

City of Pinole, CA

Report

Comprehensive Sewer Rate Study

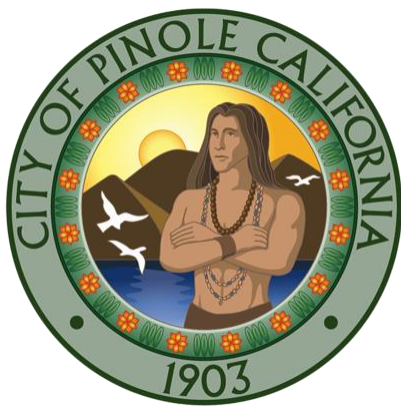




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Section 1 – Executive Summary

1.1 Introduction

Willdan Financial Services (Willdan) is pleased to submit to the City of Pinole (the "City") the following Sewer Rate Study report (the "Report") for your consideration. Willdan has completed this study of the City's sewer rates, which are submitted annually to Contra Costa County for placement each year on the Secured Property Tax Roll. The results of the investigations, analyses, and conclusions from this study are summarized in this Report.

The City currently provides wastewater treatment and collection services to its customers. The Pinole-Hercules Water Pollution Control Plant was originally built in 1955 as a primary wastewater treatment facility and has had two major expansions and several modifications over the years to meet the needs of both cities' growing populations. The City's wastewater system currently serves a combined population of approximately 40,000, with an average daily flow of 3.5 million gallons. Only those customers who are served by the Pinole-Hercules Water Pollution Control Plant are considered as part of this analysis.

The City provides service to portions of Hercules under a Joint Powers agreement. Hercules pays for those services directly as a wholesale purchaser on behalf of its retail customers. The City invoices Hercules for the treatment services provided and the capital projects that take place at the wastewater treatment facility. The costs incurred by the City for managing its collection system are accounted for separately and such costs are not passed on to Hercules since Hercules maintains its own wastewater collection system.

The City has focused a significant amount of attention and effort on strategic and master planning measures in all areas of sewer utility operations to ensure that it is able to provide uninterrupted service to its customers, and so that it remains prepared for the future. As part of its ongoing planning efforts, the City commissioned Willdan to perform a sewer rate study to analyze the revenue sources and expenditures of the sewer utility system, develop a five-year financial analysis, and provide recommendations for proposed rate and/or rate structure adjustments to meet the financial and administrative goals and objectives of the City. The primary objectives of the rate study include:

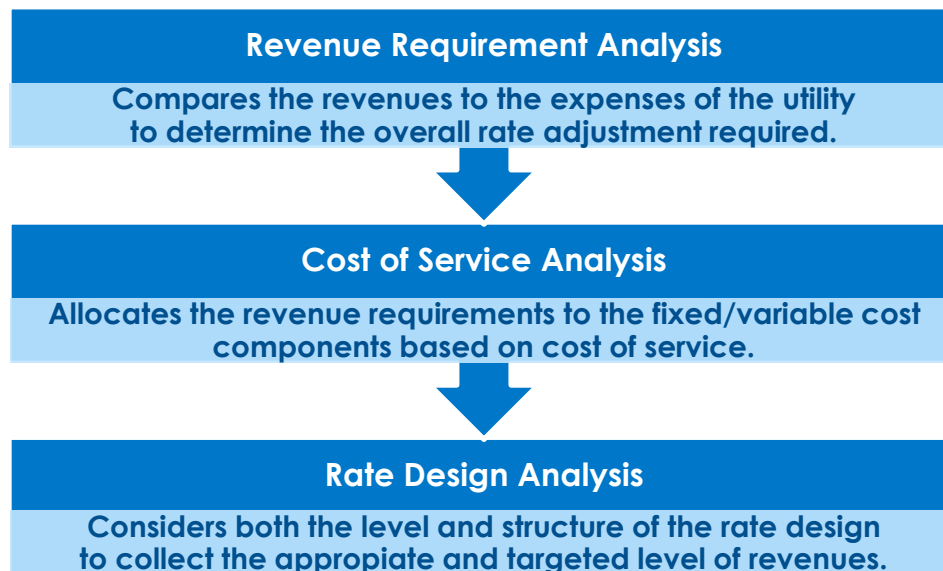
- Full recovery of costs related to utility operations (i.e., operating and maintenance costs, debt, and other expenditure requirements);
- Development of cost-based rate structures;
- Maintaining consistency with Water Environment Federation ("WEF") guidelines;
- Providing for equity among customer classes;
- Meeting substantive and procedural Proposition 218 requirements;
- Maximizing administrative efficiency (i.e., easy to understand and implement); and
- Incorporation into the analysis of a 5-Year capital funding plan.



1.2 Overview of the Rate Study Process

This study includes the development and presentation of a pro forma sewer financial plan for a 5-year planning period, as well as the development of cost-based rates through a cost-of-service and rate design analysis. Utility rates must be set at a level such that operating, maintenance, debt, and capital expenses are funded with the revenues received from customers. In addition, the revenues generated from utility rates must only be used for this purpose and for the sewer system only. This is a significant point, as failure to achieve the needed revenues can lead to unacceptable service levels and inadequately maintained facilities. Therefore, a rate study typically consists of the following three interrelated analyses:

- I. **Financial Planning/Revenue Requirement Analysis:** Creates a five-year plan to support an orderly, efficient program of on-going maintenance and operating costs, capital improvement and replacement activities, debt financing, and retirement of outstanding debt. In addition, the plan should fund and maintain appropriate reserve balances based on industry standards, as well as the City's fiscal policies and specific needs.
- II. **Cost-of-Service Analysis:** Identifies and apportions annual revenue requirements (i.e., expenditures) to operational and functional cost components based on the demand placed on the sewer utility system. The purpose of this analysis is to develop rates that generate revenues relatively proportionate to the share of the utility's costs. This objective is consistent with industry standards as well as the requirements of Proposition 218.
- III. **Rate Design:** Develops an equitable and proportionate schedule of rates for the City's customer base. The policy objectives are coordinated with Proposition 218 (Prop 218) requirements and cost-of-service objectives to achieve a balance between customer equity and financial stability goals.



This rate study utilizes generally accepted rate-making principles and standards established by industry experts such as the WEF in its "Financing and Charges for Sewer Systems, Manual of Practice No. 27". The principles established by WEF are used as guidelines in the development of the proposed sewer rates. A discussion of some of the key principles of ratemaking is presented in the following subsection of this Report.

1.3 Summary of Proposed Rates

The rate study methodology applied in the development of updated sewer rates, outlined in this Report, consisted of reviewing the historical operating results of the sewer utility system, analyzing the budget to identify the net revenue requirements to be recovered from user rate revenues, performing general cost-of-service allocations based on the rate components and functional cost categories, and revising the rates based on the applicable costs and expenditures to be recovered from user rates. In addition, an analysis of the system's customers was performed to identify the rate determinants since they drive the recommended rates, which are the primary source for generating revenues. The allocated revenue requirements were utilized in conjunction with the rate determinants and rate structure to develop the proposed sewer rates.

The findings and conclusions of the rate analysis, as well as the resulting revised rate recommendations, were utilized to develop a projection of future operating results for a 5-year planning period from Fiscal Year (FY) 2025 (beginning July 1, 2024) through FY 2029 (ending June 30, 2029), herein referred to as the "Projection Period". The purpose for developing the 5-year projections is to demonstrate the financial capability of the sewer revenues to support system operations and maintenance, and fund planned capital improvements. The analyses, findings and accompanying recommendations are presented in the subsequent sections of the Report.



The sewer rate analysis described in the Report is performed based on the general guidelines of the defined objectives, as well as common industry standards for setting utility rates. In addition to focusing on these major objectives, the rate analyses performed herein may consider other factors in designing rates. As discussed in detail later in this Report, other rate considerations may generally include sensitivity to the impact of rate changes on existing customers, relative comparability with neighboring utilities, and variations or changes (if any) from the City's existing rate structure. The proposed sewer rates for assumed implementation effective July 1, 2024 (or other such date as determined by the City) for FY 2024/25 (FY 2025, herein referred to as the "Test Year") are provided in **Table 1**. It is anticipated that the charges, based on these rates, will be submitted to Contra Costa County for placement on Fiscal Year 2024/2025 Annual Secured Property Tax Bills, which are typically sent out to property owners in early fall each year. The existing rates are provided in **Table 2**.

Table 1 – Proposed Annual Sewer Rates

Description	Rate
Residential Annual Flat Fee ^[1]	
Single - Family	\$ 1,041.17
Multi - Family (per dwelling unit)	\$ 786.14
Non-Residential Annual Meter Charge:	
5/8 Inch	\$ 495.20
3/4 Inch	\$ 742.80
1.0 Inch	\$ 1,238.00
1.5 Inch	\$ 2,476.00
2.0 Inch	\$ 3,961.60
3.0 Inch	\$ 7,428.00
4.0 Inch	\$ 12,380.01
6.0 Inch	\$ 24,760.02
8.0 Inch	\$ 39,616.03
10.0 Inch	\$ 56,948.04
Volumetric Rates Per 100 Cubic Feet - All Flow	
Single - Family	\$ 0.00
Multi - Family (per dwelling unit)	\$ 0.00
Non-Residential	\$ 8.33
Notes:	
[1] All residential customers only pay a flat fee per dwelling unit, regardless of usage.	



