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2026 Sewer Rate Study

# 2026 Sewer Cost of Service and Rate Study Report

July 2026 / FINAL

carollo®

# Contents

## Appendices



## Tables



## Figures

# Abbreviations

| | |
|---|---|
| BOD | biochemical oxygen demand |
| Carollo | Carollo Engineers |
| CIP | Capital Improvements Plan |
| City | City of Chico |
| DSCR | debt service coverage ratios |
| EDU | Equivalent dwelling unit. For City of Chico, one Wastewater EDU is assumed as 7.2 HCF per month, 3.46 pounds of BOD per month, and 5.25 pounds of TSS per month. |
| FY | fiscal year |
| HCF | hundred cubic feet |
| I&I | inflow and infiltration |
| lbs/yr | pounds per year |
| mgd | million gallons per day |
| mg/L | milligrams per liter |
| MOP 27 | Manual of Practice 27: Financial and Charges for Wastewater Systems |
| O&M | operations and maintenance |
| PAYGO | pay-as-you-go |
| R&R | repair and replacement |
| SFR | single family residential |
| Study | Sewer Rate Study |
| SWRCB | State Water Resources Control Board |
| TSS | total suspended solids |
| WEF | Water Environment Federation |
| WPCP | water pollution control plant |

# SECTION 1 INTRODUCTION

The City of Chico (City or Chico) provides wastewater collection, treatment, and disposal service for the residential, industrial, and commercial customers within its service area in Northern Sacramento Valley of California in Butte County. The Chico 2030 General Plan defined the 39.5 square-mile boundary which the latest 2025 Sanitary Sewer Master Plan and 2021 Water Pollution Control Plant (WPCP) Strategic Plan used for planning purposes. The City currently manages and maintains approximately 288 miles of gravity sewer pipes, approximately 4.9 miles of force main pipes, and 18 lift stations. All wastewater that is generated within its service area – approximately 6.38 million gallons per day (mgd) of average dry weather flow and 22.26 mgd of peak wet weather flow – is conveyed to the 8.4 mgd WPCP on Chico River Road.

## 1.1 Study Background

User rates are intended to collect the necessary revenue to cover operations and maintenance (O&M) costs, pay down any new or existing debt, and pay for capital improvement projects for repair and replacement (R&R), meeting increasing treatment regulation stringency, and supporting capacity expansion. Over the past several years, the City retained Carollo Engineers, Inc. (Carollo) to prepare the 2025 Sanitary Sewer Master Plan and 2021 WPCP Strategic Plan. Those plans included condition assessments and capacity evaluations, as well as a review of capital improvement plan (CIP) projects. One of the outcomes of the Sanitary Sewer Master Plan determined that the collection system's capacity is insufficient at meeting the maximum flow-depth criteria under peak wet weather flow conditions at City buildout per the 2030 City of Chico General Plan, which can create bottlenecks in the system and potentially cause sanitary sewer overflows. The WPCP Strategic Planning Report has provided the City with information needed to effectively budget for current and future capital and operational expenditures directly related to the City's WPCP and ensure long-term reliability of the WPCP. In 2021 the City performed a Sewer Collection System Analysis (Ottoboni) that identified the financial need to replace aging collection system infrastructure past its useful life. The Sewer Collection System Analysis document was critical in establishing the City's Sewer Main Replacement Program.



In August 2025, the City retained Carollo to perform a comprehensive and defensible Sewer Rate Study (Study), inclusive of a financial plan and cost of service analysis. This Study's deliverables were to:

- Recommend sewer user rates for five fiscal years (FY), 2027 through 2031;
- Present the findings in this final report;
- Prepare and conduct a Proposition 218 process, including mailing and a public hearing to adopt a new sewer rate.

This Study was performed prior to the routine five-year update to the last rate study, conducted by a third-party consultant (NBS) in August 2022, which developed rate recommendations through June 30, FY 2027. The Study was performed prior to the routine five-year update due to the financial health of the City's Sewer Enterprise Fund, in which Capital Reserve balances were not meeting forecasted amounts.

The previous study resulted in the following adopted changes:

- Defined the average single family residential (SFR) equivalent dwelling unit (EDU) based on flow, pounds of biochemical oxygen demand (BOD), and pounds of total suspended solids (TSS) under average monthly consumption during winter months;
- Determined that multi-family and duplex accounts are less than one EDU and, as a result, should have a lower fixed monthly charge than SFR customers;
- Methodology to calculate the number of EDUs for all commercial customers;
- Methodology to calculate volumetric rates based on standard effluent strength factors that follow State Water Resources Control Board guidelines and vary by customer class;
- Transitioned the residential rate structure from a flat monthly rate to a fixed monthly charge and volumetric rate;
- Maintained the commercial rate structure of fixed monthly charges based on calculated EDU and volumetric rates based on standard commercial strength factors.

### 1.1.1 Rate Update History

Prior to the 2022 update, the City had not increased sewer rates in over 10 years. That delay produced insufficient cash flow and reserves to sustain the repair, replacement, and infrastructure improvement programs necessary to maintain the system and support future customers. This challenge is particularly acute given the age of the infrastructure: many of the City's sewer lines are 50 to 70 years old and, in some cases, more than 100 years old and the City's WPCP is approaching 50 years old. Furthermore, costs for O&M activities increase under economic uncertainty, rising power and chemical costs, and inflation. While these expenditures increased, the collected sewer revenue remained largely unchanged, resulting in a net annual loss in cash reserves, which have been drawn down to cover necessary system improvements.

### 1.1.2 2026 Rate Study Purpose and Structure

To develop updated user rates, Carollo reviewed and updated, as necessary, the previous 2022 study changes and assumptions while maintaining a similar rate structure and calculation approach. This Study included a comprehensive review of the utility's revenue needs, CIP projects, customer usage characteristics, and additional future drivers of service costs and revenue. The City has significantly drawn down Capital Reserves to fund necessary CIP projects. Therefore, this process included in-depth discussions with Carollo engineers, City engineers, finance and utility staff to strategically build and maintain reserves to avoid recreating the constraints which limited the utility's ability to meaningfully address systemwide infrastructure concerns.

Based on these analyses, Carollo recommended updates to the City's sewer rates to adequately recover costs and maintain reserves. This report is organized to:

- Discuss the methodology and assumptions driving the financial plan (Section 1.2);
- Identify any financial inadequacy of the City's existing rate schedule through the Revenue Requirements analysis (Section 2);
- Determine the costs each system function and customer class place on the utility in the Cost-of-Service analysis (Section 3);

- Present rate recommendations for FY 2027 through 2031 to adequately recover costs through the rate-setting period (Section 4);
- Identify resulting customer impacts under the recommended rates (Section 5);
- Acknowledge the resulting tradeoffs with Chico City Council's decision (Section 6).

## 1.2 Rate Setting Process

Rate analyses are typically performed every five years so that revenues from rates adequately fund utility operations, maintenance, and capital investments. Additionally, in California, wastewater rates must adhere to the cost-of-service requirements imposed by California Constitution article XIII D, Section 6 (commonly referred to as Proposition 218) and Article X, section 2. Proposition 218 requires that property related fees and charges, including wastewater Service Fees and charges, do not exceed the reasonable and proportional cost of providing the service. In addition to Proposition 218 requirements, Article X, section 2 of the State Constitution, establishes the need to preserve the State's water supplies and discourage the wasteful or unreasonable use of water.

In addition to adhering to state requirements, Carollo's rate-setting methodology is consistent with industry guidelines described in the Water Environment Federation's (WEF) *Manual of Practice 27: Financial and Charges for Wastewater Systems* (MOP 27).

The cost-of-service analysis presented within this report consists of the following three interconnected processes shown in Figure 1: Revenue Requirement Analysis, Cost-of-Service Analysis, and the Rate Design Analysis.

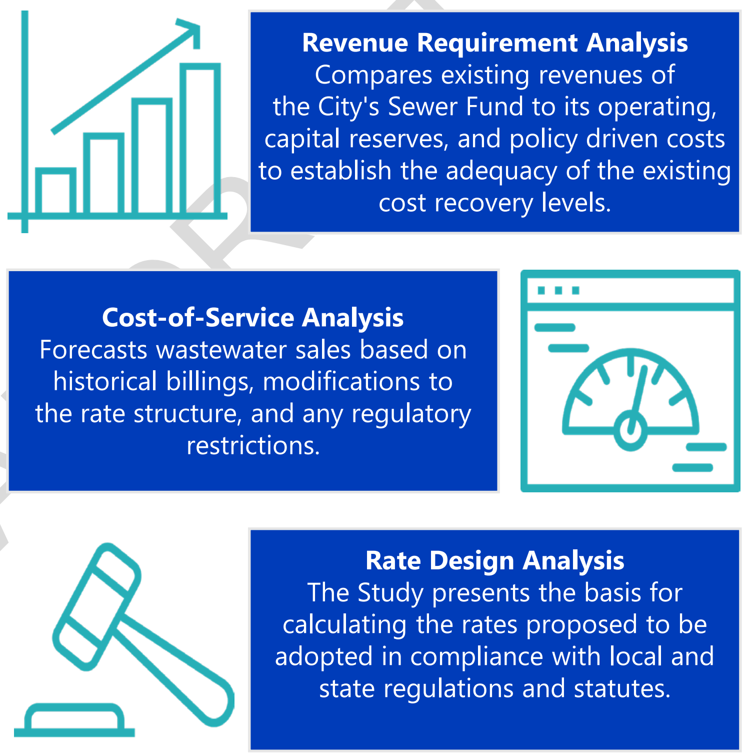


Figure 1 Conceptual Overview of the Rate-Setting Process

While the process is described in a linear step by step approach, it is better understood as an iterative process where the ultimate objective is to balance revenues with costs in an equitable manner for customers. These three processes will form the basis for the rate analyses presented within this report.

### 1.2.1 Revenue Requirements Component

Revenue requirements are the summation of expenses or costs for handling sewage to return regulatory approved water to the environment. They are determined on an annual basis, and they include:

- **Operations & Maintenance:** Salaries and benefits, chemicals, power, vehicles, equipment, supplies, etc. Some costs vary by the volume of treatment such as chemicals and power, but other costs are fixed and independent of volume such as salaries and vehicles.
- **Capital Improvements and Financing:** Design and construction of new and replacement infrastructure, including labor for City employees and fees for consultants and contractors that perform this work, along with debt service payments, bond issuance costs, etc. including debt coverage requirements.
- **Financial Policies:** Maintenance of financial policies, such as minimum reserve balances, which are supported by user rates.

### 1.2.2 Revenue Requirement Analysis

There are three sufficiency tests that can be used to define the annual revenue requirement: (1) operating income, (2) debt coverage, and (3) reserves. These sufficiency tests are commonly used to determine the amount of annual revenue that must be generated from a utility's rates.

- **Cash Flow Sufficiency Test:** Assesses whether revenues exceed expenses and looks for a net positive cash flow at the end of each fiscal year. When there is a cash flow deficit, this test recommends additional revenue. When utilities build and maintain a capital reserve that can be drawn down to delay rate increases, the utility may operate in an annual cash flow deficit so long it remains compliant with other financial targets.
- **Debt Service Coverage Test:** Assesses a utility's ability to meet their annual debt service payments. Bond issuances regularly include covenants requiring the agency to maintain sufficient cash flows to meet annual debt service payments plus an additional amount. Typical debt service coverage ratios (DSCR) range from 1.25 times to 1.50 times annual debt service, depending on the terms of debt instrument issued. The City's current DSCR target is 1.25 times (1.25x).
- **Reserve Sufficiency Test:** Measures the ability of the rates to meet the City's minimum and target operating reserve balance based on the reserve policies adopted by the City Council. This reserve target ranges by utility, depending on capital needs and service demands. Prior to this Study, the City did not have a mandated operating reserve target and mitigated some of the need for recent rate increases by drawing down its reserve to fund necessary CIP projects. To prepare for necessary upcoming CIP projects and provide financial security, Carollo recommended the City incrementally increase its operating reserve target to 205 days of O&M expenses by the end of this rate setting period. To minimize rate increase spikes, Carollo proposes a target of 60 days in FY 2027 and FY 2028, 90 days in FY 2029, 180 days in FY 2030, and 205 days in FY 2031 and beyond.

