DRAFT FINAL

SEWER RATE STUDY

BLACK & VEATCH PROJECT NO. 414264

PREPARED FOR

City of Newport Beach, CA

15 SEPTEMBER 2023

BLACK & VEATCH

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Legal Notice

Black & Veatch Management Consulting, LLC (Black & Veatch) has prepared this report for the City of Newport Beach (City), and it is based on information not within the control of Black & Veatch. The City has not requested Black & Veatch to make an independent analysis, verify the information provided to us, or render an independent judgment of the validity of the information provided by others. Because of this, Black & Veatch cannot, and does not, guarantee the accuracy thereof to the extent that such information, data, or opinions were based on information provided by others.

In conducting these analyses and in forming an opinion of the projection of future financial operations summarized in this report, Black & Veatch made certain assumptions on the conditions, events, and circumstances that may occur in the future. The methodology utilized in performing the analyses follows generally accepted practices for such projections. Such assumptions and methodologies are reasonable and appropriate for the purpose for which they are used. While we believe the assumptions are reasonable and the projection methodology valid, actual results may differ materially from those projected, as influenced by the conditions, events, and circumstances that occur. Such factors may include the City's ability to execute the capital improvement program as scheduled and within budget, regional climate and weather conditions affecting the demand for water, discharge of sewage flow, and adverse legislative, regulatory, or legal decisions (including environmental laws and regulations) affecting the City's ability to manage the system and meet water quality requirements.

1.0 Executive Summary

The City of Newport Beach (City) commissioned Black & Veatch Management Consulting, LLC (Black & Veatch) to perform a Sewer Rate Study (Study) for its Sewer Utility. The Study included the development of a five-year financial plan, a cost-of-service analysis, and the design of rates. The specific objectives of the Study were to:

- Evaluate the adequacy of projected revenues under existing rates to meet projected revenue requirements.
- Develop a sound financial plan for the Sewer Utility covering five years for ongoing operations and planned capital improvements.
- Allocate the projected revenue requirements to the various customer types in accordance with their respective service requirements.
- Develop a suitable rate schedule that produces revenues adequate to meet financial needs while recognizing customer costs of service and regulatory considerations such as Proposition 218 and applicable judicial decisions.

1.1 Financial Plan

The City operates the utility as an individual self-supporting enterprise. As such, the utility develops a financial plan that provides sufficient revenues to meet all operation and maintenance (O&M) expenses, debt service requirements, capital improvements funded from current revenues, and other expenditures.

The Study develops a financial plan that projects operating revenue, expenses, and capital financing costs for the utility over a five-year planning period beginning July 1, 2023, and ending June 30, 2028.

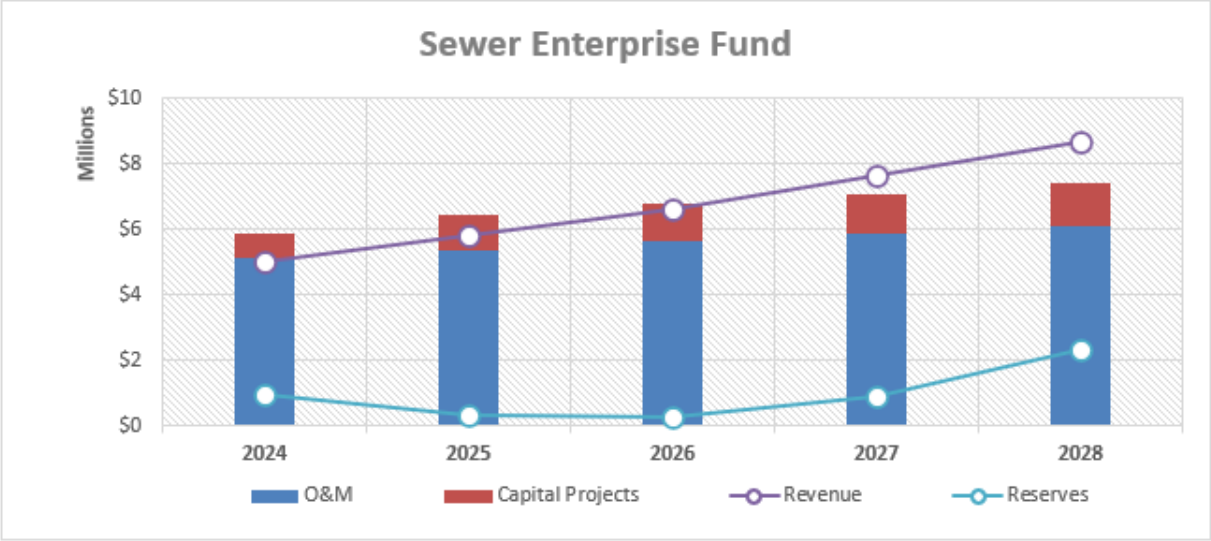
The financial plan projects future rate revenues under existing rates, O&M expenses, principal and interest expenses on debt, payment to other City departments for services provided, and capital improvement program (CIP) requirements. In the projection of rate revenues, annual projections of customers and contributed sewage flow rely upon the City's historical data and estimates of growth.

The Sewer Utility's revenue requirements are summarized below:

- Operation and Maintenance Expenses: The Sewer Utility anticipates O&M expenses to increase from $5.1M in FY 2024 to $6.1M in FY 2028. The Sewer Utility is a collection-only system; City customers pay for treatment services to OC Sanitation District through their property tax bills.
- Debt Service: The Sewer Utility has no existing debt service, and no future debt is planned.
- Capital Improvements: The Sewer Utility plans to execute an average of $1.1M annually in capital projects from FY 2024 to FY 2028.
- Reserves: The Sewer Utility plans to continue funding the operating fund reserve, capital fund reserve, and rate stabilization fund reserve.
    - The operating fund reserve is to help cover fluctuations in day-to-day expenses. The scheduled target is 90 days of O&M expenses.
    - The capital fund reserve is to help maintain enough funds to cover a portion of upcoming annual capital expenditures, smooth out the amount of capital infusion needed each year, and help mitigate unexpected capital costs. The scheduled target is 100% of the annual CIP.

The Sewer Utility is proposing revenue adjustments and drawing down on reserves to allow the enterprise to meet operating and capital needs and reserve targets, as shown in Figure 1-1.

Figure 1-1 Sewer Enterprise Fund Financial Plan



1.2 Cost of Service Analysis

The cost-of-service analysis allocates the costs to the various customer types of service fairly and equitably. The methodology used in the Study is specific to the sewer utility operations. The following is a brief description of the methodology.

The sewer cost-of-service allocation performed in this Study follows the Functional Cost Allocation Method endorsed by the Water Environment Federation (WEF) *Financing and Charges for Wastewater Systems, Manual of Practice 27* (MoP27) manual. Like the methodology used for water systems, the sewer cost of service analysis allocates costs to the different customer types in proportion to their use of the sewer system. As recommended by WEF, Black & Veatch distributed functional costs to volume, strength, and customer-related parameters. This allocation methodology produces unit costs for allocation to individual customer types based on the projected customer service requirements.

1.3 Rate Design

The Right to Vote on Taxes Act, also known as Proposition 218, was passed by California voters in 1996 and added Article XIIIC and Article XIIID to the California Constitution. These articles provide the regulatory framework that guides and informs the rate-setting process. The cost-of-service analyses provide the cost nexus for the proposed rate structures. The regulatory framework helps ensure cost recovery is proportionate to the cost of providing the service.[1]

To minimize impacts, retain simplicity, and ensure the reasonable stability of revenue, Black & Veatch recommends the following rate structure.

[1] Black & Veatch is not a legal firm and interpretations of the legal requirements under Proposition 218 should be reviewed by legal counsel.

- Monthly Fixed Charge: The Sewer Utility should retain the monthly fixed charge based on meter sizes for all customer types. The monthly fixed charge recovers portions of fixed cost elements such as operating and capital components, maintenance and services, and customer billing.
- Consumption Charge: The Sewer Utility should retain its uniform consumption charges for all customer types. The consumption charge recovers costs associated with volume demands.

Table 1-1 summarizes all Sewer Utility components recommended five-year rate schedules. Rates will become effective January 1st of each calendar year.

Table 1-1 Proposed Five-Year Sewer Rate Schedules

Customer Class	Calendar Year Ending December 31,				
	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028
Effective Date	1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028
Monthly Fixed Service Charge	($/mo.)	($/mo.)	($/mo.)	($/mo.)	($/mo.)
5/8", 3/4"	10.55	12.85	15.65	18.95	22.25
1"	10.55	12.85	15.65	18.95	22.25
1-1/2"	15.83	19.28	23.47	28.43	33.38
2"	21.11	25.71	31.30	37.90	44.51
3"	26.38	32.14	39.12	47.38	55.63
4"	31.66	38.56	46.95	56.85	66.76
6"	36.94	44.99	54.77	66.33	77.89
8"	42.22	51.42	62.60	75.81	89.01
Sewer Only Fixed Service Charge	($/mo.)	($/mo.)	($/mo.)	($/mo.)	($/mo.)
5/8", 3/4"	15.86	18.36	21.35	24.85	28.36
1"	18.51	21.11	24.20	27.80	31.41
1-1/2"	53.99	58.88	64.52	70.91	77.30
2"	59.27	65.31	72.34	80.39	88.43
3"	137.68	147.63	158.83	171.29	183.74
4"	238.35	253.06	269.27	286.97	304.67
6"	413.21	435.48	459.51	485.26	511.00
8"	418.49	441.91	467.33	494.74	522.12
Usage Charge	($/HCF)	($/HCF)	($/HCF)	($/HCF)	($/HCF)
All Usage	0.53	0.55	0.57	0.59	0.61

2.0 Introduction

2.1 Purpose

The purpose of this report is (1) to project the future revenues of the Sewer Utility under existing rates and charges, project operating expenses and capital financing revenue requirements, and to examine the adequacy of projected revenues to meet these revenue requirements through FY 2028; (2) to allocate these revenue requirements, or costs of service, for a representative test year to the various customer types in accordance with the respective service requirements that each category places on the system; and (3) to develop a suitable schedule of sewer rates that will produce revenues adequate to meet the financial needs of the utility on the basis that recognizes customer costs of service and practical bill impact considerations.

2.2 Sewer System

The Sewer Utility provides collection sewer services to over 23,500 residential and non-residential customers. Services include constructing and maintaining the sewer system and reducing sanitary sewer overflows. Sanitary sewer flows in the City are collected and transported through more than 203 miles of gravity and 5 miles of forced sewer mains by way of 21 lift stations to the Orange County Sanitation District (OC San) Plant No. 1 and No. 2. OC Sanitation District's regional treatment plants receive waste from 25 agencies in Orange County and can treat 179 million gallons a day (MGD) of liquid waste.