Section 2 – Revenue Sufficiency Analysis

2.1 Financial Planning Principles

While the individual rates for a utility system vary based on a variety of factors, rates should be consistent with common rate-making principles within the utility industry. The guiding principle is that rates designed for any utility should provide a reasonable balance between several key factors. In general, the utility rates should:

- Generate a stable revenue stream that, when combined with other sources of funds, is sufficient to meet the expenditure requirements and goals of the system;
- Be based upon the proportionate cost of providing the service and not exceed the cost of providing the service – in compliance with California Proposition 218;
- Be equitable – that is, they should generate revenue from customer classes in a manner which is reasonably in proportion to the cost of providing the service to that customer class;
- Be easy to understand by customers; and
- Be easy to administer by the utility.

Striking the appropriate balance between the principles of ratemaking is the result of a detailed process of evaluation of revenue requirements and cost-of-service, and how those translate into the rate design alternatives which meet legal requirements and the specific objectives of the utility under the circumstances in which it operates.

2.2 Existing Rates

As described in the Introduction to this report, The City has established sewer charges that are submitted annually to Contra Costa County for inclusion on the annual secured property tax roll. These charges are based on customer classification, and these rates charged for sewer service are approved by the City Council and are not subject to administrative review or approval by any other local or state agency. The City has historically adjusted rates, as necessary, to provide for recovery of financial obligations including operating expenses, debt service, capital expenditures and any other expenses and transfers.

The existing annual sewer rates consist of 1) a separate flat rate for single-family and multi-family customers that is applied per dwelling unit regardless of their usage, 2) meter-based fees for commercial/non-residential customers that designates the minimum amount they will pay by account, based on their respective meter size, regardless of usage, and 3) a commercial/non-residential volumetric rate component per 100 cubic feet of water usage that recovers the costs of treatment and disposal of wastewater. Water meter and usage data is provided by East Bay Municipal Utility District. The existing rates for sewer service are provided in **Table 2**.



Table 2 – Existing Annual Sewer Rates

Description	Rate
Residential Annual Flat Fee ^[1]	
Single - Family	\$ 883.44
Multi - Family (per dwelling unit)	\$ 750.96
Non-Residential Annual Meter Charge:	
5/8 Inch	\$ 202.80
3/4 Inch	\$ 304.20
1.0 Inch	\$ 507.00
1.5 Inch	\$ 1,014.00
2.0 Inch	\$ 1,622.40
3.0 Inch	\$ 3,244.80
4.0 Inch	\$ 5,070.00
6.0 Inch	\$ 10,140.00
8.0 Inch	\$ 16,224.00
10.0 Inch	\$ 25,350.00
Volumetric Rates Per 100 Cubic Feet - All Flow	
Single - Family	\$ 0.00
Multi - Family (per dwelling unit)	\$ 0.00
Non-Residential	\$ 7.09
Notes:	
[1] All residential customers only pay a flat fee per dwelling unit, regardless of usage.	

2.3 Revenue Sufficiency Process

In evaluating whether the existing rates will generate sufficient revenue to meet the expenditure requirements of the sewer system, the annual expenditures required for the sewer utility system (herein referred to as the "Revenue Requirements") must be developed. The Revenue Sufficiency Analysis compares the forecasted revenues for the sewer utility system under existing rates (including customer growth) to the projected Revenue Requirements.



2.3.1 Budget

The revenue sufficiency analysis performed as part of this study and summarized in this report utilizes the City's adopted budget for FY 2024/25 (the "Budget" for FY ending June 30, 2025) as one source of data and information to determine the gross Revenue Requirements to be recovered from user rates over the Projection Period. The Budget, as prepared by the City, is provided on a line-item basis, and is used for projecting the budgeted financial needs for the Test Year and the remainder of the Projection Period. In developing the rate analysis, certain adjustments are made such that the expenditures are categorized into either Operating and Maintenance (O&M) expenses or non-operating expenses. In addition, only recurring costs included in the current Budget were included as part of the revenue requirement analysis. One-time costs were identified and evaluated in discussions with City Staff and removed if appropriate. Recurring annual costs were escalated using suitable cost indexes or cost escalation factors, again in discussion with City Staff and based on historical trends.

The O&M expenses are primarily those ongoing costs for labor, materials, supplies, services, etc., required to manage and operate the utility system on a day-to-day basis while maintaining a dependable level of service. The O&M requirements are generally a function of a budgetary process and are directly related to the level of service provided to customers of the utility system. The non-operating expenses include such items as capital outlay and any other expenses & transfers.

The Budget also identifies estimated revenues to be derived from sources other than sewer user rates. Such other revenue sources include interest earnings on investments, and reimbursement from the City of Hercules for its share of operating and capital project costs related to the shared wastewater treatment plant that the City of Pinole incurs on their behalf. If there are revenues generated from the other sources, those revenues are applied to the gross Revenue Requirements to reduce the amount of revenue required from user rates. The result is the net Revenue Requirement.

2.3.2 Capital Improvement Plan (CIP)

The City provided a list of anticipated capital projects to be undertaken over the Projection Period that will be paid from sewer service charge (rate) revenue, which are also included in the development of the gross Revenue Requirements. The capital projects provided by and identified by the City in the CIP are required in order to maintain and continue uninterrupted service to customers by investing in improvements, repairs, or replacements of aging system components as they wear over time. The City provided cost estimates for the identified capital projects by the fiscal year in which they are estimated to be undertaken. The funding for these capital projects was then used in the analysis, along with O&M and non-operating expenses, to determine the gross revenue requirements for the sewer system. The capital projects included in the CIP, along with their assumed funding sources, for the Projection Period are provided in **Table 3**.



Table 3 – Sewer CIP (\$1,000s)

Description	Funding Source	Projected for Fiscal Year Ending June 30, (\$1,000s)					
		2025	2026	2027	2028	2029	Future
Sewer Projects							
Effluent Outfall	Cash	\$ 150	\$ 1,000	\$ 2,000	\$ 0	\$ 0	\$ 0
Sanitary Sewer Rehabilitation - Cash	Cash	7,395	0	0	0	0	0
Sanitary Sewer Rehabilitation - Growth Impact Fees	Impact Fees	600	0	0	0	0	0
Secondary Clarifier Rehabilitation	Cash	425	0	0	0	0	0
Air Release Valve Replacements	Cash	50	0	0	0	0	0
Water Pollution Control Plant Lab Remodel	Cash	100	0	0	0	0	0
Sewer Pump Station Rehabilitation	Cash	100	2,760	4,440	0	0	0
Lower Tennent Trunk Sewer Capacity	Cash	0	0	170	3,880	0	0
Pinon-2 Capacity	Cash	0	0	0	125	2,835	0
Water Pollution Control Plant Boiler Replacement	Cash	0	0	660	0	0	0
Water Pollution Control Plant Centrifuge Replacement	Cash	0	0	0	990	0	0
Water Pollution Control Plant Solar and Battery Storage	Cash	0	0	175	0	0	0
Sanitary Sewer Master Plan Projects R&R	Cash	0	0	0	0	0	9,480
Sanitary Sewer Master Plan Projects R&R (I&I)	Cash	0	0	0	0	0	4,710
Water Pollution Control Plant R&R	Cash	0	0	0	0	0	2,010
Tennent-2	Cash	0	0	0	0	0	6,000
PVR-1	Cash	0	0	0	0	0	4,500
PVR-2	Cash	0	0	0	0	0	3,600
South-1	Cash	0	0	0	0	0	3,200
South-2	Cash	0	0	0	0	0	1,600
South-3	Cash	0	0	0	0	0	3,100
South-4	Cash	0	0	0	0	0	1,360
South-5	Cash	0	0	0	0	0	420
Summit-1	Cash	0	0	0	0	0	80
Master Plan Update	Cash	0	0	0	0	0	510
Flow Monitoring Program	Cash	0	0	0	0	0	330
Total Sewer Projects		\$ 8,820	\$ 3,760	\$ 7,445	\$ 4,995	\$ 2,835	\$40,900

2.3.3 Debt Service

The City currently has two outstanding debt issues for the sewer system. A minimum debt service coverage ratio of 1.25 times is required to be maintained on an annual basis, based on the City's current bond covenants associated with the existing debt. In simple terms, this means that the utility must have at least \$1.25 in net operating revenues for every \$1.00 of debt service they are committed to pay on existing debt. The debt service coverage is calculated by dividing net operating revenues (revenues less operations and maintenance expenses) by annual debt service. There are no future or additional debt issuances assumed to take place over the Projection Period outside of the current outstanding debt obligations. The annual existing debt payments over the Projection Period are provided in **Table 4**.



Table 4 – Annual Debt Service Payments

Description	Projected for Fiscal Year Ending June 30,				
	2025	2026	2027	2028	2029
Sewer Annual Debt Service					
2016 Wastewater Revenue Refunding Bond	\$ 522,834	\$ 522,008	\$ 519,901	\$ 522,455	\$ 520,701
2016 Clean Water State Revolving Fund	1,089,184	1,089,184	1,089,184	1,089,184	1,089,184
Total Sewer Annual Debt Service	\$1,612,018	\$1,611,192	\$1,609,085	\$1,611,639	\$1,609,885

2.3.4 Gross and Net Revenue Requirement

The proposed sewer rates developed in the Report are designed for assumed implementation for FY 2024/25 (the Test Year as previously defined). The projected Test Year gross and net Revenue Requirements are estimated by utilizing the Budget, actual debt service requirements as provided in the applicable debt service schedules, capital estimates and assumed funding sources for capital projects as provided by the City, along with anticipated transfers. The Test Year Revenue Requirements that are used for developing the user rates proposed herein are detailed in **Appendix A** at the end of this report and summarized in **Table 5**.

Table 5 – Test Year Revenue Requirements – FY 2025

Description	Total
Total O&M	\$ 7,273,057
Debt Service	1,612,018
Other Expenditures & Transfers	1,618,029
Gross Revenue Requirement	\$10,503,104
Less Other Revenues	(3,633,208)
Net Revenue Requirement	\$ 6,869,896

The projected Revenue Requirements for the sewer system over the entire Projection Period are provided in **Table 6**.

