

**DEL NORTE COUNTY SERVICE AREA NO. 1
FINANCIAL PLANNING, REVENUE REQUIREMENTS,
AND RATE SETTING ANALYSIS**

**FINAL REPORT
MAY 17, 2023**

Prepared for:

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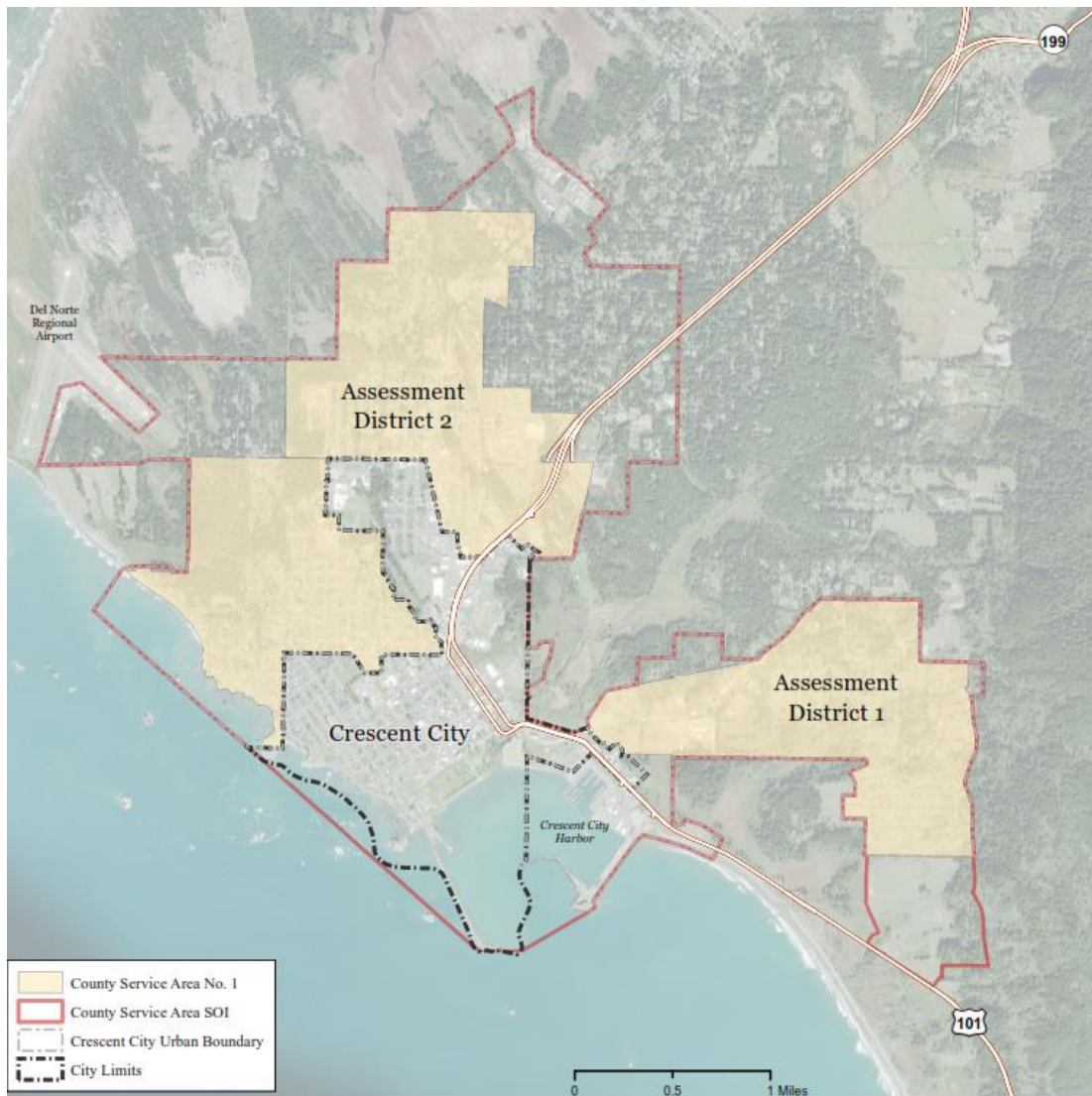
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EXECUTIVE SUMMARY

Background

The Del Norte County Service Area No. 1 (CSA-1) was originally formed in 1976 by resolution of the Del Norte County Board of Supervisors. Presently, CSA-1 provides wastewater collection services to unincorporated areas within the Crescent City urban area. Wastewater flows through the CSA-1 collection system, then discharges into the City of Crescent City's collection system and is treated at the City's wastewater treatment plant. **Figure 1** shows the limits of the CSA-1.

Figure 1. Del Norte County Service Area No. 1



Purpose of Study

The purpose of this analysis is to conduct a rate study which evaluates CSA-1's current wastewater rates and financial data and propose new rates, if necessary, that meet CSA-1's financial and strategic goals. In September 2022, the California Rural Water Association (CRWA) retained Robert D. Niehaus, Incorporated (RDN) to develop a comprehensive sewer rate study (Study) for CSA-1.