2.3 Methodology

The rate-setting methodology employed by Black & Veatch is consistent with industry guidelines established by WEF's *Financing and Charges for Wastewater Systems, Manual of Practice* 27 manual. The manual is nationally recognized and provides recommendations and generally accepted practices in the sewer industry. The intent of the manuals is to provide rate-making practices that can be used to address the unique circumstances of the communities served. An overview of the methodology is outlined below.

2.3.1 Financial Plan

Financial planning compares the projected revenues of the utility under existing conditions to its projected operating expenses and capital expenditures. This step tests the adequacy of the current rates to recover the utility's forecasted costs. If shortfalls occur, revenue increases are recommended until the utility is financially stable.

Financial Planning
Establish operating and capital financing plans that fully fund activities

Cost of Service Analysis
Perform a cost-of-service analysis to determine if cost allocations are fair and equitable among customer classes

2.3.2 Cost-of-Service Analysis

The cost-of-service analysis builds a link between the utility's cost of service and the proposed rates for each customer type. This process takes individual budget cost items and allocates them based on their function. Organizing the budget in terms of end function allows the creation of a nexus between the budget cost item and the rate.

2.3.3 Rate Design

Rate design involves developing a rate structure that equitably and proportionately recovers costs from the customers. The rate structure should reflect a customer group's demand profile and be resilient and flexible enough to handle changing costs (i.e., operating and/or capital) and demand scenarios (i.e., customers change their demand on the system by contributing less or more flow). Rate equity is inherently built upon each customer's relative use of the system. By designing different rate components, the utility can balance affordability and equity.

Rate Design
Review the existing rate structure and design proposed rates that provide adequate revenues

Rate Adoption
Establish the basis for the proposed rates to be adopted in compliance with Proposition 218

2.3.4 Rate Adoption

In California, public utilities must meet procedural requirements for adopting new or increased rates for property-related fees under Proposition 218. Proposition 218 states that the utility must hold a public hearing to consider the proposed rates and provide written notice to all customers at least 45 days before the hearing. Any property owner or tenant directly liable to the public agency for payment of the property-related fees may submit a written protest to the new or increased rates until the close of the public hearing. The City Council may not adopt the proposed new or increased rates if property owners or tenants directly liable for payment submit written protests on behalf of more than 50% of the properties upon which the proposed rates may be imposed.

Sewer Utility

3.0 Revenue and Revenue Requirements

To meet the costs associated with providing sewer services to its customers, the Sewer Utility derives revenue from various sources, including sewer user charges (rates), collections, penalties, interest earned from the investment of available funds, and other miscellaneous revenues. The Sewer Utility is constantly looking for other sources of revenue, such as grants, to help mitigate ratepayer impacts. The level of future revenues is estimated via an analysis of historical and future system growth in terms of the number of accounts and contributed sewage flow. This section also projects the expenses, or revenue requirements, necessary to operate and maintain the system, invest in capital improvements, make debt service payments, and cover other sewer system expenses.

3.1 Customer and Water Consumption Projections

3.1.1 No. of Customers

The City provides sewer collection services to 23,500 residential and non-residential customers. Most customers connected to the sewer system are water customers and, therefore, are connected through metered connections. The City also provides sewer-only service to over 500 City customers who receive water from Mesa Water District or Irvine Ranch Water District. The City bills customers based on the size of the water-metered connection and the contributed sewage flow. Since the City bills customers based on the metered connection, the analysis included a review of historical accounts for customers and anticipated growth within the City. The City has seen three straight years of decline in population between 2020 and 2023 based on the State of California, Department of Finance, E-5 Population and Housing Estimates. The projected number of accounts will remain steady for the entire study period.

Table 3-1 summarizes the projected number of accounts for the Sewer Utility.

Table 3-1 Number of Sewer Customers

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
		(accts)	(accts)	(accts)	(accts)	(accts)
	Sewer					
	All Customers					
1	5/8", 3/4"	0	0	0	0	0
2	1"	21,777	21,777	21,777	21,777	21,777
3	1-1/2"	431	431	431	431	431
4	2"	762	762	762	762	762
5	3"	26	26	26	26	26
6	4"	42	42	42	42	42
7	6"	16	16	16	16	16
8	8"	5	5	5	5	5
9	10"	0	0	0	0	0
10	Subtotal	23,059	23,059	23,059	23,059	23,059

Line No.	Description	Fiscal Year Ending June 30, FY 2024 (accts)	FY 2025 (accts)	FY 2026 (accts)	FY 2027 (accts)	FY 2028 (accts)
	Sewer					
	Sewer Only					
11	5/8", 3/4"	466	574	574	574	574
12	1"	108	108	108	108	108
13	1-1/2"	23	23	23	23	23
14	2"	71	71	71	71	71
15	3"	2	2	2	2	2
16	4"	1	1	1	1	1
17	6"	2	2	2	2	2
18	8"	1	1	1	1	1
19	10"	1	1	1	1	1
20	Subtotal	675	783	783	783	783
21	Total	23,734	23,842	23,842	23,842	23,842

3.1.2 Contributed Sewage Flow

Table 3-2 shows the projected contributed sewage flow for the Study period. In determining the projected contributed sewage flow, Black & Veatch analyzed historical sewage flow patterns in conjunction with the water projections for the Water Utility. Contributed sewage flows equal water consumption; therefore, it is important to understand water consumption patterns. In examining water consumption patterns, it was noted that water consumption depends on California's weather conditions. Water consumption has stabilized over the past few years due to water conservation incentives and messaging.

Recognizing that water consumption has stabilized, the projected contributed sewage flow is expected to remain steady for the Study period. The City currently bills contributed sewage flow in hundred cubic feet (HCF).

Table 3-2 Contributed Sewage Flow

Line No.	Description	Fiscal Year Ending June 30, FY 2024 (HCF)	FY 2025 (HCF)	FY 2026 (HCF)	FY 2027 (HCF)	FY 2028 (HCF)
	Contributed Sewage Flow					
1	All Customers	4,030,872	4,030,872	4,030,872	4,030,872	4,030,872
2	Sewer Only	200,376	200,376	200,376	200,376	200,376
3	Total	4,231,248	4,231,248	4,231,248	4,231,248	4,231,248

3.2 Revenue under Existing Rates

Sewer user rates serve as the primary source of revenue for the Sewer Utility. Therefore, the level of future rate revenue is important in developing a long-range financial plan. Future sewer rate revenues are calculated using the number of accounts and billed sewage flow multiplied by the applicable existing rates.

Table 3-3 shows the Sewer Utility's current schedule of charges. The rates are composed of monthly fixed and uniform consumption charges. The monthly fixed service charge is the same for all customers except sewer-only customers. The difference is that the monthly fixed service charge for sewer-only

customers includes a contributed sewage flow based on the average water consumption for that meter size. The consumption charge is the same for all customers based on water flow.

Table 3-3 Existing Sewer Rates

Description	Fiscal Year 2023 All	Fiscal Year 2023 Sewer Only
Monthly Fixed Service Charge ($/mo.)		
5/8", 3/4"	8.55	13.10
1"	8.55	15.34
1-1/2"	9.41	46.14
2"	12.83	47.54
3"	14.54	122.10
4"	17.11	216.25
6"	19.25	381.07
8"	21.39	383.21
10"	27.37	389.20
Sewer Use Charge ($/HCF)		
All Usage	0.51	NA

Table 3-4 summarizes projected sewer rate revenue under existing rates. The projected Sewer Utility revenues remain constant at $4.6M between FY 2024 and FY 2028.

Table 3-4 Projected Sewer Revenue under Existing Rates

Line No.	Description	Fiscal Year Ending June 30, FY 2024 ($)	FY 2025 ($)	FY 2026 ($)	FY 2027 ($)	FY 2028 ($)
	Revenue					
1	All Customers	4,474,700	4,474,700	4,474,700	4,474,700	4,474,700
2	Sewer Only	170,300	170,300	170,300	170,300	170,300
3	Total	$ 4,645,000	$ 4,645,000	$ 4,645,000	$ 4,645,000	$ 4,645,000

3.3 Other Revenue

Other sources of operating revenue include collections, penalties, interest earned from the investment of available funds, and other miscellaneous revenues. Other operating revenues represent 1.8% of the Sewer Utility's total revenue. The City anticipates these revenues will remain relatively constant for the Study period.

3.4 Operating and Maintenance Expenses

Table 3-6 summarizes the Sewer Utility's projected O&M expense for the Study period. These expenses include salaries and benefits, maintenance and operations, internal service charges, and capital expenditures. The City anticipates that all O&M expenditures will escalate based on the factors identified in Table 3-5.

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Table 3-5 Sewer O&M Escalation Factors

Description	O&M Escalation Factors				Sources
	2025	2026	2027	2028	
Salaries	4.20%	4.20%	3.00%	3.00%	City MOU
Benefits	4.20%	4.20%	3.00%	3.00%	City MOU
Contract Services	4.00%	4.00%	4.00%	4.00%	CPI Services, City Staff
Utilities	8.00%	5.00%	5.00%	5.00%	Fuels & Utilities CPI, City Staff
Electricity	8.00%	5.00%	5.00%	5.00%	Electricity CPI
Materials & Supplies	7.00%	6.00%	5.00%	5.00%	All Items CPI, City Staff
Maintenance & Repair	7.00%	6.00%	5.00%	5.00%	Commercial Repair & Maint. PPI, City Staff
General Admin	4.00%	4.00%	4.00%	4.00%	All Items CPI
Minor Capital Outlay	5.00%	5.00%	5.00%	5.00%	All Items CPI
Internal Services	5.60%	5.60%	5.60%	5.60%	ENR CCI (5-year avg.), City Staff
Insurance	5.60%	5.60%	5.60%	5.60%	City Staff
Weighted Average	5.11%	4.89%	4.26%	4.27%	Calculated

The following are subcategories that reside within the four main expense categories:

- Salaries and Benefits: These costs represent salaries and benefits for sewer staff assigned with operating and maintaining the sewer infrastructure system.
- Maintenance and Operations: These costs represent contract services, utilities, supplies and materials, maintenance and repairs, travel & training, and general expenses.
- Internal Service Charge and General Expenses: These costs represent internal costs to the Sewer Utility from other City departments for specific costs such as the Finance Department, customer service and billing, capital projects administration, vehicle replacement, IT charges, and insurance.
- Capital Expenditures: These costs represent small capital expenditures for items such as office equipment, fixtures, and computers.