Table 6 – Sewer Revenue Requirements for the Projection Period

Description	Projected for Fiscal Year Ending June 30,				
	2025	2026	2027	2028	2029
Total O&M	\$ 7,273,057	\$ 7,699,794	\$ 8,157,223	\$ 8,647,880	\$ 9,174,530
Debt Service	1,612,018	1,611,192	1,609,085	1,611,639	1,609,885
Other Expenditures & Transfers	1,618,029	2,553,323	4,388,021	4,618,091	5,983,574
Gross Revenue Requirement	\$10,503,104	\$11,864,309	\$14,154,329	\$14,877,610	\$16,767,989
Less Other revenues	(3,633,208)	(3,787,232)	(4,859,968)	(4,182,596)	(4,461,400)
Net Revenue Requirement	\$ 6,869,896	\$ 8,077,077	\$ 9,294,361	\$10,695,014	\$12,306,589



2.4 Customer Data

The rate study described herein, particularly the cost-of-service analysis, is heavily reliant upon a detailed analysis of system customers and demand characteristics. The existing utility customer base provides the determinants utilized in the cost-of-service analysis, and ultimately in calculating the sewer charges, which become the foundation for projecting future revenues generated by the sewer system.

It is important to note that the customer analysis focuses primarily on the customer classifications that will be subject to and impacted by the user rates and charges to be developed in the Report. This consists of the general service (retail) customers that currently pay for utility service pursuant to the existing user rates and charges as previously detailed. For the purposes of the rate study, it is these customers that will generate revenues based upon the proposed user rates and charges.

2.4.1 Customer Billing Analysis

For the rate study, detailed billing information was provided for each individual customer. This data offered a breakdown of customers by class, usage characteristics, and billed charges. An analysis of the billing data was conducted to obtain an understanding of the existing customers, customer classes, and usage characteristics per customer class. In accordance with the data, as well as discussions with the City staff, the utility system provides service to various identifiable retail customer classes consisting of:

- Single-Family Residential
- Multi-Family Residential, and
- Commercial/Non-Residential

Each of these customer classes embodies certain common characteristics in their utility use and service demand profiles that provide the basis for establishing an equitable allocation of system costs. The billing data was utilized to identify the number of customer accounts within each class, the applicable equivalent residential units (ERUs) based on dwelling units and meter size, usage profiles, and strength characteristics.

The historical customer data was also utilized to establish growth trends for each customer classification. The growth trends were then used to project the average number of customers, ERUs, and usage within each class for the Test Year plus the remaining years of the Projection Period.

2.5 Financial Projections Under Existing Rates

The projected customers and accompanying billable flows are applied to the existing rates to develop a projection of user rate revenues that would be generated under existing rates. The revenues are then compared to the projected revenue requirements/expenditures to determine if revenue adjustments are needed. Based on this comparison, it is projected that under the existing rates, the sewer system would not meet its collective projected operating



(O&M) financial obligations, debt service payment or coverage requirements, cover costs of capital projects, and be able to make anticipated transfers. Therefore, revenue increases are required to generate additional cash to fund projected costs of operations and capital projects, meet debt service requirements, and maintain adequate cash reserves.

The City has established an objective of maintaining a target of at least 180 days of cash reserves to help fund ongoing operations in the event of periodic fluctuations in cash flow, and to address unexpected needs that may require cash funding. Since the City currently collects sewer user revenues through the annual secured property tax roll, as opposed to receiving cash through monthly or bi-monthly billings, it is essential that there are adequate cash reserves to cover expenditures between cycles of revenue collection from annual secured tax roll payments. The cash-flow statement outlining the projected operating results under existing rates is summarized in **Table 7** for the sewer system. The proposed rates and projected financial results are addressed in the subsequent sections of this Report.

Table 7 – Sewer System Projected Operating Results - Existing Rates (\$1,000s)

Description	Existing	Projected for Fiscal Year Ending June 30,			
	2025	2026	2027	2028	2029
Revenues:					
Sewer Service Charges	\$ 5,847	\$ 5,850	\$ 5,854	\$ 5,857	\$ 5,861
Other Revenues	3,633	3,787	4,860	4,183	4,461
Total Revenues	\$ 9,480	\$ 9,638	\$ 10,714	\$ 10,040	\$ 10,322
O&M Expenses	(7,273)	(7,700)	(8,157)	(8,648)	(9,175)
Net Income	\$ 2,207	\$ 1,938	\$ 2,557	\$ 1,392	\$ 1,148
Debt Service:					
Existing	\$ 1,612	\$ 1,611	\$ 1,609	\$ 1,612	\$ 1,610
Future	-	-	-	-	-
Total Debt Service	\$ 1,612	\$ 1,611	\$ 1,609	\$ 1,612	\$ 1,610
Balance After Debt	\$ 595	\$ 327	\$ 947	\$ (220)	\$ (462)
Other Expenditures & Transfers:					
Capital Outlay	\$ (352)	\$ (252)	\$ (260)	\$ (268)	\$ (276)
Transfers In	-	-	-	-	-
Transfers Out	-	-	-	-	-
Total Other Expenditures & Transfers	\$ (352)	\$ (252)	\$ (260)	\$ (268)	\$ (276)
Net Results	\$ 243	\$ 74	\$ 688	\$ (487)	\$ (738)
Fund Balance Activity:					
Operating Fund					
Beginning Balance	\$ 23,584	\$ 15,607	\$ 11,922	\$ 5,164	\$ (318)
Deposit/(Withdrawal) from Operations	243	74	688	(487)	(738)
Cash Funded Capital Projects	(8,220)	(3,760)	(7,445)	(4,995)	(2,835)
Total Operating Fund Balance	\$ 15,607	\$ 11,922	\$ 5,164	\$ (318)	\$ (3,891)
Days Cash on Hand	783	565	231	(13)	(155)



Section 3 – Cost-of-Service (COS) Analysis

3.1 General

The costs incurred by a sewer utility system are generally driven by specific service requirements imposed on the system by its customers. There are several different options that can be used to perform a cost-of-service (COS) analysis and the allocation methodology depends upon the basis applied. The sewer cost-of-service analysis detailed in **Section 3.2** involves an examination of the number and type of customers served in accordance with the California State Water Resources Control Board (SWRCB) *Revenue Program Guidelines for Wastewater Agencies*.

3.2 Sewer Cost-of-Service

The COS analysis for the sewer utility utilizes the revenue requirements for the Test Year as the cost basis. The Test Year revenue requirements are functionally unbundled, classified and allocated to customer classes to determine the cost-of-service by class. More detail relating to the sewer COS approach can be found in **Appendix B**.

3.2.1 Functional Unbundling of Revenue Requirements

The sewer system costs are unbundled into Collection, Treatment, and Customer functions. A brief description of each component is as follows:

- **Collection** – costs associated with lines and facilities that transport wastewater from customer properties to treatment facilities;
- **Treatment** – costs associated with treating wastewater for disposal reclamation and/or discharge;
- **Customer** – costs associated with metering, billing, and providing other services to customers (e.g., printing, delivering and collecting utility bills, recordkeeping, etc.).

The allocation of the functionally unbundled revenue requirements for the Test Year are summarized in **Table 8**.



Table 8 - Functional Unbundled Cost Allocations

Description	Test Year
Total O&M	\$ 7,273,057
Existing Debt Service	1,612,018
Future Debt Service	0
Other Expenditures	1,618,029
O&M Revenue Requirement	\$ 10,503,104
Less Other revenues	(3,633,208)
Total Revenue Requirement	\$ 6,869,896
Functional Unbundled Revenue Requirement	
Treatment	\$ 2,730,814
Collection	691,150
Administration	3,851,093
Transfers	-
CIP	8,220,000
Capital Outlay	351,597
Existing Debt	1,612,018
Non-Rate Revenue	(3,633,208)
Fund Balance ^[1]	(6,953,569)
Total	\$ 6,869,896
Notes:	
[1] Represents a transfer from reserves to provide funding for capital outlay and CIP costs.	

3.2.2 Classification of Revenue Requirements

The functionally unbundled revenue requirements for the sewer system are classified into fixed and volumetric customer components based on methodology consistent with the Water Environmental Federation (WEF), Manual of Practice No. 27. Since the City is mostly built-out, and there are no anticipated losses or gains of significant wastewater customers, it is anticipated that the allocation percentages will not change materially during the Projection Period. However, it is important to note that COS analyses are based on the data at a specific point in time (i.e., the most recent fiscal year). To the extent that weather conditions, economic conditions and customer usage characteristics change during the Projection Period, the cost allocations can be impacted. The system-wide costs by service characteristic are shown in **Table 9**.



Table 9 - Classification of Unbundled Revenue Requirements

Component	Customer	Volume	Capacity	Strength - BOD	Strength - SS	Total
Treatment	\$ 0	\$ 317,334	\$ 317,334	\$ 1,057,883	\$ 1,038,263	\$ 2,730,814
Collection	0	345,575	345,575	0	0	691,150
Administration	3,851,093	0	0	0	0	3,851,093
Transfers	-	0	0	0	0	-
CIP	2,706,024	1,378,494	1,378,494	1,378,494	1,378,494	8,220,000
Capital Outlay	351,597	0	0	0	0	351,597
Existing Debt	1,612,018	0	0	0	0	1,612,018
Non-Rate Rev & Fund Balance	(5,167,483)	(1,238,030)	(1,238,030)	(1,477,566)	(1,465,667)	(10,586,776)
Total	\$ 3,353,249	\$ 803,373	\$ 803,373	\$ 958,811	\$ 951,090	\$ 6,869,896

3.2.3 Allocation to Customer Classes and Unit Cost Development

The functionalized and classified revenue requirements are allocated to customer classes utilizing a unit cost approach as follows:

- **Collection** – Based on relative percentage of annual sewer usage;
- **Treatment** – Based on relative percentage of sewer strength discharge (BOD and SS);
- **Customer** – Based on relative percentage of units by customer class.

