

Report

## Comprehensive Sewer Utility 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 Hercules (City) the following Sewer Rate Study report (Report) for your consideration. Willdan has completed this study of the City's sewer rates, which are submitted annually to the Contra Costa County Auditor-Controller's Office 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.

#### 1.1.1 Sewer System Background

The City's wastewater collection system serves the area within the City limits and collects and conveys an average dry weather flow of approximately 1.7 million gallons per day (MGD) of wastewater. This service area includes 8,300 parcels through 7,000 private laterals, which encompasses a population of approximately 26,000 residents.

The wastewater generated by the City is conveyed to and treated by the Pinole-Hercules Water Pollution Control Plant (WPCP), located southwest of the City limits in the City of Pinole. All wastewater conveyed to the WPCP is processed before being safely discharged into the San Francisco Bay. The system is built exclusively for sanitary waste and operates 24/7 to protect public health and the environment. While Hercules and Pinole share the WPCP, The City of Pinole handles the daily operations of the WPCP, and The City of Hercules reimburses Pinole for their respective share of wastewater treatment plant operating and maintenance costs incurred. All capital costs associated with the WPCP are split 50/50 between the City and The City of Pinole.

The City's collection system consists of gravity sewer mains, force mains, and lift stations. The collection system includes approximately 62 miles of gravity sewer mains and 1,660 manholes, most of which were constructed after 1970. Gravity sewers located in the older areas of the City are believed to be constructed of asbestos cement (AC) pipe, also known as "Transite" pipe. New gravity sewer construction is typically polyvinylchloride (PVC) pipe. The City also owns seven lift stations within the collection system, and their associated 4.5 miles of force mains.

#### 1.1.2 Rate Study Background

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 continue providing uninterrupted service to its customers and maintaining the critical infrastructure that ensures the health and safety of the community, and a stable and well-functioning wastewater system that is 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 costof-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 revenues needed can lead to unacceptable service levels and inadequately maintained facilities. Therefore, a rate study typically consists of the following three interrelated analyses:

- 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 (Prop 218).
- III. **Rate Design:** Develops an equitable and proportionate schedule of rates for the City's customer base. The policy objectives are coordinated with 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) 2026 (beginning July 1, 2025) through FY 2030 (ending June 30, 2030), 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, 2025 (or other such date as determined by the City) for FY 2025/26 (FY 2026, 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 2025/2026 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**.

Description	Rate					
Minimum Fixed Charge:						
Single-Family Residence [1]	\$	801.40				
Multi-Family Residence (per Dwelling Unit) <sup>[1]</sup>						
Senior Living (per Dwelling Unit) [1] [2]						
Non-Residential Metered (per Business)	\$	335.97				
Volumetric Rates Per 100 Cubic Feet - Non-Residential Metered:						
All Flow	\$	7.13				
Notes: [1] All residential customers only pay a flat fee per dwelling unit, regardless of usage.						

#### Table 1 – Proposed Annual Sewer Rates

[2] Apartments are currently charged the existing "Senior Living" flat fee per dwelling unit only, regardless of usage. Under the proposed rates, starting in FYE 2026, apartments will pay the "Multi-Family Residence" flat fee per dwelling unit only, 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 different types of residential customers that is applied per dwelling unit regardless of their usage, 2) a fixed fee for commercial/non-residential customers that designates the minimum amount they will pay by account, regardless of usage, and 3) a commercial/non-residential volumetric rate component per 100 cubic feet that recovers the costs of treatment and disposal of wastewater. The existing rates for sewer service are provided in **Table 2**.



#### Table 2 – Existing Annual Sewer Rates

Description	Rate						
Minimum Fixed Charge:							
Single-Family Residence <sup>[1]</sup>	\$	625.80					
Multi-Family Residence (per Dwelling Unit) [1]	\$	625.80					
Senior Living (per Dwelling Unit) [1] [2]	\$	427.16					
Non-Residential Metered (per Business)	\$	120.00					
Volumetric Rates Per 100 Cubic Feet - Non-Residential Metered:							
All Flow	\$	3.87					
<b>Notes:</b> [1] All residential customers only pay a flat fee per dwelling unit, regardless of usage.							
[2] Apartments are currently charged the existing "Senior Living" flat fee							

per dwelling unit only, regardless of usage. Under the proposed rates, starting in FYE 2026, apartments will pay the "Multi-Family Residence" flat fee per dwelling unit only, 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 Sufficiency 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 largest O&M expense identified in the City's budget is the reimbursement to Pinole for operating costs associated with the WPCP. 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 various other miscellaneous service charges. The revenues generated from the other sources 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 funded over the Projection Period. These 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 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. Along with the City provided list of anticipated capital projects, The City of Pinole identified shared capital projects to be undertaken over the Projection Period. The funding for the City's and shared WPCP 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 for the Projection Period are provided in **Table 3**.