Table 3-6 Sewer O&M Expenses

Line No.	Description	Fiscal Year Ending June 30,				
		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
		($)	($)	($)	($)	($)
	Operation and Maintenance					
1	Regular Salaries	1,111,750	1,158,500	1,207,200	1,243,400	1,280,700
2	Special Pays	7,125	7,400	7,700	7,900	8,100
3	Benefits	707,658	737,500	768,300	791,400	815,100
4	Other Pays	159,441	166,200	173,200	178,400	183,800
5	Contract Services	144,000	149,700	155,600	161,800	168,100
6	Utilities	15,700	17,000	17,900	18,800	19,800
7	Electricity	64,040	69,200	72,700	76,300	80,100
8	Supplies & Materials	19,850	21,300	22,600	23,700	24,900
9	Maintenance & Repair	850,812	910,300	964,900	1,013,100	1,063,800
10	Travel & Training	10,260	10,600	11,000	11,400	11,800
11	General Expenses	377,181	392,100	407,700	424,000	440,800
12	Customer Billing	181,135	188,400	195,900	203,700	211,800
13	Internal Svc Charge	810,318	855,800	903,800	954,300	1,007,700
14	Insurance	605,647	639,600	675,400	713,200	753,100
15	Capital Expenditures	33,000	34,800	36,600	38,500	40,500
16	Total	$ 5,097,917	$ 5,358,400	$ 5,620,500	$ 5,859,900	$ 6,110,100

As shown in Table 3-6, the Sewer Utility's O&M expenses increased from $5.1M in FY 2024 to $6.1M in FY 2028.

3.5 Capital Improvement Program

The Sewer Utility annually develops its five-year Capital Improvement Plan to identify sewer system needs, including assessments, inspections, maintenance, and rehabilitation and replacement requirements. In 2008, the City completed its Wastewater Master Plan, which identified $29.0M in capital projects in 2008 costs. Incorporating cost escalation over the 30 years, the City had planned to spend roughly $1.1M each year. Unfortunately, due to higher-than-expected inflation, the City has readjusted the capital spend by escalating the annual $1.1M by 5% each year except for FY 2024. The total CIP over the Study period totals $5.5M.

Table 3-7 summarizes the CIP for FY 2024 through FY 2028. The Sewer Utility's main activities are related to the collection system. As such, of the total $5.5M CIP, collection mains account for 64.2% of the total projects. The City examines the sewer infrastructure system annually; therefore, CIP might change based on the current need.

Table 3-7 Sewer Capital Improvement Projects

Line No.	Description	Fiscal Year Ending June 30, FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
		($)	($)	($)	($)	($)
	Capital Improvement Program					
1	Collection System	105,000	992,300	636,700	1,094,000	702,000
2	Lift Station	540,000	0	405,200	0	446,700
3	Manholes	105,000	110,300	115,800	121,600	127,600
4	Total	$ 750,000	$ 1,102,600	$ 1,157,700	$ 1,215,600	$ 1,276,300

3.6 Transfers within the Fund

The Sewer Utility will conduct transfers from the operating account and other accounts over the Study period. The other funds are the Enterprise CIP, Capital, and Operating Reserve. See Section 3.7 for further explanation on Operating Reserve and Rate Stabilization Funds. The Enterprise CIP and Capital transfers represent money to cover planned CIP project expenditures. These transfers do not represent direct operating expenses for either enterprise; therefore, Black & Veatch includes these costs as "below-the-line" cash flow items and does not include them as O&M expenses.

3.7 Reserves

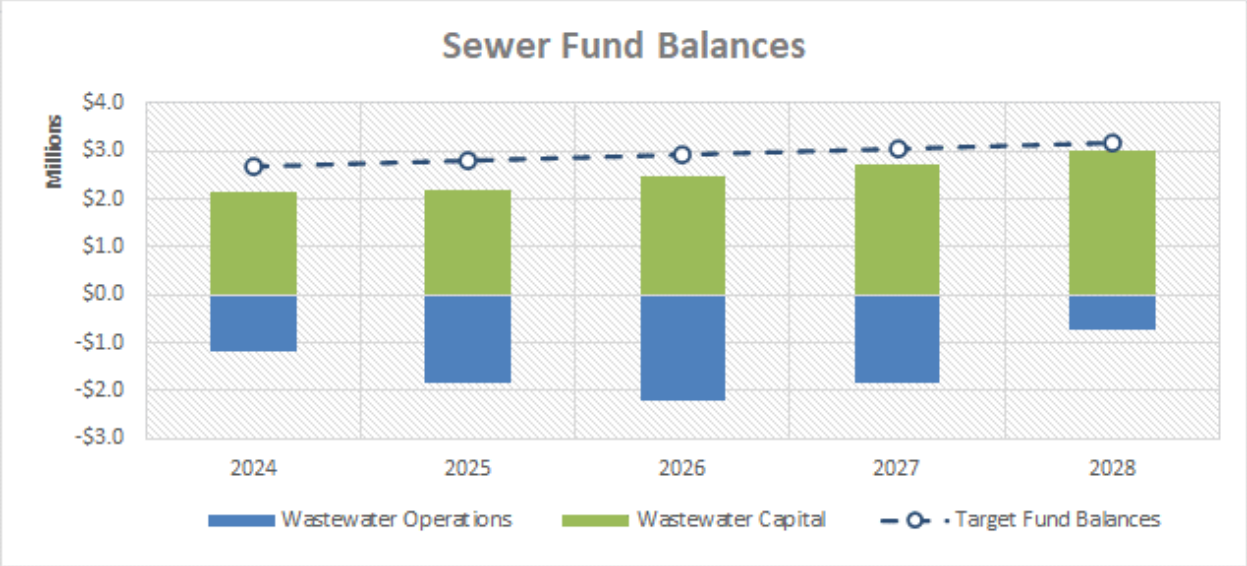
A utility typically establishes reserves for several reasons, such as to cover shortfalls in operating revenues, maintain strong bond ratings, cover day-to-day operating costs, and ease the burden on ratepayers associated with large rate increases. Per the reserve level recommendations, the Sewer Utility will maintain the following two reserves:

- Operating Reserve represents the working capital the Enterprise Fund maintains to cover day-to-day expenses and maintain enough funds to cover accounts receivables if there are supplier issues, periods of lower-than-expected sewer sales, or unforeseen cost increases. The reserve will maintain a minimum balance of 90 days of operating expenses once fully funded.
- Capital Reserve represents funds to cover a portion of upcoming annual capital expenditures, smooth out the amount of capital infusion needed each year, and help mitigate unexpected

capital costs. Once fully funded, this reserve will maintain a minimum balance of 100% of the annual planned CIP.

Appropriate reserve levels help the Sewer Utility with liquidity, provide operational flexibility, and demonstrate fiscal responsibility to the rating agencies, which allows the City to access lower-cost funds. Figure 3-1 shows the fund balances for all funds compared to the total target fund balance.

Figure 3-1 Sewer Fund Projected Ending Balances



3.8 Projected Operating Results

The revenue requirements of the Sewer Utility consist of O&M expenses, capital expenditures, and reserve requirements. To fully understand the current condition of the Sewer Utility, it is important to examine the cash flow projections under the status quo scenario. As shown in Figure 3-2, the status quo conditions indicate that the Sewer Utility would operate from an annual deficit position, requiring the drawdown of reserves to keep operating. In this scenario, the Sewer Utility would not impose any revenue increases over the Study Period and continue to incur O&M expenses and pay for the execution of the planned CIP.

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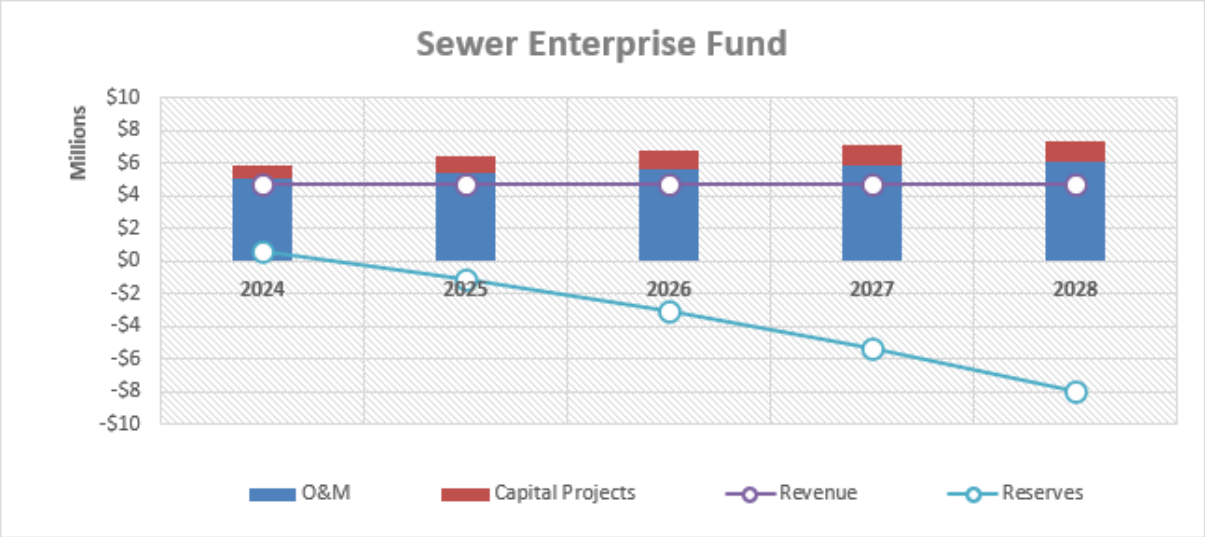
Figure 3-2 Status Quo Sewer Enterprise Cash Flow



The analyses performed for the Study indicate that the City should implement the proposed revenue increases shown in Table 3-8 if it wishes to keep the Sewer Utility in a balanced financial condition. The revenue increases represent the total revenue adjustment needed to meet revenue requirements. The revenue adjustment does not represent adjustments to the individual rates but reflects the overall level of revenue needed to meet the Sewer Utility's obligations.

The recommended revenue increases help the Sewer Utility meet the following goals:

- Meet budgeted operating obligations in the five FYs.
- Meet planned capital investments in the five FYs.
- Build up the operating reserve and capital reserve to get closer to their target.

Table 3-8 summarizes the proposed Enterprise Fund for the Study Period. The Enterprise Fund consists of 1) Revenue and 2) Revenue Requirements.