The units of service for each component of cost by customer class (if applicable) are provided in **Table 10**. The units of service consist of the number of ERUs, annual flows in 100 cubic feet, and sewer strength discharge. ERUs are based on the number of residential dwelling units and commercial/non-residential customers by meter-size as provided in the customer data. Collection is the total annual sewer flows projected for the test year. BOD and SS reflect the strength per pound of the sewer discharge collected by the City from each customer class based on standards for wastewater discharge included in the State Water Resources Control Board Guidelines.



Table 10 – Units of Service

Description	Total Units	Total ERUs	CCF Flow	BOD Factor ^[1]	BOD Pounds	TSS Factor ^[1]	TSS Pounds
Residential Classes							
Single-Family	4,947	4,947	434,742	250	678,015	250	678,015
Multi-Family	1,370	1,370	64,157	250	100,058	250	100,058
Sub-Total Residential	6,317	6,317	498,899		778,074		778,074
Non-Residential Classes							
Commercial/Non-Residential	137	455	50,069	439	136,963	384	119,992
Sub-Total Non-Residential	137	455	50,069		136,963		119,992
Sewer System Total	6,454	6,772	548,968		915,036		898,066

Notes:

[1] Average strength factors for BOD and TSS are based on the State Water Resources Control Board Revenue Program Guidelines, Appendix G.

The revenue requirement for each cost component is divided by its respective unit of service to calculate a unit cost. The unit cost for each cost component is demonstrated in **Table 11**.

Table 11 – Cost Per Unit

Description	Customer	Volume	Capacity	Strength - BOD	Strength - SS	Total
Total Revenue Requirement	\$ 3,353,249	\$ 803,373	\$ 803,373	\$ 958,811	\$ 951,090	\$ 6,869,896
Units of Service	6,772	548,968	548,968	915,036	898,066	
	ERUs/Yearly	CCF	CCF	Pounds	Pounds	
Cost Per Unit	\$ 495.20	\$ 1.46	\$ 1.46	\$ 1.05	\$ 1.06	
	ERUs/Yearly	CCF	CCF	Pounds	Pounds	

The allocation of the revenue requirement to each customer class is based on the unit costs for each component multiplied by the units of service for each customer class. The total costs to be recovered from each customer class by rate component are shown in **Table 12**.

Table 12 – Cost of Service by Customer Class and Cost Component

Rate Class	Customer	Volume	Capacity	Strength - BOD	Strength - SS	Total
Single-Family	\$ 2,449,756	\$ 636,212	\$ 636,212	\$ 710,451	\$ 718,047	\$ 5,150,679
Multi-Family	678,424	93,889	93,889	104,845	105,966	1,077,013
Commercial/Non-Residential	225,069	73,272	73,272	143,515	127,077	642,203
Total	\$3,353,249	\$ 803,373	\$ 803,373	\$ 958,811	\$ 951,090	\$6,869,896



3.2.4 Rate Design by Unit Cost

The unit costs developed in the previous section are used to develop the proposed rates for the Test Year. The fixed rate components are based on accounts, ERUs and the allocated customer-related costs. The volumetric rate component is based on the annual usage and sewer strength discharge.

The fixed rate components by ERU for single-family and multi-family customers are determined using the total number of residential dwelling units being served. Each residential dwelling unit is equivalent to one ERU.

The fixed rate components by ERU for commercial/non-residential customers are determined based on the number of customers by meter size. It is common practice in the utility rate-making industry to establish a rate structure that includes an incremented service availability charge (meter charge, sometimes also called a fixed charge) such that customers placing a greater potential demand or capacity requirement on the system (those with larger meters) will pay proportionately more for the service availability component.

The methodology for incrementing the commercial/non-residential fixed fee per ERU is based upon standardized meter/capacity criteria established by the American Water Works Association ("AWWA") and the WEF pursuant to the size of the water meter. The AWWA/WEF equivalent meter capacity criteria are commonly used to establish a standard unit of measure for customers referred to as an ERU. Utilizing the AWWA/WEF demand criteria, the applicable ERU factors for larger water meters are based on the incremental increase in potential wastewater discharge capacity, as compared to the standard meter size. These factors are derived from actual flow testing results and are commonly utilized by the water and sewer utility industry. Based upon the established standards, an ERU is equal to a single connection with a 5/8-inch water meter. Since wastewater flow capacity is generally a direct function of water flow, calculating the sewer fixed fee based upon the size of the water meter is equitable and consistent with industry standards. A full summary of the AWWA meter-size equivalency factors is provided in **Table 13**.



Table 13 – Meter Equivalency Factors

Description	AWWA Factors ^[1]	Non-Residential Meter Factors
<u>Meter Size</u>		
5/8 Inch	1.00	1.00
3/4 Inch	1.50	1.50
1.0 Inch	2.50	2.50
1.5 Inch	5.00	5.00
2.0 Inch	8.00	8.00
3.0 Inch	15.00	15.00
4.0 Inch	25.00	25.00
6.0 Inch	50.00	50.00
8.0 Inch	80.00	80.00
10.0 Inch	115.00	115.00
Notes: [1] Meter-size equivalency factors established by the AWWA and identified in AWWA Standards C700, M1 and M22. Such factors are commonly applied consistently for both water and wastewater rate design.		

The volumetric rate component is determined by the sewer usage and the strength characteristics associated with each customer classification based on the standards for wastewater discharge included in the State Water Resources Control Board Guidelines. Residential customers will pay a flat fee, regardless of their usage, so all costs relating to the volumetric rate component are included in the flat fee. This is a common industry standard for setting residential sewer rates since residential customers have similar usage profiles and place similar demand on a sewer utility system, and their wastewater discharge is not directly metered.

For commercial/non-residential customers, the volumetric rate component is determined by dividing the volume, capacity, BOD, and TSS volumetric cost categories by the total commercial/non-residential sewer flows to determine the commercial/non-residential volumetric rate per 100 cubic feet. It is a common industry practice to have commercial/non-residential customers pay a volumetric rate per unit of sewer usage since the commercial/non-residential customer class varies in usage and strength discharge characteristics between customers. Section **3.2.5.** demonstrates how the sewer rates are developed from the fixed and volumetric cost components, respective to each customer classification, to recover their proportional cost of providing service to them.



3.2.5 COS and Revenue Check

Once the unit costs are developed and the costs associated with each customer class based on the units or service are determined in **Section 3.2.3**, rates can be developed to ensure that each customer class is generating sufficient revenues to cover their allocated cost of service. The proposed rate structure for the sewer rates are as follows:

- **Single-Family & Multi-Family Residential Customers** – For single-family and multi-family residential customers, the proposed rates will consist of only a flat annual fixed charge based on the number of dwelling units.
- **Commercial/Non-Residential Customers** – For commercial/non-residential customers, the proposed rates will consist of an annual fixed charge by meter-size/ERU and a volumetric rate per 100 cubic feet of sewer usage.

The revenues generated by each land use vs the cost allocated to each land use are provided in **Table 14**.

Table 14 – Proposed Rate Revenues vs COS

Description	Yearly ERUs	Proposed Yearly Fixed Fee	Total Fixed Fee Revenue	Billable Annual Volume (CCF)
	[A]	[B]	[C]=[A]*[B]*1	[D]
Single-Family	4,947	\$ 1,041.17	\$ 5,150,679	N/A
Multi-Family	1,370	\$ 786.14	\$ 1,077,013	N/A
Commercial/Non-Residential	455	\$ 495.20	\$ 225,069	50,069
Total	6,772		\$6,452,761	50,069
Description	Proposed Volumetric Rate	Total Volumetric Rate Revenues	Total Calculated Revenues	Total COS
	[E]	[F]=[D]*[E]	[G]=[C]+[F]	[H]
Single-Family	N/A	\$ 0	\$ 5,150,679	\$ 5,150,679
Multi-Family	N/A	\$ 0	\$ 1,077,013	\$ 1,077,013
Commercial/Non-Residential	\$ 8.33	\$ 417,135	\$ 642,203	\$ 642,203
Total		\$ 417,135	\$6,869,896	\$6,869,896



Section 4 – Proposed Test Year Rates

4.1 General

The methodology used to calculate the recommended sewer rates proposed herein involves applying the projected customers, ERUs, and sewer flows to the user rates developed in the preceding cost-of-service and rate analysis to calculate the estimated revenues that would be generated. Then, these projected revenues are compared to the estimated Test Year revenue requirements, and the sewer rates are adjusted on a percentage basis as necessary until the revenues generated are sufficient to meet the revenue needs of the sewer utility system. In addition, there are other factors that must be considered in designing rates to satisfy the City's objectives. Such other rate considerations include, but are not limited to:

1. **Sensitivity to existing customers** - the proposed rates must consider the impact on existing customers and avoid putting an inequitable financial burden on any particular customer class.
2. **Comparability with neighboring utilities** - the proposed rates should consider the rates and charges applied to customers of neighboring utilities of relatively similar size for similar service.
3. **Existing rate structure** - the proposed rates must consider the logistics and cost/benefit implications of instituting changes to the existing rates and rate structure.
4. **Economic and property development** - the proposed rates must consider the potential for future development within the City's service area and ensure that the rates do not make it cost-prohibitive for future development.