Description			Projected for Fiscal Year Ending June 30, (\$1,000s)										
Description		025	2026		2027	2028	2029		2030				
Sewer System Improvements													
Sycamore Ave (Lower Trunk Main)	\$	0	\$ (	) (	\$0	\$ 0	\$	0	\$	0			
Sycamore Trunk Sewer Overflow Line Project		202	1,000	)	0	0		0		0			
Sewer Manholes in Business Park		0	(	)	0	0		0		0			
Sewer Manholes in Business Park		0	(	)	0	0		0		0			
Promenade Lift Station		0	185	5	1,170	0		0		0			
Repair/ Replace Sewer Lines under SR-4 & Along Willow Ave		0	200	)	100	1,080		0		0			
Total Sewer System Improvements	\$	202	\$ 1,385		\$ 1,270	\$ 1,080	\$	-	\$	0			
Hercules Share of Pinole WW Plant													
As-Built WWTP Drawings	\$	13	\$ (	) (	\$0	\$ O	\$	0	\$	0			
Boiler Rehabilitation		23	(	)	0	0		0		0			
Centrifuge Feed Pump Replacement		25	(	)	0	0		0		0			
Digester Feed Pump Replacement		38	(	)	0	0		0		0			
Energy Recovery Building and Admin Roof		40	(	)	0	0		0		0			
Misc. Plant Improvements		38	(	)	0	0		0		0			
SCADA System Upgrade		23	(	)	0	0		0		0			
SS2002 Water Pollution Control Plant Lab Remodel		50	(	)	0	0		0		0			
SS2101 Second Clarifier - Center Column Rehabilitation		213	(	)	0	0		0		0			
SS2102 Air Release Valve Replacement		25	(	)	0	0		0		0			
SS2203 Effluent Outfall Project Design		75	500	)	1,000	0		0		0			
Effluent Pipe Coating - Rodeo Creek Crossing		15	(	)	0	0		0		0			
Spare Influent Pump		50	(	)	0	0		0		0			
Chlorine Contact Basin - Coating		0	100	)	0	0		0		0			
Energy Recovery System Replacement		0	(	)	0	100		650		0			
Aeration Basin - Coating		0	(	)	150	0		0		0			
Water Pollution Control Plant Boiler Replacement		0	(	)	330	0		0		0			
Water Pollution Control Plant Centrifuge Replacement		0	(	)	0	495		0		0			
Total Hercules Share Of Pinole WW Plant Improvements	\$	625	\$ 600	)	\$ 1,480	\$ 595	\$	650	\$	-			
Total Sewer Projects	\$	827	\$ 1,985		\$ 2,750	\$ 1,675	\$	650	\$	-			

#### Table 3 – Sewer CIP (\$1,000s)

#### 2.3.3 Debt Service

The City currently has two outstanding debt issuances for the sewer system. A minimum debt service coverage ratio of 1.20 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 \$1.20 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**.

Tuble 4 – Allibui Debi Service i dylliellis											
Description	Projected for Fiscal Year Ending June 30,										
Description	2026	2027	2028	2029	2030						
Sewer Annual Debt Service											
SRF Loan	\$ 1,510,838	\$ 1,510,837	\$ 1,510,837	\$ 1,510,837	\$ 1,510,837						
2020 Revenue Refunding Bond:	555,468	556,186	551,971	551,971	551,971						
Total Sewer Annual Debt Service	\$2,066,306	\$2,067,023	\$2,062,808	\$2,062,808	\$2,062,808						

#### Table 4 – Annual Debt Service Payments



#### 2.3.4 Gross and Net Revenue Requirement

The proposed sewer rates developed in the Report are designed for assumed implementation in FY 2025/26 (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**.

Description	Total
Total O&M	\$ 5,208,881
Debt Service	2,066,306
Other Expenditures & Transfers	534,606
Gross Revenue Requirement	\$7,809,792
Less Other Revenues	(238,000)
Net Revenue Requirement	\$7,571,792

#### Table 5 – Test Year Revenue Requirements – FY 2026

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

Description	Projected for Fiscal Year Ending June 30,									
Description	2026	2027	2028	2029	2030					
Total O&M	\$ 5,208,881	\$ 5,481,212	\$ 5,771,396	\$ 6,080,823	\$ 6,349,708					
Debt Service	2,066,306	2,067,023	2,062,808	2,062,808	2,062,808					
Other Expenditures & Transfers	534,606	720,757	903,499	977,774	1,031,435					
Gross Revenue Requirement	\$ 7,809,792	\$ 8,268,992	\$ 8,737,703	\$ 9,121,405	\$ 9,443,951					
Less Other revenues	(238,000)	(167,180)	(149,781)	(147,025)	(155,467)					
Net Revenue Requirement	\$ 7,571,792	\$ 8,101,812	\$ 8,587,922	\$ 8,974,380	\$ 9,288,484					

#### Table 6 – Sewer Revenue Requirements for the Projection Period

## 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 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
- > Senior Housing, 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, 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 payments or coverage requirements, costs of capital projects, and 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 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.