The primary objectives of this Study include:

- Projecting revenues and expenses for a five-year study period
- Proposing revenue adjustments to fund CSA-1's projected financial needs
- Proposing user fees which do not overly impact customers
- Producing an administrative record which effectively summarizes all findings
- Supporting CSA-1 through the Proposition 218 process as necessary

Rate Recommendations and Proposed User Fees

Recommendations:

- Build specific reserve funds by making annual contributions from revenue generated from user fees
- Implement the proposed annual revenue and user fee adjustments for the sewer utility: 50.0 percent in the first year of the study, followed by increases of 25.0 percent, 15.0 percent, 7.0 percent, and 6.0 percent through the rest of the study period, respectively
- Generate revenue to complete a condition assessment to inform capital improvement plan (CIP)
- Generate revenue to complete needed CIP projects
- Standardize the User Fee across all customers

Current Sewer User Fees

Currently, CSA-1 sewer customers pay a user fee annually based on the number of sewer connections on their parcel and where the parcel is located. A parcel located within the geographic area of Assessment District 1 is billed a higher fee than a parcel located within the geographic area of Assessment District 2 due to debt service payments tied specifically to the geographic area of Assessment District 1 within the CSA-1 service area. Within each

assessment district area each connection is billed equally regardless of sewer flow and strength. The current user fees as described are displayed in **Table 1**.

Table 1. Current User Fees

Customer Class	Fixed Charge	
	Assessment District # 1	Assessment District # 2
Per Connection	\$78.00	\$72.00

Proposed Fees

The recommended user fees standardize the fee structure across all customers and provide a revenue adjustment schedule designed to contribute to CSA-1 reserves and fund future capital expenditure needs. **Table 2** shows the proposed revenue adjustments for the study period. RDN, working with CSA-1 staff, determined that an increase of 50.0 percent was needed in the first year of the study, followed by increases of 25.0 percent, 15.0 percent, 7.0 percent, and 6.0 percent through the rest of the study period, respectively. It is important to note that the revenue adjustments don't exactly equal the rate adjustments for each customer as the geographic area associated with Assessment District 1 and Assessment District 2 are proposed to no longer be used, instead the geographic area of the entire CSA-1 will be used to establish one rate. The resulting annual user fees are shown in **Table 3**.

Table 2. Proposed Revenue Adjustments FY 2023-24 to FY 2027-28

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Recommended Adjustment	50.0%	25.0%	15.0%	7.0%	6.0%
Cumulative Adjustment	150%	188%	216%	231%	245%

Table 3. Proposed Sewer User Fees FY 2023-24 to FY 2027-28

Customer Class	Proposed Fixed Charge				
	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Per Connection	\$108.00	\$135.00	\$155.25	\$166.12	\$176.08

Capital and Reserve Funding

The proposed financial plan for the sewer utility fully funds sewer operations and will contribute an additional \$400,000 to CSA-1 fund balances. In addition, \$125,000 per year will be available for needed capital improvements. **Figure 2** shows the sewer fund balances with no revenue adjustment and **Figure 3** shows the fund balances under the proposed financial plan through the study period.