The proposed rates developed herein utilize these considerations, as well as discussions with the City staff, professional judgment, and prior experience with comparable utility systems. When reviewing potential rate structure options in conjunction with the need for additional revenues, it was determined that revenue adjustments are needed, and the existing rate structure needs to be adjusted based on the cost-of-service analysis.

In conjunction with the existing rate structure, the proposed sewer rates for the upcoming fiscal year are composed of two rate components consisting of an annual fixed charge and a volumetric rate per 100 cubic feet for commercial/non-residential customers only. The proposed annual sewer rates for the Test Year are provided again in **Table 15**.



Table 15 – Proposed Annual Sewer Rates

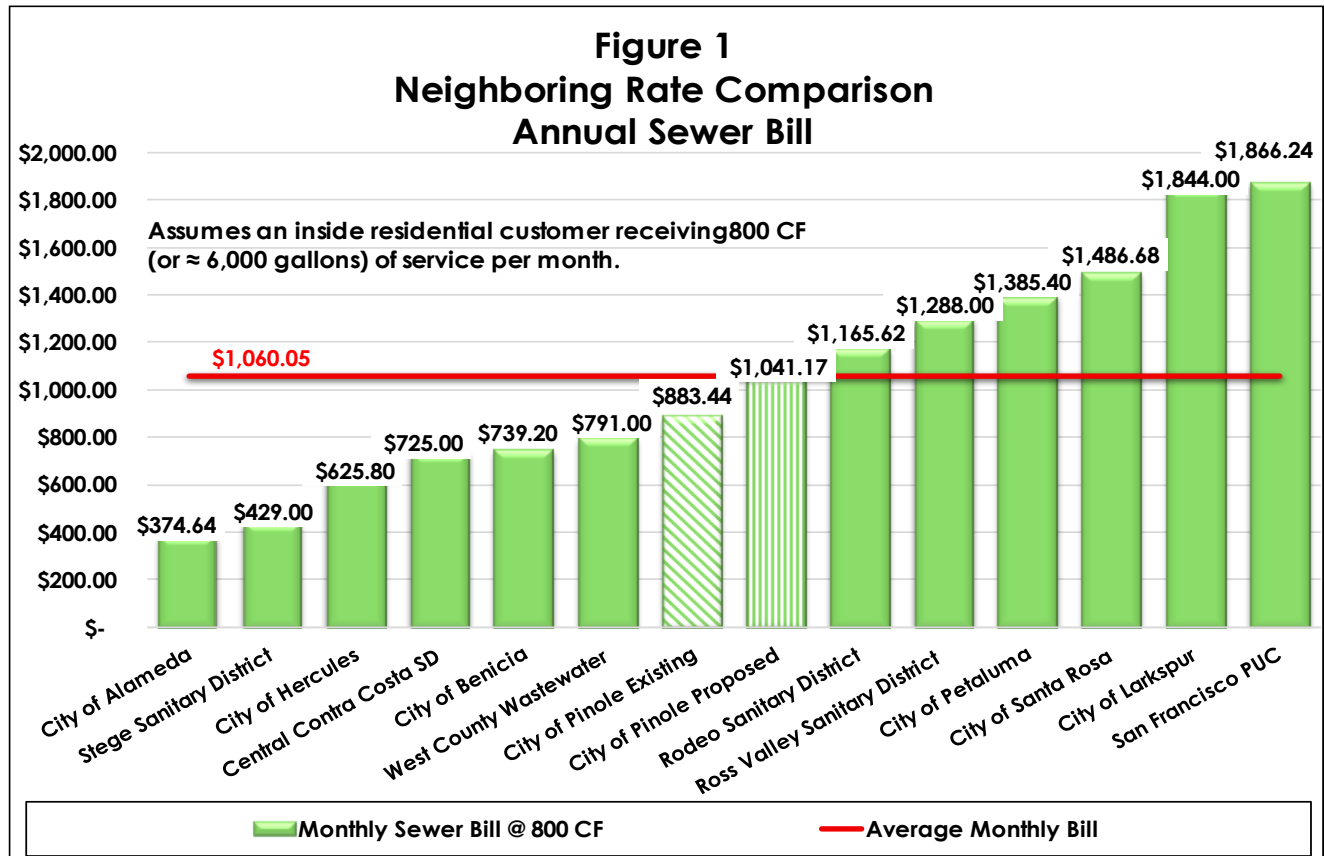
Description	Rate
Residential Annual Flat Fee ^[1]	
Single - Family	\$ 1,041.17
Multi - Family (per dwelling unit)	\$ 786.14
Non-Residential Annual Meter Charge:	
5/8 Inch	\$ 495.20
3/4 Inch	\$ 742.80
1.0 Inch	\$ 1,238.00
1.5 Inch	\$ 2,476.00
2.0 Inch	\$ 3,961.60
3.0 Inch	\$ 7,428.00
4.0 Inch	\$ 12,380.01
6.0 Inch	\$ 24,760.02
8.0 Inch	\$ 39,616.03
10.0 Inch	\$ 56,948.04
Volumetric Rates Per 100 Cubic Feet - All Flow	
Single - Family	\$ 0.00
Multi - Family (per dwelling unit)	\$ 0.00
Non-Residential	\$ 8.33
Notes:	
[1] All residential customers only pay a flat fee per dwelling unit, regardless of usage.	

4.2 Rate Comparison with Other Utilities

In order to provide the City with additional insight regarding the proposed rate levels, the analysis includes a comparison of both the existing and proposed user rates relative to the user rates imposed by other sewer utility systems located in same region. A summary analysis is provided comparing the cost of annual sewer service for a typical residential customer calculated under the existing and proposed rates of the City with those of the other utilities. Since the City currently bills customers annually through the Contra Costa County Secured Property Tax Roll, for purposes of a meaningful comparison, the bills for sewer utilities that do not bill annually (i.e. monthly or bi-monthly) were converted into annual bills. The rates utilized for the other neighboring utilities bills shown in **Figure 1** were in effect as of March 2024 and



are exclusive of local taxes, outside surcharges, franchise fees, regulatory fees, or other rate adjustments. An annual summary comparison with other utilities for a residential customer using 800 cubic feet per monthly billing, or 9,600 cubic feet annually is illustrated in **Figure 1**.



It should be noted that when making comparisons for sewer service, several factors affect the level of rates and charges. Such factors may include:

- 1) Terms of wholesale service agreements;
- 2) Time since last rate update for comparison providers;
- 3) Level of treatment and effluent disposal methods of sewer service;
- 4) Anticipated capital improvement programs and capital financing methods;
- 5) Plant capacity utilization, age of facilities, and assistance in construction by federal or state grants, connection fees, developer contributions, etc.;
- 6) General Fund and/or administrative fee transfers made by other systems which may account for differences in the level of rates charged; and
- 7) Bond covenants and funding requirements of the rates.

For the utilities included in the rate comparisons, no analysis has been performed with consideration of the above-mentioned factors as they relate to the reported sewer rates currently being charged.



Section 5 – Projected Operating Results

5.1 General

As a conclusion to the study, a pro forma operating statement is developed for the sewer system. The statement summarizes the projected financial results based on the system revenues, expenses and other revenue requirements anticipated in future years.

The individual operating statements cover the 5-fiscal year Projection Period through June 30, 2029, and are prepared on a cash-flow basis. In addition, the pro forma statement includes the applicable annual percentage rate adjustments necessary to meet the projected revenue requirements. The following discussions describe the development of the major components of the projected operating results.

5.2 Projected User Rate Revenues

The user rate and charge revenues are estimated by applying the existing and proposed rates to the projected customers, ERUs, and sewer flows. The resulting revenues are then compared to the projected revenue requirements (i.e., O&M expenses, debt service, capital outlay, transfers, etc.) in each fiscal year to determine if the revenues are sufficient to satisfy the expenditure needs of the system. To the extent that there are revenue shortfalls in any given year of the Project Period, the sewer rates developed from the Cost-of-Service and Rate analysis outlined in **Section 3** of this report are adjusted on a percentage basis each year as necessary to generate the required level of revenues. The projected sewer user rate revenues are provided in **Table 16**.

Table 16 – Projected User Rate Revenues

System	Existing	Proposed	Projected for Fiscal Year Ending June 30,			
	2025	2025	2026	2027	2028	2029
Sewer Revenues						
Single-Family	\$ 4,370,378	\$ 5,150,679	\$ 6,056,954	\$ 6,971,140	\$ 8,023,265	\$ 9,234,207
Multi-Family	1,028,815	1,077,013	1,265,496	1,455,324	1,673,619	1,924,658
Commercial/Non-Residential	447,565	642,203	754,627	867,897	998,130	1,147,724
Total Annual Sewer Revenues	\$ 5,846,758	\$ 6,869,896	\$ 8,077,077	\$ 9,294,361	\$10,695,014	\$12,306,589

