Water and Sewer Rate Study
for the Linda County Water District

Draft Report
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SECTION 1: INTRODUCTION AND EXECUTIVE SUMMARY

1.1 Background

Linda County Water District (LCWD or District) provides water and sewer (wastewater) service to a population of over 20,000 via approximately 5,400 active service connections. LCWD is located in Yuba County and encompasses the unincorporated town of Linda and its immediate surroundings. The District is the sole water provider for the greater Linda community. The District provides wastewater treatment and collection service for the Linda community as well as wastewater treatment service for the neighboring City of Marysville. The District's customer base is predominantly residential.

The District is a California Special District that was formed in 1955 to provide water and fire protection service and later expanded in 1960 to provide wastewater service. The District last conducted a water rate study pursuant to Proposition 218 requirements in 2019 and adopted a series of water rate increases, the most recent of which went into effect November 1, 2023. Sewer rates have not been adjusted in 17 years, however.

One goal of this rate 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 improvement costs, debt service costs, and maintaining reasonable reserves. A second goal of this rate study is to revise the sewer rate structure to align with industry standard practices and to recover costs in a manner that is more proportional to how customers use the sewer system. The proposed rate structure includes a new category for multi-family customers to reflect the lower flows discharged by multi-family residential customers compared to single family customers. Updates are also proposed to the commercial, industrial, and non-school institutional rate structure to simplify the rates. It is proposed that the water rates continue to be billed under the same rate structure but at a revised amount to reflect the current cost of providing service.

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 and sewer rates and charges, including:

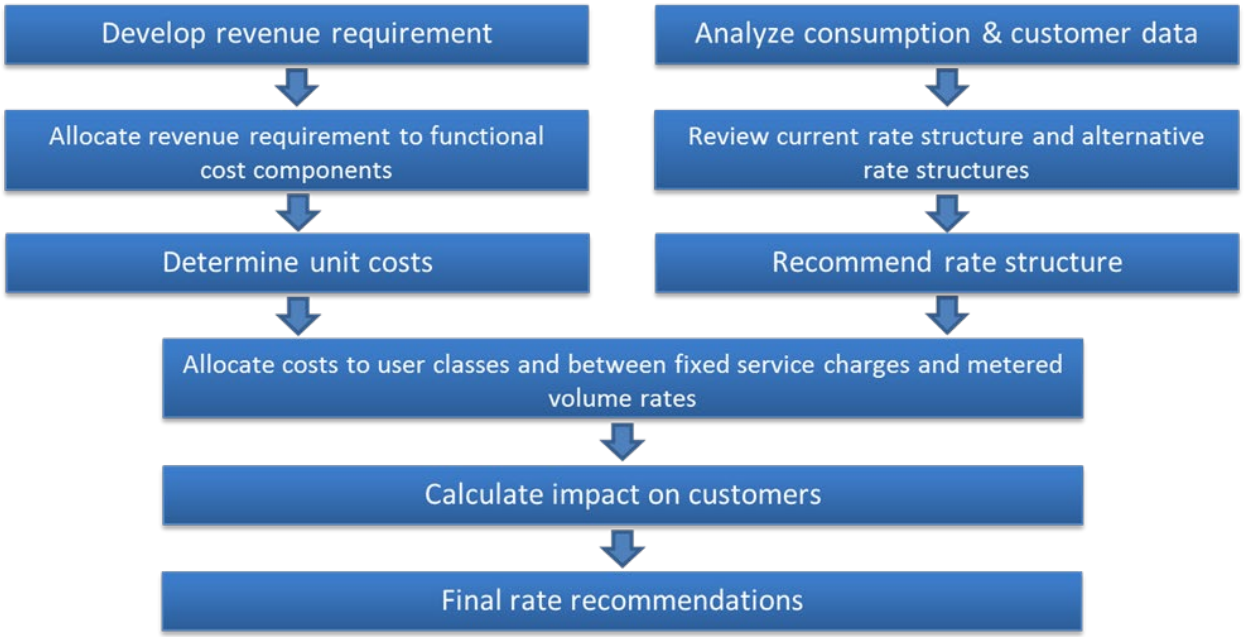
1. **Cost of Service** – Revenues derived from the fee or charge cannot exceed the funds required to provide the service. In essence, fees cannot exceed the "cost of service".
2. **Intended Purpose** – Revenues derived from the fee or charge can only be used for the purpose for which the fee was imposed.
3. **Proportional Cost Recovery** – The amount of the fee or charge 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 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.

1.3 Rate Study Process

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

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 historical operating results, budgets, audits, and input from District 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 and sewer service per parcel under these proposed water and sewer 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*. Sewer costs are allocated based on sewage flow and pollutant strength.

- **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 each 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 for water service and Table 2, Table 3, and Table 4 for sewer service. The first rate change is proposed to go into effect on November 1, 2025 and subsequent increases are proposed to be implemented on November 1 of each year through 2029. Based on the analysis in this report, the water and sewer service rates do not exceed the proportional cost of the service attributable to each parcel.

The water rate structure is not proposed to change, but the rates are updated to reflect the current cost of providing water service. The sewer rate structure is proposed to be updated to be more proportional to how customers use the sewer system. For residential customers, the rates are proposed to continue to be billed as a fixed monthly charge. However, it is proposed that a new category is created for multi-family residential customers who are proposed to be charged at a lower rate than single family residential customers. For commercial, industrial, and non-school institutional customers, it is proposed that each customer be billed a base fee plus a flow charge. The proposed base fee includes a base level of flow equal to the class average flow for single family residential customers. Any flow above the base flow is proposed to be billed the flow charge per unit. The customer classes are also proposed to be redefined to simplify the rate structure. The sewer rate structure for school customers is not proposed to change.

Table 1: Current and Proposed Monthly Water Rates

	Current	PROPOSED				
		2025/26	2026/27	2027/28	2028/29	2029/30
Effective Date	Nov 1, 2023	Nov 1, 2025	Nov 1, 2026	Nov 1, 2027	Nov 1, 2028	Nov 1, 2029
BASE RATE						
Meter Size						
5/8"	$16.50	$17.40	$17.55	$17.70	$17.88	$18.05
3/4"	$24.75	$25.87	$26.09	$26.31	$26.58	$26.83
1"	$41.15	$42.80	$43.16	$43.53	$43.97	$44.39
1.5"	$82.15	$85.12	$85.83	$86.58	$87.44	$88.29
2"	$131.40	$135.91	$137.04	$138.24	$139.61	$140.97
3"	$246.40	$254.42	$256.53	$258.78	$261.34	$263.89
4"	$410.50	$423.72	$427.23	$430.98	$435.24	$439.49
6"	$820.65	$846.97	$853.98	$861.48	$869.99	$878.49
8"	--	$1,354.87	$1,366.08	$1,378.08	$1,391.69	$1,405.29
CONSUMPTION RATE						
per CCF [1]	$1.65	$1.57	$1.60	$1.63	$1.66	$1.70

1 - CCF = one hundred cubic feet; 1 CCF = 748 gallons

Table 2: Current and Proposed Monthly Residential and Annual School Sewer Rates

	Current	PROPOSED				
		2025/26	2026/27	2027/28	2028/29	2029/30
Effective Date		Nov 1, 2025	Nov 1, 2026	Nov 1, 2027	Nov 1, 2028	Nov 1, 2029
RESIDENTIAL (per dwelling unit)						
Single Family	$36.80	$42.71	$46.41	$50.44	$52.30	$54.24
Multi-Family	$36.80	$33.95	$36.89	$40.09	$41.57	$43.11
SCHOOLS						
per student per year	$15.61	$15.15	$16.67	$18.34	$19.26	$20.22

Multi-Family dwelling units include duplexes, triplexes, apartments, condominiums, townhouses, accessory dwelling units, assisted living homes, mobile homes, mobile homes, manufactured homes, and recreational vehicles.

Table 3: Current Monthly Non-Residential Sewer Rates and Proposed Customer Classifications

COMMERCIAL, INDUSTRIAL, AND NON-SCHOOL INSTITUTIONAL CUSTOMERS			
Category	**Description**	**Base and Flow Charges [1]**	**Proposed Category**
Class 0	Car washes, business offices, barber shops, retail stores, churches, hospitals, laundromats, and similar businesses	$36.80 + ($.35 x Water Use/100 x 0.5)	Low Strength
Class 1	Same as Class 0	$36.80 + ($.53 x Water Use/100 x 0.8)	Low Strength
Class 2	Auto repair shops, gas stations, grocery stores and markets without garbage disposals, hotels without dining facilities, and similar businesses	$36.80 + ($.70 x Water Use/100 x 1.0)	Domestic Strength
Class 3	Fast food restaurants, commercial laundries, hotels with dining facilities, and similar businesses	$36.80 + ($.88 x Water Use/100 x 1.3)	Medium Strength
Class 4	Full food preparation restaurants, grocery stores and markets with garbage disposals, bakeries, mortuaries, industrial laundry facilities, and similar businesses	$36.80 + ($1.05 x Water Use/100 x 1.5)	High Strength
Class 5	Same as Class 2	$18.40 + ($.70 x Water Use/100 x 1.0)	Domestic Strength
Class 6	Same as Class 3	$18.40 + ($.88 x Water Use/100 x 1.3)	Medium Strength
Class 7	Unusual use or use that involves multiple classes	case-by-case determination	High Strength

1 - Flow charges are currently calculated based on average monthly metered water consumption (in cubic feet) as measured from November through February each year.

Table 4: Proposed Monthly Non-Residential Sewer Rates

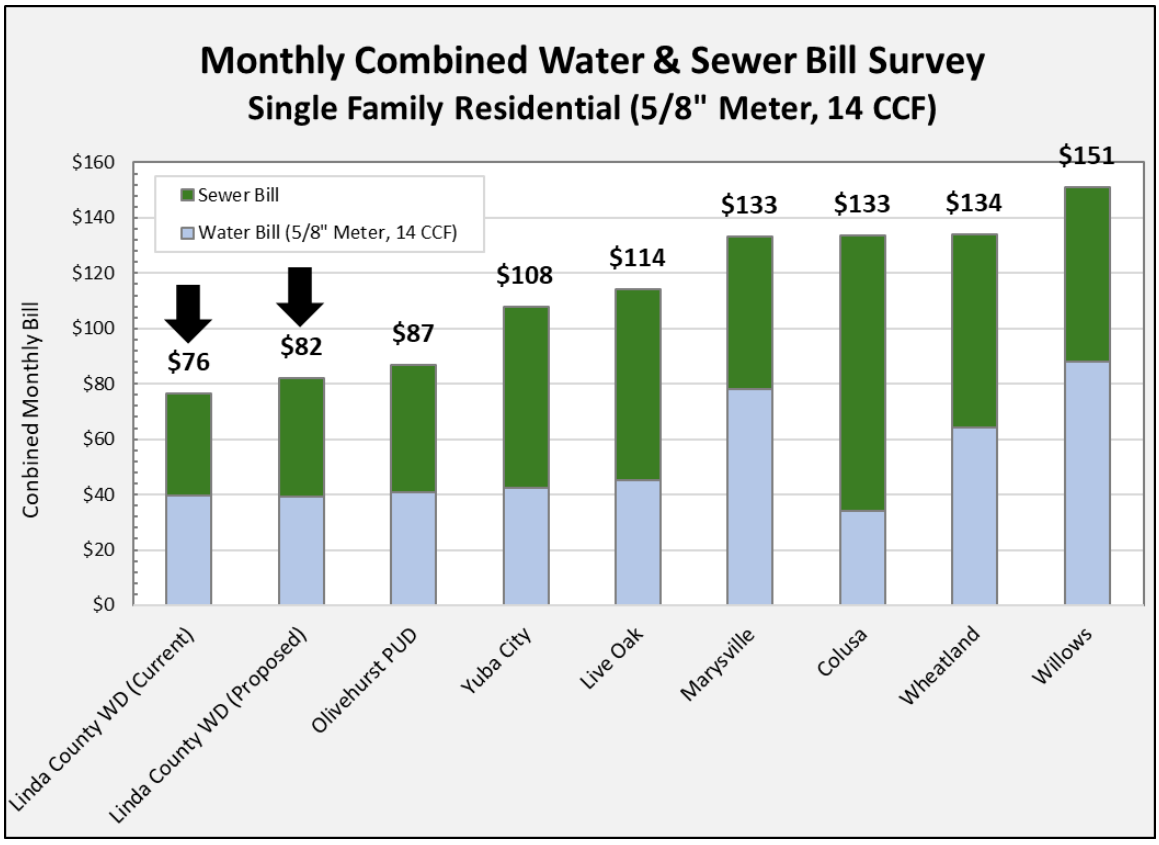
	PROPOSED				
	2025/26	**2026/27**	**2027/28**	**2028/29**	**2029/30**
Effective Date	Nov 1, 2025	Nov 1, 2026	Nov 1, 2027	Nov 1, 2028	Nov 1, 2029
COMMERCIAL, INDUSTRIAL, AND NON-SCHOOL INSTITUTIONAL BASE FEE (includes up to the first 8 CCF)					
Low Strength: Class 0 & 1	$39.19	$42.72	$46.56	$48.42	$50.36
Domestic Strength: Class 2 & 5	$42.71	$46.55	$50.74	$52.77	$54.88
Medium Strength: Class 3 & 6	$53.43	$58.24	$63.48	$66.02	$68.66
High Strength: Class 4 & 7	$70.55	$76.90	$83.82	$87.17	$90.66
COMMERCIAL, INDUSTRIAL, AND NON-SCHOOL INSTITUTIONAL FLOW CHARGE ($ per CCF above 8 CCF)					
Low Strength: Class 0 & 1	$3.94	$4.29	$4.68	$4.87	$5.06
Domestic Strength: Class 2 & 5	$4.38	$4.77	$5.20	$5.41	$5.63
Medium Strength: Class 3 & 6	$5.72	$6.23	$6.79	$7.06	$7.34
High Strength: Class 4 & 7	$7.86	$8.57	$9.34	$9.71	$10.10

CCF = one hundred cubic feet; 1 CCF = 748 gallons

See Table 3 for a description of customer classes

Figure 2 compares the current and proposed combined monthly water and sewer bill for a typical single family residential customer in the District to the bill that customer would be charged for the same water meter size and monthly usage in other local agencies. Both the current and proposed District bills are the lowest of the surveyed agencies. The typical customer in the District is served by a 5/8" meter and uses 14 hundred cubic feet (CCF) of water per month. Based on these parameters, the District's current typical combined utility bill is $76.40 per month. Under the proposed November 1, 2025 rate increase, this bill would increase to $82.09 per month, an increase of $5.69 or about 7%.

Figure 2: Combined Monthly Water & Sewer Bill Survey



SECTION 2: CUSTOMER BASE AND CURRENT RATE REVENUES

Linda County Water District provides water and sewer service to a population of over 20,000 residents in the unincorporated town of Linda and its immediate surroundings via approximately 5,400 active service connections. The District also provides wastewater treatment service to the City of Marysville. This section provides an overview of the District's current water and sewer rates, customer base, water usage statistics, and current rate revenues. The District bills monthly for water and sewer service on a combined monthly utility bill.

2.1 Current Water Rates

Table 5 summarizes LCWD's current monthly water rates which were adopted pursuant to Proposition 218 requirements as part of a five-year schedule of rate increases proposed in the District's 2019 water rate study. The current rates were the last of that series of rate increases and went into effect on November 1, 2023. The water rate structure includes two components – (1) Base Rate and (2) Consumption Rate.

1. **Base Rate**
   All customers, residential and non-residential, are charged the same fixed base rates based on their meter size ranging from 5/8" up to 6". The Base Rate is levied regardless of water consumption and recognizes that even when a customer does not use any water, the District incurs fixed costs associated with maintaining the ability or readiness to serve each connection. The Base Rate increases as meter size increases. Meter size represents the estimated demand that each customer can place on the water system. A significant portion of a water system's design, and therefore, the utility's operating and capital costs, are associated with meeting capacity requirements. Larger meters are charged based on their estimated capacity.

2. **Consumption Rate**
   All customers are billed a uniform rate for each unit of water consumed. One unit of water, or 100 cubic feet (CF), is equal to 748 gallons of water. The Consumption Rate is intended to recover costs that vary based on the amount of water consumed, such as utilities and chemicals.

Table 5: Current Monthly Water Rates

	11/1/2023
BASE RATE (fixed)	
Meter Size	
5/8"	$16.50
3/4"	$24.75
1"	$41.15
1.5"	$82.15
2"	$131.40
3"	$246.40
4"	$410.50
6"	$820.65
CONSUMPTION RATE	
per CCF [1]	$1.65

1 - 1 CCF = 748 gallons

2.2 Water Rate Revenues

The District currently serves about 5,400 water accounts. Table 6 provides estimated water service charge revenues for 2024/25 based on water usage statistics from 2023/24 and the current number of accounts with each meter size. For fiscal year 2024/25, the District expects to collect about $3.44 million in water service charge revenues, of which about 40% will be collected from the fixed Base Rate and 60% will be collected from the Consumption Rate.

The majority of customers have 5/8” meters. However, the 1” meter is now considered the standard meter size in the State due to fire flow requirements and is the size installed for new single family residential construction. Per District policy, residential customers who have a 1” meter to satisfy fire flow requirements but would otherwise not need a meter that large are billed at the 3/4” meter rate. The billing data statistics presented in Table 6 reflect the rates at which customers are actually billed.