### 1.2.3 Cost-of-Service Analysis

This step builds a link between the City's cost of sewer service and the proposed rates for each customer. After determining the revenue requirement, this step outlines the cost to collect and treat each unit of sewage to serve each customer.

This process takes each item in the system's budget and allocates the items based on what function is served. For example, some cost items support the ability to treat heavier contamination, while other costs are incurred to provide customer service or to fund infrastructure maintenance. Organizing the budget in terms of end function creates a nexus between the budget item and the rate. This organization bridges the costs incurred by the City and the unique and varied benefits delivered to each customer.

This Study's cost of service analysis uses a three-part allocation process:

1. **Functionalization:** Annual costs are allocated by utility functions, such as flow, BOD strength, TSS strength, fixed costs that do not change in relation to the volume of effluent generated, and customer service costs such as billing administration.
2. **Rate Components:** Utility facilities are designed and sized to meet cost drivers, such as average treatment demands and the number of connections to the system. These services are the basis for allocating the functionalized costs to cost components.
3. **Customer Class:** Cost components are distributed to customer classes in proportion to their burden on the wastewater system. The City measures this by the EDU per unit (for residential customers) or per account (for commercial customers). Customer classes are determined by utilizing the State Water Resources Control Board Revenue Program Guidelines Strength Characteristics.

### 1.2.4 Rate Design and Calculation

The rate design involves developing a rate structure that proportionately recovers costs from customers. This structure must be resilient enough to handle changing cost and demand scenarios, and flexible enough to meet other unique criteria. By collecting different cost drivers from different rate components, the utility can ideally balance these goals.

The rate calculation is intended to quantify the nexus between the Revenue Requirements and the final rate that customers are charged. This process establishes rates to match the estimated revenue generation with expenditures.



## 1.3 Forward-Looking Statement

The calculations and forecasts of this analysis are based upon the reasonable projection of existing service costs, customer demands, system operational needs, existing legal agreements, and other similar data provided by the City, as well as Carollo's best understanding of the City's system.

If significant changes occur to any of those or the other factors used in this analysis, the City may need to revisit the analysis. These changes could include unexpected inflation, changes to California law, deviation from the projected wastewater demands, or further regulatory actions by the Governor, Legislature, or the State Water Resources Control Board (SWRCB).

## 1.4 Existing Rate Structure

Prior to the previous rate study in 2022, the City had not updated rates for 10 years and charged a fully fixed bill for residential customers and fully volumetric bill for commercial customers. The previous rate study updated the rate structure to assess both a fixed and volumetric charge component to each customer. This is the basis to the existing rate schedule shown below:

Table 1 Existing Rate Schedule FY2025/26

| Customer Class | Fixed Monthly Charges(1) | Volumetric Charges (per HCF(2)) |
|---|---|---|
| Residential | | |
| House | $28.47 | $1.30 |
| Multi-Family3 | 16.12 | 1.30 |
| Duplex - 2 Meters | 9.22 | 1.30 |
| Duplex - 1 Meter | 18.48 | 1.30 |
| Commercial | | |
| Bars without Dining | $28.47 | $0.88 |
| Brewery | 28.47 | 2.06 |
| Car Wash | 28.47 | 0.60 |
| Dorms | 28.47 | 0.75 |
| Hospital & Convalescent | 28.47 | 0.72 |
| Hotels w/o Dining | 28.47 | 0.81 |
| Hotels with Dining | 28.47 | 1.63 |
| Industrial Laundry | 28.47 | 1.87 |
| Laundromat | 28.47 | 0.69 |
| Markets/Bakeries | 28.47 | 2.20 |
| Mortuary | 28.47 | 2.66 |
| Restaurants | 28.47 | 2.18 |
| School | 28.47 | 0.64 |
| All Other | 28.47 | 0.99 |

Notes:
(1) Residential fixed monthly charge is assessed as dollar per unit per month. Commercial fixed monthly charge is assessed as dollar per EDU per month.
(2) Hundred cubic feet (HCF) is equivalent to 748 gallons of water based on average winter water use (December through March) as reported by CalWater. If the property is not metered by CalWater, or lacks sufficient metered data, then the average consumption for the applicable classification will be used to calculate the volumetric portion of the rate.
(3) Multi-family is defined as structures with adjoining, or common walls. All others shall be single-family (except duplexes).
(4) One EDU is equal to the average wastewater strength and flow from a typical residential home.

## 1.5 Growth and Inflation Assumptions

The model assumes growth and inflation factors that impact the revenue and expenses projected through the duration of the Study. Therefore, all recommended rate increases are calculated in addition to projected revenue and anticipated cost increases. The model budget includes:

- **Non-Operating Revenue:** Revenue not generated through user rates (Application fee, maintenance fee, in-lieu petition fee, industrial waste test fee, rental lease income).
- **Transfer:** $1M annual transfer out until the end of existing debt payment (FY 2030).
- **Uncollectable Debt:** Assumes 10.0 percent non-paying customers in FY 2027 and 3.0 percent in FY 2028 and beyond.

The City currently projects that its number of sanitary sewer accounts will increase by approximately 1.2 percent annually throughout the duration of the five-year study period (FY 2027 through FY 2031), a cumulative increase of 2.53 percent. City staff provided baseline revenue and expense data which was escalated by the type of expense. Based on current knowledge of the market, Salaries & Benefits are escalated 5.0 percent annually and all other O&M expenses reflect an annual 3.0 percent inflation factor through the Study duration. Table 2 summarizes the modeled escalations for revenues and O&M expenses assumed for the revenue requirement.

Table 2 Escalation Factors for Revenue and Expenses

| Escalator | Escalation Factor |
|---|---|
| Account Growth | 1.2% (Determined by staff estimates) |
| Non-Operating Revenue | 1.2% |
| Salaries & Benefits *(including staff in Funds Administration and Development Engineering)* | 5.0% |
| Utilities *(Insurance, Fuel, Electric, Natural Gas, etc.)* | 3.0% |
| General O&M *(all other O&M expenses)* | 3.0% |
| Uncollectable Debt *(% of Sewer Service Fee Revenue)* | 10.0% (FY27) then 3.0% indefinitely |

# SECTION 2 REVENUE REQUIREMENTS

The revenue requirement analysis is a comprehensive test of a utility's fiscal health, scrutinizing the adequacy of current revenues and setting the basis for rate planning. It reviews the utility's revenues, expenses, debts, and reserve policies, assessing the viability of each metric going forward. Where cash flow and balances are insufficient, the revenue requirement analysis determines the additional cash flow needed to meet all funding goals.

The revenue requirement forecast is derived from the City's financial budget, including major cost components, production costs, personnel costs, O&M, and rate supported debt service requirements and capital outlay. Policy requirements are also considered and used to assess revenue sufficiency.

The City provided budgeted revenues and expenditures for FY 2026 along with actual revenues and expenditures for FY 2025. Other financial information included detailed cost projections and allocations for general and administrative and support costs, actual and projected fund balances, and other pertinent financial information.

Based on the financial sufficiency tests described in Section 1.2.2, the revenue requirement analysis determines if the City must increase system revenues to meet its ongoing obligations. If revenues are found to be insufficient to meet debt obligation (debt service coverage test) and/or reserve policies (reserve sufficiency test), revenues must be increased to achieve the higher of the needs.

The revenue requirement recommendations presented within this report are based on best available information as of the writing of this report.

## 2.1 Capital Improvement Projects

Along with funding day-to-day operations, the City must continually invest in the utility's infrastructure to maintain the system's efficiency, reliability, ability to meet regulatory requirements, and add capacity to support future customers. The CIP includes a variety of capital projects that are required for necessary R&R to existing system assets, meeting regulatory requirements, or adding capacity.

### 2.1.1 CIP Scenarios

#### 2.1.1.1 Original CIP

The 2021 WPCP Strategic Plan identified a financial need to replace aging collection system infrastructure past its useful life to ensure long-term WPCP reliability and regulatory compliance. The 2025 Sanitary Sewer Master Plan determined that the collection system's capacity is insufficient at meeting the maximum flow-depth criteria under peak wet weather flow conditions at City buildout, which can create bottlenecks in the system and potentially cause sanitary sewer overflows. The 2021 WPCP Strategic Plan and the 2025 Sanitary Sewer Master Plan were conducted by Carollo as a third-party engineering consultant to identify system needs.

Table 3 summarizes the original CIP, escalated throughout the rate-setting period by 6.0 percent annually, which results in an approximate $134.5 million five-year CIP. The full 10-year line-item CIP is provided in the Appendix.

Table 3 Escalated Original CIP ($ thousands)

| Project | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 |
|---|---|---|---|---|---|
| Condition-Driven | $6,395.6 | $6,375.9 | $12,382.8 | $23,368.1 | $18,106.0 |
| Regulatory-Driven | 545.7 | 160.9 | 6,834.8 | 4,770.5 | 50,944.5 |
| Capacity-Driven | 864.6 | 890.6 | 917.3 | 944.8 | 973.2 |
| **TOTAL ESCALATED CIP** | **$7,805.9** | **$7,427.3** | **$20,134.9** | **$29,083.4** | **$70,023.7** |

Notes:
(1) Totals may not tie due to rounding.



#### 2.1.1.2 Moderate Risk CIP Recommendation

To minimize rate-payer burden, Chico City Council tasked the utility to identify CIP projects eligible to be reduced or postponed within an acceptable level of risk to reliable service. The public discussion differentiated utility risk (regulatory compliance and ability to provide service) from financial risk (debt interest burden and higher cost of future projects due to inflation). City staff recommended the following reductions to establish a moderate risk CIP which eliminates or postpones $29.6 million of capital projects:

- Identified other internal funding (reserves and project balances) to support the FY 2027 sewer pipe replacement in FY 2027;
- Reduce budgeted amount of sewer pipe replacements in FY 2028-2031, this is in addition to the 50 percent reduction passed by the City Council vote in 2022. In 2022, staff presented to Council a sewer pipe replacement budget to replace sewer pipes every 100 years, Council directed staff to reduce this by 50 percent resulting in the assumption that each pipe will be replaced every 200 years. The direction provided by Council in 2026 was to further reduce the budgeted amount by 25 percent, therefore the estimate used for this Study is that each sewer pipe in the system will be replaced every 267 years;
- Cut Sanitary Sewer Master Plan Existing User Contribution Projects by 50 percent, results in an estimated build out over the next 40 years as opposed to the initially proposed 20-year horizon;
- Reduced scope and project costs for the required pond lining project, which is required to comply with the Land Discharge set forth in the City's 2022 NPDES Permit;

- Defer abandoned outfall removal until required by State Lands Commission.

The revenue requirement analysis and resulting rate recommendations are based on this moderate risk CIP. Table 4 summarizes the moderate risk CIP, escalated throughout the rate-setting period by 6.0 percent annually, which results in an approximate $106.1 million five-year CIP. The full 10-year line-item CIP is provided in the Appendix.

Table 4 Escalated Moderate Risk CIP ($ thousands)

| Project | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 |
|---|---|---|---|---|---|
| Condition-Driven | $1,886.8 | $5,010.0 | $10,975.9 | $21,919.0 | $16,912.0 |
| Regulatory-Driven | 545.7 | 160.9 | 6,171.0 | 2,000.0 | 38,114.4 |
| Capacity-Driven | 458.8 | 472.6 | 486.8 | 501.4 | 516.4 |
| **TOTAL ESCALATED CIP** | **$2,891.3** | **$5,643.5** | **$17,633.7** | **$24,420.4** | **$55,542.8** |

Notes:
(1) Totals may not tie due to rounding.

### 2.1.1.3 Highest CIP Risk Scenario

In addition to the original CIP recommended and the moderate risk CIP passed by City Council vote, the City Council also considered a significant risk CIP scenario. In this scenario the postponed projects would still require completion, and the cost burden would necessitate a moderate-to-significant rate increase in FY 2032. This scenario was not recommended by City Council.

