exhausted its reserves and accumulated unpaid charges with the County. These unpaid charges are owed to the County for expenses incurred by the District that it could not pay. The financial plan recommended in this report includes repayment of these past charges as well as funding future projected costs to produce rates that will be necessary to recover only the actual cost of the water service per parcel under these proposed water rates.

## 3.1 Revenues

The District's revenues consist of water service charges and tax revenues. In fiscal year (FY) 2023/24, the District collected about $43,600 from service charges and $6,900 from taxes, which equals a total of $50,500. To be fiscally conservative, it is assumed that the District will experience no growth over the next five years and tax revenue will remain the same. A rate increase is proposed to go into effect on January 1, 2025 to fund the costs described below.

## 3.2 Expenses

### 3.2.1 Operating Costs

In FY2024/25, the District expects to incur about $54,100 in expenses to operate and maintain the water system. Compared to current revenues of only $50,500, operating expenses are greater than revenues resulting in a deficit of about $3,600. These costs are projected to increase by 3% annually. In addition, the District expects to spend about $15,000 this year to conduct the Proposition 218 rate study process.

### 3.2.2 Capital Costs

This fiscal year, the District expects to fund a $15,000 corrosion control project, as part of the rates that will be necessary to recover only the actual cost of the water service per parcel under these proposed water rates. No additional rate-funded projects are anticipated in this study.

### 3.2.3 Repayment of Unpaid Charges

As of July 1, 2024, the District owes Fresno County $17,400 in prior unpaid charges. Despite a proposed rate increase in FY2024/25, it is projected that the District will accrue an additional $20,500 of unpaid charges through June 30, 2025. In FY2025/26 and FY2026/27, the District is projected to repay the

combined amount of $37,900 unpaid charges plus interest. For financial planning purposes, the County's internal interest rate is estimated as 2.8% annually.

### 3.2.4 Reserves

The Fresno County Board of Supervisors adopted a policy on November 7, 2006 requiring special districts providing water service and governed by the Fresno County Board of Supervisors to maintain a reserve equal to 50% of a three year rolling average of annual operating costs (excluding extraordinary infrastructure or fixed asset projects). For Waterworks District 37, the target is approximately $29,700 rounded up to $30,000. The rate plan developed in this report includes the accumulation of about $33,000 in reserves by the end of FY2028/29 which exceeds the County's target.

## 3.3 Cash Flow

Table 6 provides the five-year cash flow spanning from FY2024/25 to FY2028/29. January 1, 2025, it is proposed that the District implement a 60% rate revenue increase. This rate change will increase annual revenues from about $43,600 to $69,800. It should be noted that for the first fiscal year of the rate plan (FY2024/25), the rate change will go into effect January 1 such that the total annual revenues will reflect six months at the current rates and six months at the proposed rates. As a result, the District is expected to accrue an additional $20,500 in costs that, assuming the rate change is adopted, will be repaid to the County in FY2025/26 and FY2026/27.