Revenue

- Line 1 is the revenue under existing rates.
- Lines 2 through 6 are the additional revenues generated from the required annual increases. The additional revenue generated directly reflects the number of months the increase is effective for; therefore, the amount might be calculated at less than that stated amount.
- Line 8 is the total revenue generated from user charges.
- Line 11 represents other operating revenues.
- Line 12 represents the total revenues for the enterprise.

Revenue Requirements

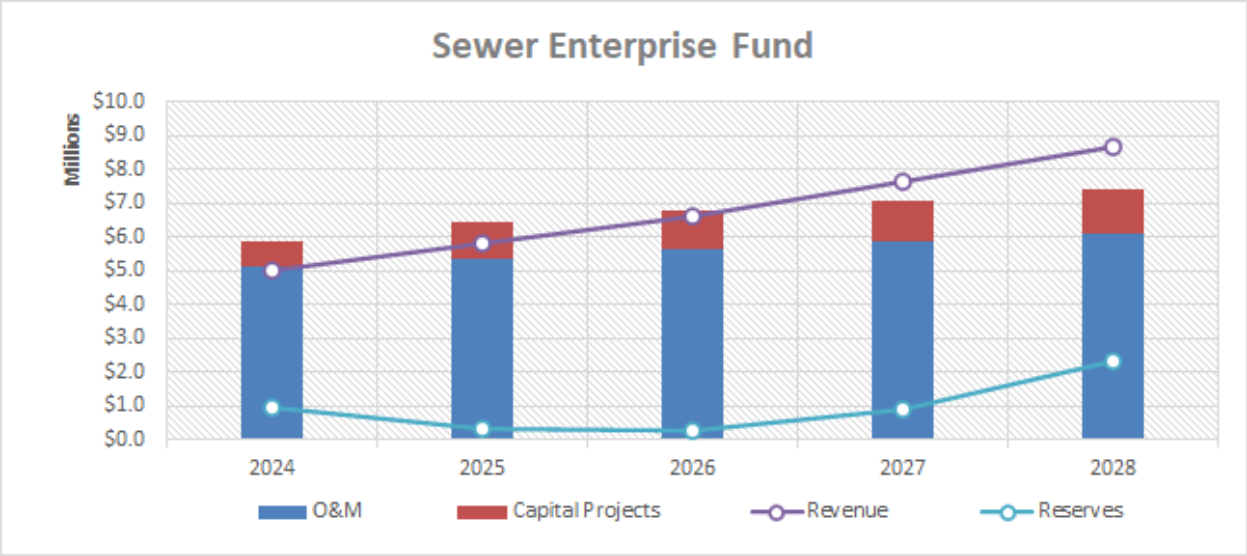
- Line 14 represents O&M expenses.
- Lines 15 to 16 represent capital expenditures within the capital accounts.
- Line 18 represents the total revenue requirements for the enterprise.
- Line 21 represents the net cumulative cash reserve balance for the Enterprise Fund.

Table 3-8 Sewer Enterprise Fund

Line No.	Description		Fiscal Year Ending June 30, FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
	Revenue						
	Rate Revenue						
1	Revenue from Existing Rates		4,645,000	4,645,000	4,645,000	4,645,000	4,645,000
	Year	Months Effective					
2	2024	5	317,600	762,200	762,200	762,200	762,200
3	2025	5		322,600	774,300	774,300	774,300
4	2026	5			384,500	922,900	922,900
5	2027	5				447,900	1,074,900
6	2028	5					447,800
7	Increased Revenue Due to Adj		317,600	1,084,800	1,921,000	2,907,300	3,982,100
8	Subtotal Rate Revenue		$ 4,962,600	$ 5,729,800	$ 6,566,000	$ 7,552,300	$ 8,627,100
	Other Operating Revenue						
9	Other Income		66,900	66,900	66,900	66,900	66,900
10	Interest Income		43,500	65,200	71,900	85,400	97,900
11	Subtotal Other Operating Rev		$ 110,400	$ 132,100	$ 138,800	$ 152,300	$ 164,800
12	**Total Revenue**		**$ 5,073,000**	**$ 5,861,900**	**$ 6,704,800**	**$ 7,704,600**	**$ 8,791,900**
	Revenue Requirements						
	Operating & Maintenance						
13	O&M Expenses		5,097,900	5,358,400	5,620,500	5,859,900	6,110,100
14	Subtotal O&M		$ 5,097,900	$ 5,358,400	$ 5,620,500	$ 5,859,900	$ 6,110,100
	Capital Projects						
15	WW Ent Fund CIP (711-01)		210,000	220,500	231,500	243,100	255,300
16	WW Cap Fund (712-01)		540,000	882,000	926,100	972,400	1,021,000
17	Total Capital Projects		$ 750,000	$ 1,102,500	$ 1,157,600	$ 1,215,500	$ 1,276,300
18	**Total Revenue Requirements**		**$ 5,847,900**	**$ 6,460,900**	**$ 6,778,100**	**$ 7,075,400**	**$ 7,386,400**
19	Net Annual Cash Balance		(774,900)	(599,000)	(73,300)	629,200	1,405,500
20	Beginning Fund Balance		1,708,700	933,800	334,800	261,500	890,700
21	Net Working Capital Balance		$ 933,800	$ 334,800	$ 261,500	$ 890,700	$ 2,296,200

Figure 3-3 presents the proposed Sewer Enterprise Fund financial plan.

Figure 3-3 Sewer Enterprise Fund Financial Plan



4.0 Cost-of-Service Analysis

The cost-of-service analysis requires recovery of the City's needed revenues from sewer service rates, allocated to customer types according to the service rendered. An equitable rate structure allocates the capture of revenue requirements to customer types based on the contributed sewage flow and the number of customer connections.

In analyzing the Sewer Utility's cost of service for allocation to its customer types, Black & Veatch selected the annual revenue requirements for FY 2024 as the test year requirements to demonstrate the development of cost-of-service sewer rates. Table 4-1 summarizes the total costs of service that need to be recovered from sewer user rates for FY 2024.

Table 4-1 Cost of Service Revenue from Rates (FY 2024)

Line No.	Description	Operating Expense	Capital Cost	Total Cost
		($)	($)	($)
	Revenue Requirements			
1	O&M Expense	5,097,900	0	5,097,900
2	Debt Service Requirements	0	0	0
3	Transfers for Capital Projects	(3,132,600)	750,000	(2,382,600)
4	Subtotal	$ 1,965,300	$ 750,000	$ 2,715,300
	Less Revenue Requirements Met from Other Sources			
5	Miscellaneous	0	0	0
6	Interfund Transfers	16,500	0	16,500
7	Other Income	10,000	0	10,000
8	Interest	40,400	0	40,400
9	Capital Financing	0	0	0
10	Subtotal	$ 66,900	$ 0	$ 66,900
	Adjustments			
11	Adj for Annual Cash Balance	(1,658,800)	(655,400)	(2,314,200)
12	Adj to Annualize Rate Increase	(318,700)	(125,900)	(444,600)
13	Subtotal	$ (1,977,500)	$ (781,300)	$ (2,758,800)
14	COS to be Recovered from Rates	$ 3,875,900	$ 1,531,300	$ 5,407,200

The total revenue requirement is shown in Line 4. As shown in Line 10, we deduct revenues from other sources to derive the net revenue requirement recovered through rates. Line 11 represents the net annual cash balance during the FY. This number is positive if the enterprise is drawing down funds already in the Enterprise Fund. The number will be negative if the enterprise is replacing funds. In this case, the $(2.3M) figure indicates that the forecast is projecting a positive annual cash balance for the year. Line 14 represents the additional revenues generated if the revenue increase was effective for a full year versus only 5 months.

4.1 Functional Cost Components

The first step in conducting a cost-of-service analysis involves analyzing the cost of providing sewer service by system function to allocate the costs to the various customer types properly and, subsequently, design rates. As a basis for allocating costs of service among customer types, costs are

separated into the following two basic functional cost components: (1) Volume and (2) Customer, described as follows:

- Volume costs represent the operating and capital costs of the system associated with collection. The collection costs vary directly with the quantity of contributed sewage flow.
- Customer costs are those expenditures that tend to vary in proportion to the number of customers and capacity needed to serve these customers. These include meter reading, billing, collecting, accounting, maintenance, and capital costs associated with meters and services.

4.2 Allocation to Cost Components

The next step of the cost-of-service process involves allocating each cost element to functional cost components based on the parameter or parameters having the most significant influence on the magnitude of that cost element. O&M expenses are allocated directly to appropriate cost components. A detailed allocation of related capital investment is used as a proxy for allocating capital and replacement costs. The separation of costs into functional components provides a means for distributing such costs to the various categories of customers based on their respective responsibilities for each type of service.

4.2.1 Volume Allocations

The sewer system consists of various facilities designed and operated to fulfill a given function. For the system to provide adequate service to its customers, it must be capable of meeting the annual volume requirements. Because not all customers and types of customers exert volume demands similarly, the capacities of the various facilities must be designed to accommodate the demands of all categories of customers. Each sewer service facility within the system has an underlying volume demand exerted by all customers for whom the volume cost component applies. For those facilities designed solely to meet volume demand, 100% of the costs go to the volume cost component.

4.2.2 Allocation of Operating and Maintenance Expenses

In allocating O&M expenses for FY 2024, costs are directly allocated to the cost components to the extent possible. The Sewer Utility does not categorize operating costs by functional categories such as collection, lift stations, treatment, etc. Therefore, the analysis identified cost elements specific to certain functions and assigned them based on the factors noted in Section 4.1 to allocate the operating expenses to the cost components. Table 4-2 shows the allocation basis for operating costs, and Table 4-3 shows the total allocation of operating costs serving sewer customers.

