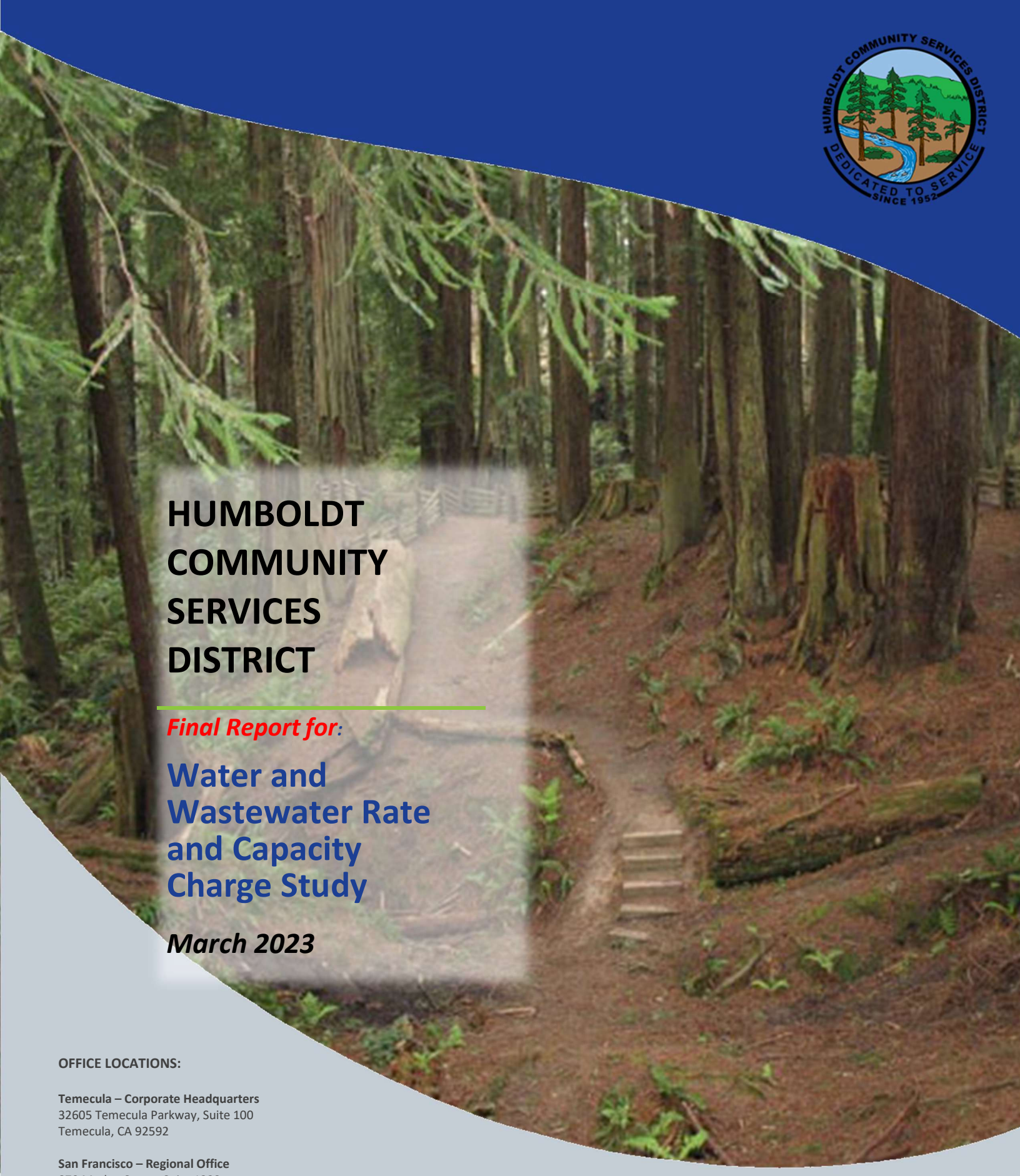

HUMBOLDT COMMUNITY SERVICES DISTRICT

Final Report for:

Water and Wastewater Rate and Capacity Charge Study

March 2023

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Section 1. EXECUTIVE SUMMARY

Background and Purpose

BACKGROUND

The Humboldt Community Services District (HCSD or District) was created in 1952 to provide water and wastewater service to the unincorporated areas of Eureka over a 15 square-mile service area. The District currently serves a population of about 20,000, including about 7,700 water connections and 6,500 wastewater connections. The District provides water distribution and storage and purchases water from the Humboldt Bay Municipal Water District (HBMWD), but also produces about 25 percent of its supply from three District-owned wells. The wastewater utility is primarily a collection system, with treatment provided by the City of Eureka; the District owns approximately 32 percent of the City's treatment plant capacity.

Periodically, due to increases in operating and capital improvement costs and in particular the sewer treatment costs paid to the City of Eureka, the District must reexamine the revenue requirements needed to maintain its infrastructure and continue to provide the level of service its customers expect.

Because of the interconnected water and wastewater systems, this rate study was performed concurrently with the City's water and wastewater rate study. The District last performed a water and wastewater rate study in 2017. The District retained NBS in February 2022 to initiate a rate study for both utilities as well as evaluate water and wastewater capacity charges.[1]

The District's Board of Directors will conduct a public workshop and direct District staff whether to proceed with the Proposition 218 rate adoption process.

PURPOSE

The purpose of this report is three-fold: (1) it provides a summary of the wastewater and water rate study information which the District Board of Directors will rely on for their decision whether to adopt new rates for the next five-years, (2) it documents this analysis for the purpose of complying with Proposition 218 requirements (Prop 218), commonly referred to as the "right to vote on new taxes" act, and (3) it assists the District in its effort to communicate transparently with the residents and businesses it serves.

The proposed water and wastewater rates and capacity charges were developed by reviewing and confirming the District's broader rate-related goals and objectives. This included key financial objectives and ensuring that the new rates continue to reflect the District's unique characteristics and provide for the long-term financial stability of the District.

In developing proposed rates, NBS and District staff worked cooperatively in developing study results. The District reviewed initial results, provided NBS with feedback and direction, and plans on ultimately approving the water and wastewater rates once an appropriate Prop 218 public hearing has been conducted.

[1] *Connection fees are more accurately called "System Capacity Charges" since they reflect the cost that new customers should pay for their share of capacity in the District's water and sewer systems.*

Key Findings

REVENUE REQUIREMENTS AND PROJECTED RATES

The District's water and wastewater utilities both need to complete ongoing and planned capital improvement projects while at the same time maintaining healthy reserves. To accomplish this, annual increases in rate revenue collected from customers over the next five years are recommended for both utilities[2], as follows:

- Water – Thirteen percent (13%) in Years 1 through 5 (FY 2023/24 through FY 2027/28).
- Wastewater – Fourteen percent (14%) in Years 1 through 5 (FY 2023/24 through FY 2027/28).

WATER RATES

Due to the District's abundant water supply sources, more conservation-oriented tiered rates would be difficult under Prop 218, and the District should continue with its current uniform (i.e., single-tier) rate design. However, the proposed rates would collect more revenue from volumetric charges (60 percent vs. the current 50 percent). Water customers will continue to pay a combination of fixed monthly charges that are higher for larger meters, plus a uniform volumetric rate.

The water utility's rate increases are largely driven by the cost of capital improvements. In fact, the District has determined that it would like to build capital reserves to help fund significant capital improvement costs in years 6 – 10 of the financial plan. The result is that there need to be larger rate increases in years 1 – 5 than would otherwise be needed. Additionally, the District wants to fund capital projects from rates rather than using debt, which also means rates will be higher in the short term but lower in the long-term.

The proposed rates are, therefore, essentially geared to fund District's operating and capital improvement costs over the next ten years. Although significant increases are proposed, customer bills under the recommended water rates are still reasonable when compared with other communities in the region.