Description		xisting	Projected for Fiscal Year Ending June 30,							
		2026		2027		2028		2029	2030	
Revenues:										
Sewer Service Charges	\$	5,997	\$	5,997	\$	5,997	\$	5,997	\$	5,997
Other Revenues		238		134		87		49		17
Total Revenues	\$	6,235	\$	6,132	\$	6,084	\$	6,046	\$	6,014
O&M Expenses		(5,209)		(5,481)		(5,771)		(6,081)		(6,350)
Net Income	\$	1,026	\$	650	\$	313	\$	(35)	\$	(336)
Debt Service:										
Existing	\$	2,066	\$	2,067	\$	2,063	\$	2,063	\$	2,063
Future		0		0		0		0		0
Total Debt Service	\$	2,066	\$	2,067	\$	2,063	\$	2,063	\$	2,063
Net Results	\$	(1,040)	\$	(1, <b>417)</b>	\$	(1,750)	\$	(2,098)	\$	(2,398)
Fund Balance Activity:										
O&M Reserve										
Beginning Balance	\$	8,548	\$	7,509	\$	6,092	\$	4,342	\$	2,245
Deposit/(Withdrawal) from Operations		(1,040)		(1,417)		(1,750)		(2,098)		(2,398)
Cash Funded Capital Projects		-		-		-		-		-
Total O&M Reserve Balance	\$	7,509	\$	6,092	\$	4,342	\$	2,245	\$	(154)
Days Cash on Hand		526		406		275		135		(9)
Capital Reserve										
Beginning Fund Balance	\$	5,175	\$	3,190	\$	439	\$	(1,236)	\$	(1,886)
Transfer from/(to) O&M Fund		-		-		-		-		-
Capital Projects From Capital Improvement Plan		(1,985)		(2,750)		(1,675)		(650)		-
Total Capital Reserve Balance	\$	3,190	\$	439	\$	(1,236)	\$	(1,886)	\$	(1,886)
Debt Service Reserve										
Beginning Fund Balance	\$	2,200	\$	2,200	\$	2,200	\$	2,200	\$	2,200
Revenues Toward Debt Service Payment		2,066		2,067		2,063		2,063		2,063
Annual Debt Service Payment		(2,066)		(2,067)		(2,063)		(2,063)		(2,063)
Total Debt Service Reserve Balance	\$	2,200	\$	2,200	\$	2,200	\$	2,200	\$	2,200
Total Fund Balance	\$	12,898	\$	8,731	\$	5,306	\$	2,559	\$	160

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



## 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 COS 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, Customer and Administrative 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 billing, and providing other services to customers (e.g., printing, delivering, and collecting utility bills, recordkeeping, etc.).
- Administration various overhead and other non-operating costs.

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



Description	Test Year
Total O&M	\$ 5,208,881
Existing Debt Service	2,066,306
Future Debt Service	0
Other Expenditures	534,606
O&M Revenue Requirement	\$7,809,792
Less Other revenues	(238,000)
Total Revenue Requirement	\$7,571,792
Functional Unbundled Revenue Requirement	
Treatment	\$ 3,080,232
Collection	321,347
Administration	1,746,738
Pumping	60,564
CIP	1,985,000
Existing Debt	2,066,306
Non-Rate Re∨enue	(238,000)
Fund Balance <sup>[1]</sup>	(1,450,395)
Total	\$7,571,792
Notes: [1] Represents a transfer from reserves to provid capital outlay and CIP costs	e funding for

#### Table 8 - Functional Unbundled Cost Allocations

#### 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 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 characteristics are shown in **Table 9**.



Description	Customer	Volume	Capacity	Strength - BOD	Strength - SS	Total
Treatment	\$ 0	\$ 434,005	\$ 434,005	\$ 1,121,843	\$ 1,090,379	\$ 3,080,232
Collection	0	160,674	160,673	0	0	321,347
Administration	1,746,738	0	0	0	0	1,746,738
Pumping	0	8,533	8,533	22,058	21,440	60,564
CIP	0	279,643	279,643	722,952	702,762	1,985,000
Existing Debt	2,066,306	0	0	0	0	2,066,306
Non-Rate Re∨ & Fund Balance	(695,228)	(160,969)	(160,969)	(340,380)	(330,849)	(1,688,395)
Total	\$3,117,817	\$ 721,886	\$ 721,885	\$1,526,473	\$1,483,732	\$7,571,792

#### Table 9 - Classification of Unbundled Revenue Requirements

#### 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 TSS);
- **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 account as provided in the customer data. Collection is the total annual sewer flows projected for the Test Year. BOD and TSS 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 SWRCB Guidelines.