Figure 2. Sewer Fund Balance without Revenue Adjustment

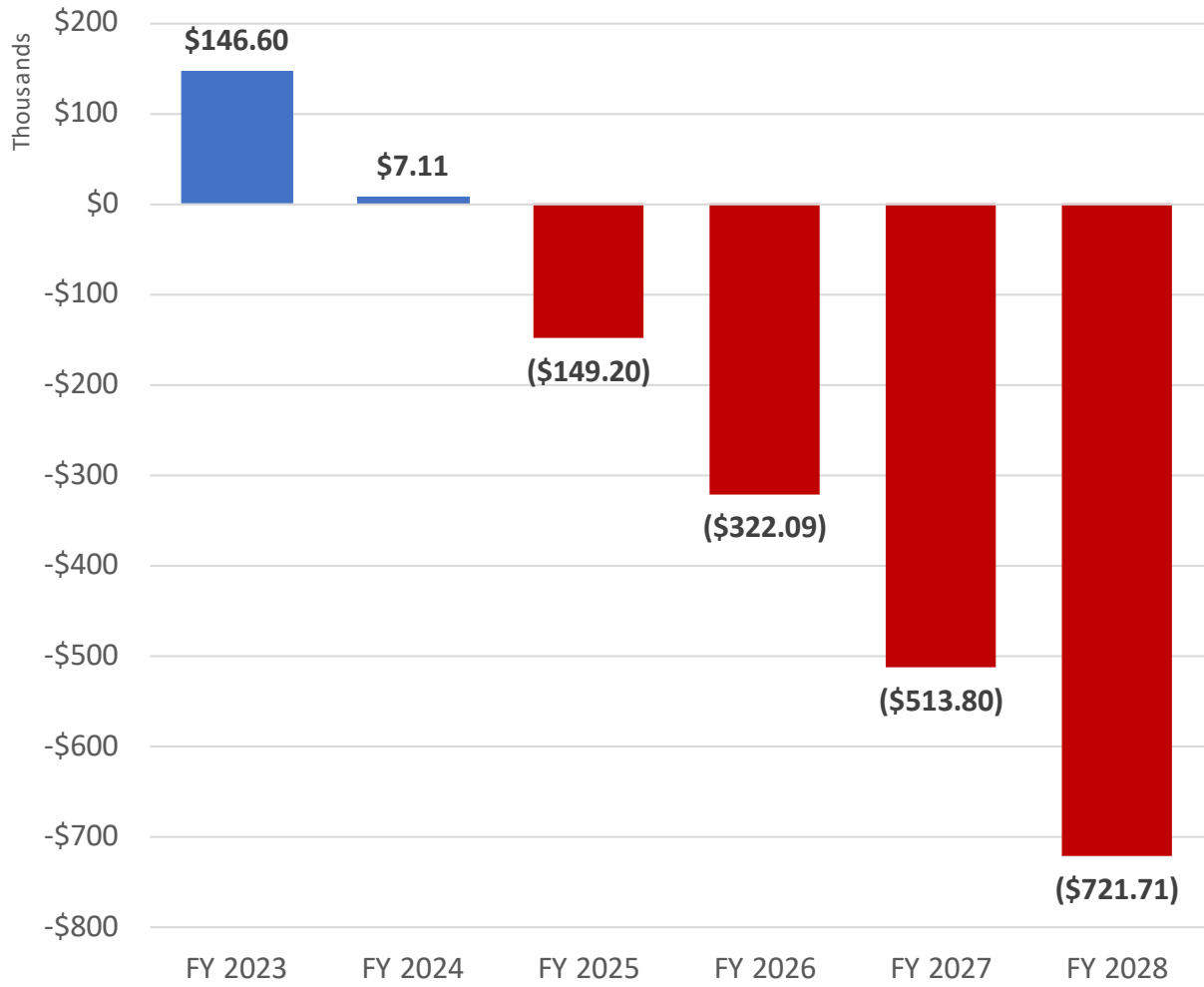
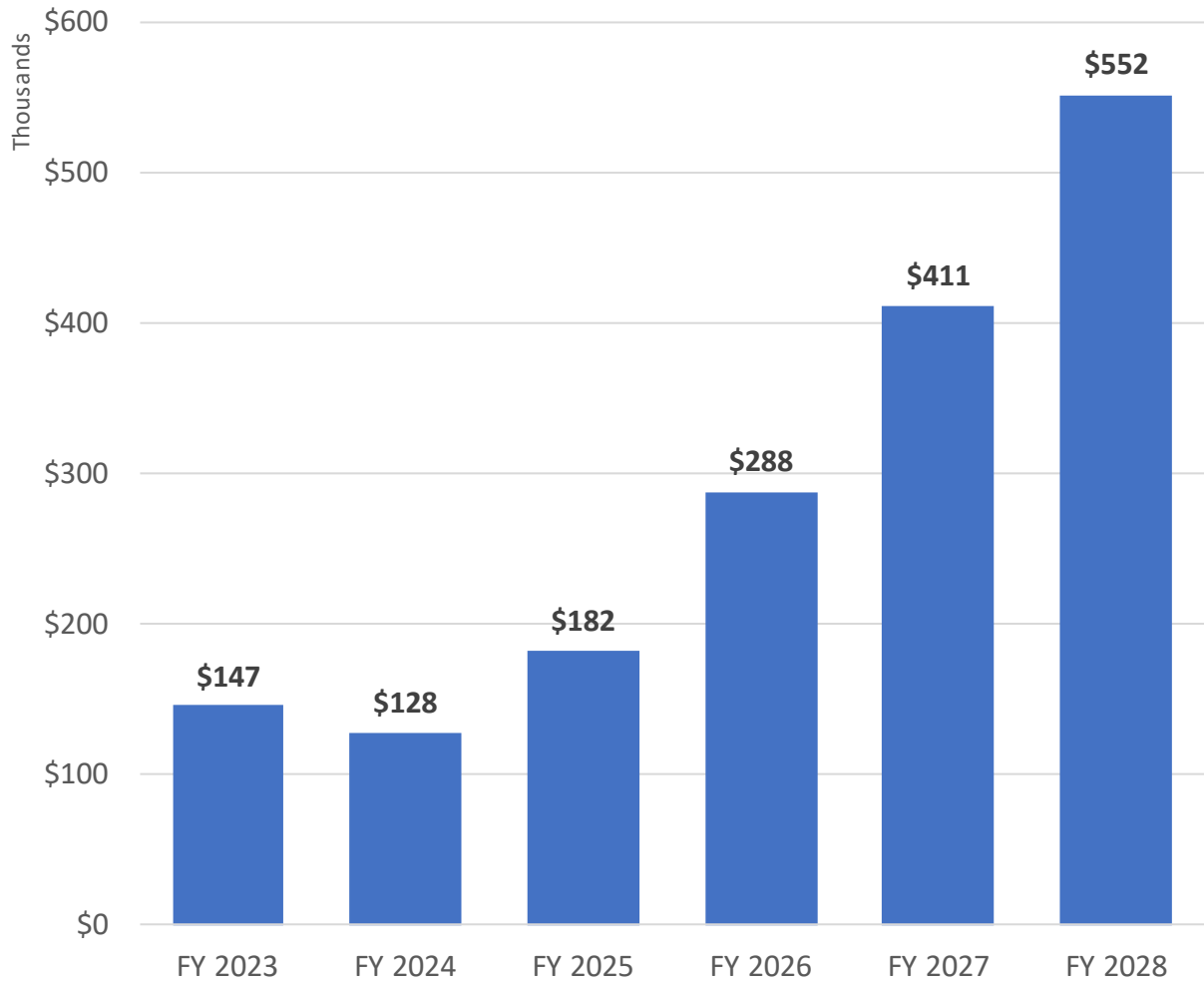