**Table 6: Cash Flow**

| | Projected: Proposition 218 | | | | |
|---|---|---|---|---|---|
| | **2024/25** | **2025/26** | **2026/27** | **2027/28** | **2028/29** |
| Revenue Adjustment | 60.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Rate Increase Effective | Jan 1, 2025 | July 1, 2025 | July 1, 2026 | July 1, 2027 | July 1, 2028 |
| **BEGINNING FUND BALANCE** | $0 | $0 | $0 | $321 | $17,621 |
| **REVENUES** [1] | | | | | |
| Water Service Charges | 56,700 | 69,800 | 69,800 | 69,800 | 69,800 |
| Estimated Tax Revenues | 6,900 | 6,900 | 6,900 | 6,900 | 6,900 |
| **Total Revenues** | 63,600 | 76,700 | 76,700 | 76,700 | 76,700 |
| **EXPENSES** | | | | | |
| **Services & Supplies** | | | | | |
| Liability Insurance Risk Igs | 800 | 800 | 800 | 800 | 900 |
| Maintenance-Equipment | 10,000 | 10,300 | 10,600 | 10,900 | 11,200 |
| Maintenance-Buildings | 2,000 | 2,100 | 2,200 | 2,300 | 2,400 |
| Memberships & Postage | 500 | 500 | 500 | 700 | 700 |
| Peoplesoft Financial Charge | 2,000 | 2,100 | 2,200 | 2,300 | 2,400 |
| Professional Services | 30,800 | 31,700 | 32,700 | 33,700 | 34,700 |
| Utilities | 8,000 | 8,200 | 8,400 | 8,700 | 9,000 |
| Prop 218 Staffing Costs | 15,000 | 0 | 0 | 0 | 0 |
| Subtotal Operating Expenses | 69,100 | 55,700 | 57,400 | 59,400 | 61,300 |
| **Non-Operating Costs** | | | | | |
| Corrosion Control Project | 15,000 | 0 | 0 | 0 | 0 |
| Repayment to County | 0 | 21,000 | 18,979 | 0 | 0 |
| Subtotal Non-Operating Expenses | 15,000 | 21,000 | 18,979 | 0 | 0 |
| **Total Expenses** | 84,100 | 76,700 | 76,379 | 59,400 | 61,300 |
| **NET REVENUES** | (20,500) | 0 | 321 | 17,300 | 15,400 |
| **ENDING FUND BALANCE** | **($20,500)** | **$0** | **$321** | **$17,621** | **$33,021** |
| **Reserve Funds** | | | | | |
| Proposed Reserve Target (50% of O&M) [2] | 32,000 | 30,600 | 30,400 | 28,800 | 29,700 |
| *Target Met* | *no* | *no* | *no* | *no* | *yes* |

1 - The FY2024/25 Water Service Charges revenues are prorated and reflect 6 months at current rates and 6 months at the proposed rates. Rate revenues from July 1, 2024 to December 31, 2024 are estimated at $21,800 (50% of the FY2022/23 annual revenues shown in Table 4) and rate revenues from January 1, 2025 to June 30, 2025 are estimated at $34,900 (50% of $69,800 proposed annual revenue). Combined over the 12 months of the fiscal year, rate revenues are $56,700 in FY2024/25.

2 - Board policy adopted November 7, 2006; 3-year rolling average equal to 50% O&M

| | | | | | |
|---|---|---|---|---|---|
| Beginning Unpaid Charges | ($17,400) | ($38,387) | ($18,462) | $0 | $0 |
| Additional Accrual | (20,500) | 0 | 0 | 0 | 0 |
| Payments | 0 | 21,000 | 18,979 | 0 | 0 |
| Annual Interest Accrued (2.8%) | ($487) | ($1,075) | ($517) | $0 | $0 |
| Ending Unpaid Charges | ($38,387) | ($18,462) | $0 | $0 | $0 |

# SECTION 4: COST ALLOCATION

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, and in any event not to exceed the proportional cost of the water service attributable to each parcel.

## 4.1 Methodology

The American Water Works Association (AWWA) recommends methods to classify costs among various customers. Using the Base-Extra Capacity Method as recommended by the AWWA, water operating expenses are allocated to the following categories: (a) Base, (b) Extra, (c) Meters and Services, and (d) Customer Service. The Base and Extra categories are intended to recover the costs to deliver water to customers, while the Customer Service and Meters and Services categories are intended to recover expenses related to maintaining infrastructure in the system to supply water at all times under the proposed water service fee rates in this study. A summary of the cost allocation categories is provided below:

- *Base:* Base costs include the expenses related to providing water under average, "base" demand conditions.
- *Extra:* The extra category includes costs related to providing water above the system average demand (i.e., related to peak, "extra" usage).
- *Meters and Services:* These include costs related to maintaining infrastructure and operating capacity to provide service at any time under the proposed water service fee rates in this study.
- C*ustomer Service:* This category contains costs associated with serving customers, such as billing and answering customer inquiries.

## 4.2 Peaking Factors

It is proposed that *Base* expenses be recovered from a new Tier 1 water rate and *Extra* expenses be recovered from a new Tier 2 water rate. Based on historical water usage patterns, average monthly use per single-family residential customer is 6,500 gallons. Thus, 6,500 gallons is the proposed Tier 1 breakpoint. Tier 1 is intended to recover costs associated with the first 6,500 gallons of consumption. Tier 2 is proposed to recover costs for peak usage above the first 6,500 gallons. For example, utilities and equipment maintenance expenses are incurred at higher cost due to peak usage. The District must run its pumps more frequently and at greater capacity due to high use. The electricity to power the pumps at peak times is more expensive than at non-peak times.