Description	Total	Total	CCF	BOD	BOD	TSS	TSS					
Description	Parcels	ERUs	Flow	Factor <sup>[1]</sup>	Pounds	Factor <sup>[1]</sup>	Pounds					
Residential Classes												
Resid. Single Family	6,378	6,378	474,268	200	591,727	200	591,727					
Multi-Family	1,876	2,650	149,988	200	187,135	200	187,135					
Senior Housing	2	111	4,015	200	5,009	200	5,009					
Sub-Total Residential	8,256	9,139	628,271		783,871		783,871					
Non-Residential Classes												
Amusement Services	3	3	3,660	150	4,579	150	4,579					
Auto Laundries	1	1	2,573	150	3,219	150	3,219					
Construction	1	1	119	200	198	200	198					
Eating Places, Fast	5	5	3,534	1,000	29,474	600	17,684					
Electrical Machinery	1	1	73	200	122	200	122					
Food Sales	3	3	5,368	150	6,715	150	6,715					
Food Service	3	8	1,264	1,000	10,542	600	6,325					
Gasoline And Oil	2	2	3,441	180	5,166	280	8,035					
Health Services	2	2	1,114	250	2,323	100	929					
Laboratories	3	3	8,007	150	10,017	150	10,017					
Metal Products	1	1	1,697	150	2,123	150	2,123					
Non-Profit	4	4	2,439	130	2,644	80	1,627					
Offices	25	31	20,755	130	22,503	80	13,848					
Personal Services	1	1	271	130	294	80	181					
Retail Trade, Other	20	51	12,470	150	15,600	150	15,600					
Schools	9	9	4,025	130	4,364	100	3,357					
Specialty Food	1	1	277	150	347	150	347					
Warehousing	5	5	1,665	150	2,083	150	2,083					
Wholesale Trade	9	9	420	150	525	150	525					
Sub-Total Non-Residential	99	141	73,172		122,836		97,514					
Sewer System Total	8,355	9,280	701,443		906,707		881,385					
Notes:												

#### Table 10 – Units of Service

(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**.

Description	Customer	Volume	Capacity	Strength - BOD	Strength - SS	Total
Total Re∨enue Requirement	\$ 3,072,914	\$ 736,211	\$ 736,211	\$ 878,654	\$ 871,579	\$6,295,569
Units of Son ioo	( 770	549.079	549.079	015.02/	202.077	
Units of service	6,//Z	348,968	348,968	Pounds	898,066 Pounds	
	LK03/Teally	CCI	CCI	1 UUIIUS	Toonds	
Cost Per Unit	\$ 453.80	\$ 1.34	\$ 1.34	\$ 0.96	\$ 0.97	
	ERUs/Yearly	CCF	CCF	Pounds	Pounds	

#### Table 11 – Cost Per Unit

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

Description	Customer	Volume		(	Capacity	S	trength - BOD	Stro	ength - SS		Total
Residential Classes											
Resid. Single Family	\$ 2,142,827	\$	488,090	\$	488,089	\$	996,193	\$	996,119	\$	5,111,318
Multi-Family	890,325		154,359		154,359		315,048		315,024		1,829,115
Senior Housing	37,293		4,132		4,132		8,433		8,433		62,423
Non-Residential Classes											
All Non-Residential Customers	\$ 47,372	\$	75,305	\$	75,304	\$	206,799	\$	164,156	\$	568,936
Total	\$3,117,817	\$	721,886	\$	721,885	\$1	,526,473	\$1	,483,732	\$7	,571,792

#### 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 for commercial/non-residential customers are determined based on the total number of non-residential customers.

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 Cost-of-Service 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, & Senior Housing Residential Customers For single-family, multi-family, and senior housing 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 per account and a volumetric rate per 100 cubic feet of sewer usage.

The revenues generated by each customer class vs the cost allocated to each customer class are provided in **Table 13**.