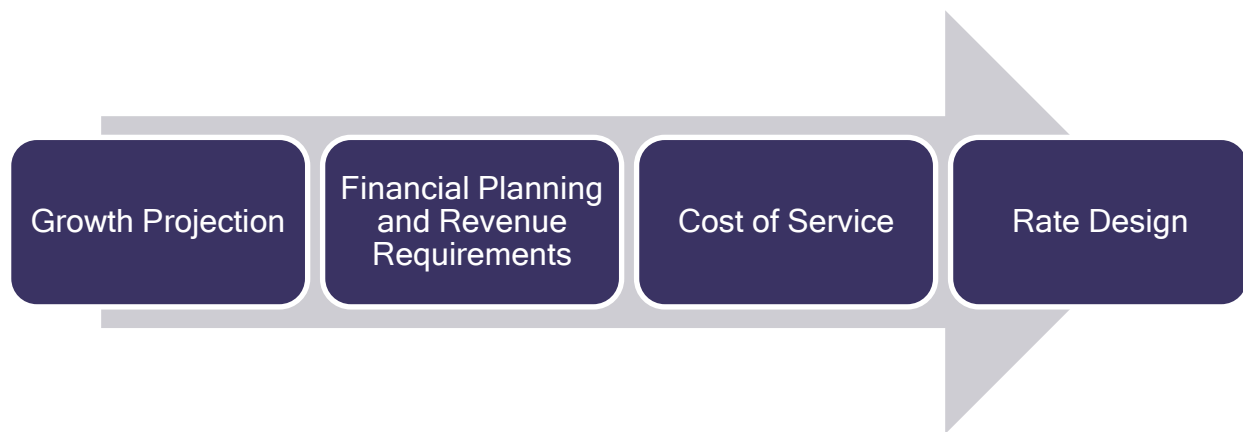
Figure 3. Sewer Fund Balances under the Proposed Financial Plan



GENERAL METHODOLOGY

The sewer user fees formulated in this study were developed using principles set forth by the American Water Works Association (AWWA). RDN rate-making practices incorporate methods described in the AWWA Manual 1 (M1)¹ and the WEF Financing and Charges for Wastewater Systems². **Figure 4** presents the steps taken to develop CSA-1's proposed user fees.

Figure 4. Wastewater Rate Study Process



- **Growth Projection:** project customer growth for the five-year study period, FY 2023-2024 through FY 2027-28, using CSA-1's customers' historical growth data. Forecast revenues for the study period based on the projected customer growth.
- **Financial Planning and Revenue Requirements:** develop a five-year financial plan based on the projected revenues and annual costs which include both operating and capital expenses. CSA-1's target reserve level should also be considered as part of the financial planning. Based on the financial planning, revenue requirements are determined for each year of the study period.
- **Cost of Service:** evaluate the customer classifications and allocate costs based on their service requirements.
- **Rate Design:** design user fees to recover the proportional share of revenue requirements from each customer.

¹ Principles of Water Rates, Fees, and Charges, Seventh Edition, Manual of Water Supply Practices, American Water Works Association

² Financing and Charges for Wastewater Systems, WEF Manual of Practice Number 27, Water Environment Federation

Legal Considerations

This section of the report describes the legal framework that was considered in the development of the user fees to ensure that the calculated cost of service user fees provide a fair and equitable allocation of costs to the different customer classes.

California Constitution - Article XIII C (Proposition 26)

The voters in the State approved Proposition 26 on November 2, 2010. Proposition 26 amended Article XIII C of the State Constitution to expand the definition of “tax” to include “any levy, charge, or exaction of any kind imposed by a local government” with listed exceptions. By means of these exceptions, Article XIII C classifies several types of charges, in addition to property-related charges, that are not taxes, such as charges for specific services or benefits, regulatory charges and penalties. Article XIII C’s definition of “tax” lists the following exceptions: (1) a charge imposed for a specific benefit conferred or privilege granted directly to the payer that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege; (2) a charge imposed for a specific government service or product provided directly to the payer that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product; (3) a charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof; (4) a charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property; (5) a fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law; (6) a charge imposed as a condition of property development; and (7) assessments and property-related fees imposed in accordance with the provisions of Article XIII D.

Proposition 26 also provides that the local government bears the burden of proving by a preponderance of the evidence that a levy, charge, or other exaction is not a tax, that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payer bear a fair or reasonable relationship to the payer’s burdens on, or benefits received from, the governmental activity. Like the proportionality requirements of Article XIII D, assessment of rates under these requirements, if applicable, would be supported by the cost of service approach.

California Constitution - Article XIII D, Section 6 (Proposition 218)

In November 1996, California voters passed Proposition 218, the “Right to Vote on Taxes Act.” This constitutional amendment protects taxpayers by limiting the methods by which local governments can create or increase taxes, fees and charges without taxpayer consent. Between 2002 and 2017, California courts have ruled that fees associated with providing water services are “property-related” and thus under the jurisdiction of Prop 218. The principal requirements for fairness of the fees, as they

relate to public water service, are as follows: Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service. Revenues derived by the fee or charge shall not be used for any other purpose other than that for which the charge was imposed. The amount of the fee or charge imposed upon any parcel shall not exceed the proportional cost of service attributable to the parcel. Reliance by an agency on any parcel map, including, but not limited to, an assessor's parcel map, may be considered a significant factor in determining whether a fee or charge is imposed as an incident of property ownership for purposes of this article.