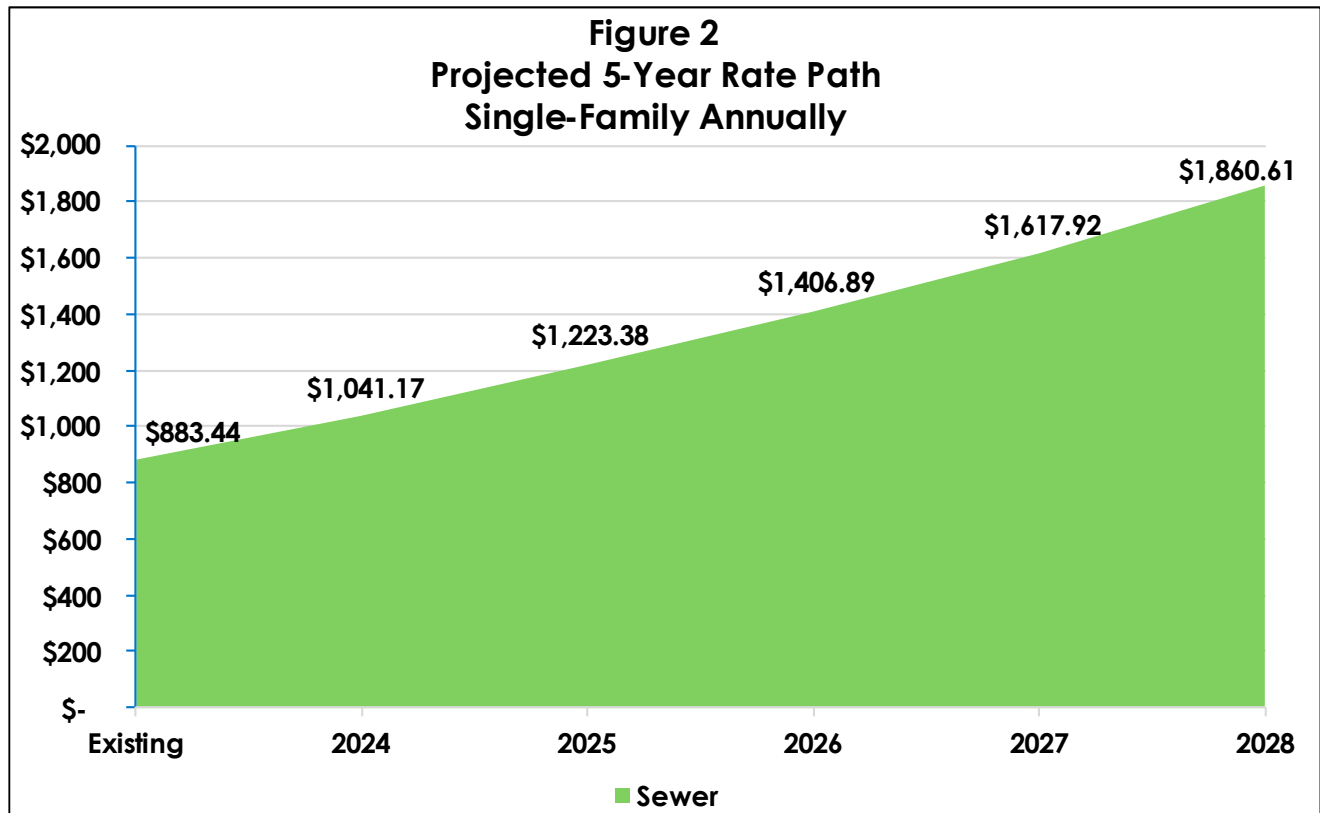
The projected revenues include the annual sewer rate adjustments anticipated for the remaining years of the Projection Period beyond the Test Year. The proposed user rates from which the projected operating results are developed for the entire 5-fiscal year Projection Period are provided in **Table 17**. The rates identified in the table below reflect the cost of providing service to individual customer classes based on ERUs, volume of flow, and strength characteristics.



Table 17 – Proposed Annual Sewer Rates

Description	Existing Rates	Projected for Fiscal Year Ending June 30,				
		2025	2026	2027	2028	2029
Residential Annual Flat Fee ^[1]						
Single - Family	\$ 883.44	\$ 1,041.17	\$ 1,223.38	\$ 1,406.89	\$ 1,617.92	\$ 1,860.61
Multi - Family (per dwelling unit)	\$ 750.96	\$ 786.14	\$ 923.72	\$ 1,062.28	\$ 1,221.62	\$ 1,404.86
Non-Residential Annual Meter Charge:						
5/8 Inch	\$ 202.80	\$ 495.20	\$ 581.86	\$ 669.14	\$ 769.51	\$ 884.94
3/4 Inch	\$ 304.20	\$ 742.80	\$ 872.79	\$ 1,003.71	\$ 1,154.27	\$ 1,327.41
1.0 Inch	\$ 507.00	\$ 1,238.00	\$ 1,454.65	\$ 1,672.85	\$ 1,923.78	\$ 2,212.34
1.5 Inch	\$ 1,014.00	\$ 2,476.00	\$ 2,909.30	\$ 3,345.70	\$ 3,847.55	\$ 4,424.68
2.0 Inch	\$ 1,622.40	\$ 3,961.60	\$ 4,654.88	\$ 5,353.12	\$ 6,156.08	\$ 7,079.50
3.0 Inch	\$ 3,244.80	\$ 7,428.00	\$ 8,727.91	\$ 10,037.09	\$ 11,542.66	\$ 13,274.05
4.0 Inch	\$ 5,070.00	\$ 12,380.01	\$ 14,546.51	\$ 16,728.49	\$ 19,237.76	\$ 22,123.42
6.0 Inch	\$ 10,140.00	\$ 24,760.02	\$ 29,093.02	\$ 33,456.97	\$ 38,475.52	\$ 44,246.85
8.0 Inch	\$ 16,224.00	\$ 39,616.03	\$ 46,548.83	\$ 53,531.16	\$ 61,560.83	\$ 70,794.95
10.0 Inch	\$ 25,350.00	\$ 56,948.04	\$ 66,913.94	\$ 76,951.04	\$ 88,493.69	\$ 101,767.74
Volumetric Rates Per 100 Cubic Feet - All Flow						
Single - Family	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Multi - Family (per dwelling unit)	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Non-Residential	\$ 7.09	\$ 8.33	\$ 9.79	\$ 11.26	\$ 12.95	\$ 14.89
Notes:						
[1] All residential customers only pay a flat fee per dwelling unit, regardless of usage.						

The projected user rates provided herein for the periods beyond the Test Year are intended for strategic planning purposes, and to provide the City with the estimated future rates that may be needed to satisfy the projected cash flow requirements. The rates are developed in accordance with the assumed customer, flow, expenditure, and revenue estimates projected in this rate study. It is important to note that, since it is necessary to utilize numerous assumptions to develop the projected operating results, to the extent that actual customers, flows and/or system expenditures differ from those assumed herein, additional rate adjustments may be required. For informative purposes, the annual charge for a representative City residential customer based on the projected rates, as well as the accompanying change in the annual charge for each year of the Projection Period is included herein. An illustration of the projected annual flat fee charge for a single-family residential customer is provided in **Figure 2**.



5.3 Debt Service Coverage

The sewer operating statement also includes a calculation of the annual debt service coverage. Debt service coverage is generally viewed as an indicator of the financial strength of the utility. The debt service coverage ratio is broadly calculated by dividing the net revenues by the annual debt service requirement. For the purposes of the debt service coverage calculation developed herein, the net revenues consist of the total operating revenues (user rate revenues plus other revenues) less the O&M expenses. In accordance with the requirements of the outstanding loan agreements, the City must maintain coverage of at least 125% (1.25 times) of the annual debt service payment. The pro-forma operating statement indicates that the sewer system is expected to meet or exceed the required minimum level of debt service coverage in each fiscal year of the Projection Period. It is important to note that the coverage results are provided for informative purposes only and are not intended as a legally supportable calculation for representation to bondholders. The debt service coverage for the sewer system over the projection period is provided in **Table 18**.



Table 18 –Sewer Utility System Projected Debt Service Coverage

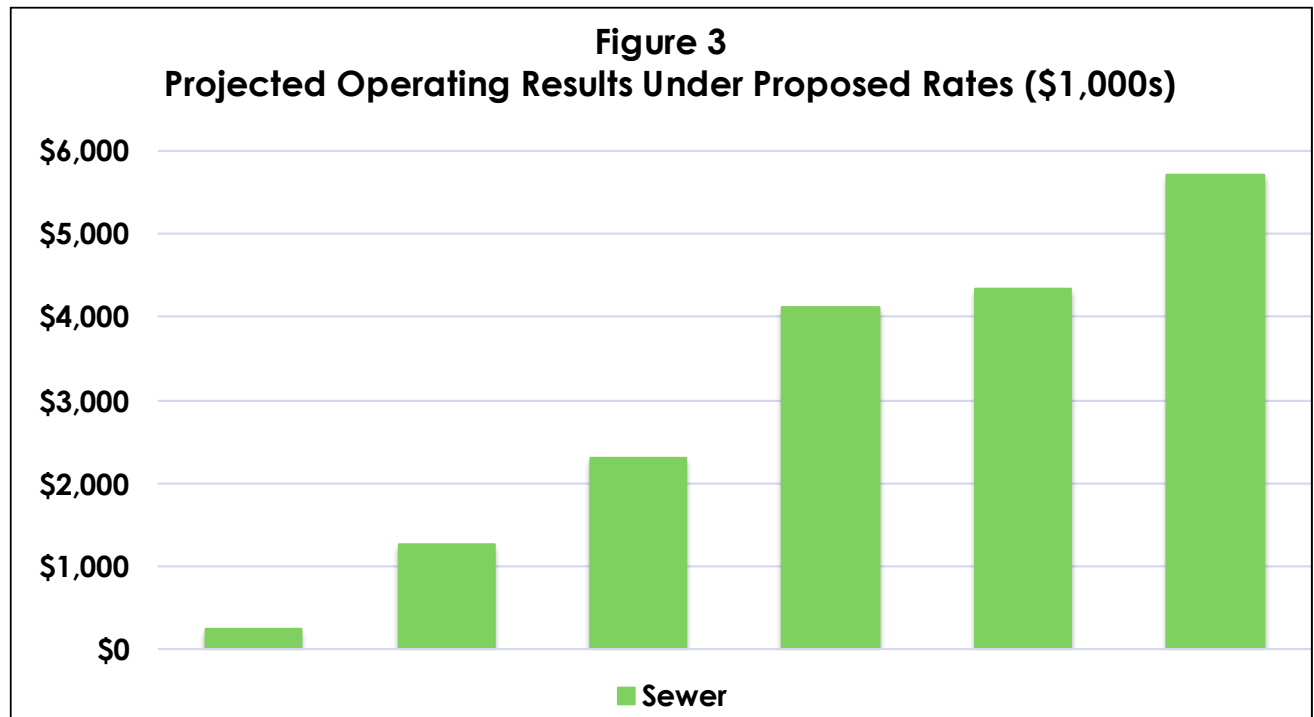
Fiscal Year	Sewer Enterprise	
	Projected	Minimum
2025	2.00	1.25
2025	2.58	1.25
2026	3.73	1.25
2027	3.87	1.25
2028	4.72	1.25

5.4 Summary of Projected Operating Results

The cash-flow statement outlining the projected operating results is summarized in **Table 19** for the sewer system. The projected results are graphically illustrated in **Figure 3** for the sewer system. The results demonstrate that the proposed rates and charges along with the other system revenues are anticipated to be sufficient to satisfy the projected revenue requirements and capital needs of the utility system.