Costs related to peaking are proposed to be allocated based on the peaking factors calculated in Table 7. 14,500 gallons is peak summer use compared to 6,500 gallons of average use. 14,500 gallons is 2.23 times the base (average) use. The peaking factor cost allocation is calculated as:

Base: 1.00 (base) / 2.23 (peak) = 45.4%
Peak: (2.23 - 1.00) / 2.23 = 54.6%

**Table 7: Peaking Factors**

| Peaking Factors | Monthly Use (1,000 gal) | Peaking Factor | % |
|---|---|---|---|
| Base: average use | 6.5 | 1.00 | 45.4% |
| Extra: summer or peak use | 14.5 | 2.23 | 54.6% |
| | | | 100.0% |
| **Proposed Monthly Tiers [1]** | **Estimated Annual Water Use in Tier (1,000 gal) [2]** | | **%** |
| Tier 1: 0 - 6,500 gallons | 1,549 | | 58% |
| Tier 2: 6,501 and over gallons | 1,119 | | 42% |
| Total | 2,668 | | 100% |

1 – Tier breakpoints are based on water usage statistics from the past five years (FY 2018/19 – FY 2022/23).
2 – Water use in Tier 1 is calculated as FY2022/23 monthly water use through 6,500 gallons based on a bills distribution analysis less a 10% reduction to be conservative. Tier 2 water use is calculated as the FY2022/23 monthly water use above 6,500 gallons less a 15% reduction to be conservative.

## 4.3 Proposed Cost Allocation

This section determines the amount of annual revenue to be collected from each rate or charge (consisting of: Tier 1, Tier 2, and the Base Fee) based on the actual costs attributable to each rate and establishes that each parcel's total water bill will not exceed the proportional cost of service for each parcel. Neither Tier I nor Tier 2 subsidizes the other Tier. The tiered rates are proposed to recover 100% of utilities costs and 25% of equipment maintenance costs. The utilities expense is the actual cost of electricity to pump and deliver water to customers. Equipment maintenance costs reflect the wear and tear on pumps as they are used to move water through the system. The sum of these costs is $11,800 which is 100% of utilities costs and 25% of equipment maintenance cost projected in FY2028/29. Tier 1 is proposed to recover 45.4% of the $11,800 expense based on the peaking factors shown in Table 7, and Tier 2 is proposed to recover 54.6% of these costs.

The District's customer base is solely made up of single family residences, each with the same fixed cost of service, so it is proposed that the AWWA recommended cost categories of Meters and Services and

Customer Service categories be combined. This combined, fixed cost category is intended to recover 100% of operations and maintenance costs incurred to provide service to all customers regardless of the amount of water they use – also referred to as "non-water delivery O&M". These fixed O&M costs include all other operating costs not recovered in the tiered volume rates such as 75% of equipment maintenance costs, professional services, insurance, building maintenance, described below. These fixed operating costs are proposed to be recovered in the base fee. In addition, the corrosion control project cost of $15,000, repayment of unpaid charges of $17,400, additional accrued interest, and accumulation of $33,000 in reserves are amortized over 4.5 years (i.e. the period the new rates will be in effect) are added to the base fee.

The costs below correlate to base charges for operations and maintenance, and tiered charges for water delivery, respectively, with the actual costs regardless of the amount of customers' water use, and the actual costs of water service at those tiered levels, respectively.

In total, the base fee is proposed to recover 83% of total expenses and the usage rates are proposed to recover 17% of total system expenses. This is a significant departure from the District's current system that recovers over 95% of costs from the base fee (Table 4).