Table 4-2 Allocation Basis for O&M Expenditures (FY 2024)

Line No.	Description	Common to All Customers		Allocation Basis
		Volume (%)	Customer (%)	
	Operation & Maintenance			
1	Regular Salaries-Special Pays	100%	0%	Collection
2	Benefits	100%	0%	Collection
3	Contract Services	100%	0%	Collection
4	Utilities	100%	0%	Collection
5	Supplies & Materials	100%	0%	Average O&M (less CS)
6	Maintenance & Repair	100%	0%	Collection
7	Travel & Training	100%	0%	Average O&M (less CS)
8	General Expenses	100%	0%	Average O&M (less CS)
9	Internal Svc Charge	0%	100%	Customer

Table 4-3 Allocation of O&M Expenditures (FY 2024)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
		($)	($)	($)
	Operation & Maintenance			
1	Salaries	1,278,300	1,278,300	0
2	Benefits	707,700	707,700	0
3	Contract Services	144,000	144,000	0
4	Utilities	15,700	15,700	0
5	Electricity	64,000	64,000	0
6	Supplies & Materials	19,900	19,900	0
7	Maintenance & Repair	850,800	850,800	0
8	Travel & Training	10,300	10,300	0
9	General Expenses	377,200	377,200	0
10	Customer Billing	181,100	0	181,100
11	Internal Svc Charge	810,300	0	810,300
12	Insurance	605,600	0	605,600
13	Routine Capital Outlay	33,000	33,000	0
14	Transfers	(3,132,600)	(3,132,600)	0
15	Total O&M Expenses	$ 1,965,300	$ 368,300	$ 1,597,000
	Less Other Revenue			
16	Miscellaneous Revenues	66,900	52,700	14,200
17	Other Adjustments	(1,977,500)	(1,556,600)	(420,900)
18	Net Operating Expenses	$ 3,875,900	$ 1,872,200	$ 2,003,700

4.2.3 Allocation of Capital Investments

In allocating the capital investment for FY 2024, the existing fixed assets (which serve as a proxy for the capital investments) and proposed CIP are allocated directly to cost components to the extent possible. The allocation of costs in this manner provides a basis for annual investment in sewer system facilities. Using the existing fixed assets and CIP, the capital costs can be allocated using the total net system investment distribution across the functional cost components.

Table 4-4 shows the allocation basis for capital expenditures, and Table 4-5 shows the allocation of existing system investment serving sewer customers. The total net system investment of $28.2M shown on Line 5 for the Sewer Utility represents the test year original cost less accumulated depreciation of the system in service for existing fixed assets and proposed CIP. The total net system investment reflects the Sewer Utility's fixed asset listing ending June 30, 2022. This value represents the original cost (book value) of the assets.

Table 4-4 Allocation Basis for Capital Costs (FY 2024)

Line No.	Description	Common to All Customers		Allocation Basis
		Volume	Customer	
		(%)	(%)	
	Plant Assets			
1	Collection	100%	0%	Collection
2	Lift Station	100%	0%	Pumping
3	Equipment	100%	0%	Average Net Plant
4	General Plant	100%	0%	Average Net Plant

Table 4-5 Allocation of Capital Costs (FY 2024)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
		($)	($)	($)
	Plant Assets			
1	Collection	21,320,100	21,320,100	0
2	Lift Station	6,895,300	6,895,300	0
3	Equipment	0	0	0
4	General Plant	2,300	2,300	0
5	Total Plant Assets	$ 28,217,700	$ 28,217,700	$ 0
6	Capital Costs	$ 750,000	$ 750,000	$ 0
	Less Other Revenue			
7	Miscellaneous Revenues	0	0	0
8	Other Adjustments	(781,300)	(781,300)	0
9	Net Plant Assets	$ 1,531,300	$ 1,531,300	$ 0

4.3 Units of Service

After allocating O&M and capital costs to the functional cost categories, the next step is determining the billing determinants associated with the cost categories. The billing determinant for costs with a volume component will be HCF or HCFf/day. Customer costs will use equivalent meters.

To properly recognize the cost of service, each customer class receives its share of volume and customer costs. Following the allocation of costs, the total cost responsibility for each customer class is developed using unit costs of service for each cost function and subsequently assigning those costs to the customer types based on the respective service requirements of each. The number of units of service required by each customer class provides a means for the proportionate distribution of costs previously allocated to respective cost categories.

- Volume costs vary with the volume of contributed sewage flow produced and distributed to customer types on that basis. Contributed sewage flow information comes from the monthly water consumption records in the City's customer billing system.

Type	Contributed Sewage Flow
	(HCF)
All Customers	4,030,872
Sewer Only	200,376

- Customer billing costs are distributed on an equivalent meter basis for each customer. The estimated number of equivalent meters for each customer relies on the number of meters serving respective categories and the capacity ratio of the meters to the 1-inch meter. The equivalent meter ratios adopted in this analysis are lower than those used for water, as wastewater system peaking is less widespread than water. The range for equivalent meters ranges from 1.0 to 5.0.

Meter Size	Number of Connections		Meter Hydraulic Ratio	Equivalent Meters	
	All Customers [1]	Sewer Only [2]	[3]	All Customers [4]=[1]x[3]	Sewer Only [5]=[2]x[3]
5/8", ¾"	0	466	1	0	466
1"	21,777	108	1	21,777	108
1-1/2"	431	23	1.5	647	35
2"	762	71	2	1,524	142
3"	26	2	2.5	65	5
4"	42	1	3	126	3
6"	16	2	3.5	56	7
8"	5	1	4	20	4
10"	0	1	4.5	0	5
Total	**23,059**	**675**		**24,215**	**774**

Table 4-6 summarizes the FY 2024 units of service for the various customer types.

4.4 Cost of Service Allocations

The Study applies the unit costs of service to each customer class's respective service requirements to determine the cost of service for each customer class. The total unit costs of service applied to the respective requirements for each customer class results in the total cost of service for each customer class.

4.4.1 Units Costs of Service

The FY 2024 unit cost of service for each functional cost component is simply the total cost divided by the applicable units of service, as shown in Table 4-7. On Line 3, the total costs represent the cost that rates need to recover, as demonstrated in Table 4-1, Line 14. The net O&M cost includes O&M less revenue from other sources and adjustments. Line 5 represents the unit costs for the entire sewer system regardless of customer type. After that, the unit costs are used to allocate the costs to the specific customer types.

4.4.2 Distribution of Costs of Service to Customer types

Applying the unit costs to the units for each customer class produces the customer class costs. This process is illustrated in Table 4-8, in which unit costs are applied to the customer class units of service for FY 2024. The costs attributable to each customer class reflect the functional cost components described in Section 4.1. Each customer class places a burden on the system in different ways; thus, the allocation of the units is representative of this burden.

Table 4-6 Units of Service (FY 2024)

Line No.	Description	Contributed Volume	Equivalent Meters
	Column reference	(1)	(2)
	Units of Measure	(HCF)	(EM)
1	All Customers	4,030,872	24,215
2	Sewer Only	200,376	774
3	Total	4,231,248	24,989

Table 4-7 Units Cost of Service (FY 2024)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
1	Net Operating Expense	3,875,900	1,872,200	2,003,700
2	Capital Costs	1,531,300	1,531,300	0
3	Total Cost of Service	$ 5,407,200	$ 3,403,500	$ 2,003,700
4	Units of Service		4,231,248 HCF	24,989 EM
5	Cost per Unit		$ 0.80 per HCF	$ 80.18 per EM

Table 4-8 Distribution of Costs to Customer Types (FY 2024)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
	Column reference	(1)	(2)	(3)
1	Cost per Unit		$ 0.80 per HCF	$ 80.18 per EM
	All Customers			
2	Units		4,030,872	24,215
3	Allocation of costs of service	5,183,900	3,242,300	1,941,600
	Sewer Only			
4	Units		200,376	774
5	Allocation of costs of service	223,300	161,200	62,100
6	Total Cost of Service	$ 5,407,200	$ 3,403,500	$ 2,003,700

5.0 Rate Design

The initial consideration in deriving rate schedules for sewer service is establishing equitable charges to the customers commensurate with the cost of providing that service. While the cost-of-service allocations to customer types should not be construed as literal or exact determinations, they offer a guide to the necessity and extent of rate adjustments. Practical considerations sometimes modify rate adjustments by considering additional factors such as the extent of bill impacts, existing contracts, and historical local policies and practices.

5.1 Existing Rates

The existing rates of the Sewer Utility consist of a fixed component in the form of a monthly fixed service charge and a variable component in the form of a consumption charge. The monthly fixed service charge is based on meter size and applied regardless of consumption. The consumption charge is based on units of consumption (1 unit = 1 HCF = 748 gallons). Table 3-3, presented earlier in this report, summarizes the existing sewer rates.

5.2 Proposed Rates

The costs of service analysis described in the preceding sections of this report provide a basis for designing sewer rates.

5.2.1 Monthly Fixed Service Charge

The Sewer Utility provides sewer service to approximately 23,500 sewer service accounts. These customers have a dedicated sewer line connection to the wastewater system. Therefore, sewer charges include capacity and cost of issuing bills. The following is a derivation of the different cost components that comprise the total charge. ***The numbers within the tables are rounded, but the calculations are based on non-rounded values. Differences are due to rounding.***

5.2.1.1 Sewer Monthly Fixed Charge

- Capacity Cost: The sewer system is designed to meet peak wet wastewater flow demand requirements. Therefore, the sewer system will have extra capacity when handling average contributed sewage flow demands. Meter ratios based on operating capacities derived in the 2017 rate study were used to distribute the capacity costs. Using meter ratios, we recognize that as meter size increases, so does the capacity. For example, customers with a 4" meter expect to be able to use more water (and generate more contributed sewage flow) than customers with a ¾" meter. Consequently, the City's sewer system must maintain assets sized accordingly and capable of providing customers the level of service expected from their sewer connection when they flush the toilet.

Line No.		Total Costs	Notes
[1]	Total Capacity Costs	$3,403,500	Table 4-8, Row 6, Column 2
[2]	Capacity costs allocated to Fixed Charge	34.10%	
[3]	Total Capacity Costs Recovered through Fixed	$1,161,000	[3]=[1]x[2]
[4]	Equivalent Meters (EM)	24,989	[4] See Section 4.3
[5]	Unit Cost (per EM)	$3.87	[5]=[3]/[4]/12

- Customer Billing Cost: The sewer system incurs direct operating costs associated with customer billing, such as meter reading, customer bills, customer service, etc. The unit cost for this category is total customer costs divided by the number of issued bills.

Line No.		Equivalent Meters	Total Costs	Notes
		[a]	[b]	[c]
[1]	Total Customer Costs		$2,003,700	Table 4-8, Row 6, Column 3
[2]	Equivalent Meters (EM)	24,989		[2] See Section 4.3
[3]	Unit Cost (per EM)		$6.68	[b3]=[b1]/[a2]/12

Table 5-1 demonstrates the cost elements incorporated into the monthly service charge for FY 2024. Table 5-2 shows the five-year fixed service charge rate schedule. FYs 2025 to 2028 are derived using the same methodology described for FY 2024.