Table 19 – Sewer System Projected Operating Results - Proposed Rates (\$1,000s)

Description	Existing	Proposed	Projected for Fiscal Year Ending June 30,			
	2025	2025	2026	2027	2028	2029
Revenues:						
Sewer Service Charges	\$ 5,847	\$ 6,870	\$ 8,077	\$ 9,294	\$ 10,695	\$ 12,307
Other Revenues	3,633	3,633	3,787	4,860	4,183	4,461
Total Revenues	\$ 9,480	\$ 10,503	\$ 11,864	\$ 14,154	\$ 14,878	\$ 16,768
O&M Expenses	(7,273)	(7,273)	(7,700)	(8,157)	(8,648)	(9,175)
Net Income	\$ 2,207	\$ 3,230	\$ 4,165	\$ 5,997	\$ 6,230	\$ 7,593
Debt Service:						
Existing	\$ 1,612	\$ 1,612	\$ 1,611	\$ 1,609	\$ 1,612	\$ 1,610
Future	-	-	-	-	-	-
Total Debt Service	\$ 1,612	\$ 1,612	\$ 1,611	\$ 1,609	\$ 1,612	\$ 1,610
Balance After Debt	\$ 595	\$ 1,618	\$ 2,553	\$ 4,388	\$ 4,618	\$ 5,984
Other Expenditures & Transfers:						
Capital Outlay	\$ (352)	\$ (352)	\$ (252)	\$ (260)	\$ (268)	\$ (276)
Transfers In	-	-	-	-	-	-
Transfers Out	-	-	-	-	-	-
Total Other Expenditures & Transfers	\$ (352)	\$ (352)	\$ (252)	\$ (260)	\$ (268)	\$ (276)
Net Results	\$ 243	\$ 1,266	\$ 2,301	\$ 4,128	\$ 4,350	\$ 5,708
Fund Balance Activity:						
Operating Fund						
Beginning Balance	\$ 23,584	\$ 23,584	\$ 16,631	\$ 15,172	\$ 11,855	\$ 11,210
Deposit/(Withdrawal) from Operations	243	1,266	2,301	4,128	4,350	5,708
Cash Funded Capital Projects	(8,220)	(8,220)	(3,760)	(7,445)	(4,995)	(2,835)
Total Operating Fund Balance	\$ 15,607	\$ 16,631	\$ 15,172	\$ 11,855	\$ 11,210	\$ 14,083
Days Cash on Hand	783	835	719	530	473	560





Section 6 – Conclusions and Recommendations

6.1 Disclaimers

6.1.1 General Disclaimer

In the development of the proposed user rates and charges, certain historical reviews and analyses have been performed, together with the application of assumptions based on prudent financial, operational, and ratemaking relationships. The cost criteria and customer usage characteristics associated with general ratemaking procedures are representative of averages and are not intended as indicators of any individual customer.

In the preparation of the rate study, certain assumptions have been made with respect to conditions that may occur in the future. While it is believed that these assumptions are reasonable for the purpose of this update, they are dependent upon future events and actual conditions may differ from those assumed. In addition, the study has used and relied upon certain information that was provided by other parties not associated with Willdan. Such information includes, among other things, the City's audited financial statements, annual operating budgets, periodic reports, and other information and data provided by the City, its independent auditors, and other sources. While the sources are believed to be reliable, there has been no independent verification of the information, and no assurances are offered with respect thereto. To the extent that future conditions differ from those assumed herein or provided by others, the actual results may vary from those projected.

6.1.2 Municipal Advisory Disclaimer

Unless the City of Pinole, California (the "City") has a written engagement from Willdan Financial Services ("Willdan") for municipal advisory services, Willdan is not advising or recommending any action be taken by the recipient of this information with respect to any prospective, new, or existing municipal financial products or issuance of municipal securities (including with respect to the structure, timing, terms and other similar matters concerning such financial products or issues). The City shall discuss any such information and material contained in Willdan's work product with any and all internal and/or external advisors and experts, including its own municipal advisor, that it deems appropriate before acting on the information and material.

For the avoidance of doubt and without limiting the foregoing, in connection with any revenue projections, cash-flow analyses, feasibility studies and/or other analyses Willdan may provide the City with respect to financial, economic or other matters relating to a prospective, new or existing issuance of municipal securities of the City, (A) any such projections, studies and analyses shall be based upon assumptions, opinions or views (including, without limitation, any assumptions related to revenue growth) established by the City, in conjunction with such of its municipal, financial, legal and other advisers as it deems appropriate; and (B) under no circumstances shall Willdan be asked to provide, nor shall it



provide, any advice or recommendations or subjective assumptions, opinions or views with respect to the actual or proposed structure, terms, timing, pricing or other similar matters with respect to any municipal financial products or municipal securities issuances, including any revisions or amendments thereto.

6.2 Conclusions

As previously addressed, the purpose of this study is to provide a review of the City's existing utility rates to determine if rate adjustments are necessary to meet the budgeted and/or projected financial needs in future years. This Report is the result of the collaborative efforts of representatives from both the City and Willdan. City staff were diligent and cooperative in their efforts to ensure the availability and quality of source data on financial and operating matters. Based on the reviews, analyses and assumptions discussed herein, it is concluded that:

1. The proposed user rates and charges are anticipated to generate sufficient revenues to meet the revenue requirements of the system based upon the projected expenditures, transfers, customers, and billable flows estimated for the Test Year. The proposed rates are based on an assumed implementation date of July 1, 2024 (or other such date as determined by the City). To the extent that the implementation date is postponed, additional rate adjustments and/or appropriations from existing reserves may be necessary.
2. The estimated revenues and resulting rate adjustments for the remaining years of the Projection Period beyond the Test Year are developed based on the customer growth assumptions generated from the historical analyses and discussions with City staff. If the customer growth projections are not realized, additional rate adjustments may be necessary.
3. Customer growth for the sewer system is projected based on historical customer data as provided by the City as well as discussions with the City staff regarding development activity and anticipated construction. If it turns out that the customer growth assumptions are not realized, the resulting revenues could be different than projected.
4. Future capital improvement projects are assumed to occur as reported by the City in its CIP. To the extent that the timing of such projects may change from that estimated herein, the cost of such projects and resulting impact on future rates and charges may vary from those indicated.



-
5. The proposed rates and rate structure are consistent with industry standards for rate-setting practices, comply with Proposition 218 and conform to the City's financial policies with respect to:
 - a. Equitably recovering costs;
 - b. Being based upon the proportionate cost of providing services; and
 - c. Generating sufficient revenue to recover system revenue requirements, meet debt service coverage requirements and annual payment obligations, fund capital needs, and meet reserve requirements.

6.3 Recommendations

Based on the reviews, analyses and assumptions addressed herein, as well as the resulting conclusions provided above, it is respectfully recommended that the City:

1. Adopt the proposed sewer rates to be placed on the annual secured property tax roll.
2. Enact the proposed rates to become effective as of July 1, 2024 (or other such date as determined by the City). Based on the timing of the project and the required public hearing notice procedures, it is expected that the effective date will occur on the recommended date.
3. Readdress the cost-of-service analysis portion of this study every three to five years to ensure costs are recovered consistent with cost-of-service principles and customer characteristics.

We appreciate the opportunity to be of service to the City in this engagement. In addition, we would like to thank City staff for the valuable assistance provided during the completion of the rate study.