WASTEWATER RATES

The current wastewater rate design was largely retained, and wastewater customers will continue to be charged a monthly fixed service charge per living unit, a monthly customer service charge per account, and a volumetric charge based on their average winter water consumption.

Like water rates, wastewater rates are largely driven by the costs of capital improvements that include both District collection system repair and replacement projects and contributions to the City of Eureka for treatment related capital costs. The City's capital projects planned over the next 10 years will require the District to build significant reserves for capital projects after FY 2027/28.

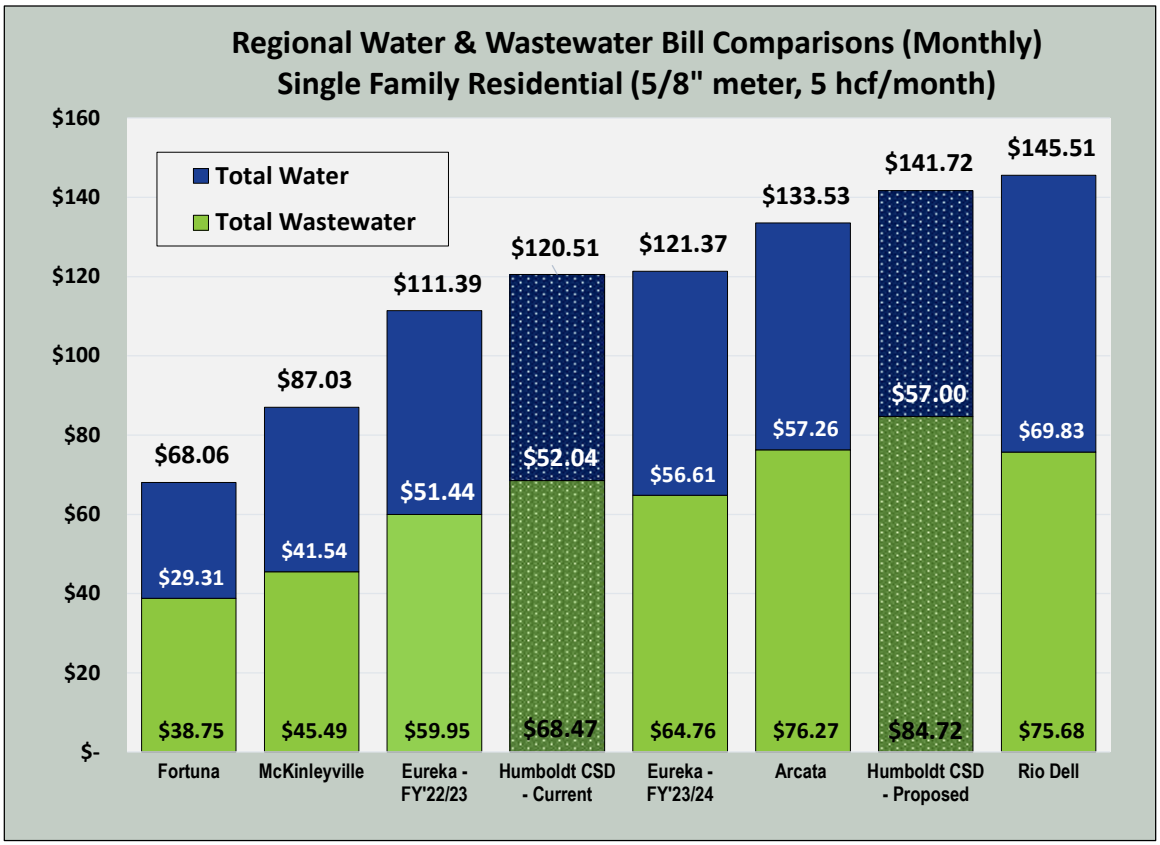
The District's plan is to begin building reserves to levels that cover the next five years and position the District to be able to pay for the capital projects through FY 2032/33. The District prefers this approach because these capital costs are primarily repair and replacement projects for existing system assets that would more equitably be funded by existing customers rather than issuing new debt that would unfairly burden future customers.