## 2.1.2 Financing

Chico City Council gave direction to fully fund the necessary R&R and capacity projects with rate revenue, also known as pay-as-you-go (PAYGO), rather than issuing new debt. Table 5 presents the funding sources for this CIP. Carollo modeled the funding strategy to first draw down available cash while maintaining its reserve target. Next, capital projects are paid by any remaining proceeds from issued debt. Since there are no remaining proceeds from the existing debt, this line is zero. Lastly, any remaining unfunded capital projects are paid by rates.

Table 5 CIP Funding Sources ($ thousands)

| Component | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 |
|---|---|---|---|---|---|
| Rate-Funded Capital (PAYGO) | $2,891.3 | $5,643.5 | $17,633.7 | $24,420.4 | $55,542.8 |
| Revenue Bonds (Debt) | - | - | - | - | - |
| **TOTAL FUNDED CIP** | **$2,891.3** | **$5,643.5** | **$17,633.7** | **$24,420.4** | **$55,542.8** |

Notes:
(1) Totals may not tie due to rounding.

## 2.2 Debt Obligations

The City's current outstanding debt obligation is the 2020 Series Sewer Revenue Refunding Bond (original bond issued in 2008 and refinanced in 2020), whose last payment is in FY 2030. The 2020 Bond provided proceeds for project funding throughout the City's utilities, approximately 34.5 percent of which funded wastewater capacity capital projects. The following table summarizes the remaining payments for this bond series.

Table 6 Existing Debt Summary ($ thousands)

| Component | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 |
|---|---|---|---|---|---|
| Interest | $136.2 | $99.6 | $61.1 | $20.7 | $- |
| Principal | 714.2 | 750.4 | 788.3 | 828.0 | - |
| **TOTAL EXISTING DEBT** | **$850.3** | **$850.0** | **$849.4** | **$848.7** | **$-** |

## 2.3 Financial Targets

### 2.3.1 Reserve Policy

The City currently maintains one reserve fund, Capital Reserve Fund 851, for the wastewater utility. The City has recently drawn this fund down significantly to mitigate rate increases when funding necessary CIP projects. To rebuild this fund for significant upcoming CIP projects and establish financial stability for emergencies, Carollo proposes an incremental adjustment to the reserve target, beginning at 60 days of O&M expenses, to reach 205 days in reserves by the end of the rate setting period in FY 2031.

The reserve balance forecast under the existing rate schedule is outlined in the table below.

Table 7 Reserve Balance Forecast Under Existing Rate Schedule ($ thousands)

| Component | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 |
|---|---|---|---|---|---|
| Fund Target (days of O&M) | 60 Days | 60 Days | 90 Days | 180 Days | 205 Days |
| Fund Target ($) | $2,149.2 | $2,227.1 | $3,462.1 | $7,176.5 | $8,471.7 |
| Beginning Balance | $4,425.3 | $3,853.3 | $(558.1) | $(17,250.0) | $(41,035.1) |
| Cash Flow | (572.0) | (4,411.5) | (16,691.8) | (23,785.1) | (53,383.5) |
| **Ending Balance** | **$3,853.3** | **$(558.1)** | **$(17,250.0)** | **$(41,035.1)** | **$(94,418.6)** |
| Surplus/(Deficit) ($) | 1,704.2 | (2,785.3) | (20,712.1) | (48,211.6) | (102,890.3) |
| Surplus/(Deficit) (days of O&M) | 108 Days | -15 Days | -448 Days | -1,029 Days | -2,285 Days |

Notes:
(1) Totals may not tie due to rounding.

As shown, the existing rates are insufficient to meet the reserve target throughout the rate-setting period. The City falls below this target beginning in FY 2028. As this deficit is larger than the debt coverage deficit discussed in Section 2.3.2, it's one of the drivers for the proposed rate revenue increase. Following the proposed rate revenue adjustments, the City is expected to meet its reserve targets throughout the duration of the rate-setting period, as shown in Table 8.

Table 8 Reserve Balance Forecast After Proposed Rate Revenue Adjustments ($ thousands)

| Component | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 |
|---|---|---|---|---|---|
| Revenue Adjustments | 55.0% | 55.0% | 3.0% | 3.0% | 3.0% |
| Beginning Balance | $4,425.3 | $10,070.9 | $29,726.9 | $38,643.1 | $42,078.0 |
| Cash Flow | 5,645.6 | 19,656.0 | 8,916.2 | 3,434.9 | (24,476.9) |
| **Ending Balance** | **$10,070.9** | **$29,726.9** | **$38,643.1** | **$42,078.0** | **$17,601.1** |
| Surplus/(Deficit) ($) | 6,306.3 | 23,069.9 | 24,321.6 | 25,629.0 | 9,129.4 |
| Surplus/(Deficit) (days of O&M) | 281 Days | 801 Days | 1,005 Days | 1,055 Days | 426 Days |

Notes:
(1) Totals may not tie due to rounding.

### 2.3.2 Debt Coverage

The debt coverage test is stipulated in the official statement for each bond series that the City issues. The City's stipulated debt coverage is 1.25x, meaning that revenues minus operating expenditures must be 25 percent greater than the debt service due in that fiscal year.

Not all revenues are allowed in the debt coverage test. For the City, all sewer service charge and capacity charge revenues are included in the calculation. Some non-operating revenues, such as bond proceeds, are not permitted.

The overview of revenues and expenditures included in this test are outlined in the table below. The revenues outlined in the analysis are following the revenue adjustments shown in Table 8, under the assumption that needed increases are reserve-driven and not debt driven. Based on this assumption, the City is projected to exceed its debt coverage ratio requirements.

Table 9 Debt Service Coverage After Proposed Rate Revenue Adjustments ($ thousands)

| Component | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 |
|---|---|---|---|---|---|
| Eligible Revenues(1) | $17,243.8 | $26,068.5 | $41,188.4 | $42,951.6 | $44,789.7 |
| Operating Expenditures | 13,074.1 | 13,548.3 | 14,040.8 | 14,552.4 | 15,083.8 |
| Debt Service | 2,464.8 | 2,463.6 | 2,462.1 | 2,460.0 | - |
| 1.25x Debt Coverage | 616.2 | 615.9 | 615.5 | 615.0 | - |
| **Debt Service Coverage Target** | **$16,155.1** | **$16,627.8** | **$17,118.5** | **$17,627.4** | **$15,083.8** |
| Debt Coverage Surplus/(Deficit) | 1,088.7 | 9,440.6 | 24,069.9 | 25,324.3 | 29,705.9 |
| DSCR Before Current Year Increase | 1.69 x | 5.08 x | 11.03 x | 11.54 x | no debt |
| Rate Revenues from Rate Adjustments | $9,326.3 | $14,629.3 | $1,251.7 | $1,304.7 | $1,360.0 |
| Less: Rate Increase Delay | (3,108.8) | - | - | - | - |
| **DSCR After Increase** | **3.81 x** | **10.61 x** | **11.13 x** | **11.67 x** | **no debt** |

Notes:
(1) Eligible revenues exclude $1 million transfer through 2030 out to Fund 850 for additional debt coverage by other enterprises.
(2) Totals may not tie due to rounding.

### 2.3.3 Cash Flow

The cash flow test provides the most immediate and straightforward test of financial performance, answering the question "Do revenues exceed expenses?" This offers a quick glance at the long-term viability of the funding plan.

In the City's case, the cash flow test serves as a diagnostic but is not used for rate modeling purposes. Carollo and the City determined that rebuilding reserves is the top priority and will be the primary driver of revenue increases. As a result, negative cash flows do not dictate rate increases in the financial modeling for the City.

However, the results of the cash flow test will still be shown in the Revenue Requirements analysis as an additional piece of information. Negative cash flow can be supported by excess reserves for a single year or even several years, but long term, positive cash flow should be pursued. It provides credit rating agencies a strong signal of the City's financial health and could result in a higher credit rating for potential future debt issuances. Furthermore, it provides cushion to deal with emergency repairs and unanticipated capital expenses. Therefore, this Study looked closely at cash flow and placed significant weight on its forecast but did not use it as a primary driver of rate increases.

#### 2.3.3.1 Uncollectable Debt

A substantial expense that the City must account for is the uncollectable debt from existing unpaying customers. Approximately 10 percent of rate revenue is under-collected. The City's billing is currently contracted to an external company with limited ability to collect debt. In FY 2028, the City anticipates it will begin performing in-house billing and will have the flexibility to increase enforceability, such as utilizing liens or tax roll collection processes. Until then, this uncollectable debt increases the revenue deficit that rate payers must recover.

The following table presents the cash flow prior to proposed rate revenue adjustments.

Table 10 Cash Flow Forecast Under Existing Rate Schedule ($ thousands)

| Component | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 |
|---|---|---|---|---|---|
| **REVENUES** | | | | | |
| **Operating Revenues** | | | | | |
| Rate Revenues | $16,957.0 | $17,160.4 | $17,366.4 | $17,574.8 | $17,785.7 |
| Other Operating Revenues | 2,000.0 | - | - | - | - |
| **Non-Operating Revenues** | | | | | |
| Fees | $172.0 | $174.1 | $176.2 | $178.3 | $180.4 |
| Rental Lease Income | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Bond Proceeds | - | - | - | - | - |
| Transfers to Fund 850 | (1,209.5) | (1,209.5) | (1,209.5) | (1,209.5) | (209.5) |
| Uncollectable Debt | (1,695.7) | (514.8) | (521.0) | (527.2) | (533.6) |
| **Total Revenues** | **$16,243.8** | **$15,630.2** | **$15,832.1** | **$16,036.3** | **$17,243.0** |
| **EXPENDITURES** | | | | | |
| **Operating Expenditures** | | | | | |
| Salaries & Employee Benefits | $4,974.6 | $5,205.7 | $5,448.0 | $5,701.7 | $5,967.6 |
| Materials & Supplies | 2,012.3 | 2,072.7 | 2,134.8 | 2,198.9 | 2,264.9 |
| Purchased Services | 2,832.0 | 2,917.0 | 3,004.5 | 3,094.6 | 3,187.5 |
| Other Expenses | 254.8 | 262.5 | 270.3 | 278.5 | 286.8 |
| Allocations | 3,000.4 | 3,090.4 | 3,183.1 | 3,278.6 | 3,377.0 |
| **Non-Operating Expenditures** | | | | | |
| Cash Funded Capital (PAYGO) | $2,891.3 | $5,643.5 | $17,633.7 | $24,420.4 | $55,542.8 |
| Existing Debt Service | 850.3 | 850.0 | 849.4 | 848.7 | - |
| Future Debt Service | - | - | - | - | - |
| **Total Expenditures** | **$16,815.8** | **$20,041.7** | **$32,523.9** | **$39,821.4** | **$70,626.6** |
| **Annual Cash Flow Surplus/(Deficit)** | **(572.0)** | **(4,411.5)** | **(16,691.8)** | **(23,785.1)** | **(53,383.5)** |

Notes:
(1) Totals may not tie due to rounding.

Under the proposed rate revenue adjustments, the City sustains an annual cash flow surplus in FY 2027 through FY 2030. In FY 2031, there are significant CIP-driven expenditures which are primarily financed by drawing down the City's Capital Reserve Fund 851. Despite that year's annual cash flow deficit, FY 2031's ending cash balance remains in surplus.

Table 11 Cash Flow Forecast After Proposed Rate Revenue Adjustments ($ thousands)

| Component | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 |
|---|---|---|---|---|---|
| Revenue Adjustments | 55.0% | 55.0% | 3.0% | 3.0% | 3.0% |
| Rate Revenues Before Rate Adjustments | $16,957.0 | $17,160.4 | $17,366.4 | $17,574.8 | $17,785.7 |
| Rate Revenues from Prior Year's Rate Adjustments | - | 9,438.2 | 24,356.3 | 25,915.3 | 27,546.7 |
| Rate Revenues from Rate Adjustments | 9,326.3 | 14,629.3 | 1,251.7 | 1,304.7 | 1,360.0 |
| Other Operating Revenue | 2,000.0 | - | - | - | - |
| Non-Operating Revenues | (2,713.2) | (1,530.2) | (1,534.3) | (1,538.4) | (542.6) |
| Less: Rate Increase Delay[1] | (3,108.8) | - | - | - | - |
| Less: Expenditures | (16,815.8) | (20,041.7) | (32,523.9) | (39,821.4) | (70,626.6) |
| **Resulting Annual Cash Flow Surplus/(Deficit)** | **$5,645.6** | **$19,656.0** | **$8,916.2** | **$3,434.9** | **$(24,476.9)** |

Notes:
(1) If accepted, rate recommendations are not anticipated to go into effect until November 1, 2026. Due to the delay, there are four months of revenue that would be collected at the existing rates. The difference is deducted from projected cash flow.
(2) Totals may not tie due to rounding.