Table 5-1 Costs within the Sewer Monthly Fixed Charge (FY 2024)

Meter Size	Capacity, Customer Billing				Total Service Charge
	Capacity Unit Cost	Cust Billing Unit Cost	Meter Ratio	Adjusted Unit Cost	
	per EM	per EM		$	$/Month
5/8", 3/4"	3.87	6.68	1.00	10.55	10.55
1"	3.87	6.68	1.00	10.55	10.55
1-1/2"	3.87	6.68	1.50	15.83	15.83
2"	3.87	6.68	2.00	21.11	21.11
3"	3.87	6.68	2.50	26.38	26.38
4"	3.87	6.68	3.00	31.66	31.66
6"	3.87	6.68	3.50	36.94	36.94
8"	3.87	6.68	4.00	42.22	42.22
*EM = Equivalent Meter					
Fixed Svc Charge Revenue	$ 1,161,100	$ 2,003,700			$ 3,164,800

Table 5-2 Proposed Sewer Monthly Fixed Charge

Customer Class	Calendar Year Ending December 31,				
	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028
Effective Date	1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028
Monthly Fixed Service Charge	($/mo.)	($/mo.)	($/mo.)	($/mo.)	($/mo.)
5/8", 3/4"	10.55	12.85	15.65	18.95	22.25
1"	10.55	12.85	15.65	18.95	22.25
1-1/2"	15.83	19.28	23.47	28.43	33.38
2"	21.11	25.71	31.30	37.90	44.51
3"	26.38	32.14	39.12	47.38	55.63
4"	31.66	38.56	46.95	56.85	66.76
6"	36.94	44.99	54.77	66.33	77.89
8"	42.22	51.42	62.60	75.81	89.01

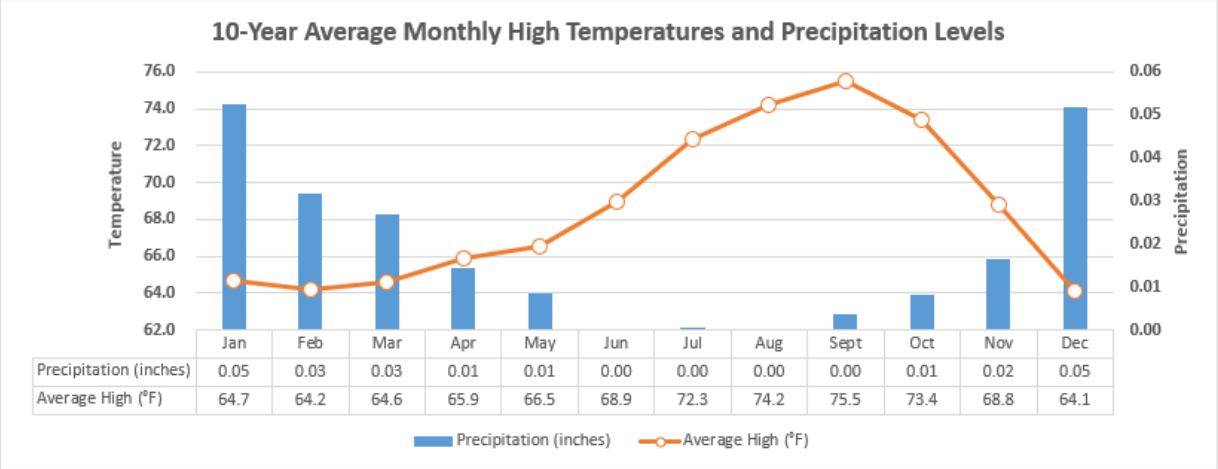
5.2.2 Consumption Charge

The consumption charge is designed to recover costs associated with volume that has not been recovered through the monthly fixed charge. The consumption charges are the same for all customers regardless of the metered size connection. The consumption charge is billed per HCF and is uniform for all customer types, as the City's contributed sewage flow is only related to conveyance and not treatment. OC Sanitation handles treatment services. Based on the analysis for FY 2024, the proposed consumption

rate of $0.53 per HCF is paid by all customers. The rate is based on metered water use and recognizes that irrigation flow is inherently incorporated. Any customer types with significant irrigation water use have a dedicated irrigation metered connection and thus are not charged sewer consumption charges.

The use of metered water use will unavoidably include some irrigation water. Figure 5-1 summarizes the Newport Beach area's average high temperature and precipitation between 2012 and 2022. Over the past 10 years, the average high temperature is 68.6°F, with a standard deviation of 4.3°. Over this period, the average precipitation is 0.02 inches. Data from the National Oceanic and Atmospheric Administration and similar weather sites shows that these trends were similarly exhibited for the past 32 years: the Newport Beach area experiences consistent temperatures year-round and little rainfall. Since there is not a large variance in temperature year-round, it is reasonable to assume that summer consumptive behavior will be consistent with winter consumptive behavior. The historically dry winters experienced by the Newport Beach area also mean that winter-time irrigation also occurs. *Therefore, using a winter average consumption to determine contributed sewage flow will provide the same results as using water consumption, and thus, using water usage as a basis for sewer consumption charges is a reasonable proxy*.

Figure 5-1 Temperature and Precipitation Trends in Newport Beach



Source: [Newport Beach Weather Records (extremeweatherwatch.com)]

Error! Not a valid bookmark self-reference. demonstrates the cost elements incorporated into the consumption charge for FY 2024. Table 5-4 shows the five-year consumption charge rate schedule. FYs 2025 to 2028 are derived using the same methodology described for FY 2024.

Table 5-3 Sewer Consumption Charge (FY 2024)

Line No.	Description	Capacity Costs Allocated to Cons Charge	Sewer Costs	Reference
1	Volume Costs	65.9%	$ 2,242,500	(Table 4-8, Row 6, Col 2)
2	Units of Service (HCF)		4,231,248	(Table 4-6, Line 3, Col 1)
3	Unit Cost of Service		$ 0.53	

Table 5-4 Proposed Consumption Charges

Customer Class	Calendar Year Ending December 31,				
	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028
Effective Date	1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028
Usage Charge	($/HCF)	($/HCF)	($/HCF)	($/HCF)	($/HCF)
All Usage	0.53	0.55	0.57	0.59	0.61

5.2.3 Sewer Only Charge

The sewer-only fixed charges are a combination of the monthly fixed service charge and consumption charge. Since the City does not meter the water consumption for these customers, the average water consumption by meter size was used to assign an allowance for contributed sewage flow. The average water consumption by meter size is identified in Table 5-5, along with the five-year sewer-only charges. The following is an example of the calculation performed for sewer-only customers for 1-inch meters.

Line No.		Unit	Notes
[1]	Metered Connection	1"	
[2]	Monthly Fixed Service Charge ($/Month)	$10.55	Table 5-2, CY 2024 rate
[3]	Sewage Flow Allowance (HCF)	15	Table 5-5, Column 2 Allowance
[4]	Usage Charge ($/HCF)	$0.53	Table 5-4, CY 2024 rate
[5]	Total Charge ($/Month)	$18.51	[5]=[2]+[3]x[4]

The monthly contributed sewage flow allowance was determined in the 2017 rate study based on consumption by meter size for customers that receive water from the City. The updated customer billing data provided for this rate study had disparities concerning the meter sizes. Therefore, the analysis kept the results of the previous rate study.

Table 5-5 Proposed Sewer-Only Charges

Description	Monthly Sewage Flow Allowance	Calendar Year Ending December 31,				
		CY 2024	CY 2025	CY 2026	CY 2027	CY 2028
Effective Date		1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028
	(HCF)	($/mo)	($/mo)	($/mo)	($/mo)	($/mo)
Sewer Only Fixed Charge						
5/8", 3/4"	10	15.86	18.36	21.35	24.85	28.36
1"	15	18.51	21.11	24.20	27.80	31.41
1-1/2"	72	53.99	58.88	64.52	70.91	77.30
2"	72	59.27	65.31	72.34	80.39	88.43
3"	210	137.68	147.63	158.83	171.29	183.74
4"	390	238.35	253.06	269.27	286.97	304.67
6"	710	413.21	435.48	459.51	485.26	511.00
8"	710	418.49	441.91	467.33	494.74	522.12

Typical Monthly Costs under Proposed Charges

Table 5-6 compares typical monthly costs under existing rates in FY 2023 and the proposed schedule of sewer user rates in FY 2024 derived in this study for residential customers.

Table 5-6 Typical Monthly Bill

Monthly Usage	CY 2023 Existing Rates	CY 2024 Proposed Rates	Difference
(HCF)	($)	($)	($)
Typical Bill Single Family Residential by Consumption Meter Size 5/8", 3/4"			
0	$8.55	$10.55	$2.00
5	$11.10	$13.20	$2.10
10	$13.65	$15.85	$2.20
15	$16.20	$18.50	$2.30
20	$18.75	$21.15	$2.40

5.3 Summary of Rate Study

This rate study proposes adjustments to the City's sewer rates. A summary of actions and projections are as follows:

- Maintain the fixed service charge to reflect the nature of fixed costs associated with providing 24/7 sewer service and investments in infrastructure through the capital improvement program.
- Maintain the consumption charge to reflect the variable costs associated with operating costs such as utilities.
- Project sewer sales to remain flat in accordance with historically contributed sewage flow and compliance with state water conservation targets. State water conservation target impact contributed sewer flow.
- Operating Reserve. Strive to meet the fiscal policy of maintaining 25% of operating costs.
- Capital Reserves. Strive to maintain the minimum 75% of $1.1M capital costs.
- Increase the annual investment in Capital Improvements from $1.1M to $1.3M by the end of the 5-year study period to reflect the increase in capital costs due to inflation.
- Maintain a comparable cost of collecting contributed sewage flow amongst neighboring sewer collection-only providers.

6.0 Appendix A – Cost of Service and Rate Design

The following tables represent the cost-of-service analysis and rate design tables for FY 2025 to FY 2028 using the methodology described in Sections 4.0 and 5.0.