Table 6: 2024/25 Water Customer Counts and Rate Revenues

BASE RATE (fixed)				
Meter Size	Current Rate	No of Accts [1]	Annual Revenue	
5/8"	$16.50	4,098	$811,404	
3/4"	$24.75	1,062	$315,414	
1"	$41.15	115	$56,787	
1.5"	$82.15	47	$46,333	
2"	$131.40	41	$64,649	
3"	$246.40	16	$47,309	
4"	$410.50	3	$14,778	
6"	$820.65	1	$9,848	
8"	[1]	0	$0	
		5,383	$1,366,521	39.7%
CONSUMPTION RATE				
	Current Rate	23/24 Usage (CCF)	Annual Revenue	
per CCF	$1.65	1,255,499	$2,071,573	60.3%
TOTAL WATER RATE REVENUES			**$3,438,094**	

CCF = one hundred cubic feet; 1 CCF = 748 gallons

1 - The number of accounts is based on the District's billing data for October 2024.

2.3 Current Sewer Rates

Table 7 presents the District's current monthly sewer rates which have not been adjusted in at least 17 years. Sewer rates vary based on customer class. All residential customers are billed a fixed rate per dwelling unit. Currently, the same fixed rate is billed to all residential dwelling unit types including single family (SF) homes, duplexes, condominiums, apartments, other multi-family dwellings, mobile homes, manufactured housing, factory-built housing, and recreational vehicles. Schools are billed annually based on the number of students for the year, which is measured using average daily attendance (ADA) for public elementary and high schools or the number of full-time equivalent students for community colleges, private schools, and other schools.

For commercial, industrial, and non-school institutional customers, the District's current rate structure includes two components for each customer class – (1) Base Rate and (2) Flow Charge. For most non-residential customer classes, the Base Rate is the same as the fixed rate which is billed to residential customers. The additional Flow Charge is based on water use and sewage strength. The water use used to calculate each customer's sewer bill is based on the average volume of water (in cubic feet as measured through the District water meter) used by the customer per month during the months of

November through February each year. Because sewer flow is not metered, winter water consumption is typically used as an approximation for sewer flow. Winter water use is commonly used because it is assumed that customers use little to no water for outdoor irrigation, which does not flow into the sewer, in the winter, so the majority of metered water use is discharged into the sewer.

To calculate the Flow Charge, average monthly winter water use is multiplied by the appropriate loading factor for each customer. The loading factor for each class is based on the measurement of biological oxygen demand (BOD) and total suspended solids (TSS) of the wastewater discharged by customers in the class relative to the effluent discharged by a single family residential customer. BOD and TSS are measures of wastewater strength.

A description of each commercial, industrial, and non-school institutional customer class is codified in LCWD's District Code Section 4.11.25. Each customer's assignment to their customer class is determined by the District Manager. A summary of the business types and loading factors for each class as described in the District Code is provided below:

- **Class 0 (BOD/TSS factor = 0.5)**
  Car washes and other uses with a high water use rate, but negligible or no loading factor.

- **Class 1 (BOD/TSS factor = 0.8)**
  Professional and business offices; stores, agencies and services of a light commercial nature, including retail and department stores and barber shops; churches, halls and clubs (but not including any associated rectory, convent, parsonage or vicarage, which uses shall be classified as residential, or any associated school which shall be classified as a school); hospitals and convalescent and nursing homes; laundromats; and other uses with comparable loading factors.

- **Class 2 (BOD/TSS factor = 1.0)**
  Automobile repair shops, gas stations and service stations; grocery stores, markets, butchers and delicatessens without garbage disposals; and other uses with comparable loading factors.

- **Class 3 (BOD/TSS factor = 1.3)**
  Fast food restaurants; commercial laundries; and other uses with comparable loading factors.

- **Class 4 (BOD/TSS factor = 1.5)**
  Full food preparation restaurants; steam cleaning facilities; grocery stores, markets, butchers and delicatessens with garbage disposals; bakeries; mortuaries; industrial laundry facilities; and other uses with comparable loading factors.

- **Class 5 (BOD/TSS factor = 1.0)**
  Hotels, motels and lodging houses without associated dining or restaurant facilities on the same water meter.

- **Class 6 (BOD/TSS factor = 1.3)**
  Hotels, motels and lodging houses with associated dining or restaurant facilities on the same water meter.

- **Class 7**
  For any unusual or extraordinary use that is not listed under another class and for any use that involves multiple classes, the District Manager shall on a case by case basis determine an appropriate loading factor and individual rate for that customer.

Table 7: Current Monthly Sewer Rates

RESIDENTIAL SEWER (SF, Multi, Mobile Homes)	
per living unit	$36.80
COMMERCIAL, INDUSTRIAL, AND NON-SCHOOL INSTITUTIONAL SEWER	
Customer Class	
Class 0	$36.80 + ($.35 x Water Use/100 x 0.5)
Class 1	$36.80 + ($.53 x Water Use/100 x 0.8)
Class 2	$36.80 + ($.70 x Water Use/100 x 1.0)
Class 3	$36.80 + ($.88 x Water Use/100 x 1.3)
Class 4	$36.80 + ($1.05 x Water Use/100 x 1.5)
Class 5	$18.40 + ($.70 x Water Use/100 x 1.0)
Class 6	$18.40 + ($.88 x Water Use/100 x 1.3)
Class 7	case-by-case determination
SCHOOL SEWER	
per student per year	$15.61

2.4 Sewer Rate Revenues

An estimate of the District's 2024/25 sewer service charge revenues by customer class is calculated in Table 8 based on the current number of customers in each class and commercial, industrial, and non-school institutional water usage statistics from 2023/24. The District is projected to collect a total of $3.42 million in sewer service charge revenues. The majority of customers are residential and are estimated to pay $3.26 million in sewer service charges, over 95% of revenues. Charges billed to commercial, industrial, and non-school institutional customers are expected to generate about $115,000, and schools are expected to generate about $48,000.

Table 8: 2024/25 Estimated Sewer Customer Counts and Rate Revenues

RESIDENTIAL SEWER				
Residential Customers		Current Rate	No of Units (Oct 2024)	Annual Revenue
Single Family Residential		$36.80	4,883	$2,156,333
Multi-Family Residential		$36.80	2,494	$1,101,350
Subtotal Residential				$3,257,683
COMMERCIAL, INDUSTRIAL, AND NON-SCHOOL INSTITUTIONAL SEWER				
Base Rates		Current Rate	No of Accts (Oct 2024)	
Class 0		$36.80	2	$883
Class 1		$36.80	72	$31,795
Class 2		$36.80	32	$14,131
Class 3		$36.80	14	$6,182
Class 4		$36.80	9	$3,974
Class 5		$18.40	5	$1,104
Class 6		$18.40	0	$0
Class 7 [1]		varies	1	$5,732
Subtotal Base Rates			135	$63,802
Flow Charges	Water Use Multiplier	Current Rate	23/24 Billed Usage (CCF)	Annual Revenue
Class 0	0.5	$0.35	3,999	$700
Class 1	0.8	$0.53	13,341	$5,657
Class 2	1.0	$0.70	25,885	$18,119
Class 3	1.3	$0.88	12,259	$14,025
Class 4	1.5	$1.05	2,838	$4,470
Class 5	1.0	$0.70	11,055	$7,738
Class 6	1.3	$0.88	0	$0
Class 7 [1]	varies	varies	3,345	
Subtotal Flow Charges			72,722	$50,709
Subtotal Commercial				$114,511
SCHOOL SEWER				
		Current Rate	No of Students	Annual Revenue
per student per year		$15.61	3,068	$47,887
TOTAL SEWER RATE REVENUES				**$3,420,081**

1 - Peach Tree Golf & Country Club

SECTION 3: GENERAL (DISTRICT OVERHEAD) EXPENSES

The District's annual budget is divided into four functions: (1) Water Enterprise, (2) Wastewater Treatment Enterprise, (3) Wastewater Collection Enterprise, and (4) General Expense (District Overhead). This section provides an analysis of the District's General (District Overhead) expenses to determine the total cost of service which should be recovered via water and sewer rates.

3.1 Overview

The Water, Wastewater Treatment, and Wastewater Collection budgeted expenses include costs which can be specifically assigned to the corresponding system. On the other hand, District Overhead includes costs which are shared between the District's water and wastewater systems. This primarily includes costs related to the District's office, its associated administrative and maintenance costs, billing expenses, and the portion of labor costs related to general District administration.

Historically, the District has allocated its overhead expenses 40% to the Water Enterprise Fund, 45% to the Wastewater Treatment Enterprise Fund, and 15% to the Wastewater Collection Enterprise Fund. It is proposed that the District maintain this allocation.

3.2 District Overhead Operating Expense Projection

A detailed projection of District Overhead expenses is provided in Table 9 on the following page. The projection is based on the District's actuals from 2023/24 and input from District staff. Beginning in 2024/25, labor costs are projected to increase by 8.0% each year. All other expenses are projected to increase by 3.0% each year.

Table 9: District Overhead Operating Expense Projection

	Actual 2023/24	Escalation Factor	PROJECTED FY2024/25	FY2025/26	FY2026/27	FY2027/28	FY2028/29	FY2029/30
Engineering	$29,761	3.0%	$30,700	$31,600	$32,500	$33,500	$34,500	$35,500
Maintenance (Office)	$12,426	3.0%	$12,800	$13,200	$13,600	$14,000	$14,400	$14,800
Transportation	$225,702	3.0%	$232,500	$239,500	$246,700	$254,100	$261,700	$269,600
Interest on customer deposits	$1,791	3.0%	$1,800	$1,900	$2,000	$2,100	$2,200	$2,300
Office and General:								
Labor Costs	$572,771	8.0%	$618,600	$668,100	$721,500	$779,200	$841,500	$908,800
Directors' Fees	$8,489	3.0%	$8,700	$9,000	$9,300	$9,600	$9,900	$10,200
Supplies/Printing	$8,752	3.0%	$9,000	$9,300	$9,600	$9,900	$10,200	$10,500
Legal	$13,250	3.0%	$13,600	$14,000	$14,400	$14,800	$15,200	$15,700
HR Support Services	$395	3.0%	$400	$400	$400	$400	$400	$400
Accounting/Audits	$61,880	3.0%	$63,700	$65,600	$67,600	$69,600	$71,700	$73,900
Postage/Bill Printing	$110,463	3.0%	$113,800	$117,200	$120,700	$124,300	$128,000	$131,800
Telephone + IT support	$51,768	3.0%	$53,300	$54,900	$56,500	$58,200	$59,900	$61,700
Professional Org. & Certification Co	$19,274	3.0%	$19,900	$20,500	$21,100	$21,700	$22,400	$23,100
Staff Development & Training	$17,842	3.0%	$18,400	$19,000	$19,600	$20,200	$20,800	$21,400
Insurance Property & Liability	$380,934	3.0%	$392,400	$404,200	$416,300	$428,800	$441,700	$455,000
Insurance Workers Comp	$134,304	3.0%	$138,300	$142,400	$146,700	$151,100	$155,600	$160,300
Retirement Benefit	$43,733	3.0%	$45,000	$46,400	$47,800	$49,200	$50,700	$52,200
Health Benefits	$147,923	3.0%	$152,400	$157,000	$161,700	$166,600	$171,600	$176,700
Utilities	$13,130	3.0%	$13,500	$13,900	$14,300	$14,700	$15,100	$15,600
Payroll Taxes	$42,127	3.0%	$43,400	$44,700	$46,000	$47,400	$48,800	$50,300
Property Taxes	$10,852	3.0%	$11,200	$11,500	$11,800	$12,200	$12,600	$13,000
IT Support	$0	3.0%	$0	$0	$0	$0	$0	$0
Uniform Costs	$38,206	3.0%	$39,400	$40,600	$41,800	$43,100	$44,400	$45,700
Bank Fees	$1,981	3.0%	$2,000	$2,100	$2,200	$2,300	$2,400	$2,500
Other Expenses	$964	3.0%	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
PERS UAL payment	$0	3.0%	$0	$0	$0	$0	$0	$0
Total	**$1,948,718**		**$2,035,800**	**$2,128,000**	**$2,225,100**	**$2,328,000**	**$2,436,700**	**$2,552,000**

To determine the amount of overhead expenses proposed to be recovered from each fund for the purposes of rate setting, each line item from Table 9 was multiplied by the District's existing allocation factors to determine the amount attributable to each fund. Per District policy, the Water Fund is assigned 40% of each expense, the Wastewater Treatment Fund is assigned 45% of each expense, and the Wastewater Collection Fund is assigned 15% of each expense.

A summary of the results is provided below in Table 10. For 2024/25, total projected Overhead expenses of $2.04 million are assigned as follows: $814,000 to the Water Fund, $916,000 to the Wastewater Treatment Fund, and $306,000 to the Wastewater Collection Fund. It should be noted that there are slight differences in the totals between Table 9 and Table 10 due to rounding.

Table 10: Allocation of General (District Overhead) Expenses to Water and Sewer

	Allocation	Actual	PROJECTED					
	%	2023/24	FY2024/25	FY2025/26	FY2026/27	FY2027/28	FY2028/29	FY2029/30
Water	40%	$779,487	$814,200	$851,000	$889,900	$931,000	$974,400	$1,020,300
Wastewater Treatment	45%	$876,923	$916,200	$957,600	$1,001,300	$1,047,500	$1,096,500	$1,148,300
Wastewater Collection	15%	$292,308	$305,700	$319,500	$334,000	$349,500	$365,900	$383,300
Total District Overhead	**100%**	**$1,948,718**	**$2,036,100**	**$2,128,100**	**$2,225,200**	**$2,328,000**	**$2,436,800**	**$2,551,900**
			4.5%	*4.5%*	*4.6%*	*4.6%*	*4.7%*	*4.7%*

SECTION 4: WATER COST OF SERVICE

Proposition 218 requires that utility rates be based on the reasonable cost of providing service to customers. This section provides an analysis of water system revenues and expenses to determine the total cost of service to be recovered via water 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, fund capital improvements, and maintain reasonable reserves, all of which are 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. The water utility's cost of service was developed based on 2023/24 actuals, the 2024/25 budget, the District's capital improvement plan, and input from staff.

4.1 Water System Overview

The main function of the District's water system is to provide reliable, safe, and clean water to the community, as well as to protect the health of the community and the environment. Water quality is closely monitored by State of California regulatory agencies to ensure compliance with Federal and State mandates. The District's entire water supply is obtained from groundwater from six active wells within the South Yuba Groundwater Basin. The South Yuba Groundwater Basin totals nearly 107,000 acres and is bounded by the Yuba River to the north, the Feather River to the west, the Bear River to the south, and by the Sierra Nevada on the east.

The water utility has about 5,400 active service connections (Table 6) and the service area is fully metered. As shown on Table 11 below, total annual water consumption has averaged about 1.28 million hundred cubic feet (CCF) over the past two fiscal years. The District mainly supplies residential customers, and single family residential customers represent over 62% of total water use.

Table 11: Water Usage by Customer Class

Revenue Class	2022/23	2023/24	2-Year Average
Churches	5,878	4,798	5,338
Commercial/Institute	103,234	99,910	101,572
Landscaping	67,319	72,967	70,143
Multi-Commercial	11,799	10,047	10,923
Multi-Residential	308,244	294,025	301,135
Single Residential	800,096	773,752	786,924
Total Usage (CCF)	**1,296,570**	**1,255,499**	**1,276,035**
Percent Change		*-3.2%*	

4.2 Revenues

The District's revenues consist of water service charges, fees and other revenues, interest income, and connection fees. Total projected water system revenues are $4.43 million for 2024/25. To be conservative, it is estimated that water rates will generate $3.28 million in 2024/25 based on 2023/24 actuals. It is projected that 100 new residential customers will connect to the water system, resulting in connection fee revenues of about $815,000. Interest income is projected at $244,800 based on 1.5% of the District's reserve fund balance. Fees and other revenues are projected to total $90,000. A rate increase is proposed to go into effect on November 1, 2025 to fund the costs described below.

4.3 Expenses

4.3.1 Operating Costs

Operating costs include salaries, benefits, operations, and maintenance expenses, but do not include capital or depreciation costs. In FY2024/25, the District expects to incur about $1.93 million in expenses to operate and maintain the water system.

Operating costs over the course of the rate study period are projected in Table 12 on the following page based on 2023/24 actuals and the 2024/25 Budget. The escalation factors were determined based on projected inflation and input from District staff. Labor and benefits are projected to increase by 8% per year to account for new positions being filled. Most operating costs are projected to increase by 3% per year to account for estimated inflation. However, some operating costs such as maintenance, power usage, chemicals, and meter calibration services are projected to increase above ordinary inflation at the higher rate of 6% or 7% per year due to expenses increasing as new customers connect to the system.