# SECTION 3 COST-OF-SERVICE ANALYSIS

The COS analysis takes the revenue requirements outlined in the prior section and allocates them first to City functions and then to customer classes based on usage of the City's system. This approach is based on the proportionality requirements of California's Proposition 218. The goal is to provide a method of allocating costs that is fair and equitable and establishes a clear nexus between the wastewater discharge generated by different customers and the fees they are charged by the City to convey and treat that wastewater.

The City's budget is divided into operating or capital expenses, and those expenses have specific functions as their goal. Those functions are driven by the demands and needs of the City's service area and its customers. For instance, expenses related to chemicals, landfill, and biosolids are allocated among BOD and TSS, whereas costs of testing are allocated to flow, BOD, TSS, fixed costs, and customer service.

Using the industry standard methodology outlined in MOP 27, this analysis took the following steps to perform the cost-of-service allocation:

1. Allocate costs to functional categories (e.g., chemicals, power, maintenance, salaries).
2. Allocate functionalized costs to rate components: flow, BOD treatment, TSS treatment, fixed costs, and customer service.
3. Allocate costs to customer classes using rate component unit costs.

This adjusted cost of service by customer class and their respective units become the basis for designing rates in the final step.

## 3.1 Rate Component Allocation

Carollo maintained the allocations determined under the previous study to allocate sewer expenses, with slight adjustments. Budget categories are allocated fully or to a combination of fixed components (fixed, fixed-customer) and variable components (flow, BOD, TSS). For example, rather than recreating the process of estimating time allocations between the WPCP and the collection system for every individual staff member, the City engineers estimated that 60 percent of WPCP staff time is dedicated to volumetric components and 40 percent to fixed components including customer service. Furthermore, this Study excluded stormwater expenses, as their costs would not be recovered through sewer rates.
After allocating sewer expenses, Carollo applied the resulting total expenditure allocation to the offsetting non-rate revenues to determine the net revenue requirements allocation to rate components, summarized in Table 12.

Table 12 Sewer Expenditures Allocation Factors and Summary (FY 2027) ($ thousands)

| Budget Categories | FY 2027 Budget | Flow | BOD Strength | TSS Strength | Fixed | Fixed - Customer |
|---|---|---|---|---|---|---|
| Salaries - WPCP | $4,577.2 | 40.0% | 10.0% | 10.0% | 35.0% | 5.0% |
| Salaries - Collection | 1,311.1 | 35.0% | 0.0% | 0.0% | 60.0% | 5.0% |
| Chemicals, Landfill, Biosolids | 1,854.1 | 0.0% | 50.0% | 50.0% | 0.0% | 0.0% |
| Testing, Lab, Weed Control | 71.7 | 55.0% | 10.0% | 10.0% | 20.0% | 5.0% |
| Power | 1,179.8 | 75.0% | 10.0% | 10.0% | 5.0% | 0.0% |
| Maintenance - WPCP | 4,063.4 | 55.0% | 10.0% | 10.0% | 20.0% | 5.0% |
| Maintenance - Collection/Storm | 16.9 | 25.0% | 0.0% | 0.0% | 75.0% | 0.0% |
| Debt | 850.3 | 55.0% | 10.0% | 10.0% | 25.0% | 0.0% |
| Capital Expenditures | 2,891.3 | 40.0% | 10.0% | 10.0% | 40.0% | 0.0% |
| **Total Expenditures Allocation** | **$16,815.8** | **$7,077.4** | **$2,290.4** | **$2,290.4** | **$4,656.4** | **$501.2** |
| Less: Non-Rate Revenues | 713.2 | (358.1) | 169.5 | 169.5 | 651.3 | 80.9 |
| Cash Flow | 8,754.4 | 3,684.5 | 1,192.4 | 1,192.4 | 2,424.2 | 260.9 |
| **NET Revenue Requirements Allocation** | **$26,283.3** | **$10,403.8** | **$3,652.3** | **$3,652.3** | **$7,731.9** | **$842.9** |
| Allocation (%) | 100.0% | 39.6% | 13.9% | 13.9% | 29.4% | 3.2% |

Notes:
(1) Totals may not tie due to rounding.

## 3.2 Customer Class Allocation

Establishing the unit costs for each billing process the City provides is the nexus between total cost of service and customer class costs of service. To calculate system unit costs and allocate costs of service to each customer group, all customer groups need units established for each of the cost components. The total cost of service is multiplied by each class's portion of units for Flow in hundred cubic feet per year, BOD in pounds per year (lbs/yr), TSS in lbs/yr, Fixed Costs per EDU, and Customer Service Fixed Costs per Account to determine their unique costs of service.

### 3.2.1 Flow

All accounts are charged based on their average winter water consumption per Chico Municipal Code (CMC) 15.36.060. Each customer's winter consumption is calculated using the combined total of water consumed during the winter months – December, January, February, and March as provided by the water utility. These months reflect the historic months during which outdoor usage is at its lowest and, consequently, water consumption during this period will more accurately reflect water usage that is disposed to the wastewater system over the course of the entire year. Once established, this average wastewater flow remains effective for the following fiscal year, July through June, until it is recalculated after the following winter.

Equation 1 Billed Winter Water Consumption Formula

$$Billed\ Consumption\ (hcf/month) = \frac{Dec\ Flow + Jan\ Flow + Feb\ Flow + March\ Flow\ (HCF)}{4\ months}$$

This winter water consumption is annualized when multiplied by three, as shown in Equation 2, which results in the assumed wastewater flow for the year per class.

Equation 2 Annualized Winter Water Consumption Formula

$$Annualized\ Winter\ Water\ Consumption\ (hcf) = (Dec\ Flow + Jan\ Flow + Feb\ Flow + March\ Flow) \times 3$$

A flow adjustment factor is applied to the annualized winter consumption based on the actual flow measured at the WPCP to establish the annual volume for each customer tied to the actual flow received at the WPCP, which includes inflow and infiltration (I&I). This adjusted flow is only used for cost-of-service allocations, not billing purposes. This factor is calculated by dividing the WPCP's annual actual flow received by the annualized winter consumption billed, as shown in Equation 3.

Equation 3 Flow Adjustment Factor Formula

$$Flow\ Adjustment\ Factor = \frac{Actual\ Annual\ WPCP\ Flow\ Received\ (HCF)}{Calculated\ Annualized\ Winter\ Water\ Consumption\ (HCF)}$$

Carollo calculated this factor as 1.06 for 2025, based on the WPCP's actual 2025 measured flow of 3,401,711 HCF and the calculated annualized winter consumption of 3,198,449 HCF. The summary of average winter water consumption, annualized winter water consumption, and plant-adjusted annual volume are shown in the table below.

Table 13 Flow Summary by Customer Class

| Class | 2024/2025 Winter Consumption[1] | Annualized Winter Water Consumption | Adjusted Annual Volume |
|---|---|---|---|
| Residential | | | |
| Single Family | 506,864 | 1,520,591 | 1,617,225 |
| Multi-Family | 302,057 | 906,170 | 963,757 |
| Duplex – 2 Meters | 3,093 | 9,280 | 9,869 |
| Duplex – 1 Meter | 40,574 | 121,722 | 129,457 |
| Commercial | | | |
| Bars without Dining | 95 | 284 | 302 |
| Brewery | 615 | 1,846 | 1,963 |
| Car Wash | 3,266 | 9,798 | 10,420 |
| Dorms | 11,807 | 35,422 | 37,673 |
| Hospital & Convalescent | 28,754 | 86,262 | 91,744 |
| Hotels w/o Dining | 7,438 | 22,314 | 23,732 |
| Hotels with Dining | 34 | 102 | 108 |
| Industrial Laundry | 4,606 | 13,819 | 14,697 |
| Laundromat | 2,722 | 8,166 | 8,685 |
| Markets/Bakeries | 11,865 | 35,595 | 37,857 |
| Mortuary | 97 | 292 | 311 |
| Restaurants | 31,815 | 95,445 | 101,511 |
| School | 19,970 | 59,910 | 63,717 |
| All Other | 90,477 | 271,431 | 288,681 |
| **TOTAL FLOW (HCF)** | **1,066,150** | **3,198,449** | **3,401,711** |
| Actual Plant (HCF) | | | 3,401,711 |
| Calculated Adjustment Factor | | | 1.06 |

Notes:
(1) Winter consumption determined from data provided by CalWater of the December 2024 through March 2025 average flow.

### 3.2.2 Strength Loadings

Customer classes are determined by combining customers with similar flow and strength characteristics into customer classes. The most recent wastewater billing data was used to estimate the amount of sanitary sewer flows that go to the WPCP. For non-residential customers that do not have typical (i.e., residential) effluent strengths, volumetric rates reflect non-residential effluent strengths following the SWRCB Revenue Program Guidelines, measured in milligrams per liter (mg/L):

Table 14 Assumed Strength Factors by Customer Class

| Class | BOD Average Strength Factor (mg/L) | TSS Average Strength Factor (mg/L) |
|---|---|---|
| Residential(1) | 175 | 175 |
| Commercial | | |
| Bars without Dining | 200 | 200 |
| Brewery | 1,000 | 600 |
| Car Wash | 20 | 150 |
| Dorms | 175 | 175 |
| Hospital & Convalescent | 250 | 100 |
| Hotels w/o Dining | 310 | 120 |
| Hotels with Dining | 500 | 600 |
| Industrial Laundry | 670 | 680 |
| Laundromat | 150 | 110 |
| Markets/Bakeries | 800 | 800 |
| Mortuary | 800 | 800 |
| Restaurants | 1,000 | 600 |
| School | 130 | 100 |
| All Other | 175 | 175 |

Notes:
(1) Single family, multi-family, and duplexes.

These concentration assumptions can be converted to loading pounds using the following equation.

Equation 4 BOD and TSS Pounds Formula

$$Pounds\ (lbs) = Flow\ (gpd)\ \times Concentration\ (mg/L)\ \times 8.345 \times 10^{-6}$$

The Study converts BOD and TSS into pounds using the adjusted flow determined in Table 13. Similar to the adjustment required to tie assumptions to actual flow readings at the WPCP, BOD and TSS adjustment factors are calculated and applied to these loadings as well based on the modified adjustment factor formula shown below.

Equation 5 BOD Adjustment Factor Formula

$$BOD\ Adjustment\ Factor = \frac{Actual\ Annual\ Plant\ BOD\ Received\ (lbs)}{Calculated\ BOD\ using\ Annualized\ Water\ Consumption\ (lbs)}$$

Equation 6 TSS Adjustment Factor Formula

$$TSS\ Adjustment\ Factor = \frac{Actual\ Annual\ Plant\ TSS\ Received\ (lbs)}{Calculated\ TSS\ using\ Annualized\ Water\ Consumption\ (lbs)}$$

Carollo calculated the BOD adjustment factor as 0.44, which is in line with the previous Study's determination of 0.50, and the TSS adjustment factor as 0.67, which is also similar to the previous Study's 0.61.