	loposed kule	Revenues va		
Description	Annual ERUs	Proposed Annual Fixed Fee	Total Fixed Fee Revenue	Billable Annual Volume (CCF)
	[A]	[B]	[C]=[A]*[B]*1	[D]
Residential Classes				
Resid. Single Family	6,378	\$ 801.40	\$ 5,111,318	N/A
Multi-Family	2,650	\$ 690.23	\$ 1,829,115	N/A
Senior Housing	111	\$ 562.37	\$ 62,423	N/A
Non-Residential Classes				
All Non-Residential Customers	141	\$ 335.97	\$ 47,372	73,172
Total	9,280		\$7,050,228	73,172
			+ - / /	
Description	Proposed Volumetric Rate	Total Volumetric Rate Revenues	Total Calculated Revenues	Total COS
Description	Proposed Volumetric Rate [E]	Total Volumetric Rate Revenues [F]=[D]*[E]	Total Calculated Revenues [G]=[C]+[F]	Total COS [H]
Description Residential Classes	Proposed Volumetric Rate [E]	Total Volumetric Rate Revenues [F]=[D]*[E]	Total Calculated Revenues [G]=[C]+[F]	Total COS [H]
Description Residential Classes Resid. Single Family	Proposed Volumetric Rate [E] N/A	Total Volumetric Rate Revenues [F]=[D]*[E] \$ 0	Total Calculated Revenues [G]=[C]+[F] \$ 5,111,318	Total COS [H] \$ 5,111,318
Description Residential Classes Resid. Single Family Multi-Family	Proposed Volumetric Rate [E] N/A N/A	Total Volumetric Rate Revenues [F]=[D]*[E] \$ 0 \$ 0	Total           Calculated           Revenues           [G]=[C]+[F]           \$ 5,111,318           \$ 1,829,115	Total COS [H] \$ 5,111,318 \$ 1,829,115
Description Residential Classes Resid. Single Family Multi-Family Senior Housing	Proposed Volumetric Rate [E] N/A N/A N/A	Total Volumetric Rate Revenues [F]=[D]*[E] \$ 0 \$ 0 \$ 0	Total           Calculated           Revenues           [G]=[C]+[F]           \$ 5,111,318           \$ 1,829,115           \$ 62,423	Total COS [H] \$ 5,111,318 \$ 1,829,115 \$ 62,423
Description Residential Classes Resid. Single Family Multi-Family Senior Housing	Proposed Volumetric Rate [E] N/A N/A N/A	Total Volumetric Rate Revenues [F]=[D]*[E] \$ 0 \$ 0 \$ 0	Total           Calculated           Revenues           [G]=[C]+[F]           \$ 5,111,318           \$ 1,829,115           \$ 62,423	Total COS [H] \$ 5,111,318 \$ 1,829,115 \$ 62,423
Description Residential Classes Resid. Single Family Multi-Family Senior Housing Non-Residential Classes	Proposed Volumetric Rate [E] N/A N/A N/A	Total Volumetric Rate Revenues [F]=[D]*[E] \$ 0 \$ 0 \$ 0	Total           Calculated           Revenues           [G]=[C]+[F]           \$ 5,111,318           \$ 1,829,115           \$ 62,423	Total COS [H] \$ 5,111,318 \$ 1,829,115 \$ 62,423
Description Residential Classes Resid. Single Family Multi-Family Senior Housing Non-Residential Classes All Non-Residential Customers	Proposed Volumetric Rate [E] N/A N/A N/A S 7.13	Total           Volumetric           Rate           Revenues           [F]=[D]*[E]           \$         0           \$         0           \$         0           \$         0           \$         0           \$         0           \$         0           \$         0           \$         0	Total         Calculated         Revenues         [G]=[C]+[F]         \$ 5,111,318         \$ 1,829,115         \$ 62,423         \$ 568,936	Total COS [H] \$ 5,111,318 \$ 1,829,115 \$ 62,423 \$ 568,936

#### Table 13 – Proposed Rate Revenues vs COS



## 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 COS 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 COS 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 14**.



#### Table 14 – Proposed Annual Sewer Rates

Description	Rate
Minimum Fixed Charge:	
Single-Family Residence <sup>[1]</sup>	\$ 801.40
Multi-Family Residence (per Dwelling Unit) <sup>[1]</sup>	\$ 690.23
Senior Living (per Dwelling Unit) [1] [2]	\$ 562.37
Non-Residential Metered (per Business)	\$ 335.97
Volumetric Rates Per 100 Cubic Feet - Non-Residential Metered:	
All Flow	\$ 7.13
<ul> <li>Notes:</li> <li>[1] All residential customers only pay a flat fee per dwelling unit regardless of usage.</li> <li>[2] Apartments are currently charged the existing "Senior Living per dwelling unit only, regardless of usage. Under the proposed starting in FYE 2026, apartments will pay the "Multi-Family Reside fee per dwelling unit only, regardless of usage.</li> </ul>	, "flat fee rates, nce" flat

## 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 the same region. A summary analysis is provided comparing the cost of the annual sewer service for a typical single-family 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 January 2025 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 typical single-family residential customer is illustrated in **Figure 1**.





It should be noted that when making comparisons of 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's revenues, expenses and other Revenue Requirements anticipated in future years.

The operating statement covers the 5-fiscal year Projection Period through June 30, 2030, and is 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 customer accounts, ERUs, and sewer flows. The resulting revenues are then compared to the projected Revenue Requirements (i.e., O&M expenses, debt service, capital outlay, CIP, 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 COS 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 15**.

Description	Existing	Proposed	Projected for Fiscal Year Ending June 30,										
Description	2026	2026	2027	2028	2029	2030							
Sewer User Revenues													
Resid. Single Family	\$ 3,991,352	\$ 5,111,318	\$ 5,469,111	\$ 5,797,257	\$ 6,058,134	\$ 6,270,169							
Multi-Family	1,658,370	1,829,115	1,957,153	2,074,582	2,167,938	2,243,816							
Senior Housing	47,415	62,423	66,793	70,800	73,986	76,576							
Non-Residential	300,098	568,937	608,755	645,283	674,322	697,923							
Total Annual Sewer Revenues	\$ 5,997,235	\$7,571,793	\$8,101,812	\$8,587,922	\$ 8,974,380	\$ 9,288,484							

#### Table 15 – Projected User Rate Revenues

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 16**. The rates identified in the table below reflect the cost of providing service to individual customer classes based on accounts, ERUs, volume of flow, and strength characteristics.