Table 12: Water Operating Expense Projection

	Actual	Escalation	PROJECTED					
	2023/24	Factor [1]	FY2024/25	FY2025/26	FY2026/27	FY2027/28	FY2028/29	FY2029/30
General Expense								
Labor Costs	$407,758	8.0%	$440,400	$475,600	$513,600	$554,700	$599,100	$647,000
Maintenance	$269,945	6.0%	$286,100	$303,300	$321,500	$340,800	$361,200	$382,900
Power Usage (PG&E)	$583,686	6.0%	$618,700	$655,800	$695,100	$736,800	$781,000	$827,900
Chemicals	$90,264	6.0%	$95,700	$101,400	$107,500	$114,000	$120,800	$128,000
Laboratory Testing	$26,694	3.0%	$27,500	$28,300	$29,100	$30,000	$30,900	$31,800
State Dept of Drinking Wtr Fees	$18,847	3.0%	$19,400	$20,000	$20,600	$21,200	$21,800	$22,500
Other Permitting Fees	$6,065	3.0%	$6,200	$6,400	$6,600	$6,800	$7,000	$7,200
Payroll Taxes	$32,587	8.0%	$35,200	$38,000	$41,000	$44,300	$47,800	$51,600
Retirement Benefits	$26,092	8.0%	$28,200	$30,500	$32,900	$35,500	$38,300	$41,400
Health Benefits	$132,606	8.0%	$143,200	$154,700	$167,100	$180,500	$194,900	$210,500
Non-Revenue Water Use Expense	$9,721	3.0%	$10,000	$10,300	$10,600	$10,900	$11,200	$11,500
Subtotal General Expense	$1,604,265		$1,710,600	$1,824,300	$1,945,600	$2,075,500	$2,214,000	$2,362,300
Extended Maintenance								
Rate Study	$30,000	0.0%	$0	$0	$0	$0	$0	$30,000
Relocate Infrastructure	$50,000	3.0%	$51,500	$53,000	$54,600	$56,200	$57,900	$59,600
Lead and Copper Service Inventory	$29,707	3.0%	$30,600	$31,500	$32,400	$33,400	$34,400	$35,400
UWMP Update & Maintenance	$10,000	7.0%	$10,700	$11,400	$12,200	$13,100	$14,000	$15,000
Shop equipment	$598	3.0%	$600	$600	$600	$600	$600	$600
Safety Training & Equipment	$6,808	3.0%	$7,000	$7,200	$7,400	$7,600	$7,800	$8,000
Fire hydrants - Repair	$15,000	3.0%	$15,500	$16,000	$16,500	$17,000	$17,500	$18,000
Water pipeline and trench repair	$25,000	3.0%	$25,800	$26,600	$27,400	$28,200	$29,000	$29,900
Disposal backwash sludge	$5,000	7.0%	$5,400	$5,800	$6,200	$6,600	$7,100	$7,600
Generators Serviced	$15,808	3.0%	$16,300	$16,800	$17,300	$17,800	$18,300	$18,800
Hydraulic Model	$15,940	3.0%	$16,400	$16,900	$17,400	$17,900	$18,400	$19,000
District CMMS	$1,000	7.0%	$1,100	$1,200	$1,300	$1,400	$1,500	$1,600
Meter Calibration Services/Equipment	$10,000	7.0%	$10,700	$11,400	$12,200	$13,100	$14,000	$15,000
Leak Detection Services	$23,840	7.0%	$25,500	$27,300	$29,200	$31,200	$33,400	$35,700
Subtotal Extended Maintenance	$238,701		$217,100	$225,700	$234,700	$244,100	$253,900	$294,200
Total	**$1,842,966**		**$1,927,700**	**$2,050,000**	**$2,180,300**	**$2,319,600**	**$2,467,900**	**$2,656,500**

1 - Most categories are expected to increase by inflation. Some categories are likely to increase at a higher rate due to new connections. Labor and benefits are expected to increase due to new positions being filled.

4.3.2 Water Capital Improvement Plan

In 2018, Kennedy/Jenks Consultants developed a 10-year Capital Improvement Plan (CIP) as part of the District's Water Master Plan. The plan identified projects for 2020-2030. As part of the rate study process, District staff reviewed and revised the CIP plan. The resulting projects which the District plans to complete through 2029/30 are summarized in Table 13.

In 2024/25, the District is expected to complete $4.00 million in CIP projects including contingency. The five-year CIP from 2025/26 through 2029/30 includes $10.98 million of water system improvements including contingency. Major projects include the gas chlorine system upgrade at an estimated cost of $1.05 million, Well 15 re-drilling at an estimated cost of $1.93 million, and rebuilding the District's Office for a total cost of $4.5 million of which $1.8 million will be funded through the Water Fund. Other projects include conducting well improvements, replacing pipelines, and installing new meters.

Table 13: Water System Capital Improvement Plan

	2025	2026	2027	2028	2029	2030	Grand Total
Facility Improvement Projects							
Well 3/4 Pressure Filter Rehab	$420,000	$0	$0	$0	$0	$0	$420,000
Well 12/14 Pressure Filter Rehab	$520,000	$0	$0	$0	$0	$0	$520,000
Well 15 Pressure Filter Rehab Project and Expansion	$520,000	$0	$0	$0	$0	$0	$520,000
Well 16 Pressure Filter Rehab	$520,000	$0	$0	$0	$0	$0	$520,000
Gas Chlorine System Upgrade	$0	$400,000	$0	$350,000	$300,000	$0	$1,050,000
Well 16 OSG Chlorine System Upgrade	$0	$0	$500,000	$0	$0	$0	$500,000
Well 3/4 Improvement	$0	$0	$0	$0	$432,000	$0	$432,000
Well 12/14 Improvement	$0	$0	$0	$348,000	$0	$0	$348,000
Well 15 Improvement	$0	$175,000	$0	$0	$0	$0	$175,000
Well 16 Improvement	$0	$0	$198,000	$0	$0	$0	$198,000
Well 15 Re-drilling	$0	$0	$0	$0	$0	$1,925,000	$1,925,000
East Linda Extension [1]	$1,000,000	$0	$0	$0	$0	$0	$1,000,000
Facility Improvement Subtotal	$2,980,000	$575,000	$698,000	$698,000	$732,000	$1,925,000	$7,608,000
Pipeline Replacement Projects							
Pipeline Replacements	$400,000	$400,000	$400,000	$400,000	$400,000	$500,000	$2,500,000
New Meters	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$750,000
Pipeline Subtotal	$525,000	$525,000	$525,000	$525,000	$525,000	$625,000	$3,250,000
District Office [2]	$0	$1,800,000	$0	$0	$0	$0	$1,800,000
Subtotal CIP	**$3,505,000**	**$2,900,000**	**$1,223,000**	**$1,223,000**	**$1,257,000**	**$2,550,000**	**$12,658,000**
Contingency (20%)	$501,000	$580,000	$244,600	$244,600	$251,400	$510,000	$2,331,600
Total with Contingency	**$4,006,000**	**$3,480,000**	**$1,467,600**	**$1,467,600**	**$1,508,400**	**$3,060,000**	**$14,989,600**

Source: Grant and Loan Funding Evaluation for LCWD Capital Improvement Plan Projects prepared by Yuba IRWMP Technical Team, September 6, 2024. District Office project and contingency were added.

1 - 20% contingency not added to East Linda Extension project per direction from District staff

2 - For the District Office Project, the total estimated project cost of $4.5 million is proposed to be split between the Water and Wastewater Funds in the same manner as the District's Overhead expenses are allocated (i.e. 40% assigned to the Water Fund).

4.4 Water Reserves

On July 1, 2025, the Water Fund is projected to have operating fund reserves of approximately $14 million. The Water Fund has reserves in excess of the fund's operating reserve target of 6 months of operating expenses. As part of the District's 2019 rate study, it was conservatively assumed that LCWD would fund the construction of Well 17 with a loan and rates were set based on this assumption. However, the District obtained grant funding for the entire project which has allowed it to generate excess reserves that will be used prudently on upcoming projects.

Adequate fund reserves protect the District when faced with unforeseen financial challenges such as emergency expenses and revenue deficits. Fund reserves are a critical tool that will allow the District to maintain its financial health and positive credit ratings, especially during emergencies. Moreover, funding can be drawn from reserves to supplement rate revenues lost during drought conditions or other unexpected situations. It is acceptable if reserves dip below the target on a temporary basis, provided the District takes action to attain the target over the longer run.

4.5 Water Cash Flow Projection

Table 14 provides the five-year cash flow spanning from FY2025/26 to FY2029/30. Over the five-year rate study period, water rate increases are proposed to fund operating costs, fund capital costs, and maintain reserves. Each November 1 from 2025 through 2029, it is proposed that the District implement a 3.0% rate revenue increase. The proposed rates and rate design are described in more detail in the following section.

The financial projection incorporates the latest information available. Key assumptions include:

Revenues

- The first revenue adjustment is proposed to take effect on November 1, 2025. Rate increases thereafter are proposed to be effective on November 1 of each year through 2029.
- *Rate Revenues* for 2024/25 are based on 2023/24 actuals and water consumption.
- For 2025/26 and each year thereafter, estimated *Rate Revenues* are prorated based on the November 1 rate implementation date. Each fiscal year, it is projected that the District will collect 4 months' revenue at the prior fiscal year's rates and 8 months' revenue at the current fiscal year's rates.
- *Fees and Other Revenues* are estimated at $90,000 for 2024/25 and are not expected to increase over the next 5 years. *Fees and Other Revenues* include late/notice fees, delinquent assessment receipts, backflow device & testing, and other miscellaneous fees.
- *Connection Fees* are budgeted at $815,200 for 2024/25 based on the current connection fee of $8,152 for 3/4" meters multiplied by 100 estimated new connections. *Connection Fees* are expected to increase by 3.0% annually to account for estimated inflationary increases.
- *Interest Income* is projected at 1.5% of the beginning cash fund balance each year.

Expenses

- Operating expenses are projected as detailed in the projection on Table 12.
- Labor costs and benefits are escalated by 8.0% each year to account for the District's need to fill new positions.
- General maintenance, power usage, and chemicals are increased by 6.0% each year.
- UWMP update & maintenance, disposal backwash sludge, District CMMS, meter calibration services and equipment, and leak detection services are increased by 7.0% each year.
- All other operating costs are projected to escalate by 3% each year.
- The five-year (2025/26 through 2029/30) water CIP totals $6.28 million including contingency.
- Capital project costs include 20% contingency each year.

Figure 3 graphically summarizes the water cash flow projection including the proposed annual revenues in comparison to current revenues. It is proposed that the Water Fund spend down some of its existing reserves on CIP projects to mitigate rate impacts.

Figure 3: Water Cash Flow Projection

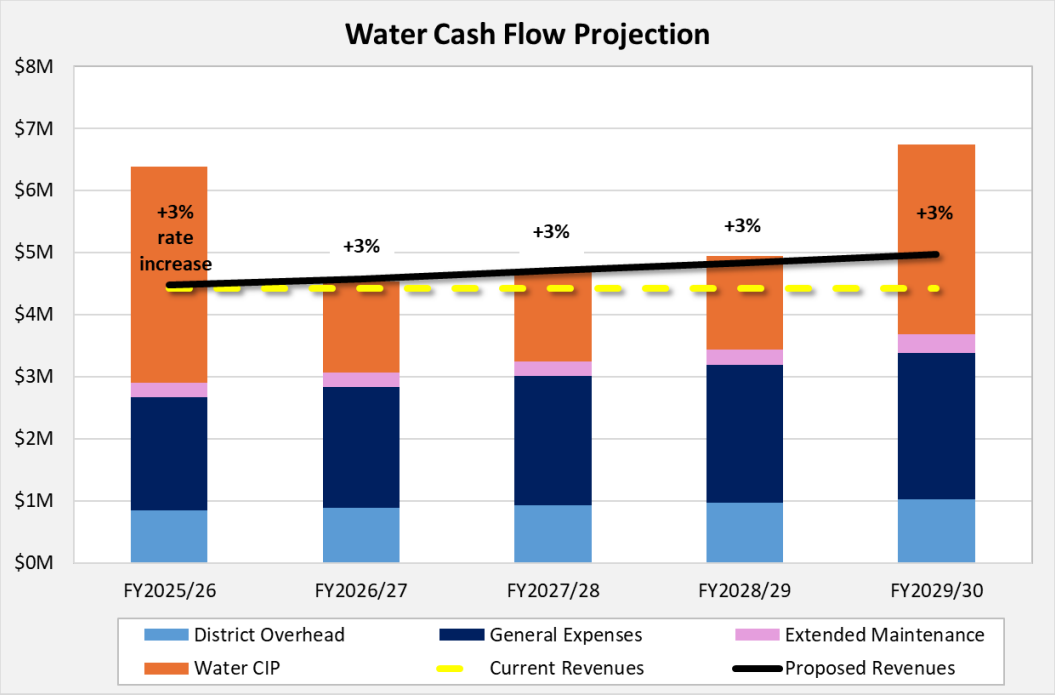


Table 14: Water Cash Flow Projection

	Projected	Projected: Proposition 218 Period				
	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Rate Revenue Increase		3.0%	3.0%	3.0%	3.0%	3.0%
Rate Increase Effective		Nov 1, 2025	Nov 1, 2026	Nov 1, 2027	Nov 1, 2028	Nov 1, 2029
BEGINNING FUND BALANCE [1]	$16,322,100	$14,000,000	$12,100,000	$12,140,200	$12,129,700	$12,019,600
Rev with July 1 Effective Date		3,374,100	3,475,300	3,579,600	3,687,000	3,797,600
REVENUES						
Rate Revenues [2]	3,275,800	3,341,300	3,441,600	3,544,800	3,651,200	3,760,700
Fees and Other Revenues	90,000	90,000	90,000	90,000	90,000	90,000
Interest Income [3]	244,800	210,000	181,500	182,100	181,900	180,300
Connection Fees [4]	815,200	839,700	864,900	890,800	917,500	945,000
Total Revenue	4,425,800	4,481,000	4,578,000	4,707,700	4,840,600	4,976,000
EXPENSES						
Operating Expenses						
District Overhead	814,200	851,000	889,900	931,000	974,400	1,020,300
General Expense	1,710,600	1,824,300	1,945,600	2,075,500	2,214,000	2,362,300
Extended Maintenance	217,100	225,700	234,700	244,100	253,900	294,200
Subtotal O&M	2,741,900	2,901,000	3,070,200	3,250,600	3,442,300	3,676,800
Net Operating Revenue	1,683,900	1,580,000	1,507,800	1,457,100	1,398,300	1,299,200
Non-Operating Expenses						
Water CIP	4,006,000	3,480,000	1,467,600	1,467,600	1,508,400	3,060,000
Subtotal Non-Operating Costs	4,006,000	3,480,000	1,467,600	1,467,600	1,508,400	3,060,000
Total Expenses	6,747,900	6,381,000	4,537,800	4,718,200	4,950,700	6,736,800
NET REVENUES	(2,322,100)	(1,900,000)	40,200	(10,500)	(110,100)	(1,760,800)
ENDING FUND BALANCE	14,000,000	12,100,000	12,140,200	12,129,700	12,019,600	10,258,800
RESERVE FUND TARGET						
Operations Fund Target [5]	1,371,000	1,450,500	1,535,100	1,625,300	1,721,200	1,838,400
Reserve Target Met?	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*

1 - 2025/26 beginning fund balance estimated by District staff.
2 - Estimated rate revenues are prorated based on the November 1 implementation date. Each fiscal year, it is projected the District will collect 4 months' revenue at the prior year's rates and 8 months' revenue at the current year's rates.
3 - Interest is set equal to 1.5% of beginning fund balance each year.
4 - 3/4" Water Connection fee of $8,152 multiplied by 100 estimated new connections per year. Escalated by 3% annually to account for estimated inflationary increase.
5 - Recommended target is 6 months O&M Expenses

SECTION 5: WATER COST ALLOCATION

Proposition 218 requires that agencies providing "property-related services" (including water utility service) set rates and charges that are based on the cost of providing those services. The prior section determined the total cost of providing water service to customers. In this section, the cost of service is allocated between fixed and consumption 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.

5.1 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 Capacity, (c) Meters and Services, and (d) Customer Service. The Base and Extra Capacity 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 fees derived 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 Capacity:* 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.

- C*ustomer Service:* This category contains costs associated with serving customers, such as billing and answering customer inquiries.

5.2 Proposed Cost Allocation

The water utility's expenses are allocated to each cost category based on how the District incurs each cost. The cost allocation determines the percentage of annual revenue to be collected from the components of each rate or charge based on the actual costs attributable to each and establishes that each parcel's total water bill will not exceed the proportional cost of service for each parcel.

The District's existing rate structure (consisting of the base rate and the consumption charge) is not proposed to be updated. The percentage of costs attributable to the *Meters & Services* and *Customer Service* categories are proposed to be recovered from the base rate. The percentage of costs

attributable to the *Base* and *Extra* categories are proposed to be recovered from the consumption charge. Since the consumption charge is a uniform rate that applies to all levels of water consumption, the AWWA recommended cost categories of *Base* and *Extra* are proposed to be combined for rate design purposes. Rate design is described further in the next section.

Table 15 provides the results of the cost allocation with 2025/26 serving as the test year. The base rate is proposed to recover costs for District Overhead, labor and benefits, the District Office CIP project, and a portion of maintenance expenses. The consumption charge is proposed to recover costs for power usage (PG&E), chemicals, facility and pipeline CIP projects, and a portion of maintenance expenses. Based on the proposed cost allocation, 43.4% of total expenses are attributable to the base rate (i.e. *Meters & Services* and *Customer Service*) and 56.6% of total expenses are attributable to the consumption charge (i.e. *Base* and *Extra*).