Respectfully Yours,

WILLDAN FINANCIAL SERVICES

APPENDIX

DETAIL FOR THE COMPREHENSIVE SEWER UTILITY RATE STUDY



COMPREHENSIVE SEWER UTILITY RATE STUDY FOR THE
CITY OF PINOLE, CALIFORNIA

APPENDIX A

Revenue Requirement from User Rates

APPENDIX - A

CITY OF PINOLE, CA

DEVELOPMENT OF RATE REVENUE REQUIREMENTS - SEWER

Line No:	Description	[A]	[B]	[C]=[A]*[B]
		Test Year for Rate Revenue Requirement		
		FY 2025	% to Sewer	Sewer
1	Total Operating Revenues	\$ 10,503,104		\$ 10,503,104
	Less:			
	<u>Other Operating Revenues</u>			
2	36302 - Sewer Chg/Sewer Plant-Hercules	\$ 3,423,208	100%	\$ 3,423,208
3	36303 - Sewer Chg/Sewer Laterals	10,000	100%	10,000
4	37180 - Investment Earnings	200,000	100%	200,000
5	Total Other Operating Revenues	3,633,208		3,633,208
6	Total Rate Revenue Requirement	\$ 6,869,896	100%	\$ 6,869,896

APPENDIX B

Sewer Cost-of-Service Analysis

APPENDIX - B

CITY OF PINOLE, CA

ALLOCATION OF TEST YEAR COSTS TO SEWER FUNCTION

Test Year Revenue Requirement		
Line No:	Expense Group	FY 2025
1	Collection	\$691,150
2	Treatment	2,730,814
3	Administration	3,851,093
4	Pumping	0
5	Customer Service	0
6	Transfers	0
7	Existing Debt	1,612,018
8	New Debt	0
9	CIP	8,220,000
10	Capital Outlay	351,597
11	Total	\$ 17,456,672

APPENDIX - B

CITY OF PINOLE, CA

SEWER CUSTOMER AND EQUIVALENT RESIDENTIAL UNIT CALCULATION - TEST YEAR FY 2025

Meter Equivalencies

Line No:	Meter Size	Class -->	[A - 1]	[B - 1]	[C - 1]
			Single-Family	Multi-Family	Non-Residential
		Billing Basis-->	Units	Units	Units
1	Dwelling Units		1.00	1.00	1.00
2	0.625		1.00	1.00	1.00
3	0.75		1.50	1.50	1.50
4	1.00		2.50	2.50	2.50
5	1.50		5.00	5.00	5.00
6	2.00		8.00	8.00	8.00
7	3.00		15.00	15.00	15.00
8	4.00		25.00	25.00	25.00
9	6.00		50.00	50.00	50.00
10	8.00		80.00	80.00	80.00

Customer Units

Line No:	Meter Size	Class -->	[A - 2]	[B - 2]	[C - 2]	Total
			Single-Family	Multi-Family	Non-Residential	
		Billing Basis-->	Units	Units	Units	
1	Dwelling Units		4,947	1,370	-	6,317
2	0.625		-	-	61	61
3	0.75		-	-	1	1
4	1.00		-	-	30	30
5	1.50		-	-	33	33
6	2.00		-	-	9	9
7	3.00		-	-	2	2
8	4.00		-	-	-	-
9	6.00		-	-	1	1
10	8.00		-	-	-	-
11	Total		4,947	1,370	137	6,454

Total Equivalent Residential Units

Line No:	Meter Size	Class -->	[A - 1] * [A - 2]	[B - 1] * [B - 2]	[C - 1] * [C - 2]	Total
			Single-Family	Multi-Family	Non-Residential	
		Billing Basis-->	Units	Units	Units	
12	Dwelling Units		4,947	1,370	-	6,317
13	0.63		-	-	61	61
14	0.75		-	-	2	2
15	1.00		-	-	75	75
16	1.50		-	-	165	165
17	2.00		-	-	72	72
18	3.00		-	-	30	30
19	4.00		-	-	-	-
20	6.00		-	-	50	50
21	8.00		-	-	-	-
22	Total		4,947	1,370	455	6,772

APPENDIX - B

CITY OF PINOLE, CA

SEWER CUSTOMER ACCOUNT & STENGTH CHARACTERISTICS BY CUSTOMER CLASS - TEST YEAR FY 2025

Line No:	Description	Total Units	Total ERUs	CCF Flow	BOD Factor ⁽¹⁾	BOD Pounds	TSS Factor ⁽¹⁾	TSS Pounds
Residential Classes								
1	Single-Family	4,947	4,947	434,742	250	678,015	250	678,015
2	Multi-Family	1,370	1,370	64,157	250	100,058	250	100,058
3	Sub-Total Residential	6,317	6,317	498,899		778,074		778,074
Non-Residential Classes								
4	Commercial/Non-Residential	137	455	50,069	439	136,963	384	119,992
5	Sub-Total Non-Residential	137	455	50,069		136,963		119,992
6	Sewer System Total	6,454	6,772	548,968		915,036		898,066

Notes:

[1] Average strength factors for BOD and TSS are based on the State Water Resources Control Board Revenue Program Guidelines, Appendix G.

APPENDIX - B
CITY OF PINOLE, CA
ALLOCATION OF SEWER COSTS - TEST YEAR FY 2025

Line No:	Description	Sewer Costs	Volume	Capacity	Strength - BOD	Strength - SS	Customer	Total (Check)
Allocation Factors:								
1	Treatment		11.62%	11.62%	38.74%	38.02%	0.00%	100.00%
2	Collection		50.00%	50.00%	0.00%	0.00%	0.00%	100.00%
3	Administration		0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
4	Pumping		11.62%	11.62%	38.74%	38.02%	0.00%	100.00%
5	Customer Service		0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
6	Transfers		0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
7	CIP		16.77%	16.77%	16.77%	16.77%	32.92%	100.00%
8	Capital Outlay		0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
9	Existing Debt		0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
10	New Debt		11.62%	11.62%	38.74%	38.02%	0.00%	100.00%
Allocation of Costs:								
11	Treatment	\$ 2,730,814	\$ 317,334	\$ 317,334	\$ 1,057,883	\$ 1,038,263	\$ -	\$ 2,730,814
12	Collection	691,150	345,575	345,575	-	-	-	691,150
13	Administration	3,851,093	-	-	-	-	3,851,093	3,851,093
14	Pumping	-	-	-	-	-	-	-
15	Customer Service	-	-	-	-	-	-	-
16	Transfers	-	-	-	-	-	-	-
17	CIP	8,220,000	1,378,494	1,378,494	1,378,494	1,378,494	2,706,024	8,220,000
18	Capital Outlay	351,597	-	-	-	-	351,597	351,597
19	Existing Debt	1,612,018	-	-	-	-	1,612,018	1,612,018
20	New Debt	-	-	-	-	-	-	-
21	Non-Rate Rev & Fund Balance	(10,586,776)	(1,238,030)	(1,238,030)	(1,477,566)	(1,465,667)	(5,167,483)	(10,586,776)
22	Total	\$ 6,869,896	\$ 803,373	\$ 803,373	\$ 958,811	\$ 951,090	\$ 3,353,249	\$ 6,869,896
Total Units of Service								
Units			548,968	548,968	915,036	898,066	6,772	
			CCF	CCF	Pounds	Pounds	ERUs/Yearly	
Cost Per Unit								
Units			\$ 1.46	\$ 1.46	\$ 1.05	\$ 1.06	\$ 495.20	
			CCF	CCF	Pounds	Pounds	ERUs/Yearly	

APPENDIX - B

CITY OF PINOLE, CA

SEWER COST OF SERVICE BY COST COMPONENT AND CUSTOMER CLASS - TEST YEAR FY 2025

Line No:	Description	[A]	[B]	[C]	[D]	[E]	[F]
		Volume	Capacity	Strength - BOD	Strength - SS	Customer	Total
1	Single-Family	\$ 636,212	\$ 636,212	\$ 710,451	\$ 718,047	\$ 2,449,756	\$ 5,150,679
2	Multi-Family	93,889	93,889	104,845	105,966	678,424	1,077,013
3	Commercial/Non-Residential	73,272	73,272	143,515	127,077	225,069	642,203
4	Total	\$ 803,373	\$ 803,373	\$ 958,811	\$ 951,090	\$ 3,353,249	\$ 6,869,896

APPENDIX - B

CITY OF PINOLE, CA

SEWER RATE CALCULATION - TEST YEAR FY 2025

Line No:	Customer Class	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]
		Fixed Rate Costs	Yearly ERUs	Proposed Yearly Fixed Fee	Existing Yearly Fixed Fee	Yearly Fixed Fee Difference	Volumetric Rate Costs	Billable Annual Volume (CCF)	Proposed Volumetric Rate	Existing Volumetric Rate	Volumetric Rate Difference
Residential Classes											
1	Single-Family	\$ 5,150,679	4,947	\$ 1,041.17	\$ 883.44	\$ 157.73	N/A	N/A	N/A	N/A	N/A
2	Multi-Family	\$ 1,077,013	1,370	\$ 786.14	\$ 750.96	\$ 35.18	N/A	N/A	N/A	N/A	N/A
Non-Residential Classes											
3	Commercial/Non-Residential	\$ 225,069	455	\$ 495.20	\$ 202.80	\$ 292.40	\$ 417,135	50,069	\$ 8.33	\$ 7.09	\$ 1.24

APPENDIX - B
CITY OF PINOLE, CA
SEWER REVENUE VS COST OF SERVICE BY CUSTOMER CLASS CHECK - TEST YEAR FY 2025

Line No:	Customer Class	[A]	[B]	[C]=[A]*[B]*1	[D]	[E]	[F]=[D]*[E]	[G]=[C]+[F]	[H]	[I]=[H]-[G]
		Yearly ERUs	Proposed Yearly Fixed Fee	Total Fixed Fee Revenue	Billable Annual Volume (CCF)	Proposed Volumetric Rate	Total Volumetric Rate Revenues	Total Calculated Revenues	Total COS	Difference Calc vs COS
1	Single-Family	4,947	\$ 1,041.17	\$ 5,150,679	N/A	N/A	\$ -	\$ 5,150,679	\$ 5,150,679	\$ -
2	Multi-Family	1,370	\$ 786.14	\$ 1,077,013	N/A	N/A	\$ -	\$ 1,077,013	\$ 1,077,013	\$ -
3	Commercial/Non-Residential	455	\$ 495.20	\$ 225,069	50,069	\$ 8.33	\$ 417,135	\$ 642,203	\$ 642,203	\$ -
4	Total	6,772		\$ 6,452,761	50,069		\$ 417,135	\$ 6,869,896	\$ 6,869,896	\$ -



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