Dessister	Ex	isting	g Projected for Fiscal Year Ending June 30,											
Description	R	ates	2026		2027		2028		2029			2030		
Minimum Fixed Charge:														
Single-Family Residence [1]	\$ 0	625.80	\$	801.40	\$	857.50	\$	908.95	\$	949.85	\$	983.09		
Multi-Family Residence (per Dwelling Unit) <sup>[1]</sup>	\$ (	625.80	\$	690.23	\$	738.55	\$	782.86	\$	818.09	\$	846.72		
Senior Living (per Dwelling Unit) <sup>[1] [2]</sup>	\$ 4	427.16	\$	562.37	\$	601.74	\$	637.84	\$	666.54	\$	689.87		
Non-Residential Metered (per Business)	\$	120.00	\$	335.97	\$	359.49	\$	381.06	\$	398.21	\$	412.14		
Volumetric Rates Per 100 Cubic Feet - Non-Residential Metered	:													
All Flow	\$	3.87	\$	7.13	\$	7.63	\$	8.08	\$	8.45	\$	8.74		

#### Table 16 – Proposed Annual Sewer Rates

Notes:

[1] All residential customers only pay a flat fee per dwelling unit, regardless of usage.

[2] Apartments are currently charged the existing "Senior Living" flat fee per dwelling unit only, regardless of usage. Under the proposed rates, starting in FYE 2026, apartments will pay the "Multi-Family Residence" flat fee per dwelling unit only, 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 necessary. 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 120% (1.20 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 17**.



Eiser Verr	Sewer Enterprise						
riscal fear	Projected	Minimum					
2026	1.26	1.20					
2027	1.35	1.20					
2028	1.44	1.20					
2029	1.47	1.20					
2030	1.50	1.20					

#### Table 17 – Sewer Utility System Projected Debt Service Coverage

## 5.4 Summary of Projected Operating Results

The cash-flow statement outlining the projected operating results is summarized in **Table 18** 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.



	-									
Description	Pro	oposed	P		l fo	r Fiscal	rec	ar Ending	g Ju	une 30,
-		2026		2027		2028		2029		2030
Revenues:	*	7.570	*	0.100	*	0.500	*	0.074	*	0.000
Sewer Service Charges	\$	7,572	\$	8,102	\$	8,588	\$	8,9/4	\$	9,288
Other Revenues		238		167		150		14/		155
Total Revenues	\$	7,810	\$	8,269	\$	8,738	\$	9,121	\$	9,444
O&M Expenses		(5,209)		(5,481)		(5,771)		(6,081)		(6,350)
Net Income	\$	2,601	\$	2,788	\$	2,966	\$	3,041	\$	3,094
Debt Service:										
Existing	\$	2,066	\$	2,067	\$	2,063	\$	2,063	\$	2,063
Future		0		0		0		0		0
Total Debt Service	\$	2,066	\$	2,067	\$	2,063	\$	2,063	\$	2,063
Net Results	\$	535	\$	721	\$	903	\$	978	\$	1,031
Fund Balance Activity:										
O&M Reserve										
Beginning Balance	\$	2,328	\$	2,569	\$	2,703	\$	2,846	\$	2,999
Deposit/(Withdrawal) from Operations		535		721		903		978		1,031
Cash Funded Capital Projects		(294)		(586)		(760)		(825)		(899)
Total O&M Reserve Balance	\$	2,569	\$	2,703	\$	2,846	\$	2,999	\$	3,131
Days Cash on Hand		180		180		180		180		180
Capital Reserve										
Beginning Fund Balance	\$	11,395	\$	9,704	\$	7,540	\$	6,625	\$	6,801
Transfer from/(to) O&M Fund		294		586		760		825		899
Capital Projects From Capital Improvement Plan		(1,985)		(2,750)		(1,675)		(650)		-
Total Capital Reserve Balance	\$	9,704	\$	7,540	\$	6,625	\$	6,801	\$	7,699
Debt Service Reserve										
Beginning Fund Balance	\$	2,200	\$	2,200	\$	2,200	\$	2,200	\$	2,200
Revenues Toward Debt Service Payment		2,066		2,067		2,063		2,063		2,063
Annual Debt Service Payment		(2,066)		(2,067)		(2,063)		(2,063)		(2,063)
Total Debt Service Reserve Balance	\$	2,200	\$	2,200	\$	2,200	\$	2,200	\$	2,200
Total Fund Balance	\$	14,473	\$	12,443	\$	11,672	\$	11,999	\$	13,031

#### Table 18 – Sewer System Projected Operating Results - Proposed Rates (\$1,000s)



## 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 Hercules, 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, 2025. To the extent that the actual implementation date varies from the assumed implementation date, 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, 2025 (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 COS analysis portion of this study every three to five years to ensure costs are recovered consistent with COS 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 HERCULES, CALIFORNIA