**Table 8: Cost Allocation**

| O&M | Total FY2028/29 O&M Expense [1] | Base Fee (Non-water delivery O&M) | Usage Rates (water delivery O&M) | |
|---|---|---|---|---|
| Liability Insurance Risk Igs | $900 | 100% | 0% | |
| Maintenance-Equipment | $11,200 | 75% | 25% | |
| Maintenance-Buildings | $2,400 | 100% | 0% | |
| Memberships | $500 | 100% | 0% | |
| Postage | $200 | 100% | 0% | |
| Peoplesoft Financial Charge | $2,400 | 100% | 0% | |
| Professional Services | $34,700 | 100% | 0% | |
| Utilities | $9,000 | 0% | 100% | |
| Prop 218 Staffing Cost | $0 | 100% | 0% | |
| Total O&M | $61,300 | **$49,500** | **$11,800** | |
| | | | | |
| **BASE FEE** | | | | |
| Non-water delivery O&M | | **$49,500** | | |
| Net of tax revenue | | (6,900) | | |
| Subtotal O&M | | $42,600 | | |
| Capital [2] | | $3,333 | | |
| Repayment & Reserves [3] | | $12,067 | | |
| Total Base Fee | | **$58,000** | | |
| | | | | |
| **USAGE RATES (water delivery O&M)** | | | **Allocation %s from Table 7** | |
| Base | | | 45.4% | $5,353 |
| Extra | | | 54.6% | $6,447 |
| Total Usage Rates | | | 100.0% | **$11,800** |
| | | | | |
| Base Fee | | | | $58,000 |
| Usage Rates | | | | $11,800 |
| **TOTAL REVENUE REQUIREMENT (Base Fee + Usage Rates)** | | | | **$69,800** |

1 – FY2028/29 (5th year of the rate study) was selected as the test year for rate design because the rates are proposed to remain the same over this rate study's 5-year planning period. If an earlier year was selected as the cost basis for the usage rates and non-water delivery O&M base fee (such as year 2 for example), these rates would under collect in later years as costs increase due to inflation (i.e. the costs in year 5 would be greater than the rates set in year 2).

2 – Corrosion control project cost of $15,000 divided by 4.5 years

3 – Repayment of unpaid charges of $17,400, additional accrued interest, and accumulation of $33,000 in reserves divided by 4.5 years.

# SECTION 5: RATE DESIGN

## 5.1 Rate Calculation

Table 9 provides the calculation of the base fee and usage rates. The revenue requirement for the base fee is $58,000 (see Table 8) and is divided by 41 customers to equal a monthly fee of $117.90. The tier 1 and tier 2 revenue requirements (shown in Table 8) are divided by the estimated water use in each tier (shown in Table 7) to calculate the rate per 1,000 gallons. If additional connections are built out in the District, then the rates for the increased water services fees in this study will apply to them.

**Table 9: Rate Calculation**

| | |
|---|---|
| **BASE FEE** | |
| Base Fee Revenue | $58,000 |
| Number of Meters | 41 |
| Base Fee | **$117.90** |
| **USAGE RATES** | |
| Tier 1 Revenue | $5,353 |
| Usage (1,000 gal) | 1,549 |
| Rate ($/1,000) | **$3.46** |
| Tier 2 Revenue | $6,447 |
| Usage (1,000 gal) | 1,119 |
| Rate ($/1,000) | **$5.76** |

Table 10 provides the schedule of proposed rates including a break-out of the base fee between operations, capital, repayment of unpaid charges, and reserves all of which is calculated in this study to produce rates that will be necessary to recover only the actual cost of the water service per parcel under these proposed water rates.

**Table 10: Proposed Monthly Water Rates**

| Fee Description | Current | Fee Description | Proposed January 1, 2025 |
|---|---|---|---|
| | | Non-water delivery O&M | $86.59 |
| | | Capital | $6.78 |
| | | Repayment & reserves | $24.53 |
| Base Fee | $85.19 | Base Fee | $117.90 |
| | | | |
| Overuse Rates | Charge per 1,000 gal | Usage Rates | Charge per 1,000 gal |
| 0 - 13,500 gal | $0.00 | Tier 1: 0 - 6,500 gal | $3.46 |
| 13,501 -18,500 gal | $2.00 | Tier 2: 6,501 and over | $5.76 |
| 18,501 - 23,500 gal | $2.50 | | |
| 23,501 and over | $3.00 | | |

## 5.2 Bill Impacts

Table 11 provides sample bill impacts for the typical average monthly bill, winter bill, and summer bill under the proposed rates. As shown in the table, bill impacts for the typical customer will vary throughout the year as water consumption varies seasonally.