Table 15: Water Cost Allocation

	Budget 2025/26	BASE RATE		CONSUMPTION CHARGE	Total
		Meters & Services	Customer Service	Base + Extra	
Operating Expenses					
District Overhead					
Postage/Bill Printing	$46,900	0.0%	100.0%	0.0%	100%
Other Expenses	$804,100	100.0%	0.0%	0.0%	100%
Subtotal District Overhead	$851,000	$804,100	$46,900	$0	$851,000
Allocation %		*94.5%*	*5.5%*	*0.0%*	*100.0%*
General Expenses					
Labor and Benefits	$660,800	100.0%	0.0%	0.0%	100%
Maintenance	$303,300	33.3%	0.0%	66.7%	100%
Power Usage (PG&E)	$655,800	0.0%	0.0%	100.0%	100%
Chemicals	$101,400	0.0%	0.0%	100.0%	100%
Other Expenses	$103,000	100.0%	0.0%	0.0%	100%
Subtotal General Expenses	$1,824,300	$864,900	$0	$959,400	$1,824,300
Allocation %		*47.4%*	*0.0%*	*52.6%*	*100.0%*
Extended Maintenance					
Relocate Infrastructure	$53,000	100.0%	0.0%	0.0%	100%
Meter Calibration	$11,400	100.0%	0.0%	0.0%	100%
Other Expenses	$161,300	0.0%	0.0%	100.0%	100%
Subtotal Ext. Maintenance	$225,700	$64,400	$0	$161,300	$225,700
Allocation %		*28.5%*	*0.0%*	*71.5%*	*100.0%*
Subtotal Operating Expenses	$2,901,000	$1,733,400	$46,900	$1,120,700	$2,901,000
Allocation %		*59.8%*	*1.6%*	*38.6%*	*100.0%*
Non-Operating Expenses					
Facility/Pipeline Projects [1]	$1,764,700	0.0%	0.0%	100.0%	100%
District Office Project [1]	$432,000	100.0%	0.0%	0.0%	100%
Subtotal Non-Operating	$2,196,700	$432,000	$0	$1,764,700	$2,196,700
Allocation %		*19.7%*	*0.0%*	*80.3%*	*100.0%*
TOTAL WATER EXPENSES	**$5,097,700**	**$2,165,400**	**$46,900**	**$2,885,400**	**$5,097,700**
Total Allocation %		**42.5%**	**0.9%**	**56.6%**	**100.0%**

1 - Average 5-year CIP costs

SECTION 6: RATE DESIGN

Following the allocation of costs, the next step is to derive the total cost responsibility for each customer class by developing unit costs of service for each cost function and then assigning those costs to the customer classes based on the respective service requirements of each.

6.1 Revenue Requirement Allocation

Table 16 calculates the base rate and consumption charge revenue requirements for each year by applying the cost allocation percentages from Table 15 to the total annual revenue requirement derived in Table 14. 42.5% of the total revenue requirement is assigned to the *Meters & Services* category (recovered through the base rate), 0.9% is assigned to the *Customer Service* category (also recovered through the base rate), and the remaining 56.6% is assigned to the combined *Base + Extra* category (recovered through the consumption charge).

The total annual revenue requirement is based on the revenues the District would collect over 12 months under each proposed rate increase. It should be noted that because the proposed rates will be implemented November 1 of each year, the annual revenue collected on a fiscal year basis (July 1 to June 30) will reflect four months' at the prior year's rates and eight months' at the rates implemented November 1 each year.

Table 16: Annual Water Revenue Requirement Allocation

	Cost Allocation %	PROJECTED				
		2025/26	2026/27	2027/28	2028/29	2029/30
Total Revenue Requirement [1]		$3,374,100	$3,475,300	$3,579,600	$3,687,000	$3,797,600
BASE RATES						
Meters & Services	42.5%	$1,433,318	$1,476,307	$1,520,614	$1,566,238	$1,613,220
Customer Service	0.9%	$31,042	$31,973	$32,932	$33,920	$34,938
Total Base Rates	43.4%	$1,464,359	$1,508,280	$1,553,546	$1,600,158	$1,648,158
CONSUMPTION CHARGES						
Base + Extra	56.6%	$1,909,741	$1,967,020	$2,026,054	$2,086,842	$2,149,442
Total Consumption Charges	56.6%	$1,909,741	$1,967,020	$2,026,054	$2,086,842	$2,149,442
TOTAL	100.0%	$3,374,100	$3,475,300	$3,579,600	$3,687,000	$3,797,600

1 - From Cash Flow; Annual Revenue Requirement if rates were to be in effect for the full 12 months of each fiscal year

6.2 Billing Units

6.2.1 Meter Equivalents

The most common method to levy fixed charges is by meter size. AWWA guidelines recommend using meter equivalents to assign demand-related costs to larger meter sizes. The ratio at which the meter charge increases is typically a function of either meter investment (estimated cost) or the meter's safe operating capacity. Larger meters have the ability to place a greater demand on the water system and are therefore charged based on that potential demand. For example, based on the AWWA meter capacity ratios, a customer that has a 2" meter has 8.0 times the capacity equivalency of a customer with a 5/8" meter—a 2" meter has a safe operating capacity of 160 gallons per minute (gpm) compared to a 5/8" meter which has a safe operating capacity of 20 gpm.

Table 17 shows the District's current number of meters and calculates the number of meter equivalents based on AWWA meter capacity ratios. The District's existing base rates are based on AWWA ratios, and the ratios used to assign capacity equivalency to larger meter sizes are not proposed to change with this rate update. The meter ratio of each meter size is calculated by dividing the meter's safe operating capacity (in gallons per minute) by the safe operating capacity of a 5/8" meter (20 gpm). The total number of meter equivalents is determined by multiplying the number of meters for each meter size by the corresponding meter ratio shown in Table 17. The District currently serves about 5,400 meters or 6,900 meter equivalents.

Table 17: Number of Water Meter Equivalents

Meter Size	No. of Meters	Meter Ratio [1]	No. of Meter Equivalents
5/8"	4,098	1.0	4,098
3/4"	1,062	1.5	1,593
1"	115	2.5	288
1.5"	47	5.0	235
2"	41	8.0	328
3"	16	15.0	240
4"	3	25.0	75
6"	1	50.0	50
8"	0	80.0	0
Total	**5,383**		**6,907**

1 - From 2019 Water Rate Study, Table 4.5. Ratio of the safe operating capacity of each meter size (in gallons per minute) compared to the safe operating capacity of a 5/8" meter (20 gpm).

6.2.2 Projected Growth & Use

Table 18 shows an estimate of the total number of water meters, water meter equivalents, and water use for each of the next five years. Based on projections by District staff, it is estimated that 100 new customers will connect to the water system each year. The District's customer base is predominantly residential, and it is assumed that new customers connecting to the system will also be residential.

To comply with State regulations, new residential construction is required to have a 1" meter to meet fire flow requirements. However, District policy is to bill new residential connections at the 3/4" rate if they would not need a 1" meter absent fire flow requirements. Thus, it is assumed that all new connections will be billed at the 3/4" meter rate, and the District's customer base is projected to grow at a rate of 100 new water meters and 150 new water meter equivalents each year beginning in 2025/26.

Estimated water consumption for 2024/25 is based on billing data from 2023/24 less a 4% reduction to account for conservation and some potential delinquency. Consumption is estimated to increase by 1.0% each year beginning in 2025/26 as new customers connect to the system. District staff have observed that, on average, new construction uses less water than older homes, so the estimated annual increase in water consumption is set at approximately half the growth rate of new connections to be conservative.

Table 18: Projected Customer Growth & Water Consumption

	CURRENT	PROJECTED				
	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
NUMBER OF METERS						
Growth Increase % [1]		*1.86%*	*1.82%*	*1.79%*	*1.76%*	*1.73%*
Total Water Meters	5,383	5,483	5,583	5,683	5,783	5,883
Total Meter Equivalents	6,907	7,057	7,207	7,357	7,507	7,657
WATER CONSUMPTION						
Annual Increase %		*1.0%*	*1.0%*	*1.0%*	*1.0%*	*1.0%*
Total Consumption (CCF) [2]	1,205,279	1,217,332	1,229,505	1,241,800	1,254,218	1,266,760

1 - It is estimated that 100 new customers with a 3/4" meter will connect each year.
2 - Reflects conservation + some delinquency

6.3 Water Rate Derivation

6.3.1 Base Rate Derivation

Table 19 provides the rate derivation for the proposed base rates using the number of meters and AWWA meter equivalents from Table 18 and the annual revenue requirements from Table 16. As shown in Table 16, the base rate is proposed to recover both the *Meters & Services* and the *Customer Service* components of the revenue requirement from the cost allocation (Table 15). Consequently, the proposed base rate is calculated from two components which are combined into a single monthly base rate that increases based on meter size – (1) Meter Equivalent Charge and (2) Customer Service Charge.

1. **Meter Equivalent Charge**
   The Meter Equivalent Charge is calculated by dividing the *Meters & Services* revenue requirement in the given year by the total number of meter equivalents. The proposed Meter Equivalent Charge is then multiplied by the corresponding meter equivalent ratio to generate a charge for each meter size. As noted in the previous section, scaling the charges by meter equivalents ensures that each meter size is charged based on their proportional impact on the system and is consistent with the District's current rate structure.

2. **Customer Service Charge**
   The *Customer Service* component of the revenue requirement recovers the District's expenses for postage and bill printing, which are the same for each customer regardless of meter size. Because of this, the Customer Service Charge is proposed to be a fixed charge that does not vary by meter size. To calculate the Customer Service Charge, the *Customer Service* revenue requirement for the given year is divided by the total number of meters.

For 2025/26, the proposed Meter Equivalent Charge of $16.93 is multiplied by the corresponding meter equivalent ratio, then the Customer Service Charge of $0.47 is added to that total to calculate the total proposed base rate. For customers with a 5/8" meter, the proposed 2025/26 base rate is $17.40.

Table 19: Water Base Rate Derivation

		PROJECTED				
		2025/26	2026/27	2027/28	2028/29	2029/30
REVENUE REQUIREMENT						
Meters & Services		$1,433,318	$1,476,307	$1,520,614	$1,566,238	$1,613,220
Customer Service		$31,042	$31,973	$32,932	$33,920	$34,938
Total Base Rate Revenue		$1,464,359	$1,508,280	$1,553,546	$1,600,158	$1,648,158
METER EQUIVALENT CHARGE						
Meters & Service Revenue Requirement		$1,433,318	$1,476,307	$1,520,614	$1,566,238	$1,613,220
Number of Meter Equivalents		7,057	7,207	7,357	7,507	7,657
Total Meter Equivalent Charge		$16.93	$17.07	$17.22	$17.39	$17.56
Meter Equivalent Charge by Meter Size						
Meter Size	Meter Ratio					
5/8"	1.0	$16.93	$17.07	$17.22	$17.39	$17.56
3/4"	1.5	$25.40	$25.61	$25.83	$26.09	$26.34
1"	2.5	$42.33	$42.68	$43.05	$43.48	$43.90
1.5"	5.0	$84.65	$85.35	$86.10	$86.95	$87.80
2"	8.0	$135.44	$136.56	$137.76	$139.12	$140.48
3"	15.0	$253.95	$256.05	$258.30	$260.85	$263.40
4"	25.0	$423.25	$426.75	$430.50	$434.75	$439.00
6"	50.0	$846.50	$853.50	$861.00	$869.50	$878.00
8"	80.0	$1,354.40	$1,365.60	$1,377.60	$1,391.20	$1,404.80
CUSTOMER SERVICE CHARGE						
Customer Service Revenue Requirement		$31,042	$31,973	$32,932	$33,920	$34,938
Number of Meters		5,483	5,583	5,683	5,783	5,883
Total Cust. Service Charge per Account		$0.47	$0.48	$0.48	$0.49	$0.49
TOTAL MONTHLY BASE RATE [1]						
Meter Size	Current Rates					
5/8"	$16.50	$17.40	$17.55	$17.70	$17.88	$18.05
3/4"	$24.75	$25.87	$26.09	$26.31	$26.58	$26.83
1"	$41.15	$42.80	$43.16	$43.53	$43.97	$44.39
1.5"	$82.15	$85.12	$85.83	$86.58	$87.44	$88.29
2"	$131.40	$135.91	$137.04	$138.24	$139.61	$140.97
3"	$246.40	$254.42	$256.53	$258.78	$261.34	$263.89
4"	$410.50	$423.72	$427.23	$430.98	$435.24	$439.49
6"	$820.65	$846.97	$853.98	$861.48	$869.99	$878.49
8"	$0.00	$1,354.87	$1,366.08	$1,378.08	$1,391.69	$1,405.29

1 - Total Monthly Base Rate is the sum of the "Meter Equivalent Charge" by meter size plus the "Customer Service Charge per Account"

6.3.2 Consumption Rate Derivation

Table 20 provides the rate derivation for the proposed consumption rate using the projected water consumption from Table 18 and the annual revenue requirements from Table 16. As shown in Table 16, the consumption rate is proposed to recover the *Base + Extra* component of the revenue requirement from the cost allocation (Table 15). Consistent with the current rate structure, the proposed consumption rate is a uniform rate in which all customers are charged the same rate per unit of water consumed. The proposed consumption rate for each year is equal to the annual revenue requirement divided by projected annual consumption.

For 2025/26, the proposed consumption rate is $1.57 per CCF. This is a proposed decrease from the current consumption rate of $1.65. Despite this decrease, the District is still projected to collect an increased amount of total revenue as shown in the cash flow projection due to the projected growth in the customer base and slight reallocation of costs between the base and consumption rates. The current consumption rates generate about 60% of total revenues (Table 6) and it is proposed that the consumption rates generate only about 57% of total revenues (Table 15).

Table 20: Water Consumption Rate Derivation

	PROJECTED				
	2025/26	**2026/27**	**2027/28**	**2028/29**	**2029/30**
REVENUE REQUIREMENT					
Base + Extra	$1,909,741	$1,967,020	$2,026,054	$2,086,842	$2,149,442
CONSUMPTION RATE DERIVATION					
Revenue Requirement	$1,909,741	$1,967,020	$2,026,054	$2,086,842	$2,149,442
Projected Consumption (CCF) [1]	1,217,332	1,229,505	1,241,800	1,254,218	1,266,760
Consumption Rate per CCF	**$1.57**	**$1.60**	**$1.63**	**$1.66**	**$1.70**

1 - Based on 2023/24 total consumption less estimated conservation + some delinquency

6.4 Proposed 5-Year Schedule of Monthly Water Rates

The proposed five-year rate plan is summarized in Table 21. All customers are proposed to be charged according to the proposed rate schedule shown. As described in the previous sections of this report, the rates have been calculated in this study to produce rates that will be necessary to recover only the actual cost of the water service per parcel under the proposed water rates. The first rate change is proposed to take effect on November 1, 2025, with subsequent increases each November 1 through 2029. For any additional connections built out in the District, the rates for the water service fees in Table 21 will also apply to them.

Table 21: Proposed Monthly Water Rates

	Current	PROPOSED				
		2025/26	2026/27	2027/28	2028/29	2029/30
Effective Date	Nov 1, 2023	Nov 1, 2025	Nov 1, 2026	Nov 1, 2027	Nov 1, 2028	Nov 1, 2029
BASE RATE						
Meter Size						
5/8"	$16.50	$17.40	$17.55	$17.70	$17.88	$18.05
3/4"	$24.75	$25.87	$26.09	$26.31	$26.58	$26.83
1"	$41.15	$42.80	$43.16	$43.53	$43.97	$44.39
1.5"	$82.15	$85.12	$85.83	$86.58	$87.44	$88.29
2"	$131.40	$135.91	$137.04	$138.24	$139.61	$140.97
3"	$246.40	$254.42	$256.53	$258.78	$261.34	$263.89
4"	$410.50	$423.72	$427.23	$430.98	$435.24	$439.49
6"	$820.65	$846.97	$853.98	$861.48	$869.99	$878.49
8"	--	$1,354.87	$1,366.08	$1,378.08	$1,391.69	$1,405.29
CONSUMPTION RATE						
per CCF [1]	$1.65	$1.57	$1.60	$1.63	$1.66	$1.70

1 - CCF = one hundred cubic feet; 1 CCF = 748 gallons

6.5 Bill Impacts

6.5.1 Sample Monthly Residential Bill Impacts

The tables on the following pages show the impacts of the proposed rates for a range of single family residential customers based on the typical monthly average water consumption across the whole year, average winter consumption, and average summer consumption. Table 22 provides sample bills for a customer with a 5/8” meter and Table 23 provides sample bills for a 3/4” meter.

Although the proposed overall rate revenue increase is 3% per year, actual bill impacts for customers will vary due to the updated cost of service allocation and individual water consumption. Based on the updated cost of service allocation, the base rates are proposed to increase while the consumption rate is proposed to decrease, resulting in varied bill impacts. Moreover, water consumption, particularly for single family customers, typically fluctuates throughout the year due to seasonal variations in weather and/or other factors. Hence, a single family customer could face a range of impacts throughout the year. Additionally, some of the proposed overall rate revenue increase will be offset by the anticipated growth in the District’s customer base.