The user fees developed in this Report use a methodology to establish an equitable system of charges that recover the cost of providing service and fairly apportion costs to each customer as required by Proposition 218.

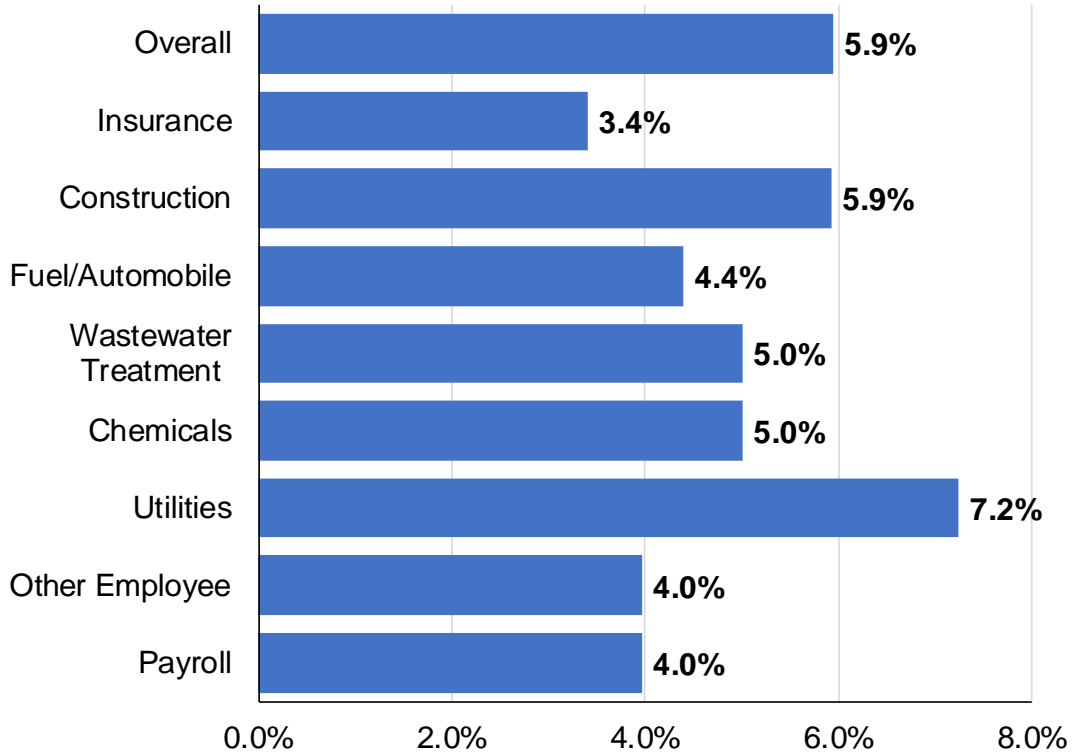
Key Assumptions

A test year, FY 2023-24, was selected for which costs are to be analyzed and user fees to be established for this study. CSA-1's fiscal year starts on July 1 and ends on June 30.

Escalation Factors

Escalation Factors were calculated for nine independent variables using historical Consumer Price Index (CPI) data from West Class B/C cities between 2000 and the most current calendar year, and projections by the California Department of Transportation (CADOT), and the California Department of Finance (CADOFF). The analysis for the status quo assumes that Operating Revenues will continue to be stable. The escalation factors capture the effects of price inflation for this period. **Figure 5** displays the projected escalation factors for the study period. Due to local contingencies, the Utility Inflation Rate is expected to rise at the highest rate, representing 7.2 percent in the test year. The Payroll Expenses Inflation Rate, which includes salaries, is expected to rise 4.0 percent during the test year. The analysis assumes that inflation will level out in later years of the study as the current record inflation rate declines. Expenses that are not expected to increase during the study period were not escalated as those costs are fixed.