Table 15 Calculated and Adjusted BOD and TSS by Customer Class (lbs/year)

| Class | Unadjusted BOD | Adjusted BOD | Unadjusted TSS | Adjusted TSS |
|---|---|---|---|---|
| Residential | | | | |
| Single Family | 1,766,716 | 777,357 | 1,766,716 | 1,178,819 |
| Multi-Family | 1,052,844 | 463,252 | 1,052,844 | 702,497 |
| Duplex – 2 Meters | 10,782 | 4,744 | 10,782 | 7,194 |
| Duplex – 1 Meter | 141,424 | 62,227 | 141,424 | 94,363 |
| Commercial | | | | |
| Bars without Dining | 377 | 166 | 377 | 252 |
| Brewery | 12,256 | 5,393 | 7,353 | 4,906 |
| Car Wash | 1,301 | 572 | 9,757 | 6,511 |
| Dorms | 41,155 | 18,108 | 41,155 | 27,460 |
| Hospital & Convalescent | 143,178 | 62,998 | 57,271 | 38,213 |
| Hotels w/o Dining | 45,926 | 20,207 | 17,778 | 11,862 |
| Hotels with Dining | 339 | 149 | 406 | 271 |
| Industrial Laundry | 61,470 | 27,047 | 62,388 | 41,628 |
| Laundromat | 8,132 | 3,578 | 5,964 | 3,979 |
| Markets/Bakeries | 189,055 | 83,185 | 189,055 | 126,145 |
| Mortuary | 1,551 | 682 | 1,551 | 1,035 |
| Restaurants | 633,680 | 278,820 | 380,208 | 253,689 |
| School | 51,708 | 22,752 | 39,775 | 26,540 |
| All Other | 315,366 | 138,761 | 315,366 | 210,424 |
| **TOTAL (lbs/year)** | **4,477,259** | **1,969,999** | **4,100,171** | **2,735,787** |
| Actual Plant (lbs/year) | | 1,969,999 | | 2,735,787 |
| Adjustment Factor | | 0.44 | | 0.67 |



### 3.2.2.1 Customer Class: Restaurants

The cost-of-service analysis prior to the 2022 rate study relied on out-of-date strength loadings assumptions. As the basis for historical rates assessed to restaurant customers, this caused an imbalance between the costs recovered from restaurants and their proportional demand of the system. After this history of underpaying, the 2022 rate study remedied the issue by updating the loadings assumptions which realigned restaurants with their system impact. This Study maintains those updated loadings assumptions.

### 3.2.3 EDU Calculation

An EDU is the average SFR flow, pounds of BOD, and pounds of TSS in an average monthly sewer contribution, as determined by winter flow. Industry standards acknowledge that multi-family customers contribute slightly less than the average SFR customer. Therefore, multi-family residential customers are assumed to have 0.8 EDU and duplex customers are assumed to have 0.9 EDU. Since Commercial customers have varying flow and strength factors, Chico calculates an EDU for each Commercial customer based on its proportion of flow, BOD, and TSS compared to a single SFR customer using the following formula:

Equation 7 Commercial EDU Calculation Formula

$$EDU = \left(\frac{Annualized\ Water\ Consumption\ (HCF)\ /\ 12}{SFR\ Monthly\ Flow\ (HCF)} \times 60\%\right) + \left(\frac{Adjusted\ Annual\ BOD\ (lbs)\ /\ 12}{SFR\ Monthly\ BOD\ (lbs)} \times 20\%\right) + \left(\frac{Adjusted\ Annual\ TSS\ (lbs)\ /\ 12}{SFR\ Monthly\ TSS\ (lbs)\ /\ 12} \times 20\%\right)$$

The monthly flow and loadings assumptions for a single SFR customer are calculated by dividing the adjusted annual volume (hcf), BOD (lbs), or TSS (lbs) by the total number of SFR accounts. These are converted into a monthly figure after dividing by 12. The result is shown in Table 16 and used as the EDU basis for all Commercial EDU calculations.

Table 16 One EDU Flow and Loadings Calculation (2025)

| Formula Component | Flow (HCF) | BOD (lbs) | TSS (lbs) |
|---|---|---|---|
| SFR Annual Adjusted Amount | 1,617,225 | 777,357 | 1,178,819 |
| SFR Accounts | 18,708 | 18,708 | 18,708 |
| Months | 12 | 12 | 12 |
| Amount per Month per EDU | 7.20 (HCF/month) | 3.46 (lbs/month) | 5.25 (lbs/month) |

#### 3.2.3.1 EDU Calculation Example

It can be helpful to understand the EDU calculation using an example customer. Assume a restaurant with a relative medium flow contribution of 25.0 HCF per month (equivalent to 18,701 gallons per month). All restaurants are assumed to have a 1,000 mg/L BOD and 600 mg/L TSS concentration of sewer returns per SWRCB Guidelines, as presented in Table 14. Using Equation 4 (modified to include the adjustment factor), the calculated BOD and TSS in pounds contributed by this customer per month are shown below:

Equation 8 Example Commercial Calculation: Adjusted BOD (lbs/month)

$$68.63\ BOD\ lbs/month = 18{,}701 gpd\ \times 1{,}000\ mg/L\ \times 8.345 \times 10^{-6}\ \times 0.44\ BOD\ Adjustment\ Factor$$

Equation 9 Example Commercial Customer Calculation: Adjusted TSS (lbs/month)

$$62.44\ TSS\ lbs/month = 18{,}701 gpd\ \times 600\ mg/L\ \times 8.345 \times 10^{-6}\ \times 0.66\ BOD\ Adjustment\ Factor$$

These loadings are used in the EDU formula to calculate the customer-specific EDU for billing purposes:

Equation 10 Example Commercial Customer EDU Calculation Formula

$$8.42\ EDU = \left(\frac{25\ HCF}{SFR\ 7.20\ HCF} \times 60\%\right) + \left(\frac{68.63\ BOD\ lbs/month}{SFR\ 3.46\ BOD\ lbs/month} \times 20\%\right) + \left(\frac{62.44\ TSS\ lbs/month}{SFR\ 5.25\ TSS\ lbs/month} \times 20\%\right)$$

### 3.2.4 Class Units Summary

The following table summarizes the resulting units, converted as necessary, for each class:

Table 17 Units Summary by Class

| Class | Adjusted Annual Volume (HCF) | BOD (lbs) | TSS (lbs) | EDU | Accounts |
|---|---|---|---|---|---|
| Residential | | | | | |
| Single Family | 1,617,225 | 777,357 | 1,178,819 | 18,712 | 18,708 |
| Multi-Family | 963,757 | 463,252 | 702,497 | 10,749 | 1,673 |
| Duplex – 2 Meters | 9,869 | 4,744 | 7,194 | 110 | 138 |
| Duplex – 1 Meter | 129,457 | 62,227 | 94,363 | 1,444 | 899 |
| Commercial | | | | | |
| Bars without Dining | 302 | 166 | 252 | 4 | 1 |
| Brewery | 1,963 | 5,393 | 4,906 | 54 | 3 |
| Car Wash | 10,420 | 572 | 6,511 | 91 | 11 |
| Dorms | 37,673 | 18,108 | 27,460 | 420 | 8 |
| Hospital & Convalescent | 91,744 | 62,998 | 38,213 | 1,023 | 56 |
| Hotels w/o Dining | 23,732 | 20,207 | 11,862 | 290 | 9 |
| Hotels with Dining | 108 | 149 | 271 | 2 | 1 |
| Industrial Laundry | 14,697 | 27,047 | 41,628 | 358 | 2 |
| Laundromat | 8,685 | 3,578 | 3,979 | 87 | 6 |
| Markets/Bakeries | 37,857 | 83,185 | 126,145 | 1,048 | 36 |
| Mortuary | 311 | 682 | 1,035 | 9 | 2 |
| Restaurants | 101,511 | 278,820 | 253,689 | 2,810 | 185 |
| School | 63,717 | 22,752 | 26,540 | 610 | 69 |
| All Other | 288,681 | 138,761 | 210,424 | 3,220 | 1,199 |
| **Total System Units** | **3,401,711** | **1,969,999** | **2,735,787** | **41,040** | **23,006** |

### 3.2.5 Customer Class Allocation Summary

Once the units have been determined and converted, as necessary, the revenue requirements can be allocated to each customer class. The following table summarizes the class allocation, and further calculation details are provided in the Appendix.

Table 18 Functional Costs Allocated by Class ($ thousands)

| Class | Flow Costs | BOD Costs | TSS Costs | Fixed Costs | Fixed - Customer Costs |
|---|---|---|---|---|---|
| **Revenue Requirements** | **$10,403.8** | **$3,652.3** | **$3,652.3** | **$7,731.9** | **$842.9** |
| Residential | | | | | |
| Single Family | 4,946.1 | 1,441.2 | 1,573.8 | 3,525.3 | 685.5 |
| Multi-Family | 2,947.5 | 858.9 | 937.9 | 2,025.1 | 61.3 |
| Duplex – 2 Meters | 30.2 | 8.8 | 9.6 | 20.7 | 5.1 |
| Duplex – 1 Meter | 395.9 | 115.4 | 126.0 | 272.0 | 32.9 |
| Commercial | | | | | |
| Bars without Dining | 0.9 | 0.3 | 0.3 | 0.7 | 0.0 |
| Brewery | 6.0 | 10.0 | 6.6 | 10.2 | 0.1 |
| Car Wash | 31.9 | 1.1 | 8.7 | 17.2 | 0.4 |
| Dorms | 115.2 | 33.6 | 36.7 | 79.2 | 0.3 |
| Hospital & Convalescent | 280.6 | 116.8 | 51.0 | 192.8 | 2.1 |
| Hotels w/o Dining | 72.6 | 37.5 | 15.8 | 54.6 | 0.3 |
| Hotels with Dining | 0.3 | 0.3 | 0.4 | 0.4 | 0.0 |
| Industrial Laundry | 44.9 | 50.1 | 55.6 | 67.5 | 0.1 |
| Laundromat | 26.6 | 6.6 | 5.3 | 16.3 | 0.2 |
| Markets/Bakeries | 115.8 | 154.2 | 168.4 | 197.4 | 1.3 |
| Mortuary | 0.9 | 1.3 | 1.4 | 1.6 | 0.1 |
| Restaurants | 310.5 | 516.9 | 338.7 | 529.3 | 6.8 |
| School | 194.9 | 42.2 | 35.4 | 114.8 | 2.5 |
| All Other | 882.9 | 257.3 | 280.9 | 606.6 | 43.9 |

# SECTION 4 RATE DESIGN

The wastewater rate design analysis determines how the costs allocated to each class are recovered from each customer through specified wastewater rates. The focus of this process is to achieve full cost recovery and substantiate that customers are paying their fair and proportionate share of system costs.

Once costs have been equitably allocated to each functional component, rates can be designed to cover those costs. The City adopted the previous Study's recommendation which transitioned the rate structure from 100 percent of the revenue from fixed charges for residential customers to a combination of 70 percent fixed and 30 percent variable charges, similar to the structure for commercial customers. In determining the appropriate rate level and structure, Carollo revisited rate objectives and utility implications with City staff. Along with appropriately allocating costs between customer classes and to individual customers, staff conveyed the need to continue to collect a similar level of fixed revenue in recognition of fixed costs. As such, the City elected to maintain the existing rate structure, updated to recover 60 percent through fixed charges to cover fixed costs and 40 percent through volumetric rates for system demands.

## 4.1 Fixed Monthly Charges

A monthly fixed charge is a cost recovery mechanism that is generally included in the rate structure to recover the utility's fixed expenditures, such as metering, testing, and customer related costs. These costs also include a portion of the capacity-related cost to provide a stable source of revenue independent of monthly wastewater flows. The proposed fixed charge primarily recovers the customer service and other fixed cost components of the revenue requirements. It is assessed to Residential customers (single family, multi-family, and duplex) on a per unit basis and to Commercial customers on a per EDU basis. The remaining residential customers are charged proportionately to their EDU, which is 0.80 EDU for multi-family and 0.90 EDU for duplex.

Carollo determined the fixed charge to be $32.00 (per unit or per EDU, depending on class), which recovers approximately 60 percent of revenue through fixed charges. This cost recovery percentage is distinct from the cost allocation shown in Table 12. The following table presents the existing and recommended monthly fixed charge. It also includes a calculation of the projected revenue under these charges by multiplying the number of units or EDUs by the monthly fixed charge for each month (12).