Table 22: Sample Monthly Water Bill Impacts, 5/8” Meters

RESIDENTIAL BILL IMPACTS - 5/8" METER

	Monthly Use (ccf)	Current Bill	Proposed				
			Nov 1, 2025	Nov 1, 2026	Nov 1, 2027	Nov 1, 2028	Nov 1, 2029
8 ccf (Winter Bill)							
Base Rate - 5/8"		$16.50	$17.40	$17.55	$17.70	$17.88	$18.05
Consumption Charge	8	$13.20	$12.56	$12.80	$13.04	$13.28	$13.60
Total Monthly Water Bill		$29.70	$29.96	$30.35	$30.74	$31.16	$31.65
$ Change			*$0.26*	*$0.39*	*$0.39*	*$0.42*	*$0.49*
% Change			*0.9%*	*1.3%*	*1.3%*	*1.4%*	*1.6%*
14 ccf (Average Bill)							
Base Rate - 5/8"		$16.50	$17.40	$17.55	$17.70	$17.88	$18.05
Consumption Charge	14	$23.10	$21.98	$22.40	$22.82	$23.24	$23.80
Total Monthly Water Bill		$39.60	$39.38	$39.95	$40.52	$41.12	$41.85
$ Change			*($0.22)*	*$0.57*	*$0.57*	*$0.60*	*$0.73*
% Change			*-0.6%*	*1.4%*	*1.4%*	*1.5%*	*1.8%*
20 ccf (Summer Bill)							
Base Rate - 5/8"		$16.50	$17.40	$17.55	$17.70	$17.88	$18.05
Consumption Charge	20	$33.00	$31.40	$32.00	$32.60	$33.20	$34.00
Total Monthly Water Bill		$49.50	$48.80	$49.55	$50.30	$51.08	$52.05
$ Change			*($0.70)*	*$0.75*	*$0.75*	*$0.78*	*$0.97*
% Change			*-1.4%*	*1.5%*	*1.5%*	*1.6%*	*1.9%*

Table 23: Sample Monthly Water Bill Impacts, 3/4" Meters

RESIDENTIAL BILL IMPACTS - 3/4" METER

	Monthly Use (ccf)	Current Bill	Proposed				
			Nov 1, 2025	Nov 1, 2026	Nov 1, 2027	Nov 1, 2028	Nov 1, 2029
8 ccf (Winter Bill)							
Base Rate - 3/4"		$24.75	$25.87	$26.09	$26.31	$26.58	$26.83
Consumption Charge	8	$13.20	$12.56	$12.80	$13.04	$13.28	$13.60
Total Monthly Water Bill		$37.95	$38.43	$38.89	$39.35	$39.86	$40.43
$ Change			*$0.48*	*$0.46*	*$0.46*	*$0.51*	*$0.57*
% Change			*1.3%*	*1.2%*	*1.2%*	*1.3%*	*1.4%*
14 ccf (Average Bill)							
Base Rate - 3/4"		$24.75	$25.87	$26.09	$26.31	$26.58	$26.83
Consumption Charge	14	$23.10	$21.98	$22.40	$22.82	$23.24	$23.80
Total Monthly Water Bill		$47.85	$47.85	$48.49	$49.13	$49.82	$50.63
$ Change			*$0.00*	*$0.64*	*$0.64*	*$0.69*	*$0.81*
% Change			*0.0%*	*1.3%*	*1.3%*	*1.4%*	*1.6%*
20 ccf (Summer Bill)							
Base Rate - 3/4"		$24.75	$25.87	$26.09	$26.31	$26.58	$26.83
Consumption Charge	20	$33.00	$31.40	$32.00	$32.60	$33.20	$34.00
Total Monthly Water Bill		$57.75	$57.27	$58.09	$58.91	$59.78	$60.83
$ Change			*($0.48)*	*$0.82*	*$0.82*	*$0.87*	*$1.05*
% Change			*-0.8%*	*1.4%*	*1.4%*	*1.5%*	*1.8%*

6.5.2 Water Rate Survey

Figure 4 and Figure 5 on the following page compare the District's current and proposed average monthly single family residential bill with those of surrounding agencies for the same amount of water consumption and a 5/8" or 3/4" meter, respectively. It should be noted that some regional agencies either charge the same rates for 5/8" and 3/4" meters or do not offer a 5/8" meter rate. Hence, the rates for some agencies are the same between the two charts.

The typical monthly water use in the District is 14 CCF for single family residential customers. For a 5/8" meter, this equates to an average water bill of $39.60. November 1, 2025, the water bill for that customer would equal $39.38, a slight decrease of $0.22. For a 3/4" meter and average use of 14 CCF, the current and proposed rates both result in a monthly bill of $47.85.

The District's current water rates are in the mid-range of those charged by other local agencies and will remain as such following the proposed rate adjustment. The District's rates are expected to remain in the mid-range in the next few years as many other agencies are also facing financial pressures to raise rates.

Figure 4: Monthly Water Bill Survey, 5/8” Meter

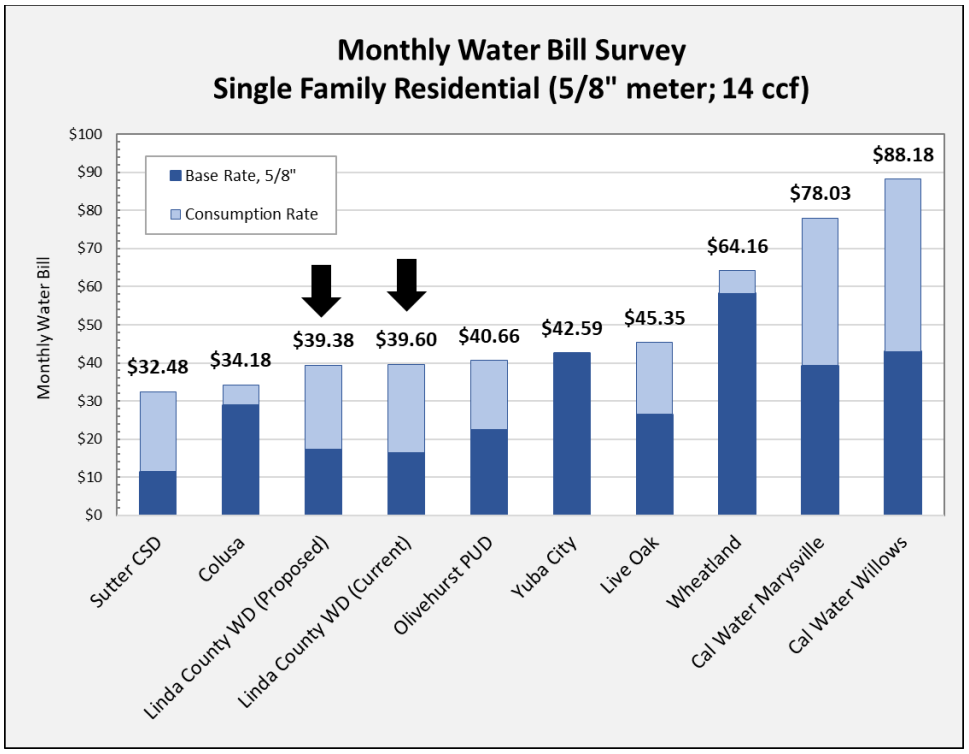
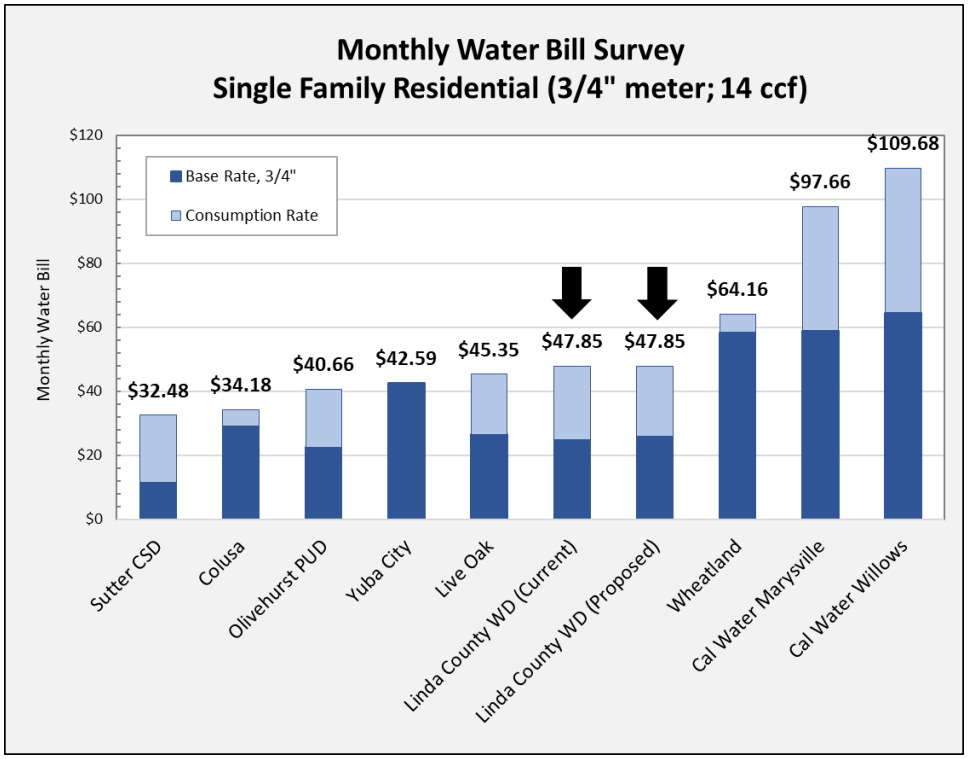


Figure 5: Monthly Water Bill Survey, 3/4” Meter



SECTION 7: SEWER COST OF SERVICE

Following the same process as the analysis of the water system's cost of service, the sewer utility's cost of service is developed in this section based on 2023/24 actuals, the 2024/25 budget, the District's capital improvement plan, and input from staff to produce rates that will be necessary to recover only the actual cost of the sewer service per parcel.

7.1 Sewer System Overview

The sewer utility's purpose is to collect, treat, and dispose of residential and commercial wastewater in an environmentally safe manner. This process is closely monitored by several State of California regulatory agencies to guarantee compliance with Federal and State mandates. The District operates a 5.0 million gallon-per-day (MGD) tertiary treatment level wastewater treatment plant (WWTP) according to the requirements of its National Pollutant Discharge Elimination System (NPDES) permit. The original WWTP was constructed in 1960, and major upgrades were completed in 1996, 2002, and 2015. The treatment system consists of the headworks, two primary clarifiers, four activated sludge basins, two secondary clarifiers, compressible media filters, a chlorine contact basin, and dechlorination using sulfur dioxide. Treated wastewater is discharged to land using a series of five percolation ponds located in the Feather River floodplain.

7.2 Revenues

The District's revenues consist of sewer rate revenues, interest income, connection fees, other fee revenues, and payments from the City of Marysville. Total projected sewer system revenues for 2024/25 are $6.58 million. It is estimated that sewer service charges will total $3.65 million based on the 2024/25 Budget. It is projected that 100 new residential customers will connect to the sewer system, generating connection fee revenues of $948,000. Interest income is estimated at $187,000 based on 1.5% of the District's reserve fund balance. Fees and other revenues are projected to total $59,000. The remaining $1.74 million in revenue reflects the estimated total payments from the City of Marysville, which are described in further detail below.

7.2.1 Payments from the City of Marysville

In 2012, the District agreed to terms with the City of Marysville (City) whereby the District would treat and dispose of the City's wastewater. In November 2019, the City's collection system was connected to the District's WWTP. Currently, the District treats and disposes of the City's wastewater in accordance with the Interagency Wastewater Service Agreement dated January 1, 2021, which amended the original 2012 Agreement. Based on the 2021 Agreement, the City is allocated capacity in the District's WWTP in the amount of 1.25 MGD average daily dry weather flow (ADWF). The City's payments to the District for wastewater treatment service consist of three charges: (1) Operation and Maintenance (O&M) payments, (2) Capacity Charge, and (3) Capital Repair and Replacement Project (CRRP) payments. Each charge is calculated as follows:

1. **Operation and Maintenance (O&M) payments**

   The City is responsible for a portion of the District's O&M costs and makes monthly O&M payments which are calculated at the close of each fiscal year based on the costs incurred by the District to accept, treat, and discharge the City's wastewater. The City's maintenance payments are proportional to the City's measured inflow relative to the total inflow to the WWTP. Any general overhead costs assigned to the City are prorated based on a reasonable portion allocated to the WWTP's operations and maintenance. The City is not responsible for any overhead costs unrelated to the WWTP, such as costs for operating the District's collection system or administrative expenses for customer billing. In total, the City is responsible for approximately 40% of treatment facility maintenance costs, 15% of overhead expenses, and 25% of NPDES permit costs. For the purposes of this rate study, the City's annual O&M payment was estimated based on the City's actual O&M payment for 2024/25 escalated by 3% each subsequent year for projected inflationary increases. The total 2024/25 O&M payment was $1.11 million.

2. **Capacity Charge**

   The City's Capacity Charge was calculated based on the calculated balance due from the City for the value of the capacity in the WWTP which is reserved for the City, i.e. 1.25 MGD of the full 5.0 MGD ADWF of the WWTP (25% of the facility's capacity). As part of the 2021 Agreement, 25% of the amount remaining on the District's State Water Resources Control Board loan was amortized over the 22 years remaining on the loan at one percent interest to calculate the City's monthly payment of $18,915, equivalent to $226,980 annually. The Capacity Charge is a fixed amount which will not change as long as the 2021 Agreement remains in effect.

3. **Capital Repair and Replacement Project (CRRP) payments**

   CRRP payments are for capital improvement costs for projects that are specifically related to the treatment of the City's wastewater. The City makes payments into a restricted CRRP fund which is held and managed by the District. When the District conducts a capital improvement project that supports the wastewater treatment service provided to the City, the City is responsible for 25% of the overall project cost less any grant funding received, consistent with the amount of capacity reserved for the City in the WWTP. For the purposes of this rate study, it is assumed that the District will take payments out of the City's CRRP fund in the amount of 25% of the Facility Improvement Projects listed in Table 26. In 2024/25, this contribution is estimated at $400,000.

7.3 Expenses

The wastewater system's expenses consist of operating costs for the treatment and collection systems, the capital improvement plan, debt service, and the maintenance of reserves.

7.3.1 Treatment System Operating Costs

In 2024/25, the District expects to incur about $2.5 million in expenses to operate and maintain the wastewater treatment system. Operating costs include salaries, benefits, operations, and maintenance expenses, but do not include capital improvement projects or depreciation costs. Operating costs over the course of the rate study period are projected in Table 24 on the following page based on 2023/24 actuals and the 2024/25 Budget.

The escalation factors used in the projection were determined based on estimated inflation and input from District staff. Labor and benefits are projected to increase by 8% per year to account for new positions being filled. Most operating costs are projected to increase by 3% per year to account for estimated inflation. However, some operating costs such as maintenance, power usage, chemicals, District CMMS, and filter repairs are projected to increase above ordinary inflation at the higher rate of 6% per year due to expenses increasing as new customers connect to the system.

7.3.2 Collection System Operating Costs

Operating costs for the wastewater collection system are projected in Table 25. In FY2024/25, the District expects to incur about $554,000 in expenses to operate and maintain the collection system. The escalation factors are projected to be similar for the collection system as they are for the wastewater treatment system. Most operating costs are projected to increase by 3% per year due to inflation. Labor and benefits are projected to increase by 8% per year due to new positions being filled. Maintenance, power usage, District CMMS, and SSMP maintenance and update are projected to increase by 6% per year due to new customers connecting to the system.

Table 24: Wastewater Treatment Enterprise Expense Projection

	Actual 2023/24	Escalation Factor [1]	PROJECTED FY2024/25	FY2025/26	FY2026/27	FY2027/28	FY2028/29	FY2029/30
General Expense								
Labor Costs - Operations	$337,961	8.0%	$365,000	$394,200	$425,700	$459,800	$496,600	$536,300
Labor Costs - Maintenance	$161,545	8.0%	$174,500	$188,500	$203,600	$219,900	$237,500	$256,500
Maintenance	$639,176	6.0%	$677,500	$718,200	$761,300	$807,000	$855,400	$906,700
Power Usage (PG&E)	$611,015	6.0%	$647,700	$686,600	$727,800	$771,500	$817,800	$866,900
SWRCB Fees	$49,244	3.0%	$50,700	$52,200	$53,800	$55,400	$57,100	$58,800
Other Permitting Fees	$2,672	3.0%	$2,800	$2,900	$3,000	$3,100	$3,200	$3,300
Chemicals	$166,786	6.0%	$176,800	$187,400	$198,600	$210,500	$223,100	$236,500
Laboratory Testing	$80,793	3.0%	$83,200	$85,700	$88,300	$90,900	$93,600	$96,400
Propane	$2,348	3.0%	$2,400	$2,500	$2,600	$2,700	$2,800	$2,900
Sludge Removal	$30,345	3.0%	$31,300	$32,200	$33,200	$34,200	$35,200	$36,300
Monitoring/Other Fees	$168	3.0%	$200	$200	$200	$200	$200	$200
Payroll Taxes	$36,661	8.0%	$39,600	$42,800	$46,200	$49,900	$53,900	$58,200
Retirement Benefit	$83,150	8.0%	$89,800	$97,000	$104,800	$113,200	$122,300	$132,100
Health Benefits	$122,161	8.0%	$131,900	$142,500	$153,900	$166,200	$179,500	$193,900
Mandatory penalties WWTP	$12,000	3.0%	$12,400	$12,800	$13,200	$13,600	$14,000	$14,400
Subtotal General Expense	$2,336,025		$2,485,800	$2,645,700	$2,816,200	$2,998,100	$3,192,200	$3,399,400
Extended Maintenance								
Rate Study	$22,500	0.0%	$0	$0	$0	$0	$0	$22,500
Shop equipment	$4,000	3.0%	$4,100	$4,200	$4,300	$4,400	$4,500	$4,600
Safety Training & Equipment	$2,223	3.0%	$2,300	$2,400	$2,500	$2,600	$2,700	$2,800
SCADA/Electrical maintenance	$35,000	3.0%	$36,100	$37,200	$38,300	$39,400	$40,600	$41,800
Instrumentation Improvements	$25,000	3.0%	$25,800	$26,600	$27,400	$28,200	$29,000	$29,900
Laboratory Equipment	$19,430	3.0%	$20,000	$20,600	$21,200	$21,800	$22,500	$23,200
WWTP office equipment	$2,000	3.0%	$2,100	$2,200	$2,300	$2,400	$2,500	$2,600
Report of Waste Discharge	$20,000	3.0%	$20,600	$21,200	$21,800	$22,500	$23,200	$23,900
RoWD Studies / NPDES Permit Support	$30,000	3.0%	$30,900	$31,800	$32,800	$33,800	$34,800	$35,800
CVCWA Fresh Water Mussel Study	$0	3.0%	$0	$0	$0	$0	$0	$0
District CMMS	$1,000	6.0%	$1,100	$1,200	$1,300	$1,400	$1,500	$1,600
Subtotal Extended Maintenance	$161,153		$143,000	$147,400	$151,900	$156,500	$161,300	$188,700
Total	**$2,497,178**		**$2,628,800**	**$2,793,100**	**$2,968,100**	**$3,154,600**	**$3,353,500**	**$3,588,100**

1 - Most categories are expected to increase by inflation. Some categories are likely to increase at a higher rate due to new connections. Labor and benefits are expected to increase due to new positions being filled.