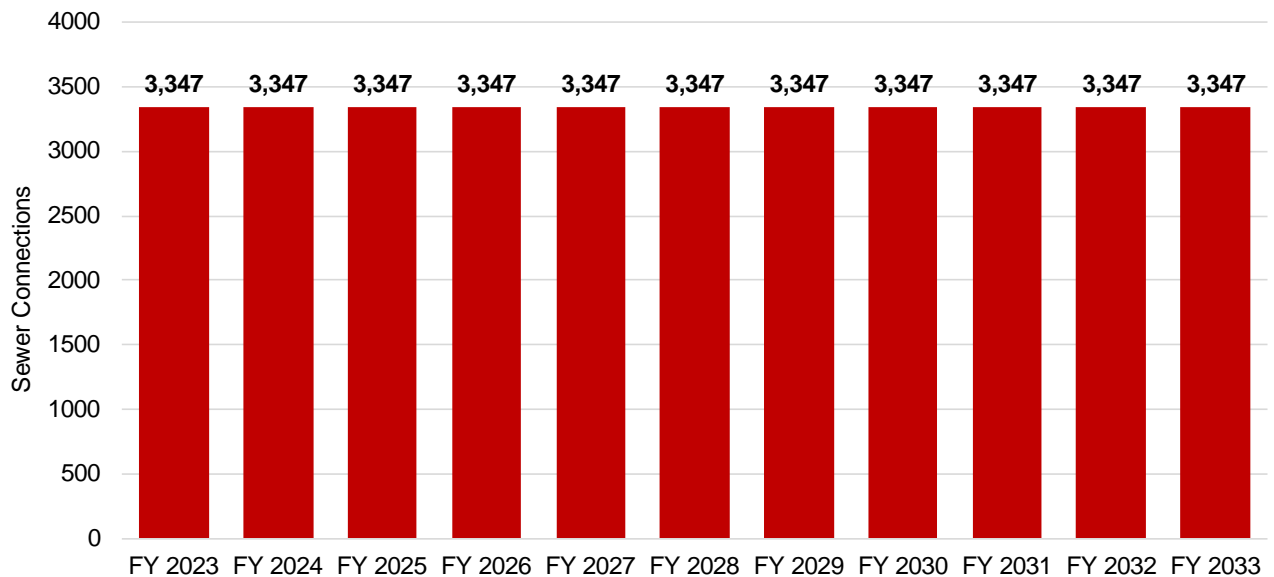
Figure 5. Escalation Factors



Customer Growth

All analyses performed during the study were based on an assumption of customer connections. The analysis assumes that there will be no change in customers over ten years, an assumption confirmed by CSA-1 staff as additional connections over the study period based on historic development patterns should be less than significant.

Figure 6. Projected Customer Growth FY 2023 - FY 2033



SEWER FINANCIAL PLANNING

Revenues

Based on the projected no change in customer growth through the study period, rate revenues under the current user fees were calculated for each year of the study. Additionally, non-rate revenues were estimated based on historical values and CSA-1 input. With no rate increases, CSA-1 is expected to collect around \$240,000 a year from user fees. Revenue generated through sewer user fees is the sole source of revenue for CSA-1.

Operating and Maintenance Expense

This CSA-1's FY 2022-23 Budget anticipated approximately \$237,000 in expenses which were classified as O&M expense. Based on the sum of all O&M expense line items, a total overall inflation rate for FY 2023-24 is 6.1 percent, which accounts for the record inflation currently being experienced across the country. Annual inflation is projected to average 4.6 percent per year over the study period. Total O&M expenses are anticipated to reach \$296,513 by FY 2027-28.

Capital Expenses

CSA-1 has secured a grant of \$325,000, which will fund the purchase of lift station generators. The proposed financial plan includes \$125,000 (adjusted for inflation) of annual capital funding. Rate funded capital expenses include a condition assessment of the system and repairs of known system deficiencies.

Target Reserves

CSA-1 currently has no reserve policy for the sewer fund. Optimally, CSA-1 should have a detailed reserve plan which separates different funds based on their proposed uses. Using industry standard calculations, we determined that the optimal operating reserve would include 6 months of O&M because CSA-1 does not collect revenue on a monthly basis. This fund should reach approximately \$148,000 by the end of the study period. The Capital Improvement fund should reach approximately \$400,000 based on an annual contribution of \$80,000. Annual contributions to the Capital Fund are based on 50.0 percent of CSA-1's annual depreciation expense. The intention is to set aside funds for asset replacement in tandem with each asset's useful life.

Debt Funding

CSA-1 has no outstanding debt service and does not plan to issue any debt during the study period.

Revenue Requirements

Under the recommended financial plan, revenue requirements include reserve contributions, represented by a surplus in Net Balance from Operations. The total revenue requirements are offset by the sum of Other Operating Revenues and Non-operating Revenues. **Table 4** shows the revenue requirement for each year of the rate study under the proposed financial plan.

Table 4. Rate Revenue Requirements Under Proposed Financial Plan

Revenue Requirements	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
O&M Expenses	\$251,778	\$263,727	\$275,153	\$286,409	\$296,513
Debt Service	\$0	\$0	\$0	\$0	\$0
Capital Expenditures	\$128,700	\$133,567	\$138,720	\$146,289	\$152,374
Other Operating Revenue	\$0	\$0	\$0	\$0	\$0
Non-Operating Revenue	\$0	\$0	\$0	\$0	\$0
Net Balance From Operations	(\$19,002)	\$54,551	\$105,748	\$123,297	\$140,467
Rate Revenue Requirement	\$361,476	\$451,845	\$519,622	\$555,995	\$589,355

Recommended Financial Plan

Based on the revenue requirements outlined, the proposed financial plan includes annual revenue adjustments of 50.0 percent in the test year, 25.0 percent the second year, 15.0 percent in the third year, 7.0 percent in the fourth year and 6.0 in the final year of the study period. Under this plan a total of \$400,000 will be contributed to fund balances; additionally, CSA-1 will be able to sufficiently cover their operating expenses and an average of \$139,000 in capital improvements each year. **Table 5** shows the proposed financial plan and ending reserve balances for the study period. RDN recommends this plan because it best balances the future repair needs of the sewer system with customer impacts. The Cost of Service section will use this financial plan as a basis for calculations.