Table 19 Recommended Monthly Fixed Charges

| Customer Class | Number of Units or EDUs | Recommended Monthly Fixed Charge | Projected Revenue from Fixed Charges(1) |
|---|---|---|---|
| Residential | | | |
| Single Family | 18,712 | $32.00/Unit | $7,185.5 |
| Multi-Family | 13,724 | $25.60/Unit | 4,216.0 |
| Duplex – 2 Meters | 138 | $28.80/Unit | 47.7 |
| Duplex – 1 Meter | 1,811 | $28.80/Unit | 625.7 |
| Commercial | | | |
| Bars without Dining | 4 | $32.00/EDU | 1.4 |
| Brewery | 54 | $32.00/EDU | 20.9 |
| Car Wash | 91 | $32.00/EDU | 35.1 |
| Dorms | 420 | $32.00/EDU | 161.3 |
| Hospital & Convalescent | 1,023 | $32.00/EDU | 392.9 |
| Hotels w/o Dining | 290 | $32.00/EDU | 111.3 |
| Hotels with Dining | 2 | $32.00/EDU | 0.9 |
| Industrial Laundry | 358 | $32.00/EDU | 137.6 |
| Laundromat | 87 | $32.00/EDU | 33.2 |
| Markets/Bakeries | 1,048 | $32.00/EDU | 402.4 |
| Mortuary | 9 | $32.00/EDU | 3.3 |
| Restaurants | 2,810 | $32.00/EDU | 1,078.9 |
| School | 610 | $32.00/EDU | 234.1 |
| All Other | 3,220 | $32.00/EDU | 1,236.4 |
| **TOTAL REVENUE** | | | **$15,924.5** |

Notes:
(1) $ thousands

## 4.2 Volumetric Rates

The recommended fixed charges presented in Table 19 are projected to recover $15.9 million of its revenue requirements through fixed charges in FY 2027. The remaining $11.4 million, therefore, must be recovered through volumetric rates. For each customer class, Carollo divided the remaining revenue requirements unrecovered from fixed charges by their respective annualized winter consumption and rounded up to the nearest cent. The annualized winter consumption is used instead of the adjusted annual volume presented in Table 17 because it is more closely linked to billed system use.

This Study considered all Residential customers together and summed their respective units and revenue requirements. The results are summarized in the table below:

Table 20 Recommended FY 2027 Volumetric Rates

| Customer Class | Annualized Winter Consumption (HCF) | Remaining Revenue Requirements (1, 2) | Recommended Volumetric Rate ($/HCF) |
|---|---|---|---|
| Residential(2) | 2,557,763 | $8,994.5 | $3.11 |
| Commercial | | | |
| Bars without Dining | 284 | $0.9 | $3.19 |
| Brewery | 1,846 | 12.0 | $6.53 |
| Car Wash | 9,798 | 24.1 | $2.46 |
| Dorms | 35,422 | 103.6 | $2.92 |
| Hospital & Convalescent | 86,262 | 250.3 | $2.90 |
| Hotels w/o Dining | 22,314 | 69.5 | $3.12 |
| Hotels with Dining | 102 | 0.6 | $5.50 |
| Industrial Laundry | 13,819 | 80.7 | $5.84 |
| Laundromat | 8,166 | 21.8 | $2.67 |
| Markets/Bakeries | 35,595 | 234.8 | $6.60 |
| Mortuary | 292 | 2.0 | $6.82 |
| Restaurants | 95,445 | 623.3 | $6.54 |
| School | 59,910 | 155.8 | $2.60 |
| All Other | 271,431 | 835.2 | $3.08 |
| **TOTAL** | **3,198,449** | **$11,409.1** | |

Notes:
(1) Recoverable through volumetric rates.
(2) Includes Single Family, Multi-Family, and Duplexes.
(3) $ thousands.

## 4.3 Rate Summary

This report presented the revenue requirements and resulting rates for a scenario that issues no debt to cover the moderate risk CIP for necessary R&R system improvements, regulatory requirements, and capacity upgrades. While there are significant Year 1 and Year 2 increases required under this scenario, the remaining years are recommended to increase annually by 3 percent to adjust for inflation and maintain reserves to fund other system improvements and emergencies. Since these recommended rates are calculated based on a revenue requirement that considers inflation, Carollo does not recommend any additional annual adjustment. Table 21 and Table 22 present the rate schedules recommended under this modeled revenue increase for the following five years of the rate-setting period.

Table 21 Existing and Recommended Monthly Fixed Charge ($/Unit or $/EDU) (FY 2027- FY 2031)

| Customer Class | Existing | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 |
|---|---|---|---|---|---|---|
| *Revenue Adjustments* | | 55.0% | 55.0% | 3.0% | 3.0% | 3.0% |
| Residential | | | | | | |
| Single Family | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| Multi-Family | $16.12 | $25.60 | $39.68 | $40.87 | $42.10 | $43.36 |
| Duplex – 2 Meters | $9.22 | $28.80 | $44.64 | $45.98 | $47.36 | $48.78 |
| Duplex – 1 Meter | $18.48 | $28.80 | $44.64 | $45.98 | $47.36 | $48.78 |
| Commercial | | | | | | |
| Bars without Dining | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| Brewery | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| Car Wash | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| Dorms | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| Hospital & Convalescent | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| Hotels w/o Dining | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| Hotels with Dining | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| Industrial Laundry | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| Laundromat | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| Markets/Bakeries | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| Mortuary | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| Restaurants | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| School | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |
| All Other | $28.47 | $32.00 | $49.60 | $51.09 | $52.62 | $54.20 |

Table 22 Existing and Recommended Volumetric Rates ($/HCF) (FY 2027 – FY 2031)

| Customer Class | Existing | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 |
|---|---|---|---|---|---|---|
| *Revenue Adjustments* | | 55.0% | 55.0% | 3.0% | 3.0% | 3.0% |
| Residential | | | | | | |
| Single Family | $1.30 | $3.11 | $4.82 | $4.96 | $5.11 | $5.26 |
| Multi-Family | $1.30 | $3.11 | $4.82 | $4.96 | $5.11 | $5.26 |
| Duplex – 2 Meters | $1.30 | $3.11 | $4.82 | $4.96 | $5.11 | $5.26 |
| Duplex – 1 Meter | $1.30 | $3.11 | $4.82 | $4.96 | $5.11 | $5.26 |
| Commercial | | | | | | |
| Bars without Dining | $0.88 | $3.19 | $4.94 | $5.09 | $5.24 | $5.40 |
| Brewery | $2.06 | $6.53 | $10.12 | $10.42 | $10.73 | $11.05 |
| Car Wash | $0.60 | $2.46 | $3.81 | $3.92 | $4.04 | $4.16 |
| Dorms | $0.75 | $2.92 | $4.53 | $4.67 | $4.81 | $4.95 |
| Hospital & Convalescent | $0.72 | $2.90 | $4.50 | $4.64 | $4.78 | $4.92 |
| Hotels w/o Dining | $0.81 | $3.12 | $4.84 | $4.99 | $5.14 | $5.29 |
| Hotels with Dining | $1.63 | $5.50 | $8.53 | $8.79 | $9.05 | $9.32 |
| Industrial Laundry | $1.87 | $5.84 | $9.05 | $9.32 | $9.60 | $9.89 |
| Laundromat | $0.69 | $2.67 | $4.14 | $4.26 | $4.39 | $4.52 |
| Markets/Bakeries | $2.20 | $6.60 | $10.23 | $10.54 | $10.86 | $11.19 |
| Mortuary | $2.66 | $6.82 | $10.57 | $10.89 | $11.22 | $11.56 |
| Restaurants | $2.18 | $6.54 | $10.14 | $10.44 | $10.75 | $11.07 |
| School | $0.64 | $2.60 | $4.03 | $4.15 | $4.27 | $4.40 |
| All Other | $0.99 | $3.08 | $4.77 | $4.91 | $5.06 | $5.21 |

# SECTION 5 BILL IMPACTS

The City recognizes how the revenue requirements of maintaining and expanding the utility's system impacts its customers. The City requested that this Study include a review of the bill impact on the average customer in each class and, for restaurants, a range of customers by high, medium, and low flow assumptions. Table 23 summarizes the calculated bill under existing and recommended FY 2027 rates. FY 2027 is shown as the first recommended rate year under this proposed structure.

Table 23 Bill Impacts Under Existing and Proposed Rates ($/HCF) (2026-2027)

| Customer Class | Monthly HCF | EDU[1] | Existing Bill | FY 2027 Bill | Change ($) | Change (%) |
|---|---|---|---|---|---|---|
| Residential | | | | | | |
| Single Family | 7.2 | | $37.83 | $54.40 | $16.57 | ↑ 43.79% |
| Multi-Family | 5.5 | | $23.27 | $42.71 | $19.44 | ↑ 83.52% |
| Duplex – 2 Meters | 5.6 | | $16.50 | $46.22 | $29.72 | ↑ 180.10% |
| Duplex – 1 Meter | 5.6 | | $25.76 | $46.22 | $20.46 | ↑ 79.41% |
| Commercial | | | | | | |
| Bars without Dining | 23.7 | 3.5 / 3.2 | $111.27 | $186.90 | $75.63 | ↑ 67.97% |
| Brewery | 51.3 | 17.3 / 17.7 | $608.80 | $888.41 | $279.61 | ↑ 45.93% |
| Car Wash | 74.2 | 8.2 / 6.9 | $242.34 | $444.33 | $201.99 | ↑ 83.35% |
| Dorms | 369.0 | 51.2 / 46.2 | $1,592.25 | $2,716.61 | $1,124.36 | ↑ 70.61% |
| Hospital & Convalescent | 128.4 | 17.8 / 16.1 | $550.21 | $942.73 | $392.51 | ↑ 71.34% |
| Hotels w/o Dining | 206.6 | 31.3 / 28.8 | $986.44 | $1,646.24 | $659.79 | ↑ 66.89% |
| Hotels with Dining | 8.5 | 2.2 / 2.2 | $75.99 | $116.87 | $40.88 | ↑ 53.79% |
| Industrial Laundry | 575.8 | 171.2 / 173 | $6,004.90 | $8,843.59 | $2,838.68 | ↑ 47.27% |
| Laundromat | 113.4 | 14.1 / 12.4 | $431.56 | $754.70 | $323.14 | ↑ 74.88% |
| Markets/Bakeries | 82.4 | 27.8 / 28.4 | $989.40 | $1,432.77 | $443.37 | ↑ 44.81% |
| Mortuary | 12.2 | 4.1 / 4.2 | $152.10 | $214.82 | $62.72 | ↑ 41.23% |
| Restaurants (Low) | 15.0 | 5.1 / 5.2 | $179.81 | $259.92 | $80.11 | ↑ 44.55% |
| Restaurants (Med) | 25.0 | 8.4 / 8.6 | $299.69 | $433.20 | $133.51 | ↑ 44.55% |
| Restaurants (High) | 71.2 | 24 / 24.5 | $853.51 | $1,233.75 | $380.24 | ↑ 44.55% |
| School | 72.4 | 8.7 / 7.5 | $261.06 | $465.74 | $204.68 | ↑ 78.40% |
| All Other | 18.9 | 2.6 / 2.4 | $86.09 | $142.17 | $56.08 | ↑ 65.14% |

Notes:
(1) Commercial EDUs are shown as Current Study / Previous Study.

The average bill change percentage for FY 2027 may not match the 55 percent revenue adjustment detailed in Section 2 of this report. This difference is best understood in the context of cost-of-service allocations and customer class pressure on the system, rather than in comparison to the utility's overall rate revenue increase needs.

First, each Cost-of-Service Study realigns rates with projected operating expenses and planned CIP. As those needs and economic conditions change, as well as utility staff's assessment of resources dedicated to various system components, the allocation between fixed and volumetric rate components should adjust in response.

Second, the flow and strength assumptions for each class – based on California's SWRCB Revenue Guidelines discussed in Section 3.2 – dictates how much of the allocated revenue requirement should be recovered by each class. Within each class's responsibility of expenses, each customer's unique winter average flow and EDU (derived from Equation 7) establishes that specific customer's cost pressure on the system. Therefore, some customer classes are responsible for more of the cost recovery within the utility-wide rate revenue increase than others.

The changing needs and resource management for operating and maintaining the system and the unique pressures each class demands causes the average bill change percentage for any given class to potentially be above or below the 55 percent overall rate revenue increase determined.