Table 25: Wastewater Collection Enterprise Expense Projection

	Actual	Escalation	PROJECTED					
	2023/24	Factor [1]	FY2024/25	FY2025/26	FY2026/27	FY2027/28	FY2028/29	FY2029/30
General Expense								
Labor Costs	$169,024	8.0%	$182,500	$197,100	$212,900	$229,900	$248,300	$268,200
Maintenance	$98,971	6.0%	$104,900	$111,200	$117,900	$125,000	$132,500	$140,500
Power Usage (PG&E)	$60,598	6.0%	$64,200	$68,100	$72,200	$76,500	$81,100	$86,000
SWRCB Fees	$4,954	3.0%	$5,100	$5,300	$5,500	$5,700	$5,900	$6,100
Payroll Taxes	$12,221	8.0%	$13,200	$14,300	$15,400	$16,600	$17,900	$19,300
Retirement Benefit	$7,862	8.0%	$8,500	$9,200	$9,900	$10,700	$11,600	$12,500
Health Benefits	$44,883	8.0%	$48,500	$52,400	$56,600	$61,100	$66,000	$71,300
Subtotal General Expense	$398,513		$426,900	$457,600	$490,400	$525,500	$563,300	$603,900
Extended Maintenance								
Rate Study	$7,500	0.0%	$0	$0	$0	$0	$0	$7,500
Shop Equipment	$8,528	3.0%	$8,800	$9,100	$9,400	$9,700	$10,000	$10,300
Safety Training & Equipment	$1,458	3.0%	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500
Sewer Lift Station Repair	$25,000	3.0%	$25,800	$26,600	$27,400	$28,200	$29,000	$29,900
Sewer Trench Repair	$25,000	3.0%	$25,800	$26,600	$27,400	$28,200	$29,000	$29,900
Relocate Infrastructure	$50,000	3.0%	$51,500	$53,000	$54,600	$56,200	$57,900	$59,600
District CMMS	$500	6.0%	$500	$500	$500	$500	$500	$500
SSMP Maintenance and Update	$12,500	6.0%	$13,300	$14,100	$14,900	$15,800	$16,700	$17,700
Sewer Use Pre-Treatment Permitting	$18,308	3.0%	$18,900	$19,500	$20,100	$20,700	$21,300	$21,900
Additional MH Monitoring Units	$3,500	3.0%	$3,600	$3,700	$3,800	$3,900	$4,000	$4,100
Collection System Model	$3,500	3.0%	$3,600	$3,700	$3,800	$3,900	$4,000	$4,100
Subtotal Extended Maintenance	$155,794		$153,300	$158,300	$163,400	$168,600	$173,900	$187,000
Total	**$554,307**		**$580,200**	**$615,900**	**$653,800**	**$694,100**	**$737,200**	**$790,900**

1 - Most categories are expected to increase by inflation. Some categories are likely to increase at a higher rate due to new connections. Labor and benefits are expected to increase due to new positions being filled.

7.3.3 Capital Improvement Plan

In 2018, Kennedy/Jenks Consultants developed a 10-year Capital Improvement Plan (CIP). The plan identified wastewater Facility Improvement projects for 2020-2030. As part of the rate study process, District staff reviewed and revised the existing CIP plan as well as developed a list of Collection System CIP projects. The resulting projects which the District plans to complete through 2029/30 are summarized in Table 26. The capital improvement plan includes projects that will repair existing deficiencies as well as expand service to East Linda. For any expansion projects, the District will use connection fee revenues reflecting project costs attributable to growth.

In 2024/25, the District plans to spend $1.6 million to complete the East Linda Extension project. For the five-year rate study period from 2025/26 through 2029/30, the District is expected to complete $11.7 million in CIP projects, including contingency. The most significant projects are the construction of a new effluent pump station for $2.5 million and $2.7 million for the sewer utility's share of the District Office. Additional projects include grit removal, diffuser repair and replacement, the Edgewater Lift Station rebuild, and the Lindhurst Ave pipeline project.

Table 26: Wastewater System Capital Improvement Plan

	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	Grand Total
Facility Improvement Projects							
Grit Removal	$0	$500,000	$1,000,000	$0	$0	$0	$1,500,000
Diffuser Repair/Replacement	$0	$0	$0	$150,000	$0	$0	$150,000
New Effluent Pump Station	$0	$0	$0	$0	$0	$2,500,000	$2,500,000
East Linda Extension [1]	$1,600,000	$0	$0	$0	$0	$0	$1,600,000
Subtotal	$1,600,000	$500,000	$1,000,000	$150,000	$0	$2,500,000	$5,750,000
Collection System Projects							
Edgewater Lift Station Rebuild	$0	$0	$0	$1,500,000	$0	$0	$1,500,000
Lindhurst Ave Pipeline	$0	$0	$0	$0	$1,400,000	$0	$1,400,000
Subtotal	$0	$0	$0	$1,500,000	$1,400,000	$0	$2,900,000
District Office [2]	$0	$2,700,000	$0	$0	$0	$0	$2,700,000
Subtotal CIP	**$1,600,000**	**$3,200,000**	**$1,000,000**	**$1,650,000**	**$1,400,000**	**$2,500,000**	**$11,350,000**
Contingency (20%)	$0	$640,000	$200,000	$330,000	$280,000	$500,000	$2,270,000
Total with Contingency	**$1,600,000**	**$3,840,000**	**$1,200,000**	**$1,980,000**	**$1,680,000**	**$3,000,000**	**$13,620,000**

1 - No contingency added on East Linda Extension per direction from District staff

2 - For the District Office Project, the total project cost of $4.5 million is proposed to be split between the Water and Sewer Funds in the same manner as the District's Overhead expenses are allocated (i.e. 60% assigned to the Sewer Fund).

7.3.4 Debt Service

The District has one outstanding debt obligation for the wastewater utility – a State Water Resources Control Board (SWRCB) loan which was for the construction of the wastewater treatment plant. The loan has a 30-year term with an interest rate of one percent per year. Annual debt service payments total $1,036,738. The final payment will be April 1, 2042.

A chief covenant for the District to secure debt financing is to maintain a specific debt service coverage ratio. A debt service coverage ratio is a financial measure of an agency's ability to repay outstanding debt. For the sewer fund, the debt service coverage ratio means that annual sewer net revenues (gross revenues less operating and maintenance expenses) must be at least 1.2 times the combined annual debt service payments on all parity obligations. Failure to meet the debt service coverage ratio on an annual basis is considered to be technical default, thereby making the debt callable or payable upon demand. Thus, rates and fees must be set to meet this legal requirement.

7.3.5 Reserves

On July 1, 2025, total Wastewater Fund reserves including both the Treatment Fund and the Collection Fund are projected to equal approximately $12 million. These reserves are well in excess of the combined treatment and collection operating reserve target of 6 months of total operating expenses. Adequate fund reserves protect the District when faced with unforeseen financial challenges such as emergency expenses and revenue deficits. Fund reserves are a critical tool that will allow the District to maintain its financial health and positive credit ratings, especially during emergencies. Moreover, funding can be drawn from reserves to supplement rate revenues lost during unexpected situations.

7.4 Sewer Cash Flow Projection

The five-year cash flow spanning from 2025/26 to 2029/30 is provided in Table 27. Each November 1 from 2025 through 2029, it is proposed that the District implement a rate revenue increase to fund operating costs, capital costs, debt payments, and maintain reserves. The proposed rates are described in more detail in the following section.

The cash flow projection and proposed rate revenue increases are based on the latest information available. Key assumptions include:

Revenues

- The first revenue adjustment is proposed to take effect on November 1, 2025. Rate increases thereafter are proposed to take effect November 1 of each year through 2029.
- *Rate Revenues* for 2024/25 are based on the 2024/25 Budget.
- For 2025/26 and each year thereafter, estimated *Rate Revenues* are prorated based on the November 1 rate implementation date. Each fiscal year, it is projected that the District will collect 4 months' revenue at the prior fiscal year's rates and 8 months' revenue at the current fiscal year's rates.

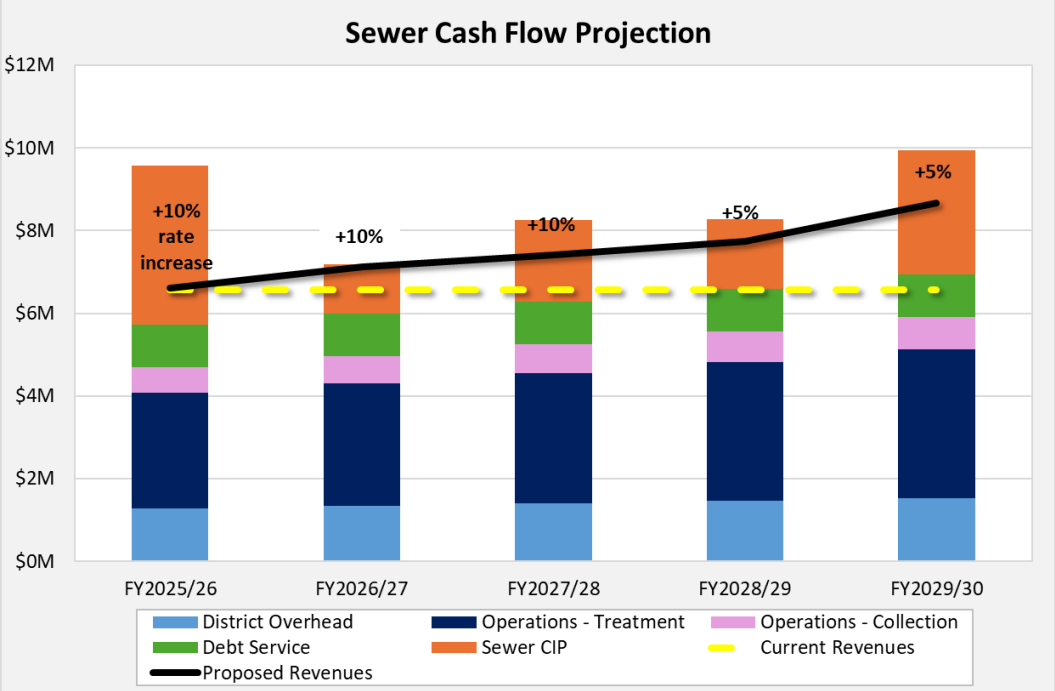
- The *City of Marysville O&M Payment* is expected to total $1.11 million in 2024/25. The payment is expected to increase by 3% each year thereafter due to inflation.
- *Fees and Other Revenues* are estimated at $59,000 for 2024/25 and are not expected to increase over the next 5 years. *Fees and Other Revenues* include late/notice fees, delinquent assessment receipts, and other miscellaneous fees.
- *Interest Income* is projected at 1.5% of the cash fund balance each year.
- *Connection Fees* are budgeted at $948,200 for 2024/25 based on the current residential connection fee of $9,482 multiplied by 100 estimated new connections. *Connection Fees* are expected to increase by 3.0% annually to account for estimated inflationary increases.
- The *City of Marysville Capacity Payment* is about $227,000 annually. This is a set monthly payment that is not expected to increase during the next five years.
- The *City of Marysville Capital Contribution* is calculated as 25% of the "Facility Improvement Projects" from the Wastewater CIP (Table 26).

Expenses

- Operating expenses are projected as detailed in the projections on Table 24 and Table 25.
- Labor costs and benefits are escalated by 8.0% each year to account for the District's need to fill new positions.
- General maintenance, power usage, chemicals, District CMMS, and SSMP maintenance and update are increased by 6.0% each year.
- All other operating costs are projected to escalate by 3% each year.
- The five-year (2025/26 through 2029/30) wastewater CIP totals $11.7 million including contingency.
- Capital project costs include 20% contingency each year.

Figure 6 graphically summarizes the wastewater cash flow projection including the proposed annual revenues in comparison to current revenues. It should be noted that the current and proposed revenues shown in the chart include both rate revenues and other revenue sources including contributions from the City of Marysville. The City's contributions are variable from year to year depending on the amount that will be spent on wastewater treatment system capital projects. The largest capital contribution from the City is expected in FY2029/30. It is proposed that the Wastewater Fund spend down some of its existing reserves on CIP projects to mitigate rate impacts.

Figure 6: Sewer Cash Flow Projection



Note: the current and proposed revenues shown in the chart include both rate revenues and other revenue sources including contributions from the City of Marysville. The City's contributions are variable from year to year depending on the amount that will be spent on wastewater treatment system capital projects. The largest capital contribution from the City is expected in FY2029/30.

Table 27: Sewer Cash Flow Projection

	Projected	Projected: Proposition 218 Period				
	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Rate Revenue Increase		10.0%	10.0%	10.0%	5.0%	5.0%
Rate Increase Effective		Nov 1, 2025	Nov 1, 2026	Nov 1, 2027	Nov 1, 2028	Nov 1, 2029
BEGINNING FUND BALANCE [1]	$12,490,700	$12,000,000	$9,036,400	$8,974,800	$8,124,700	$7,593,300
Revenues with July 1 Effective Date		4,011,700	4,412,900	4,854,200	5,096,900	5,351,700
REVENUES						
Rate Revenues [2]	3,647,000	3,890,100	4,279,200	4,707,100	5,016,000	5,266,800
Marysville O&M Payment [3]	1,108,300	1,141,500	1,175,700	1,211,000	1,247,300	1,284,700
Fees and Other Revenues	59,000	59,000	59,000	59,000	59,000	59,000
Interest Income [4]	187,400	180,000	135,500	134,600	121,900	113,900
Connection Fees [5]	948,200	976,600	1,005,900	1,036,100	1,067,200	1,099,200
Marysville Capacity Payment	227,000	227,000	227,000	227,000	227,000	227,000
Marysville Capital Contribution [6]	400,000	125,000	250,000	37,500	0	625,000
Total Revenue	6,576,900	6,599,200	7,132,300	7,412,300	7,738,400	8,675,600
EXPENSES						
Operating Expenses						
Treatment Enterprise						
District Overhead	916,200	957,600	1,001,300	1,047,500	1,096,500	1,148,300
General Expense	2,485,800	2,645,700	2,816,200	2,998,100	3,192,200	3,399,400
Extended Maintenance	143,000	147,400	151,900	156,500	161,300	188,700
Collection Enterprise						
District Overhead	305,700	319,500	334,000	349,500	365,900	383,300
General Expense	426,900	457,600	490,400	525,500	563,300	603,900
Extended Maintenance	153,300	158,300	163,400	168,600	173,900	187,000
Subtotal O&M	4,430,900	4,686,100	4,957,200	5,245,700	5,553,100	5,910,600
Net Operating Revenue	2,146,000	1,913,100	2,175,100	2,166,600	2,185,300	2,765,000
Non-Operating Expenses						
Sewer CIP	1,600,000	3,840,000	1,200,000	1,980,000	1,680,000	3,000,000
Debt Service	1,036,700	1,036,700	1,036,700	1,036,700	1,036,700	1,036,700
Subtotal Non-Operating Costs	2,636,700	4,876,700	2,236,700	3,016,700	2,716,700	4,036,700
Total Expenses	7,067,600	9,562,800	7,193,900	8,262,400	8,269,800	9,947,300
NET REVENUES	(490,700)	(2,963,600)	(61,600)	(850,100)	(531,400)	(1,271,700)
ENDING FUND BALANCE	12,000,000	9,036,400	8,974,800	8,124,700	7,593,300	6,321,600
RESERVE FUND TARGET						
Operations Fund Reserve Target [7]	3,252,000	3,380,000	3,515,000	3,660,000	3,813,000	3,992,000
Reserve Target Met?	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*
DEBT SERVICE COVERAGE						
Coverage Ratio (*Target = 1.20x*) [8]	2.07	1.85	2.10	2.09	2.11	2.67
Target Met?	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*

See footnotes on the following page.