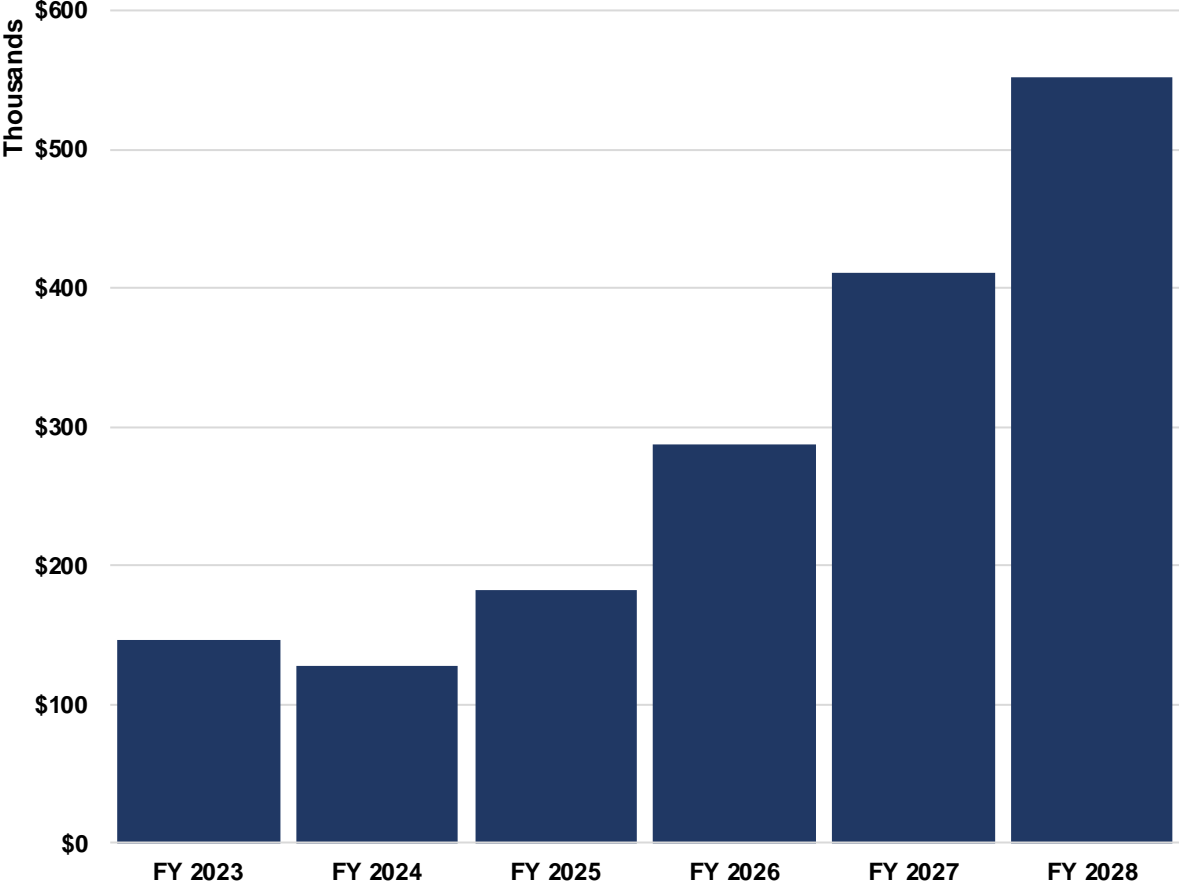
Table 5. Study Period Financial Plan, FY 2023-24 to FY 2027-28

Category	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
	50.0%	25.0%	15.0%	7.0%	6.0%
Rate Revenue (Base)	\$240,984	\$240,984	\$240,984	\$240,984	\$240,984
FY 2024	\$120,492	\$120,492	\$120,492	\$120,492	\$120,492
FY 2025		\$90,369	\$90,369	\$90,369	\$90,369
FY 2026			\$67,777	\$67,777	\$67,777
FY 2027				\$36,374	\$36,374
FY 2028					\$33,360
Total Rate Revenue	\$120,492	\$331,353	\$609,991	\$925,002	\$1,273,373
Other Operating Revenue	\$0	\$0	\$0	\$0	\$0
Non-Operating Revenue	\$0	\$0	\$0	\$0	\$0
Total Revenue	\$120,492	\$331,353	\$609,991	\$925,002	\$1,273,373
Total O&M Expense	\$251,778	\$263,727	\$275,153	\$286,409	\$296,513
Total Non-operating Expense	\$128,700	\$133,567	\$138,720	\$146,289	\$152,374
Net Revenue after adjustment (expense)	(\$19,002)	\$54,551	\$105,748	\$123,297	\$140,467
Total Available Funds	\$127,601	\$182,152	\$287,900	\$411,197	\$551,664

Proposed Reserve Balances

Figure 7 shows the sewer fund balances under the proposed financial plan through the study period.