6.1 Fiscal Year 2025

Table 6-1 Allocation Basis for O&M Expenditures (FY 2025)

Line No.	Description	Common to All Customers		Allocation Basis
		Volume (%)	Customer (%)	
	Operation & Maintenance			
1	Regular Salaries-Special Pays	100%	0%	Collection
2	Benefits	100%	0%	Collection
3	Contract Services	100%	0%	Collection
4	Utilities	100%	0%	Collection
5	Supplies & Materials	100%	0%	Average O&M (less CS)
6	Maintenance & Repair	100%	0%	Collection
7	Travel & Training	100%	0%	Average O&M (less CS)
8	General Expenses	100%	0%	Average O&M (less CS)
9	Internal Svc Charge	0%	100%	Customer

Table 6-2 Allocation of O&M Expenditures (FY 2025)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
		($)	($)	($)
	Operation & Maintenance			
1	Salaries	1,332,100	1,332,100	0
2	Benefits	737,500	737,500	0
3	Contract Services	149,700	149,700	0
4	Utilities	17,000	17,000	0
5	Electricity	69,200	69,200	0
6	Supplies & Materials	21,300	21,300	0
7	Maintenance & Repair	910,300	910,300	0
8	Travel & Training	10,600	10,600	0
9	General Expenses	392,100	392,100	0
10	Customer Billing	188,400	0	188,400
11	Internal Svc Charge	855,800	0	855,800
12	Insurance	639,600	0	639,600
13	Routine Capital Outlay	34,800	34,800	0
14	Transfers	(491,600)	(491,600)	0
15	Total O&M Expenses	$ 4,866,800	$ 3,183,000	$ 1,683,800
	Less Other Revenue			
16	Miscellaneous Revenues	66,900	52,600	14,300
17	Other Adjustments	(227,000)	(178,500)	(48,500)
18	Net Operating Expenses	$ 5,026,900	$ 3,308,900	$ 1,718,000

Table 6-3 Allocation Basis for Capital Costs (FY 2025)

Line No.	Description	Common to All Customers		Allocation Basis
		Volume	Customer	
		(%)	(%)	
	Plant Assets			
1	Collection	100%	0%	Collection
2	Lift Station	100%	0%	Pumping
3	Equipment	100%	0%	Average Net Plant
4	General Plant	100%	0%	Average Net Plant

Table 6-4 Allocation of Capital Costs (FY 2025)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
		($)	($)	($)
	Plant Assets			
1	Collection	21,320,100	21,320,100	0
2	Lift Station	6,895,300	6,895,300	0
3	Equipment	0	0	0
4	General Plant	2,300	2,300	0
5	Total Plant Assets	$ 28,217,700	$ 28,217,700	$ 0
6	Capital Costs	$ 1,102,500	$ 1,102,500	$ 0
	Less Other Revenue			
7	Miscellaneous Revenues	0	0	0
8	Other Adjustments	(52,200)	(52,200)	0
9	Net Plant Assets	$ 1,154,700	$ 1,154,700	$ 0

Table 6-5 Units of Service (FY 2025)

Line No.	Description	Contributed Volume	Equivalent Meters
	Column reference	(1)	(2)
	Units of Measure	(HCF)	(EM)
1	All Customers	4,030,872	24,215
2	Sewer Only	200,376	774
3	Total	4,231,248	24,989

Table 6-6 Units Cost of Service (FY 2025)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
1	Net Operating Expense	5,026,900	3,308,900	1,718,000
2	Capital Costs	1,154,700	1,154,700	0
3	Total Cost of Service	$ 6,181,600	$ 4,463,600	$ 1,718,000
4	Units of Service		4,231,248 HCF	24,989 EM
5	Cost per Unit		$ 1.05 per HCF	$ 68.75 per EM

Table 6-7 Distribution of Costs to Customer Types (FY 2025)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
	Column reference	(1)	(2)	(3)
1	Cost per Unit		$ 1.05 per HCF	$ 68.75 per EM
	All Customers			
2	Units		4,030,872	24,215
3	Allocation of costs of service	5,917,000	4,252,200	1,664,800
	Sewer Only			
4	Units		200,376	774
5	Allocation of costs of service	264,600	211,400	53,200
6	Total Cost of Service	$ 6,181,600	$ 4,463,600	$ 1,718,000

Table 6-8 Costs within the Sewer Monthly Fixed Charge (FY 2025)

Meter Size	Capacity, Customer Billing				Total Service Charge
	Capacity Unit Cost	Cust Billing Unit Cost	Meter Ratio	Adjusted Unit Cost	
	per EM	per EM		$	$/Month
5/8", 3/4"	7.12	5.73	1.00	12.85	12.85
1"	7.12	5.73	1.00	12.85	12.85
1-1/2"	7.12	5.73	1.50	19.28	19.28
2"	7.12	5.73	2.00	25.71	25.71
3"	7.12	5.73	2.50	32.14	32.14
4"	7.12	5.73	3.00	38.56	38.56
6"	7.12	5.73	3.50	44.99	44.99
8"	7.12	5.73	4.00	51.42	51.42
*EM = Equivalent Meter					
Fixed Svc Charge Revenue	$ 2,136,500	$ 1,717,900			$ 3,854,400

Table 6-9 Sewer Consumption Charge (FY 2025)

Line No.	Description	Capacity Costs Allocated to Cons Charge	Sewer Costs	Reference
1	Volume Costs	52.1%	$ 2,327,100	(Table 6-7, Row 6, Col 2)
2	Units of Service (HCF)		4,231,248	(Table 6-5, Line 3, Col 1)
3	Unit Cost of Service		$ 0.55	

6.2 Fiscal Year 2026

Table 6-10 Allocation Basis for O&M Expenditures (FY 2026)

Line No.	Description	Common to All Customers		Allocation Basis
		Volume (%)	Customer (%)	
	Operation & Maintenance			
1	Regular Salaries-Special Pays	100%	0%	Collection
2	Benefits	100%	0%	Collection
3	Contract Services	100%	0%	Collection
4	Utilities	100%	0%	Collection
5	Supplies & Materials	100%	0%	Average O&M (less CS)
6	Maintenance & Repair	100%	0%	Collection
7	Travel & Training	100%	0%	Average O&M (less CS)
8	General Expenses	100%	0%	Average O&M (less CS)
9	Internal Svc Charge	0%	100%	Customer

Table 6-11 Allocation of O&M Expenditures (FY 2026)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
		($)	($)	($)
	Operation & Maintenance			
1	Salaries	1,388,100	1,388,100	0
2	Benefits	768,300	768,300	0
3	Contract Services	155,600	155,600	0
4	Utilities	17,900	17,900	0
5	Electricity	72,700	72,700	0
6	Supplies & Materials	22,600	22,600	0
7	Maintenance & Repair	964,900	964,900	0
8	Travel & Training	11,000	11,000	0
9	General Expenses	407,700	407,700	0
10	Customer Billing	195,900	0	195,900
11	Internal Svc Charge	903,800	0	903,800
12	Insurance	675,400	0	675,400
13	Routine Capital Outlay	36,600	36,600	0
14	Transfers	(235,600)	(235,600)	0
15	Total O&M Expenses	$ 5,384,900	$ 3,609,800	$ 1,775,100
	Less Other Revenue			
16	Miscellaneous Revenues	66,900	52,500	14,400
17	Other Adjustments	(341,700)	(268,100)	(73,600)
18	Net Operating Expenses	$ 5,659,700	$ 3,825,400	$ 1,834,300

Table 6-12 Allocation Basis for Capital Costs (FY 2026)

Line No.	Description	Common to All Customers		Allocation Basis
		Volume	Customer	
		(%)	(%)	
	Plant Assets			
1	Collection	100%	0%	Collection
2	Lift Station	100%	0%	Pumping
3	Equipment	100%	0%	Average Net Plant
4	General Plant	100%	0%	Average Net Plant

Table 6-13 Allocation of Capital Costs (FY 2026)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
		($)	($)	($)
	Plant Assets			
1	Collection	21,320,100	21,320,100	0
2	Lift Station	6,895,300	6,895,300	0
3	Equipment	0	0	0
4	General Plant	2,300	2,300	0
5	Total Plant Assets	$ 28,217,700	$ 28,217,700	$ 0
6	Capital Costs	$ 1,357,600	$ 1,357,600	$ 0
	Less Other Revenue			
7	Miscellaneous Revenues	0	0	0
8	Other Adjustments	(87,200)	(87,200)	0
9	Net Plant Assets	$ 1,444,800	$ 1,444,800	$ 0

Table 6-14 Units of Service (FY 2026)

Line No.	Description	Contributed Volume	Equivalent Meters
	Column reference	(1)	(2)
	Units of Measure	(HCF)	(EM)
1	All Customers	4,030,872	24,215
2	Sewer Only	200,376	774
3	Total	4,231,248	24,989

Table 6-15 Units Cost of Service (FY 2026)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
1	Net Operating Expense	5,659,700	3,825,400	1,834,300
2	Capital Costs	1,444,800	1,444,800	0
3	Total Cost of Service	$ 7,104,500	$ 5,270,200	$ 1,834,300
4	Units of Service		4,231,248 HCF	24,989 EM
5	Cost per Unit		$ 1.25 per HCF	$ 73.41 per EM

Table 6-16 Distribution of Costs to Customer Types (FY 2026)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
	Column reference	(1)	(2)	(3)
1	Cost per Unit		$ 1.25 per HCF	$ 73.41 per EM
	All Customers			
2	Units		4,030,872	24,215
3	Allocation of costs of service	6,798,100	5,020,600	1,777,500
	Sewer Only			
4	Units		200,376	774
5	Allocation of costs of service	306,400	249,600	56,800
6	Total Cost of Service	$ 7,104,500	$ 5,270,200	$ 1,834,300

Table 6-17 Costs within the Sewer Monthly Fixed Charge (FY 2026)

Meter Size	Capacity, Customer Billing				Total Service Charge
	Capacity Unit Cost	Cust Billing Unit Cost	Meter Ratio	Adjusted Unit Cost	
	per EM	per EM		$	$/Month
5/8", 3/4"	9.53	6.12	1.00	15.65	15.65
1"	9.53	6.12	1.00	15.65	15.65
1-1/2"	9.53	6.12	1.50	23.47	23.47
2"	9.53	6.12	2.00	31.30	31.30
3"	9.53	6.12	2.50	39.12	39.12
4"	9.53	6.12	3.00	46.95	46.95
6"	9.53	6.12	3.50	54.77	54.77
8"	9.53	6.12	4.00	62.60	62.60
*EM = Equivalent Meter					
Fixed Svc Charge Revenue	$ 2,858,200	$ 1,834,300			$ 4,692,500

Table 6-18 Sewer Consumption Charge (FY 2026)

Line No.	Description	Capacity Costs Allocated to Cons Charge	Sewer Costs	Reference
1	Volume Costs	45.8%	$ 2,412,000	(Table 6-16, Row 6, Col 2)
2	Units of Service (HCF)		4,231,248	(Table 6-14, Line 3, Col 1)
3	Unit Cost of Service		$ 0.57	

6.3 Fiscal Year 2027

Table 6-19 Allocation Basis for O&M Expenditures (FY 2027)

Line No.	Description	Common to All Customers		Allocation Basis
		Volume	Customer	
		(%)	(%)	
	Operation & Maintenance			
1	Regular Salaries-Special Pays	100%	0%	Collection
2	Benefits	100%	0%	Collection
3	Contract Services	100%	0%	Collection
4	Utilities	100%	0%	Collection
5	Supplies & Materials	100%	0%	Average O&M (less CS)
6	Maintenance & Repair	100%	0%	Collection
7	Travel & Training	100%	0%	Average O&M (less CS)
8	General Expenses	100%	0%	Average O&M (less CS)
9	Internal Svc Charge	0%	100%	Customer