# APPENDIX A Revenue Requirement for User Rates

#### APPENDIX - A CITY OF HERCULES, CA Development of Rate Revenue Requirements

		[A]	[B]	[	C]=[A]*[B]
Line No:	Description	Test Year fo	ment		
Line NO.	Description	FY 2026	% to Sewer		Sewer
1	Total Operating Revenues	\$ 7,809,792		\$	7,809,792
	Less:				
	Other Operating Revenues				
2	Interest Income	\$ 238,000	100%	\$	238,000
3	Sewer Connection Fee	-	100%		-
4	Sewer Facilities Fees	_	100%		_
5	Sewer Lateral Inspection	-	100%		-
6	Rate Stabilization	-	100%		-
7	Sewer Ent. Fund	-	100%		-
8	Total Other Operating Revenues	238,000			238,000
9	Total Rate Revenue Requirement	\$ 7,571,792	100%	\$	7,571,792

# APPENDIX B Sewer Cost-of-Service Analysis

#### APPENDIX - B CITY OF HERCULES, CA Allocation of Test Year Costs to Sewer Function

	Test Year Revenue Requirem	ent
Line No:	Expense Group	FY 2026
1	Collection	\$321,347
2	Treatment	3,080,232
3	Administration	1,746,738
4	Pumping	60,564
5	Customer Service	0
6	Transfers	0
7	Existing Debt	2,066,306
8	New Debt	0
9	CIP	1,985,000
10	Capital Outlay	0
11	Total	\$ 9,260,187

#### APPENDIX - B CITY OF HERCULES, CA Sewer Customer Account & Stength Characteristics by Customer Class - Test Year FY 2026

Line No:	Description	Total	Total	CCF	BOD	BOD	TSS	TSS
		Parcels	ERUs	Flow	Factor <sup>11</sup>	Pounds	Factor <sup>11</sup>	Pounds
	Residential Classes							
1	Resid. Single Family	6,378	6,378	474,268	200	591,727	200	591,727
2	Multi-Family	1,876	2,650	149,988	200	187,135	200	187,135
3	Senior Housing	2	111	4,015	200	5,009	200	5,009
4	Sub-total Residential	8,256	9,139	628,271		783,871		783,871
	Non-Residential Classes							
5	Amusement Services	3	3	3,660	150	4,579	150	4,579
6	Auto Laundries	1	1	2,573	150	3,219	150	3,219
7	Construction	1	1	119	200	198	200	198
8	Eating Places, Fast	5	5	3,534	1,000	29,474	600	17,684
9	Electrical Machinery	1	1	73	200	122	200	122
10	Food Sales	3	3	5,368	150	6,715	150	6,715
11	Food Service	3	8	1,264	1,000	10,542	600	6,325
12	Gasoline And Oil	2	2	3,441	180	5,166	280	8,035
13	Health Services	2	2	1,114	250	2,323	100	929
14	Laboratories	3	3	8,007	150	10,017	150	10,017
15	Metal Products	1	1	1,697	150	2,123	150	2,123
16	Non-Profit	4	4	2,439	130	2,644	80	1,627
17	Offices	25	31	20,755	130	22,503	80	13,848
18	Personal Services	1	1	271	130	294	80	181
19	Retail Trade, Other	20	51	12,470	150	15,600	150	15,600
20	Schools	9	9	4,025	130	4,364	100	3,357
21	Specialty Food	1	1	277	150	347	150	347
22	Warehousing	5	5	1,665	150	2,083	150	2,083
23	Wholesale Trade	9	9	420	150	525	150	525
24	Sub-Total Non-Residential	99	141	73,172		122,836		97,514
25	Sewer System Total	8.355	9,280	701.443		906,707		881.385
Notes:		-,	1.52%	10.43%		13.55%		11.06%
(1) Avera	ae strenath factors for BOD and TSS	are based on t	he State Wat	er Resource	es Control Bo	ard Revenue	e Proaram G	uidelines.

#### APPENDIX - B CITY OF HERCULES, CA Allocation of Sewer Costs - Test Year FY 2026

Line No:	Description	Se	ewer Costs	Volume	(	Capacity		Strength - BOD	S	trength - SS		Customer	То	al (Check)
	Allocation Factors:													
1	Treatment			14.09%		14.09%		36.42%		35.40%		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			14.09%		14.09%		36.42%		35.40%		0.00%		100.00%
5	Customer Service			0.00%		0.00%		0.00%		0.00%		100.00%		100.00%
6	Transfers			40.00%		40.00%		10.00%		10.00%		0.00%		1 <b>00.00</b> %
7	CIP			14.09%		14.09%		36.42%		35.40%		0.00%		100.00%
8	Capital Outlay			14.09%		14.09%		36.42%		35.40%		0.00%		100.00%
9	Existing Debt			0.00%		0.00%		0.00%		0.00%		100.00%		100.00%
10	New Debt			14.09%		14.09%		36.42%		35.40%		0.00%		100.00%
	Allocation of Costs:													
11	Treatment	\$	3,080,232	\$ 434,005	\$	434,005	\$	1,121,843	\$	1,090,379	\$	-	S	3.080.232
12	Collection	T	321,347	 160,674	- 1	160,673	1	-	1	-	T	-		321,347
13	Administration		1,746,738	-		-		-		-		1,746,738		1,746,738
14	Pumping		60,564	8,533		8,533		22,058		21,440		-		60,564
15	Customer Service		-	-		-		-		-		-		-
16	Transfers		-	-		-		-		-		-		-
17	CIP		1,985,000	279,643		279,643		722,952		702,762		-		1,985,000
18	Capital Outlay		-	-		-		-		-		-		-
19	Existing Debt		2,066,306	_		-		-		_		2,066,306		2,066,306
20	New Debt		-	-		-		-		-		-		-
21	Non-Rate Rev & Fund Balance		(1,688,395)	(160,969)		(160,969)		(340,380)		(330,849)		(695,228)		(1,688,395)
22	Total	\$	7,571,792	\$ 721,886	\$	721,885	\$	1,526,473	\$	1,483,732	\$	3,117,817	\$	7,571,792
				9.53%		9.53%		20.16%		19.60%	)	41.18%		
	Total Units of Service			701,443		701,443		906,707		881,385		9,280		
	Units			CCF		CCF		Pounds		Pounds	ER	Us/Annually		
	Cost Per Unit			\$ 1.03	\$	1.03	\$	1.68	\$	1.68	\$	335.97		
	Units			CCF		CCF		Pounds		Pounds	ER	Us/Annually		