## Table 11: Bill Impacts

**AVERAGE MONTHLY BILL (6,500 gallons)**

| Fee Description | Current | | # of Units | Total Charges | Fee Description | Proposed | | # of Units | Total Charges | |
|---|---|---|---|---|---|---|---|---|---|---|
| Base Fee | $85.19 | X | 1 | $85.19 | Base Fee | $117.90 | X | 1 | $117.90 | |
| | | | | | | | | | | |
| Overuse Rate | $/1,000 gal | | | | Usage Rates | $/1,000 gal | | | | |
| 0 - 13,500 gal | $0.00 | X | 6.5 | $0.00 | 0 - 6,500 gal | $3.46 | X | 6.5 | $22.49 | |
| 13,501 -18,500 gal | $2.00 | X | 0 | $0.00 | 6,501 and over | $5.76 | X | 0 | $0.00 | |
| 18,501 - 23,500 gal | $2.50 | X | 0 | $0.00 | | | | 6.5 | $22.49 | |
| 23,501 and over | $3.00 | X | 0 | $0.00 | | | | | | |
| | | | 6.5 | $0.00 | | | | | | |
| | | | | | | | | | | Increase |
| Monthly Equivalent | | | | $85.19 | | | | | $140.39 | $55.20 |
| | | | | | | | | | | 65% |

**EXAMPLE WINTER MONTHLY BILL (3,000 gallons)**

| Fee Description | Current | | # of Units | Total Charges | Fee Description | Proposed | | # of Units | Total Charges | |
|---|---|---|---|---|---|---|---|---|---|---|
| Base Fee | $85.19 | X | 1 | $85.19 | Base Fee | $117.90 | X | 1 | $117.90 | |
| | | | | | | | | | | |
| Overuse Rate | $/1,000 gal | | | | Usage Rates | $/1,000 gal | | | | |
| 0 - 13,500 gal | $0.00 | X | 3 | $0.00 | 0 - 6,500 gal | $3.46 | X | 3 | $10.38 | |
| 13,501 -18,500 gal | $2.00 | X | 0 | $0.00 | 6,501 and over | $5.76 | X | 0 | $0.00 | |
| 18,501 - 23,500 gal | $2.50 | X | 0 | $0.00 | | | | 3 | $10.38 | |
| 23,501 and over | $3.00 | X | 0 | $0.00 | | | | | | |
| | | | 3 | $0.00 | | | | | | |
| | | | | | | | | | | Increase |
| Monthly Equivalent | | | | $85.19 | | | | | $128.28 | $43.09 |
| | | | | | | | | | | 51% |

**EXAMPLE SUMMER MONTHLY BILL (14,500 gallons)**

| Fee Description | Current | | # of Units | Total Charges | Fee Description | Proposed | | # of Units | Total Charges | |
|---|---|---|---|---|---|---|---|---|---|---|
| Base Fee | $85.19 | X | 1 | $85.19 | Base Fee | $117.90 | X | 1 | $117.90 | |
| | | | | | | | | | | |
| Overuse Rate | $/1,000 gal | | | | Usage Rates | $/1,000 gal | | | | |
| 0 - 13,500 gal | $0.00 | X | 13.5 | $0.00 | 0 - 6,500 gal | $3.46 | X | 6.5 | $22.49 | |
| 13,501 -18,500 gal | $2.00 | X | 1 | $2.00 | 6,501 and over | $5.76 | X | 8 | $46.08 | |
| 18,501 - 23,500 gal | $2.50 | X | 0 | $0.00 | | | | 14.5 | $68.57 | |
| 23,501 and over | $3.00 | X | 0 | $0.00 | | | | | | |
| | | | 14.5 | $2.00 | | | | | | |
| | | | | | | | | | | Increase |
| Monthly Equivalent | | | | $87.19 | | | | | $186.47 | $99.28 |
| | | | | | | | | | | 114% |