Table 6-20 Allocation of O&M Expenditures (FY 2027)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
		($)	($)	($)
	Operation & Maintenance			
1	Salaries	1,429,700	1,429,700	0
2	Benefits	791,400	791,400	0
3	Contract Services	161,800	161,800	0
4	Utilities	18,800	18,800	0
5	Electricity	76,300	76,300	0
6	Supplies & Materials	23,700	23,700	0
7	Maintenance & Repair	1,013,100	1,013,100	0
8	Travel & Training	11,400	11,400	0
9	General Expenses	424,000	424,000	0
10	Customer Billing	203,700	0	203,700
11	Internal Svc Charge	954,300	0	954,300
12	Insurance	713,200	0	713,200
13	Routine Capital Outlay	38,500	38,500	0
14	Transfers	341,600	341,600	0
15	Total O&M Expenses	$ 6,201,500	$ 4,330,300	$ 1,871,200
	Less Other Revenue			
16	Miscellaneous Revenues	66,900	52,300	14,600
17	Other Adjustments	(511,300)	(399,600)	(111,700)
18	Net Operating Expenses	$ 6,645,900	$ 4,677,600	$ 1,968,300

Table 6-21 Allocation Basis for Capital Costs (FY 2027)

Line No.	Description	Common to All Customers		Allocation Basis
		Volume (%)	Customer (%)	
	Plant Assets			
1	Collection	100%	0%	Collection
2	Lift Station	100%	0%	Pumping
3	Equipment	100%	0%	Average Net Plant
4	General Plant	100%	0%	Average Net Plant

Table 6-22 Allocation of Capital Costs (FY 2027)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
		($)	($)	($)
	Plant Assets			
1	Collection	21,320,100	21,320,100	0
2	Lift Station	6,895,300	6,895,300	0
3	Equipment	0	0	0
4	General Plant	2,300	2,300	0
5	Total Plant Assets	$ 28,217,700	$ 28,217,700	$ 0
6	Capital Costs	$ 1,415,500	$ 1,415,500	$ 0
	Less Other Revenue			
7	Miscellaneous Revenues	0	0	0
8	Other Adjustments	(118,000)	(118,000)	0
9	Net Plant Assets	$ 1,533,500	$ 1,533,500	$ 0

Table 6-23 Units of Service (FY 2027)

Line No.	Description	Contributed Volume	Equivalent Meters
	Column reference	(1)	(2)
	Units of Measure	(HCF)	(EM)
1	All Customers	4,030,872	24,215
2	Sewer Only	200,376	774
3	Total	4,231,248	24,989

Table 6-24 Units Cost of Service (FY 2027)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
1	Net Operating Expense	6,645,900	4,677,600	1,968,300
2	Capital Costs	1,533,500	1,533,500	0
3	Total Cost of Service	$ 8,179,400	$ 6,211,100	$ 1,968,300
4	Units of Service		4,231,248 HCF	24,989 EM
5	Cost per Unit		$ 1.47 per HCF	$ 78.77 per EM

Table 6-25 Distribution of Costs to Customer Types (FY 2027)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
	Column reference	(1)	(2)	(3)
1	Cost per Unit		$ 1.47 per HCF	$ 78.77 per EM
	All Customers			
2	Units		4,030,872	24,215
3	Allocation of costs of service	7,824,300	5,917,000	1,907,300
	Sewer Only			
4	Units		200,376	774
5	Allocation of costs of service	355,100	294,100	61,000
6	Total Cost of Service	$ 8,179,400	$ 6,211,100	$ 1,968,300

Table 6-26 Costs within the Sewer Monthly Fixed Charge (FY 2027)

Meter Size	Capacity, Customer Billing				Total Service Charge
	Capacity Unit Cost	Cust Billing Unit Cost	Meter Ratio	Adjusted Unit Cost	
	per EM	per EM		$	$/Month
5/8", 3/4"	12.39	6.56	1.00	18.95	18.95
1"	12.39	6.56	1.00	18.95	18.95
1-1/2"	12.39	6.56	1.50	28.43	28.43
2"	12.39	6.56	2.00	37.90	37.90
3"	12.39	6.56	2.50	47.38	47.38
4"	12.39	6.56	3.00	56.85	56.85
6"	12.39	6.56	3.50	66.33	66.33
8"	12.39	6.56	4.00	75.81	75.81
*EM = Equivalent Meter					
Fixed Svc Charge Revenue	$ 3,714,600	$ 1,968,300			$ 5,682,900

Table 6-27 Sewer Consumption Charge (FY 2027)

Line No.	Description	Capacity Costs Allocated to Cons Charge	Sewer Costs	Reference
1	Volume Costs	40.2%	$ 2,496,600	(Table 6-25, Row 6, Col 2)
2	Units of Service (HCF)		4,231,248	(Table 6-23, Line 3, Col 1)
3	Unit Cost of Service		$ 0.59	

6.4 Fiscal Year 2028

Table 6-28 Allocation Basis for O&M Expenditures (FY 2028)

Line No.	Description	Common to All Customers		Allocation Basis
		Volume	Customer	
		(%)	(%)	
	Operation & Maintenance			
1	Regular Salaries-Special Pays	100%	0%	Collection
2	Benefits	100%	0%	Collection
3	Contract Services	100%	0%	Collection
4	Utilities	100%	0%	Collection
5	Supplies & Materials	100%	0%	Average O&M (less CS)
6	Maintenance & Repair	100%	0%	Collection
7	Travel & Training	100%	0%	Average O&M (less CS)
8	General Expenses	100%	0%	Average O&M (less CS)
9	Internal Svc Charge	0%	100%	Customer

Table 6-29 Allocation of O&M Expenditures (FY 2028)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
		($)	($)	($)
	Operation & Maintenance			
1	Salaries	1,472,600	1,472,600	0
2	Benefits	815,100	815,100	0
3	Contract Services	168,100	168,100	0
4	Utilities	19,800	19,800	0
5	Electricity	80,100	80,100	0
6	Supplies & Materials	24,900	24,900	0
7	Maintenance & Repair	1,063,800	1,063,800	0
8	Travel & Training	11,800	11,800	0
9	General Expenses	440,800	440,800	0
10	Customer Billing	211,800	0	211,800
11	Internal Svc Charge	1,007,700	0	1,007,700
12	Insurance	753,100	0	753,100
13	Routine Capital Outlay	40,500	40,500	0
14	Transfers	1,019,700	1,019,700	0
15	Total O&M Expenses	$ 7,129,800	$ 5,157,200	$ 1,972,600
	Less Other Revenue			
16	Miscellaneous Revenues	66,900	52,100	14,800
17	Other Adjustments	(591,300)	(460,300)	(131,000)
18	Net Operating Expenses	$ 7,654,200	$ 5,565,400	$ 2,088,800

Table 6-30 Allocation Basis for Capital Costs (FY 2028)

Line No.	Description	Common to All Customers		Allocation Basis
		Volume (%)	Customer (%)	
	Plant Assets			
1	Collection	100%	0%	Collection
2	Lift Station	100%	0%	Pumping
3	Equipment	100%	0%	Average Net Plant
4	General Plant	100%	0%	Average Net Plant

Table 6-31 Allocation of Capital Costs (FY 2028)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
		($)	($)	($)
	Plant Assets			
1	Collection	21,320,100	21,320,100	0
2	Lift Station	6,895,300	6,895,300	0
3	Equipment	0	0	0
4	General Plant	2,300	2,300	0
5	Total Plant Assets	$ 28,217,700	$ 28,217,700	$ 0
6	Capital Costs	$ 1,476,300	$ 1,476,300	$ 0
	Less Other Revenue			
7	Miscellaneous Revenues	0	0	0
8	Other Adjustments	(123,600)	(123,600)	0
9	Net Plant Assets	$ 1,599,900	$ 1,599,900	$ 0

Table 6-32 Units of Service (FY 2028)

Line No.	Description	Contributed Volume	Equivalent Meters
	Column reference	(1)	(2)
	Units of Measure	(HCF)	(EM)
1	All Customers	4,030,872	24,215
2	Sewer Only	200,376	774
3	Total	4,231,248	24,989

Table 6-33 Units Cost of Service (FY 2028)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
1	Net Operating Expense	7,654,200	5,565,400	2,088,800
2	Capital Costs	1,599,900	1,599,900	0
3	Total Cost of Service	$ 9,254,100	$ 7,165,300	$ 2,088,800
4	Units of Service		4,231,248 HCF	24,989 EM
5	Cost per Unit		$ 1.69 per HCF	$ 83.59 per EM

Table 6-34 Distribution of Costs to Customer Types (FY 2028)

Line No.	Description	Total Cost	Common to All Customers	
			Volume	Customer
	Column reference	(1)	(2)	(3)
1	Cost per Unit		$ 1.69 per HCF	$ 83.59 per EM
	All Customers			
2	Units		4,030,872	24,215
3	Allocation of costs of service	8,850,100	6,826,000	2,024,100
	Sewer Only			
4	Units		200,376	774
5	Allocation of costs of service	404,000	339,300	64,700
6	Total Cost of Service	$ 9,254,100	$ 7,165,300	$ 2,088,800

Table 6-35 Costs within the Sewer Monthly Fixed Charge (FY 2028)

Meter Size	Capacity, Customer Billing				Total Service Charge
	Capacity Unit Cost	Cust Billing Unit Cost	Meter Ratio	Adjusted Unit Cost	
	per EM	per EM		$	$/Month
5/8", 3/4"	15.29	6.97	1.00	22.25	22.25
1"	15.29	6.97	1.00	22.25	22.25
1-1/2"	15.29	6.97	1.50	33.38	33.38
2"	15.29	6.97	2.00	44.51	44.51
3"	15.29	6.97	2.50	55.63	55.63
4"	15.29	6.97	3.00	66.76	66.76
6"	15.29	6.97	3.50	77.89	77.89
8"	15.29	6.97	4.00	89.01	89.01
*EM = Equivalent Meter					
Fixed Svc Charge Revenue	$ 4,584,200	$ 2,088,800			$ 6,673,000

Table 6-36 Sewer Consumption Charge (FY 2028)

Line No.	Description	Capacity Costs Allocated to Cons Charge	Sewer Costs	Reference
1	Volume Costs	36.0%	$ 2,581,100	(Table 6-34, Row 6, Col 2)
2	Units of Service (HCF)		4,231,248	(Table 6-32, Line 3, Col 1)
3	Unit Cost of Service		$ 0.61	