# SECTION 6 ALTERNATIVE SCENARIOS CONSIDERED

Carollo began this Study by modeling the revenue requirements for the original recommended CIP. In alignment with the City Council's decision to forgo issuing additional debt, Carollo determined that the City would require an 180 percent rate increase in FY 2027.

At the March 17, 2026, City Council meeting, Council passed a motion (Ayes: Goldstein, Hawley, Winslow, Bennett, Noes: O'Brien, van Overbeek, Reynolds) to approve Option 1 – Limited Risk CIP (180 percent increase Year 1, 3 percent increase Years 2-5) to adopt the proposed sewer rate schedule and directed staff to initiate the Proposition 218 process, including preparation of and distribution of the public hearing notice.

Then, at the April 7, 2026, City Council meeting, Vice Mayor Bennett made a Council Member Request to agendize reconsideration of his March 17, 2026, "Aye" vote to approve the sewer rate increase associated with Option 1 (180 percent increase Year 1, 3 percent increase Years 2-5).

At the May 5, 2026, City Council meeting, after reconsideration, the motion made at the March 17, 2026, meeting failed (Ayes: Goldstein, Hawley, Noes: O'Brien, van Overbeek, Reynolds, Bennett, Winslow). Council then passed a motion to have staff re-examine the sewer enterprise study and come back to Council on June 16, 2026, with additional sewer rate options, confirmation from the State Water Resources Control Board (SWRCB) on regulatory requirements, and to look for a financial advisor.

At the June 16, 2026, City Council meeting, Council passed a motion (Ayes: Goldstein, Hawley, Winslow, Bennett, Noes: O'Brien, van Overbeek, Reynolds) to approve Option 4b – Moderate Risk CIP (55 percent increase Year 1, 55 percent increase Year 2, 3 percent increase Years 3-5) and to adopt the proposed sewer rate schedule and directed staff to initiate the Proposition 218 process, including preparation of and distribution of the public hearing notice.

This report details a scenario where CIP and other expenditures are recovered using a rate schedule that front-loads the required rate revenue increases in Year 1 and Year 2 to minimize the risk of requiring additional rate increases above inflation within the next ten years (through FY 2036). It also assumes a moderate risk CIP that postpones certain projects and places the burden of payment on future ratepayers, when those project costs will be higher.

However, this approach is not the only option for recovering necessary revenue. For example, some utilities choose to perform incremental increases over the rate setting period, or issue debt to cover significant CIP costs, which helps mitigate upfront costs, smooths rates, and insulates customers from extreme rate fluctuations. The City Council deliberated extensively over multiple meetings the tradeoffs of debt financing and reduced CIP risks.

To fully fund the original limited risk CIP using rate revenue, the rate schedule would maintain the same methodology and calculation approach as discussed in Section 4. However, since the revenue requirement for FY 2027 is increased in a large Year 1 increase and smaller Years 2-5 approach, the rates increase significantly in Year 1. The following table summarizes the net revenue requirements by customer class under this scenario and the resulting calculated monthly fixed charges and volumetric rates. Under this previous alternatively considered rate and charges schedule, 3 percent increase were proposed in FY 2028 – FY 2031.

Table 24 Alternatively Considered Rates and Charges Schedule – Original CIP (FY 2027)

| Customer Class | Net Revenue Requirements(1) | Alternative Monthly Fixed Charge | Alternative Volumetric Rate ($/hcf) |
|---|---|---|---|
| Residential | | | |
| Single Family | $21,897.4 | $57.00/Unit | $5.74 |
| Multi-Family | 12,432.6 | $45.60/Unit | $5.74 |
| Duplex – 2 Meters | 133.3 | $51.30/Unit | $5.74 |
| Duplex – 1 Meter | 1,703.5 | $51.30/Unit | $5.74 |
| Commercial | | | |
| Bars without Dining | $4.1 | $57.00/EDU | $5.95 |
| Brewery | 58.8 | $57.00/EDU | $11.72 |
| Car Wash | 108.8 | $57.00/EDU | $4.72 |
| Dorms | 483.1 | $57.00/EDU | $5.53 |
| Hospital & Convalescent | 1,173.0 | $57.00/EDU | $5.49 |
| Hotels w/o Dining | 328.9 | $57.00/EDU | $5.86 |
| Hotels with Dining | 2.6 | $57.00/EDU | $9.82 |
| Industrial Laundry | 390.9 | $57.00/EDU | $10.56 |
| Laundromat | 100.7 | $57.00/EDU | $5.09 |
| Markets/Bakeries | 1,138.5 | $57.00/EDU | $11.86 |
| Mortuary | 9.4 | $57.00/EDU | $12.15 |
| Restaurants | 3,041.4 | $57.00/EDU | $11.73 |
| School | 713.8 | $57.00/EDU | $4.96 |
| All Other | 3,758.6 | $57.00/EDU | $5.74 |
| **TOTAL REVENUE REQUIREMENTS** | **$47,479.5** | | |

Notes:
(1) $ thousands.

Table 25 illustrates the bill impact under the alternative revenue increase schedule which would rate-fund the original CIP over the duration of the rate-setting period. It is calculated using the same assumptions for average single family and multi-family customers as well as high, medium, and low flow restaurants.

Table 25 Bill Impacts Under Existing and Alternative Recommended Rates – Original CIP ($/HCF) (2026-2031)

| Customer Class | Existing Bill | FY 2027 Bill | FY 2028 Bill | FY 2029 Bill | FY 2030 Bill | FY 2031 Bill |
|---|---|---|---|---|---|---|
| Residential | | | | | | |
| Single Family | $37.83 | $98.35 | $101.28 | $104.34 | $107.45 | $110.69 |
| Multi-Family | $23.27 | $77.17 | $79.48 | $81.88 | $84.32 | $86.85 |
| Duplex – 2 Meters | $16.50 | $83.44 | $85.94 | $88.53 | $91.17 | $93.92 |
| Duplex – 1 Meter | $25.76 | $83.44 | $85.94 | $88.53 | $91.17 | $93.92 |
| Commercial | | | | | | |
| Bars without Dining | $111.27 | $339.26 | $349.47 | $359.86 | $370.66 | $381.90 |
| Brewery | $608.80 | $1,587.02 | $1,634.55 | $1,683.45 | $1,733.74 | $1,785.57 |
| Car Wash | $242.34 | $816.55 | $840.93 | $866.46 | $892.40 | $918.83 |
| Dorms | $1,592.25 | $4,960.28 | $5,110.60 | $5,263.48 | $5,422.61 | $5,584.82 |
| Hospital & Convalescent | $550.21 | $1,720.88 | $1,771.90 | $1,825.10 | $1,879.19 | $1,935.63 |
| Hotels w/o Dining | $986.44 | $2,994.86 | $3,085.57 | $3,177.85 | $3,273.76 | $3,371.54 |
| Hotels with Dining | $75.99 | $208.37 | $214.59 | $220.99 | $227.59 | $234.41 |
| Industrial Laundry | $6,004.90 | $15,843.32 | $16,320.47 | $16,811.93 | $17,317.72 | $17,839.54 |
| Laundromat | $431.56 | $1,382.19 | $1,423.35 | $1,466.35 | $1,510.06 | $1,555.74 |
| Markets/Bakeries | $989.40 | $2,560.67 | $2,637.83 | $2,717.21 | $2,798.80 | $2,882.89 |
| Mortuary | $152.10 | $382.67 | $394.09 | $405.97 | $418.17 | $430.74 |
| Restaurants (Low) | $179.81 | $464.19 | $478.09 | $492.39 | $507.09 | $522.25 |
| Restaurants (Med) | $299.69 | $773.65 | $796.81 | $820.65 | $845.15 | $870.41 |
| Restaurants (High) | $853.51 | $2,203.36 | $2,269.32 | $2,337.20 | $2,406.99 | $2,478.93 |
| School | $261.06 | $853.40 | $879.09 | $905.22 | $932.50 | $960.30 |
| All Other | $86.09 | $258.03 | $265.73 | $273.75 | $281.90 | $290.40 |

Notes:
(1) Commercial EDUs are shown as Current Study / Previous Study.

# SECTION 7 CONCLUSION

On June 16, 2026, the City Council passed the motion 4-3 to recommend the rates and charges proposed for FY 2027 through FY 2031 that are detailed in the main body of this report, under a 55 percent rate revenue increase in both FY 2027 and FY 2028 and 3 percent increases annually for FY 2029 – FY 2031. The increased revenues generated by the rates will allow the City to meet its financial commitments, achieve necessary capital funding objectives, and meet increasingly strict regulatory requirements.

Note that the recommended rates were calculated under the assumptions presented in this report to generate sufficient revenue for the City's needs. Projected rate revenue is based on rates be implemented on November 1st in FY 2027 and then July 1 of each year thereafter. Regulatory requirements, economic conditions, weather events, system emergencies, and other factors can influence the revenue recovered and/or required for sufficiently maintaining the utility. Therefore, these projections should be revisited annually and updated as necessary as conditions change.