Notes to the Sewer Cash Flow Projection

1 - 2025/26 beginning fund balance estimated by District staff.
2 - Estimated annual rate revenues are prorated based on the November 1 implementation date. Each fiscal year, it is projected the District will collect 4 months' revenue at the prior year's rates and 8 months' revenue at the current year's rates.
3 - The projected O&M payment from the City of Marysville is based on the most recent actual bill to the City escalated by 3% annually to account for estimated inflation.
4 - Interest is set equal to 1.5% of the beginning fund balance each year.
5 - Sewer Connection Fee of $9,482 multiplied by 100 estimated new connections per year. Escalated by 3% annually to account for estimated inflationary increase.
6 - 25% of wastewater treatment CIP
7 - Recommended target is 6 months O&M Expenses plus annual debt service cost
8 - Net Operating Revenue divided by Total Debt Service

SECTION 8: SEWER COST ALLOCATION

The prior section determined the total cost of providing sewer 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 sewer service attributable to each parcel.

8.1 Methodology

The revenue requirements of the wastewater fund and the determination of the sewer flows and loadings of the wastewater utility provide the basis for performing the cost of service analysis. The concept of proportionate allocation to each customer class indicates that allocations should take into consideration the quantity of effluent a customer contributes in addition to the strength of that sewer effluent.

The key factors used to assign sewer utility costs are estimated effluent (flow) going to the wastewater treatment plant and effluent strengths, measured in biochemical oxygen demand (BOD) and total suspended solids (TSS). Higher levels of BOD or TSS equate to increased treatment costs. The total revenue requirement shown in the wastewater cash flow projection (Table 27) is the net cost of providing service and is allocated to the following categories: (1) customer service, (2) flow, (3) BOD and (4) TSS. These allocations are then used as the basis to develop unit rates for each of the four parameters and to assign costs to each customer class in proportion to the sewer services rendered.

8.2 Proposed Cost Allocation

Table 28 includes the results of the cost allocation analysis. Projected sewer operating expenses are allocated to the customer service, flow, BOD, and TSS parameters with 2025/26 serving as the test year. The customer service category is intended to recover costs associated with general utility management and administration that do not vary significantly with the amount of wastewater discharged into the sewer system. The flow, BOD, and TSS categories are intended to recover costs more closely associated with operations, maintenance, and infrastructure that vary based on the amount and the strength of wastewater discharged into the system. The assignments are based on industry standards and input from the District on how the District incurs each cost. In total, 17.5% of wastewater utility costs are proposed to be allocated to customer service, 46.6% to flow, 17.9% to BOD, and 17.9% to TSS.

Table 28: Sewer Cost Allocation

Budgeted Expenses	Budget 2025/26	Customer Service	Flow	BOD	TSS	Total
Operating Expenses						
Treatment Enterprise						
District Overhead	$957,600	50.0%	25.0%	12.5%	12.5%	100.0%
General Expense	$2,645,700	25.0%	37.5%	18.8%	18.8%	100.0%
Extended Maintenance	$147,400	0.0%	60.0%	20.0%	20.0%	100.0%
Subtotal Treatment	$3,750,700	$1,140,225	$1,319,978	$645,249	$645,249	$3,750,700
Allocation %		*30.4%*	*35.2%*	*17.2%*	*17.2%*	*100.0%*
Collection Enterprise						
District Overhead	$319,500	50.0%	25.0%	12.5%	12.5%	100.0%
General Expense	$457,600	25.0%	37.5%	18.8%	18.8%	100.0%
Extended Maintenance	$158,300	0.0%	100.0%	0.0%	0.0%	100.0%
Subtotal Collections	$935,400	$274,150	$409,775	$125,738	$125,738	$935,400
Allocation %		*29.3%*	*43.8%*	*13.4%*	*13.4%*	*100.0%*
Subtotal Operating Expenses	$4,686,100	$1,414,375	$1,729,753	$770,986	$770,986	$4,686,100
Allocation %		*30.2%*	*36.9%*	*16.5%*	*16.5%*	*100.0%*
Non-Operating Expenses						
Debt Service	$1,036,700	0.0%	60.0%	20.0%	20.0%	100.0%
Capital Costs (5-year avg)	$2,340,000	0.0%	60.0%	20.0%	20.0%	100.0%
Subtotal Non-Operating	$3,376,700	$0	$2,026,020	$675,340	$675,340	$3,376,700
Allocation %		*0.0%*	*60.0%*	*20.0%*	*20.0%*	*100.0%*
TOTAL SEWER EXPENSES	**$8,062,800**	**$1,414,375**	**$3,755,773**	**$1,446,326**	**$1,446,326**	**$8,062,800**
Total Allocation %		**17.5%**	**46.6%**	**17.9%**	**17.9%**	***100.0%***

SECTION 9: SEWER RATE DESIGN

The cost of service analysis calculated the revenue requirements for the cost parameters of customer service, flow, BOD, and TSS. The next step is rate design which determines how those revenue requirements are collected from each class based on their estimated impact on the sewer system.

9.1 Sewer Rate Design Considerations

As part of the rate study process, the District reviewed its current rate structure and is proposing rate structure changes that align with how customers currently use the sewer system. Sewer rates in California are typically charged as either a fixed charge per equivalent dwelling unit (EDU), a volume rate charged per unit of wastewater flow, or as a combination of both fixed and volume rates. The District's current rate structure includes a fixed charge for all residential and school sewer customers and a combination of fixed charges and volume rates for non-residential customers. The District would like to maintain the current structure of fixed charges for residential customers. For commercial customers, the District is proposing to simplify the existing rate structure but will maintain the concept of a combination of fixed and volume rates. The rate structure for school customers is not proposed to change.

For residential customers, fixed sewer charges provide revenue stability, are easy for customers to understand, and are straightforward to bill. Moreover, residential customers are a relatively homogeneous group with no significant variations in sewage strength between different types of homes, and peak water usage by residential customers tends not to affect sewer discharge because it occurs in summer months for irrigation needs. By contrast, commercial sewer flow varies widely based on the type and size of business and strength characteristics vary significantly between different types of businesses (i.e., an office versus a restaurant). Thus, including a variable component per unit of water used is an appropriate rate structure for non-residential customers.

9.2 Sewer Rate Design

9.2.1 Proposed Residential Rate Design

Currently, each residential dwelling unit is assigned the same sewer rate regardless of whether it is a single family or multi-family dwelling unit. It is proposed that the residential customer class be subdivided, with single family residential and multi-family residential being split into two separate residential customer classes. The proposed fixed fee per dwelling unit for multi-family customers will be lower, reflecting lower monthly winter water usage for multi-family customers in comparison to single family customers. The proposed multi-family fee will apply to all types of multi-family dwelling units including apartments, duplexes, condominiums, and mobile homes.

9.2.2 Proposed Commercial Rate Design

The District's current non-residential sewer rate structure is proposed to be updated to simplify the rates and more closely align with how customers use the system. Similar to the current rate structure,

the proposed customer classes will be based on sewer strength. However, the number of customer classes will be reduced and will be renamed to make more explicit the strength characteristics of each group. The proposed commercial, industrial, and non-school institutional rate structure consists of 2 components:

1. **Base Fee**
   - All customers will continue to be charged a minimum charge per account which will vary based on wastewater strength.
   - The existing customer classes will be simplified and recategorized as follows (see Table 3 for a detailed description of each customer class):
     - Class 0, Class 1 → Low Strength
     - Class 2, Class 5 → Domestic Strength
     - Class 3, Class 6 → Medium Strength
     - Class 4 → High Strength
     - Class 7 → High Strength
   - The Base Fee will include flow of up to 8 CCF per month consistent with the average flow of one single family dwelling unit.

2. **Flow Charge**
   - An overuse volume rate will be billed to all flows above the base flow of 8 CCF included in the Base Fee. The volume rate will be billed per CCF.
   - Only usage above the first 8 CCF will be billed the flow fee.
   - Customers will continue to be charged based on the average volume of water (in cubic feet as measured through the District water meter) used by the customer per month during the months of November through February of each year. For new customers or customers who do not receive District water service, the District will estimate the amount of monthly flow based on comparable users in the same customer class.

9.2.3 Flow Analysis

The District does not directly meter the sewer flow of individual utility accounts. However, water use can be used as a proxy for sewer flow. More specifically, average winter water consumption is commonly used as a proxy for sewer flow. During the winter, it is assumed that little to no metered water use is used for outdoor irrigation, meaning that the majority of water is discharged into the sewer.

For residential customers, based on average winter water consumption over the past three fiscal years (2021/22, 2022/23, and 2023/24), monthly single family residential sewer flow is 8 CCF. Average monthly flow for multi-family customers is 6 CCF.

The past two years of commercial billed flow data are summarized in Table 29. As described in Section 2.3, each commercial customer's billed flow is based on the average volume of water (in cubic feet as measured through the District water meter) used by that customer per month during the months of

November through February each year. Approximately once per year, each customer's billed flow is adjusted based on the most recent winter water usage data. For customers who do not have a District water service account, flows are estimated based on comparable users from the same class. For new customers, flows are estimated until data can be obtained. Over the past two years, billed flows have averaged about 72,500 CCF.

Table 29: History of Commercial Billed Flows by Rate Class

Revenue Class	2022/23	2023/24	2-Year Average
Class 0	3,309	3,999	3,654
Class 1	12,343	13,341	12,842
Class 2	21,704	25,885	23,794
Class 3	11,215	12,259	11,737
Class 4	4,952	2,838	3,895
Class 5	14,901	11,055	12,978
Class 6	0	0	0
Class 7	3,899	3,345	3,622
Total Billed Flow (CCF)	**72,323**	**72,722**	**72,522**
Percent Change		*0.6%*	

For rate design purposes, total projected flow is modified to reflect the minimum of 8 CCF of flow that is proposed to be incorporated into the commercial base fee. To account for the proposed minimum flow, a bills distribution analysis was conducted for all commercial customer billed flows from 2023/24. If the District had billed all customers for 8 CCF of flow, an additional 4,195 CCF would have been billed. This represents the difference in flow between 8 CCF and the amount actually billed to customers who were billed for less than 8 CCF throughout 2023/24. Total commercial flow for rate design is therefore estimated at roughly 77,000 CCF as summarized in Table 30.

Table 30: Projected Commercial Billed Flows with 8 CCF Minimum

Revenue Class	2023/24
Class 0	3,999
Class 1	13,341
Class 2	25,885
Class 3	12,259
Class 4	2,838
Class 5	11,055
Class 6	0
Class 7	3,345
Minimum Flow [1]	4,195
Total Flow for Rate Design (CCF)	76,917

1 - This line item reflects the flows that would have been billed (but not actually discharged by customers) if the District implements a minimum flow fee of 8 CCF/month.

9.2.4 Sewer Flow & Loading Estimates

The projected number of customer accounts and sewer flows for each year of the five-year rate study period are calculated in Table 31 on the following page. Consistent with the projected number of accounts connecting to the District's water system (Table 18), it is estimated based on projections by District staff that 100 new single family residential customers will connect to the sewer system each year.

Single family residential flows are estimated as 8 CCF per dwelling unit per month. Multi-family residential flows are estimated as 6 CCF per dwelling unit per month. Commercial flows are estimated based on billed flows from 2023/24 plus the additional minimum flow as described in Table 30. School flows are estimated using the industry standard estimate of 10 gallons per day per student and assuming the school is occupied 270 days per year. Consistent with the projected annual increase in water consumption, it is estimated that total sewer flows will increase by 1.0% annually during the rate study period.

Table 31: Projected Number of Accounts & Sewer Flows

	CURRENT	PROJECTED - RATE STUDY PERIOD				
	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
NUMBER OF BILLING UNITS						
Growth Increase % [1]		*1.36%*	*1.34%*	*1.32%*	*1.30%*	*1.29%*
RESIDENTIAL						
Single Family	4,883	4,983	5,083	5,183	5,283	5,383
Multi-Family	2,494	2,494	2,494	2,494	2,494	2,494
Subtotal Residential	7,377	7,477	7,577	7,677	7,777	7,877
COMMERCIAL						
Low Strength	74	74	74	74	74	74
Domestic Strength	37	37	37	37	37	37
Medium Strength	14	14	14	14	14	14
High Strength	9	9	9	9	9	9
Special (High Strength)	1	1	1	1	1	1
Subtotal Commercial	135	135	135	135	135	135
Schools (no. of students)	3,068	3,098	3,129	3,161	3,192	3,224
Total Sewer Billing Units	10,580	10,710	10,841	10,973	11,104	11,236
SEWER FLOW (CCF)						
Annual Increase %		*1.00%*	*1.00%*	*1.00%*	*1.00%*	*1.00%*
RESIDENTIAL						
Single Family [2]	468,768	478,368	487,968	497,568	507,168	516,768
Multi-Family [3]	179,568	179,568	179,568	179,568	179,568	179,568
Subtotal Residential	648,336	657,936	667,536	677,136	686,736	696,336
COMMERCIAL (with 8 CCF minimum)						
Low Strength	20,530	20,735	20,942	21,151	21,363	21,577
Domestic Strength	37,627	38,003	38,383	38,767	39,155	39,547
Medium Strength	12,468	12,593	12,719	12,846	12,974	13,104
High Strength	2,947	2,976	3,006	3,036	3,066	3,097
Special (High Strength)	3,345	3,378	3,378	3,378	3,378	3,378
Subtotal Commercial	76,917	77,685	78,428	79,178	79,936	80,703
Schools (per student ADA) [4]	11,073	11,184	11,296	11,409	11,523	11,638
Total Estimated Flow (CCF)	736,326	746,805	757,260	767,723	778,195	788,677

1 - Per input from District staff, it is estimated that 100 new residential customers will connect each year.
2 - Estimated flow of 8 CCF/month
3 - Estimated flow of 6 CCF/month
4 - Estimated flow of 10 gpd per student and 270 school days per year; ADA - average daily attendance

Total system pollutant loads by customer class for 2025/26 are estimated in Table 32 based on the total flow estimate from Table 31. Pollutant loads consist of biochemical oxygen demand (BOD) and total suspended solids (TSS). The BOD and TSS strength factors, which are expressed as mg/l, are based on industry standard estimates.

Table 32: 2025/26 Projected Sewer Flows & Loadings

Customer Class	2025/26 Est Flow (CCF)	Wastewater Strength (mg/l)		Wastewater Loadings (lbs)	
		BOD	TSS	BOD	TSS
Residential					
Single Family	478,368	175	175	522,237	522,237
Multi Family	179,568	175	175	196,035	196,035
Commercial (with 8 CCF minimum)					
Low Strength	20,735	135	135	17,462	17,462
Domestic Strength	38,003	175	175	41,488	41,488
Medium Strength	12,593	300	300	23,568	23,568
High Strength	2,976	500	500	9,283	9,283
Special (High Strength)	3,378	500	500	10,537	10,537
Schools	11,184	175	175	12,210	12,210
Total	**746,805**			**832,820**	**832,820**

9.2.5 Unit Cost Calculation

As noted in the cost allocation, sewer rates are determined based on customer service costs as well as the amount of wastewater flow and pollutants discharged into the sewer system. Table 33 provides the unit cost calculation for the customer service, flow, BOD, and TSS cost categories. The total amount of proposed rate revenue for one full year under the proposed 2025/26 rates (taken from Table 27) is divided between the categories based on the percentages developed in Table 28. The revenue requirement for each cost category is then divided by the appropriate billing units to calculate a unit charge. For the customer service category, the number of billing units is equal to the number of residential dwelling units and commercial accounts from Table 31. For the flow, BOD, and TSS categories, the number of billing units is from the projected flows and loadings in Table 32.

Table 33: Unit Cost Calculation

Cost Allocation	Total	Customer Service	Flow	BOD	TSS
Cost Allocation %	100.0%	17.5%	46.6%	17.9%	17.9%
2025/26 Revenue Requirement [1]	$4,011,700	$703,700	$1,868,700	$719,600	$719,600
Billing Units		7,643 Accounts or Dwelling Units	746,805 ccf/year	832,820 lbs/year	832,820 lbs/year
Rate		$7.67 $/month	$2.50 $/ccf	$0.86 $/lb	$0.86 $/lb

1 - 12 months of revenue with proposed rate increases

9.3 Sewer Rate Derivation

9.3.1 Flow Charge Derivation

The sewer flow charges are derived in Table 34 on the following page based on the flow, BOD, and TSS unit costs derived in Table 33. The strength multipliers shown in Table 32 for each customer class are applied to the BOD and TSS unit costs from Table 33 to calculate a strength charge per CCF that is added to the unit cost for flow. The unit cost for flow is the same for all customer classes regardless of sewer strength, but the strength costs for BOD and TSS increase as sewer strength increases. The total proposed flow charge per CCF is the sum of the flow, BOD, and TSS rates.

Table 34: 2025/26 Flow Charge Derivation

	Flow (CCF)	BOD (lbs)	TSS (lbs)	Total Flow Charge ($/CCF)
Unit Cost	**$2.50**	**$0.86**	**$0.86**	
Low Strength				
Billing Units	-	135	135	
Sewer Rate	$2.50	$0.72	$0.72	$3.94
Domestic Strength				
Billing Units	-	175	175	
Sewer Rate	$2.50	$0.94	$0.94	$4.38
Medium Strength				
Billing Units	-	300	300	
Sewer Rate	$2.50	$1.61	$1.61	$5.72
High Strength				
Billing Units	-	500	500	
Sewer Rate	$2.50	$2.68	$2.68	$7.86

9.3.2 Monthly Fixed or Base Fee Derivation

Table 35 details the fixed (for residential and school customers) or base (for commercial customers) rate derivation for 2025/26 using the customer service unit cost from Table 33 and the flow charges derived in Table 34. It is proposed that customer service costs be recovered through a fixed portion of the monthly bill that is applied to all customer classes equally.