Figure 7. CSA-1 Sewer Fund Balances under the Proposed Financial Plans

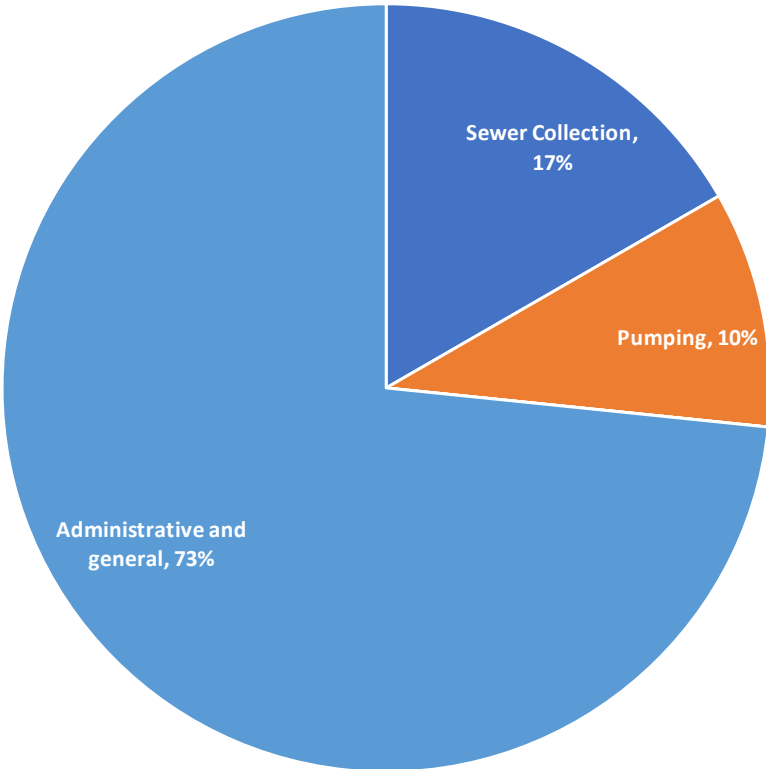


SEWER COST OF SERVICE

Methodology

A sewer system’s Cost of Service (COS) analysis typically utilizes a three-step approach to allocate costs equitably among customers. These steps include 1) functionalization of cost and asset items, 2) cost classification, and 3) cost allocation to customers. The typical major functions included in a sewer study are collection, sewer treatment, customer accounts, and other general and administrative costs. Because CSA-1 only provides sewer collection services, the COS analysis essential divides the cost of service by the number of connections. The individual Test Year (FY 2024) operating expenses were functionalized into standard cost categories as shown in **Figure 8**. Most of the costs accrued by CSA-1 are administrative. The costs are allocated to customers on a per connection basis as explained in this section of the report.

Figure 8. Functionalized Costs by Category



Currently, customers are billed on a per connection basis and each connection is equal to one unit, which is assumed to represent a standard unit of service, as the overall impact on the collection system is consistent among all connections

Equivalent Units

Sewer customers are billed by the number of connections or units on each parcel. For example, all customers are billed the same user fee charge for each connection. A parcel with three connections would pay three times the user fee, annually. Connections represent a standard unit of service as CSA-1 only provides collection services. Since the cost per connection was determined to be equal, the total cost per customer represents the relative impact each has on the conveyance system (sewer flow). In addition to the CSA-1 conveyance fees, represented in this report, the City of Crescent City also bills customers based on sewer strength and flow as they provide sewer treatment services.

Typically, the cost of service analysis would also determine customer related costs, such as billing, and apply those to each customer evenly, regardless of the number of connections. Since CSA-1 doesn't bill customers directly, fees are levied on the annual property tax roll, no billing related costs need to be separated at the customer level, all costs are allocated to sewer conveyance, thus reflected in the user fee. The number of connections served by CSA-1 for the current year (FY 2023) through the end of the study period (FY 2028) are shown in **Table 6**.

Table 6. Number of Connections

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Connections	3,347	3,347	3,347	3,347	3,347	3,347

Cost of Service Allocation

The total Test Year revenue requirement developed in the financial planning stage, \$361,476, is shown in **Table 7**. The total revenue requirements will be divided by the number of connections in the fee setting stage to determine the per connection fee.

Table 7. Test Year Revenue Requirements

Cost Allocation Summary	Total
O&M Revenue Requirements	\$251,778
Non-Operating Revenue Requirements	\$128,700
	\$380,478
Other Operating Revenue	\$0
Non-Operating Revenue	\$0
Net Balance From Operations	(\$19,002)
Rate Revenue Requirement	\$361,476

SEWER FEE SETTING

Recommendations

RDN recommends CSA-1 implement the user fees outlined in this report beginning in fiscal year 2023-24. CSA-1 needs revenue increases to develop reserve balances, fund ongoing O&M expenses and execute critical capital improvement projects. The financial plan and Cost of Service analysis provides a Proposition 218 compliant rate structure. The proposed revenue requirements include funding for both the sewer reserves as well as sufficient funding for the daily operations and long term maintenance of the sewer utility and. If CSA-1 is able to secure additional funding sources, or if customer growth is higher than expected, resulting in increased revenues, the Board of Supervisors can choose to not implement scheduled increases or reduce increases in any given year.

Proposed Sewer User Fees

To develop fees for the sewer utility, the total cost of service allocated to the user fees was divided by the number of customer billing units (connections). Based on the proposed sewer financial plan outlined in this report, **Table 8** show the proposed annual user fees for each year of the study period.

Table 8. Proposed Sewer User Fees

Proposed Fixed Charge					
Customer Class	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Per Connection or ADU	\$108	\$135	\$155	\$166	\$176

Under the proposed user fees, each connection's annual bill will increase by \$36.00 in FY 2024. This equates to a monthly increase of \$3.00 per connection.

CONCLUSION

Recommendations:

- Build specific reserve funds by making annual contributions from revenue generated from user fees
- Implement the proposed annual revenue and fee adjustments for the sewer utility: 50.0 percent in the first year of the study, followed by increases of 25.0 percent, 15.0 percent, 7.0 percent, and 6.0 percent through the rest of the study period, respectively
- Generate revenue to complete annual capital improvement projects
- Standardize the user fee across all customers