#### APPENDIX - B CITY OF HERCULES, CA Sewer Cost of Service by Cost Component and Customer Class - Test Year FY 2026

			[A]	[B]			[C]	[D]			(E)	[F]		
Line No:	Description	\	Volume		Capacity		Strength - BOD		ength - SS	Customer			Total	
Residential Classes														
1	Resid. Single Family	\$	488,090	\$	488,089	\$	996,193	\$	996,119	\$	2,142,827	\$	5,111,318	
2	Multi-Family		154,359		154,359	•	315,048	•	315,024	•	890,325	•	1,829,115	
3	Senior Housing		4,132		4,132		8,433		8,433		37,293		62,423	
Non-Residential Classes														
4	All Non-Residential Customers		75,305		75,304		206,799		164,156		47,372		568,936	
5	Total	\$	721,886	\$	721,885	\$	1,526,473	\$	1,483,732	\$	3,117,817	Ş	7,571,792	

#### APPENDIX - B CITY OF HERCULES, CA Sewer Rate Calculation - Test Year FY 2026

	Customer Class	[A]		[B] [C]=[A]/[B]		[D] [E]=[C]-[J		[E]=[C]-[D]		(F)	[G]	[H]=[F]/[G]	[1]	[J]=[H]-[I]	
Line No:		F	ixed Rate Costs	Annual ERUs	Pro Anni	oposed ual Fixed Fee	E Anı	Existing nual Fixed Fee	Annual Fixed Fee Difference	) F	Volumetric Rate Costs	Billable Annual Volume (CCF)	Proposed Volumetric Rate	Existing Volumetric Rate	Volumetric Rate Difference
	Residential Classes														
1	Resid. Single Family	\$	5,111,318	6,378	\$	801.40	\$	625.80	\$ 175.60	)	N/A	N/A	N/A	N/A	N/A
2	Multi-Family	\$	1,829,115	2,650	\$	690.23	\$	625.80	\$ 64.43	;	N/A	N/A	N/A	N/A	N/A
3	Senior Housing	\$	62,423	111	\$	562.37	\$	427.16	\$ 135.21		N/A	N/A	N/A	N/A	N/A
	Non-Residential Classes														
4	All Non-Residential Customers	\$	47,372	141	\$	335.97	\$	120.00	\$ 215.97	'\$	521,564	73,172	\$ 7.13	\$ 3.87	\$ 3.26

#### APPENDIX - B CITY OF HERCULES, CA Sewer Revenue vs Cost of Service by Customer Class Check - Test Year FY 2026

		[A]	[B] [C]= Proposed Annual Fixed Fee Fee Fee		[C]=[A]*[B]		[D]	[E] Proposed Volumetric Rate		[F]=[D]*[E] Total Volumetric Rate Revenues			[G]=[C]+[F] Total Calculated Revenues		[H]	[i]=[i	H]-[G]
Line No:	Customer Class	Annual ERUs			otal Fixed e Revenue	Billable Annual Volume (CCF)	otal COS								Difference Calc vs COS		
Residential Classes																	
1	Resid. Single Family	6,378	\$	801.40	\$	5,111,318	N/A		N/A	\$	-	\$	5,111,318	\$	5,111,318	\$	-
2	Multi-Family	2,650	\$	690.23	\$	1,829,115	N/A		N/A	\$	-	\$	1,829,115	\$	1,829,115	\$	-
3	Senior Housing	111	\$	562.37	\$	62,423	N/A		N/A	\$	-	\$	62,423	\$	62,423	\$	-
	Non-Residential Classes																
4	All Non-Residential Customers	141	\$	335.97	\$	47,372	73,172	\$	7.13	\$	521,564	\$	568,936	\$	568,936	\$	-
5	Total	9,280			\$	7,050,228	73,172			\$	521,564	\$	7,571,792	\$	7,571,792	\$	





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