For residential customers, the monthly flow charge is added to the customer service portion of the bill to calculate a proposed fixed monthly charge. The single family flow charge is calculated based on 8 CCF of flow per month, while the multi-family flow charge is calculated based on 6 CCF of flow per month. The rate for both residential customer classes is calculated using the domestic strength flow charges.

For each commercial strength category, the monthly base fee includes the customer service fee and the flow charge for 8 CCF of monthly flow. It is proposed that any additional discharge of sewer flow above 8 CCF per month be billed according to the flow charges calculated in Table 34.

Schools are proposed to continue to be charged a fixed rate based on average daily attendance. The school sewer rate includes the customer service fee, the estimated flow and number of students from Table 32, and a strength charge based on low strength sewer flow. The rate is expressed as a rate per student per year rather than a rate per CCF.

Table 35: 2025/26 Fixed or Base Fee Derivation

Customer Class	Customer Service Charge ($/mo)		Flow (CCF)		Flow Charge ($/CCF)		Total Monthly Rate or Base Fee ($/mo) [1]
Residential Monthly Fixed Rate (per dwelling unit)							
Single Family	$7.67	+	8	x	$4.38	=	$42.71
Multi-Family	$7.67	+	6	x	$4.38	=	$33.95
Commercial Monthly Base Fee (for up to 8 CCF)							
Low Strength	$7.67	+	8	x	$3.94	=	$39.19
Domestic Strength	$7.67	+	8	x	$4.38	=	$42.71
Medium Strength	$7.67	+	8	x	$5.72	=	$53.43
High Strength	$7.67	+	8	x	$7.86	=	$70.55
School Annual Fixed Rate (per student per year)							
Low Strength	-		-		-		$15.15

1 - Note: School rate is $/student/year rather than $/mo

9.4 Proposed 5-Year Schedules of Sewer Rates

A summary of the proposed monthly rates for the next five years is provided in Table 36 for residential and school customers and Table 37 for non-residential customers. As described in the rate derivation provided herein, the proposed rates will be necessary to recover only the actual proportional cost of sewer service attributable to each parcel.

It is proposed that the new rate structure go into effect November 1, 2025, with subsequent increases each November 1 through 2029. If additional connections are built out in the District, then the increased rates for the sewer services fees calculated in this study will also apply to them. For the first rate change, the rate impacts to each customer do not exactly align with the proposed overall revenue percentage increase shown in the cash flow projection (Table 27) due to the updated rate structure design and reconfiguration of the unit cost components used to calculate the rates.

Following the first increase in 2025/26, the percentage change for each customer class for each year will align with the percentage increase shown in the cash flow projection less projected growth from the projection in Table 32. For example, in 2026/27, the projected rate increase in the cash flow projection is 10.0%. Also in 2026/27, the number of residential dwelling units is projected to increase by about 1.3% and commercial sewer flows are projected to increase by 1.0%. Consequently, the rate increase to residential customers will be about 8.7% and the rate increase to commercial customers will be about 9.0%.

Table 36: Current and Proposed Monthly Residential and Annual School Sewer Rates

		PROPOSED				
	Current	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**
Effective Date		Nov 1, 2025	Nov 1, 2026	Nov 1, 2027	Nov 1, 2028	Nov 1, 2029
RESIDENTIAL (per dwelling unit)						
Single Family	$36.80	$42.71	$46.41	$50.44	$52.30	$54.24
Multi-Family	$36.80	$33.95	$36.89	$40.09	$41.57	$43.11
SCHOOLS						
per student per year	$15.61	$15.15	$16.67	$18.34	$19.26	$20.22

Multi-Family dwelling units include duplexes, triplexes, apartments, condominiums, townhouses, accessory dwelling units, assisted living homes, mobile homes, mobile homes, manufactured homes, and recreational vehicles.

Table 37: Proposed Monthly Non-Residential Sewer Rates

	PROPOSED				
	2025/26	**2026/27**	**2027/28**	**2028/29**	**2029/30**
Effective Date	Nov 1, 2025	Nov 1, 2026	Nov 1, 2027	Nov 1, 2028	Nov 1, 2029
COMMERCIAL, INDUSTRIAL, AND NON-SCHOOL INSTITUTIONAL BASE FEE (includes up to the first 8 CCF)					
Low Strength: Class 0 & 1	$39.19	$42.72	$46.56	$48.42	$50.36
Domestic Strength: Class 2 & 5	$42.71	$46.55	$50.74	$52.77	$54.88
Medium Strength: Class 3 & 6	$53.43	$58.24	$63.48	$66.02	$68.66
High Strength: Class 4 & 7	$70.55	$76.90	$83.82	$87.17	$90.66
COMMERCIAL, INDUSTRIAL, AND NON-SCHOOL INSTITUTIONAL FLOW CHARGE ($ per CCF above 8 CCF)					
Low Strength: Class 0 & 1	$3.94	$4.29	$4.68	$4.87	$5.06
Domestic Strength: Class 2 & 5	$4.38	$4.77	$5.20	$5.41	$5.63
Medium Strength: Class 3 & 6	$5.72	$6.23	$6.79	$7.06	$7.34
High Strength: Class 4 & 7	$7.86	$8.57	$9.34	$9.71	$10.10

CCF = one hundred cubic feet; 1 CCF = 748 gallons
See Table 3 for a description of customer classes

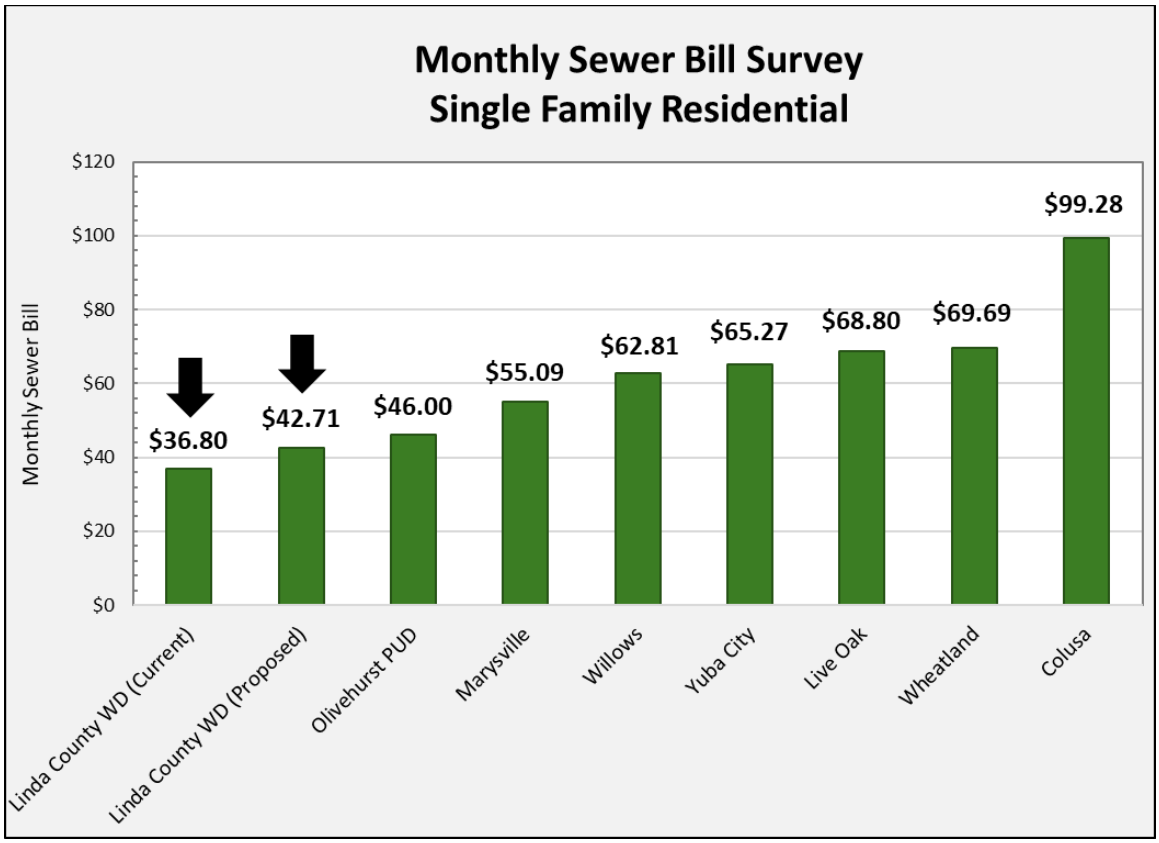
9.5 Sewer Bill Impacts

For 2025/26, the proposed 10.0% revenue adjustment in the cash flow will not directly correlate with a 10.0% increase in the monthly bill for each customer due to the cost of service reallocation and the rate structure changes. The District's total annual revenue collected from rates is proposed to increase by 10.0%, but the bill impact to each customer will vary based on customer class and sewer flow.

9.5.1 Residential Sewer Rate Survey

Under the proposed rates, the monthly sewer bill for single family residential customers will increase from $36.80 to $42.71, an increase of $5.91. Figure 7 shows how the current and proposed LCWD monthly bills compare to the monthly single family residential bills for other local agencies. Despite the proposed bill increase, the District's monthly bill remains the lowest when compared to those currently charged by the surveyed agencies.

Figure 7: Monthly Single Family Residential Sewer Bill Survey



9.6 Combined Bill Impacts

The following tables show the combined monthly water and sewer bill impacts of the proposed rates for a range of single family residential customers based on the typical monthly average water consumption across the whole year, average winter consumption, and average summer consumption. Table 38 provides sample bills for a customer with a 5/8” meter and Table 39 provides sample bills for a 3/4” meter.

Table 38: Sample Combined Monthly Bill Impacts, 5/8" Meters

RESIDENTIAL BILL IMPACTS - 5/8" METER

	Monthly Use (ccf)	Current Bill	Proposed				
			Nov 1, 2025	Nov 1, 2026	Nov 1, 2027	Nov 1, 2028	Nov 1, 2029
8 ccf (Winter Bill)							
Water Bill							
Base Rate - 5/8"		$16.50	$17.40	$17.55	$17.70	$17.88	$18.05
Consumption Charge	8	$13.20	$12.56	$12.80	$13.04	$13.28	$13.60
Sewer Bill		$36.80	$42.71	$46.41	$50.44	$52.30	$54.24
Total Monthly Bill		$66.50	$72.67	$76.76	$81.18	$83.46	$85.89
$ Change			*$6.17*	*$4.09*	*$4.42*	*$2.28*	*$2.43*
% Change			*9.3%*	*5.6%*	*5.8%*	*2.8%*	*2.9%*
14 ccf (Average Bill)							
Water Bill							
Base Rate - 5/8"		$16.50	$17.40	$17.55	$17.70	$17.88	$18.05
Consumption Charge	14	$23.10	$21.98	$22.40	$22.82	$23.24	$23.80
Sewer Bill		$36.80	$42.71	$46.41	$50.44	$52.30	$54.24
Total Monthly Bill		$76.40	$82.09	$86.36	$90.96	$93.42	$96.09
$ Change			*$5.69*	*$4.27*	*$4.60*	*$2.46*	*$2.67*
% Change			*7.4%*	*5.2%*	*5.3%*	*2.7%*	*2.9%*
20 ccf (Summer Bill)							
Water Bill							
Base Rate - 5/8"		$16.50	$17.40	$17.55	$17.70	$17.88	$18.05
Consumption Charge	20	$33.00	$31.40	$32.00	$32.60	$33.20	$34.00
Sewer Bill		$36.80	$42.71	$46.41	$50.44	$52.30	$54.24
Total Monthly Bill		$86.30	$91.51	$95.96	$100.74	$103.38	$106.29
$ Change			*$5.21*	*$4.45*	*$4.78*	*$2.64*	*$2.91*
% Change			*6.0%*	*4.9%*	*5.0%*	*2.6%*	*2.8%*

Table 39: Sample Combined Monthly Bill Impacts, 3/4" Meters

RESIDENTIAL BILL IMPACTS – 3/4" METER

	Monthly Use (ccf)	Current Bill	Proposed				
			Nov 1, 2025	Nov 1, 2026	Nov 1, 2027	Nov 1, 2028	Nov 1, 2029
8 ccf (Winter Bill)							
Water Bill							
Base Rate – 3/4"		$24.75	$25.87	$26.09	$26.31	$26.58	$26.83
Consumption Charge	8	$13.20	$12.56	$12.80	$13.04	$13.28	$13.60
Sewer Bill		$36.80	$42.71	$46.41	$50.44	$52.30	$54.24
Total Monthly Bill		$74.75	$81.14	$85.30	$89.79	$92.16	$94.67
$ Change			*$6.39*	*$4.16*	*$4.49*	*$2.37*	*$2.51*
% Change			*8.5%*	*5.1%*	*5.3%*	*2.6%*	*2.7%*
14 ccf (Average Bill)							
Water Bill							
Base Rate – 3/4"		$24.75	$25.87	$26.09	$26.31	$26.58	$26.83
Consumption Charge	14	$23.10	$21.98	$22.40	$22.82	$23.24	$23.80
Sewer Bill		$36.80	$42.71	$46.41	$50.44	$52.30	$54.24
Total Monthly Bill		$84.65	$90.56	$94.90	$99.57	$102.12	$104.87
$ Change			*$5.91*	*$4.34*	*$4.67*	*$2.55*	*$2.75*
% Change			*7.0%*	*4.8%*	*4.9%*	*2.6%*	*2.7%*
20 ccf (Summer Bill)							
Water Bill							
Base Rate – 3/4"		$24.75	$25.87	$26.09	$26.31	$26.58	$26.83
Consumption Charge	20	$33.00	$31.40	$32.00	$32.60	$33.20	$34.00
Sewer Bill		$36.80	$42.71	$46.41	$50.44	$52.30	$54.24
Total Monthly Bill		$94.55	$99.98	$104.50	$109.35	$112.08	$115.07
$ Change			*$5.43*	*$4.52*	*$4.85*	*$2.73*	*$2.99*
% Change			*5.7%*	*4.5%*	*4.6%*	*2.5%*	*2.7%*

Figure 8 and Figure 9 compare the District's current and proposed combined monthly water and sewer bills to the bills of other local agencies for a typical single family residential customer with a 5/8" or a 3/4" meter, respectively. For both meter sizes, both the current and proposed District bills are on the low end of the surveyed agencies. It should be noted that some regional agencies either charge the same rates for 5/8" and 3/4" meters or do not offer a 5/8" meter rate. Hence, the combined bills for some agencies are the same between the two charts.

Figure 8: Combined Monthly Water & Sewer Bill Survey, 5/8" Meters

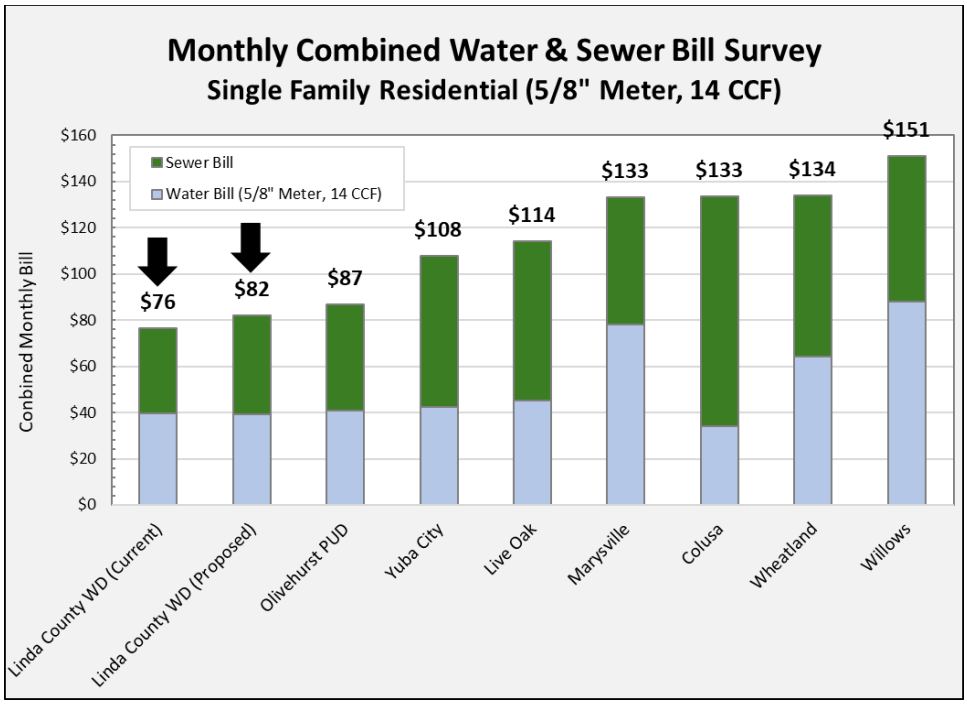


Figure 9: Combined Monthly Water & Sewer Bill Survey, 3/4" Meters