# APPENDIX A ORIGINAL LIMITED RISK CIP

# Appendix A: Original Limited Risk CIP

| Driver | Project | 5-Year Total | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 | FY 2032 | FY 2033 | FY 2034 | FY 2035 | FY 2036 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Regulatory* | Predictive Control Upgrades for Aeration Tank No. 6 | **$ 545,668** | $ 545,668 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | Chlorine Testing | **$ 160,888** | $ - | $ 160,888 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | Effluent Diversion and Northeast Pond Upgrades: Design | **$ 4,936,285** | $ - | $ - | $ 4,936,285 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | Modified MLE Process Upgrades: Design | **$ 1,047,856** | $ - | $ - | $ 1,047,856 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | WPCP Strategic Plan Update | **$ 850,653** | $ - | $ - | $ 850,653 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | Remove abandoned outfall, if required by State Lands Commission | **$ 2,770,494** | $ - | $ - | $ - | $ 2,770,494 | $ - | $ - | $ - | $ - | $ - | $ - |
| | Cybersecurity Upgrades | **$ 2,000,000** | $ - | $ - | $ - | $ 2,000,000 | $ - | $ - | $ - | $ - | $ - | $ - |
| | Effluent Diversion and Northeast Pond Upgrades | **$ 42,737,345** | $ - | $ - | $ - | $ - | $ 42,737,345 | $ - | $ - | $ - | $ - | $ - |
| | Modified MLE Process Upgrades | **$ 7,645,343** | $ - | $ - | $ - | $ - | $ 7,645,343 | $ - | $ - | $ - | $ - | $ - |
| | Tertiary Filtration Upgrades (Planning/Design) | **$ 561,800** | $ - | $ - | $ - | $ - | $ 561,800 | $ - | $ - | $ - | $ 4,973,989 | $ - |
| *Condition* | 2027 Sewer Pipe Replacement Project | **$ 4,243,600** | $ 4,243,600 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | 2028 Sewer Pipe Replacement Project | **$ 5,431,808** | $ 1,060,900 | $ 4,370,908 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | 2029 Sewer Pipe Replacement Project | **$ 5,594,762** | $ - | $ 1,092,727 | $ 4,502,035 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | 2030 Sewer Pipe Replacement Project | **$ 5,762,605** | $ - | $ - | $ 1,125,509 | $ 4,637,096 | $ - | $ - | $ - | $ - | $ - | $ - |
| | 2031 Sewer Pipe Replacement Project | **$ 5,935,483** | $ - | $ - | $ - | $ 1,159,274 | $ 4,776,209 | $ - | $ - | $ - | $ - | $ - |
| | 2032 Sewer Pipe Replacement Project | **$ -** | $ - | $ - | $ - | $ - | $ - | $ 6,149,369 | $ - | $ - | $ - | $ - |
| | Annual WPCP Improvements | **$ 1,740,431** | $ 327,818 | $ 337,653 | $ 347,782 | $ 358,216 | $ 368,962 | $ 380,031 | $ 391,432 | $ 403,175 | $ 415,270 | $ 427,728 |
| | Annual Sewer Maintenance | **$ 1,160,287** | $ 218,545 | $ 225,102 | $ 231,855 | $ 238,810 | $ 245,975 | $ 253,354 | $ 260,955 | $ 268,783 | $ 276,847 | $ 285,152 |
| | DEHP, Lead, and Zinc Treatment Evaluation | **$ -** | $ - | $ - | $ - | $ - | $ - | $ 625,414 | $ - | $ - | $ - | $ - |
| | Primary Treatment, Aeration, Solids Condition-Driven Upgrades | **$ -** | $ - | $ - | $ - | $ - | $ - | $ - | $ 11,044,416 | $ - | $ - | $ - |
| | WPCP Roofs | **$ 205,433** | $ 205,433 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | WPCP NPDES Permit Requirements | **$ 865,574** | $ 163,035 | $ 167,926 | $ 172,964 | $ 178,153 | $ 183,497 | $ 189,002 | $ 194,672 | $ 200,512 | $ 206,528 | $ 212,724 |
| | Stormwater Mgmg Program | **$ 844,869** | $ 159,135 | $ 163,909 | $ 168,826 | $ 173,891 | $ 179,108 | $ 184,481 | $ 190,016 | $ 195,716 | $ 201,587 | $ 207,635 |
| | General Plan Implementation | **$ 91,004** | $ 17,141 | $ 17,655 | $ 18,185 | $ 18,730 | $ 19,292 | $ 19,871 | $ 20,467 | $ 21,081 | $ 21,714 | $ 22,365 |
| | Disinfection, Chemical Building, Solids Thickening and Dewatering, & Plant Power Systems Condition-Driven Upgrades | **$ 3,445,847** | $ - | $ - | $ 3,445,847 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | Aeration System Condition-Driven Upgrades | **$ 2,369,795** | $ - | $ - | $ 2,369,795 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | Secondary Treatment, Disinfection, 3W, Solids Dewatering, and Miscellaneous Plant Condition-Driven Upgrades | **$ 13,355,859** | $ - | $ - | $ - | $ 13,355,859 | $ - | $ - | $ - | $ - | $ - | $ - |
| | Solids Digestion Condition-Driven Upgrades | **$ 3,248,052** | $ - | $ - | $ - | $ 3,248,052 | $ - | $ - | $ - | $ - | $ - | $ - |
| | Disinfection, Solids Digestion, and Solids Mixing | **$ 8,909,212** | $ - | $ - | $ - | $ - | $ 8,909,212 | $ - | $ - | $ - | $ - | $ - |
| | WPCP Administration, Maintenance, and Shop Building Improvements | **$ 3,065,565** | $ - | $ - | $ - | $ - | $ 3,065,565 | $ - | $ - | $ - | $ - | $ - |
| | Sewer Enterprise Study | **$ 358,216** | $ - | $ - | $ - | $ - | $ 358,216 | $ - | $ - | $ - | $ - | $ - |
| | Headworks, Chemical Building, Solids Dewatering, and Electrical Systems | **$ -** | $ - | $ - | $ - | $ - | $ - | $ 12,536,988 | $ - | $ - | $ - | $ - |
| | Future Treatment Plant Project | **$ -** | $ - | $ - | $ - | $ - | $ - | $ 4,000,000 | $ 4,000,000 | $ 4,000,000 | $ 4,000,000 | $ 4,000,000 |
| | Future Sewer Pipe Replacement Projects | **$ -** | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,333,850 | $ 6,523,866 | $ 6,719,582 | $ 6,921,169 |
| *Capacity* | Sanitary Sewer System Master Plan Projects - Existing User Contribution | **$ 4,308,834** | $ 811,589 | $ 835,936 | $ 861,014 | $ 886,845 | $ 913,450 | $ 940,854 | $ 969,079 | $ 998,151 | $ 1,028,096 | $ 1,058,939 |
| | Sanitary Sewer Master Plan (SSMP) Update | **$ 281,623** | $ 53,045 | $ 54,636 | $ 56,275 | $ 57,964 | $ 59,703 | $ 61,494 | $ 63,339 | $ 65,239 | $ 67,196 | $ 69,212 |
| | New 100-ft Secondary Clarifier | **$ -** | $ - | $ - | $ - | $ - | $ - | $ - | $ 24,304,889 | $ - | $ - | $ - |
| | **Total Escalated CIP Projects** | | **$ 7,805,909** | **$ 7,427,341** | **$ 20,134,880** | **$ 29,083,384** | **$ 70,023,678** | **$ 25,340,858** | **$ 47,773,115** | **$ 12,676,524** | **$ 17,910,808** | **$ 13,204,924** |
| | **Total 5-Year CIP** | **$ 134,475,191** | | | | | | | | | | |

# APPENDIX B MODERATE RISK CIP FOR APPROVED RATES

# Appendix B: Moderate Risk CIP for Approved Rates

| Driver | Project | 5-Year Total | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 | FY 2032 | FY 2033 | FY 2034 | FY 2035 | FY 2036 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Predictive Control Upgrades for Aeration Tank No. 6 | **$ 545,668** | $ 545,668 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | Chlorine Testing | **$ 160,888** | $ - | $ 160,888 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | Effluent Diversion and Northeast Pond Upgrades: Design | **$ 4,272,469** | $ - | $ - | $ 4,272,469 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | Modified MLE Process Upgrades: Design | **$ 1,047,856** | $ - | $ - | $ 1,047,856 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| *Regulatory* | WPCP Strategic Plan Update | **$ 850,653** | $ - | $ - | $ 850,653 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | ~~Remove abandoned outfall, if required by State Lands Commission~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ |
| | Cybersecurity Upgrades | **$ 2,000,000** | $ - | $ - | $ - | $ 2,000,000 | $ - | $ - | $ - | $ - | $ - | $ - |
| | Effluent Diversion and Northeast Pond Upgrades | **$ 29,907,208** | $ - | $ - | $ - | $ - | $ 29,907,208 | $ - | $ - | $ - | $ - | $ - |
| | Modified MLE Process Upgrades | **$ 7,645,343** | $ - | $ - | $ - | $ - | $ 7,645,343 | $ - | $ - | $ - | $ - | $ - |
| | Tertiary Filtration Upgrades (Planning/Design) | **$ 561,800** | $ - | $ - | $ - | $ - | $ 561,800 | $ - | $ - | $ - | $ 4,973,989 | $ - |
| | ~~2027 Sewer Pipe Replacement Project~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ | ~~$ -~~ |
| | 2028 Sewer Pipe Replacement Project | **$ 4,073,856** | $ 795,675 | $ 3,278,181 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | 2029 Sewer Pipe Replacement Project | **$ 4,196,072** | $ - | $ 819,545 | $ 3,376,526 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | 2030 Sewer Pipe Replacement Project | **$ 4,321,954** | $ - | $ - | $ 844,132 | $ 3,477,822 | $ - | $ - | $ - | $ - | $ - | $ - |
| | 2031 Sewer Pipe Replacement Project | **$ 4,451,612** | $ - | $ - | $ - | $ 869,456 | $ 3,582,157 | $ - | $ - | $ - | $ - | $ - |
| | 2032 Sewer Pipe Replacement Project | **$ -** | $ - | $ - | $ - | $ - | $ - | $ 4,612,027 | $ - | $ - | $ - | $ - |
| | Annual WPCP Improvements | **$ 1,740,431** | $ 327,818 | $ 337,653 | $ 347,782 | $ 358,216 | $ 368,962 | $ 380,031 | $ 391,432 | $ 403,175 | $ 415,270 | $ 427,728 |
| | Annual Sewer Maintenance | **$ 1,160,287** | $ 218,545 | $ 225,102 | $ 231,855 | $ 238,810 | $ 245,975 | $ 253,354 | $ 260,955 | $ 268,783 | $ 276,847 | $ 285,152 |
| | DEHP, Lead, and Zinc Treatment Evaluation | **$ -** | $ - | $ - | $ - | $ - | $ - | $ 625,414 | $ - | $ - | $ - | $ - |
| | Primary Treatment, Aeration, Solids Condition-Driven Upgrades | **$ -** | $ - | $ - | $ - | $ - | $ - | $ - | $ 11,044,416 | $ - | $ - | $ - |
| | WPCP Roofs | **$ 205,433** | $ 205,433 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | WPCP NPDES Permit Requirements | **$ 865,574** | $ 163,035 | $ 167,926 | $ 172,964 | $ 178,153 | $ 183,497 | $ 189,002 | $ 194,672 | $ 200,512 | $ 206,528 | $ 212,724 |
| | Stormwater Mgmg Program | **$ 844,869** | $ 159,135 | $ 163,909 | $ 168,826 | $ 173,891 | $ 179,108 | $ 184,481 | $ 190,016 | $ 195,716 | $ 201,587 | $ 207,635 |
| *Condition* | General Plan Implementation | **$ 91,004** | $ 17,141 | $ 17,655 | $ 18,185 | $ 18,730 | $ 19,292 | $ 19,871 | $ 20,467 | $ 21,081 | $ 21,714 | $ 22,365 |
| | Disinfection, Chemical Building, Solids Thickening and Dewatering, & Plant Power Systems Condition-Driven Upgrades | **$ 3,445,847** | $ - | $ - | $ 3,445,847 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | Aeration System Condition-Driven Upgrades | **$ 2,369,795** | $ - | $ - | $ 2,369,795 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | Secondary Treatment, Disinfection, 3W, Solids Dewatering, and Miscellaneous Plant Condition-Driven Upgrades | **$ 13,355,859** | $ - | $ - | $ - | $ 13,355,859 | $ - | $ - | $ - | $ - | $ - | $ - |
| | Solids Digestion Condition-Driven Upgrades | **$ 3,248,052** | $ - | $ - | $ - | $ 3,248,052 | $ - | $ - | $ - | $ - | $ - | $ - |
| | Disinfection, Solids Digestion, and Solids Mixing | **$ 8,909,212** | $ - | $ - | $ - | $ - | $ 8,909,212 | $ - | $ - | $ - | $ - | $ - |
| | WPCP Administration, Maintenance, and Shop Building Improvements | **$ 3,065,565** | $ - | $ - | $ - | $ - | $ 3,065,565 | $ - | $ - | $ - | $ - | $ - |
| | Sewer Enterprise Study | **$ 358,216** | $ - | $ - | $ - | $ - | $ 358,216 | $ - | $ - | $ - | $ - | $ - |
| | Headworks, Chemical Building, Solids Dewatering, and Electrical Systems | **$ -** | $ - | $ - | $ - | $ - | $ - | $ 12,536,988 | $ - | $ - | $ - | $ - |
| | Future Treatment Plant Project | **$ -** | $ - | $ - | $ - | $ - | $ - | $ 4,000,000 | $ 4,000,000 | $ 4,000,000 | $ 4,000,000 | $ 4,000,000 |
| | Future Sewer Pipe Replacement Projects | **$ -** | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,333,850 | $ 6,523,866 | $ 6,719,582 | $ 6,921,169 |
| *Capacity* | Sanitary Sewer System Master Plan Projects - Existing User Contribution | **$ 2,154,417** | $ 405,794 | $ 417,968 | $ 430,507 | $ 443,422 | $ 456,725 | $ 470,427 | $ 484,540 | $ 499,076 | $ 514,048 | $ 529,469 |
| | Sanitary Sewer Master Plan (SSMP) Update | **$ 281,623** | $ 53,045 | $ 54,636 | $ 56,275 | $ 57,964 | $ 59,703 | $ 61,494 | $ 63,339 | $ 65,239 | $ 67,196 | $ 69,212 |
| | New 100-ft Secondary Clarifier | **$ -** | $ - | $ - | $ - | $ - | $ - | $ - | $ 24,304,889 | $ - | $ - | $ - |
| | **Total Escalated CIP Projects** | | **$ 2,891,290** | **$ 5,643,464** | **$ 17,633,671** | **$ 24,420,375** | **$ 55,542,763** | **$ 23,333,089** | **$ 47,288,575** | **$ 12,177,448** | **$ 17,396,760** | **$ 12,675,455** |
| | **Total 5-Year CIP** | **$ 106,131,563** | | | | | | | | | | |

| |
|---|
| Reduced Scope / Budget from Original CIP |
| Removed from Original CIP. Funded by other sources |