2 More specifically, these are increases in the total rate revenue; the rates increase for each customer class reflect cost allocation factors that result in some rates being more or less than the annual increases noted here.

As with water rates, although significant increases are recommended, customer bills under the recommended wastewater rates are still reasonable when compared with other communities in the region.

Figure 1 below shows the monthly combined water and wastewater bill for a typical single-family customer in the District compared to monthly bills in other communities.

FIGURE 1. REGIONAL RATE COMPARISONS



Study Recommendations

Although the Board has not yet taken action on the proposed water and wastewater rates, NBS recommends they select the proposed alternatives and direct staff to proceed with Prop 218 noticing procedures. NBS also recommends the District take the following measures:

- Conduct a legal review of the proposed rates.
- Mail out Prop 218 protest instructions (per District guidelines), allowing a protest period of at least 45 days.
- Adopt the rates proposed in this report (assuming there is no majority protest of the rates).

The next section discusses rate study methodology.

Section 2. OVERVIEW OF THE STUDY METHODOLOGY

A comprehensive rate study such as this one typically includes three components: (1) preparation of a financial plan, which identifies the net revenue requirements for the utility; (2) analysis of the cost to serve each customer class, and (3) the rate structure design. These steps are shown in **Figure 2** and are intended to follow industry standards and reflect the fundamental principles of cost-of-service ratemaking embodied in the American Water Works Association (AWWA) Principles of Water Rates, Fees, and Charges[3], also referred to as Manual M1.

FIGURE 2. PRIMARY COMPONENTS OF A RATE STUDY

Step 1: Financial Plan/ Revenue Requirements – Compares current sources and uses of funds and determines the revenue needed from rates and project rate adjustments.

Step 2: Cost-of-Service Analysis – Proportionately allocates the revenue requirements to the customer classes in compliance with industry standards and State Law.

Step 3: Rate Design - Considers what rate structure will best meet the District's need to collect rate revenue from each customer class.

This methodology also addresses requirements under Proposition 218 that rates not exceed the cost of providing the service and be proportionate to the cost of providing service for all customers. In terms of the chronology of the study, these three steps represent the order they were performed in this Study for both utilities.

The analyses were performed with data the District provided including historical, current and projected revenues, expenditures, customer accounts and water consumption, and other operational and capital cost data.

Rate Design Criteria

Water and sewer rates are used to equitably recover costs from customers and to send proper price signals about the actual cost of providing service. These objectives are typically addressed through the rate structure design, which encompasses both the amount of revenue collected and the way in which it is collected from customers.

Several criteria are typically considered in setting rates and developing sound rate structures. The fundamentals of this process have been documented in a number of rate-setting manuals. For example, the foundation for evaluating rate structures is generally credited to James C. Bonbright in the *Principles of Public Utility Rates*[4], which outlines pricing policies, theories, and economic concepts along with various

3 Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices, M1, AWWA, seventh edition, 2017.

4 James C. Bonbright; Albert L. Danielsen and David R. Kamerschen, Principles of Public Utility Rates, (Arlington, VA: Public Utilities Report, Inc., Second Edition, 1988), p. 383-384.

rate designs. The other common industry standard is the American Water Works Association's (AWWA) Manual M1.

The following is a simplified list of the attributes of a sound rate structure, which apply to water and wastewater utilities:

- Rates should be easy to understand from the customer's perspective.
- Rates should be easy to administer from the utility's perspective.
- Rates should promote the efficient allocation of the resource.
- Rates should be equitable and non-discriminating (i.e., cost based).
- There should be continuity in the ratemaking philosophy over time.
- Other utility policies should be considered (e.g., encouraging conservation and economic development).
- Rates should consider the customer's ability to pay.
- Rates should provide month-to-month and year to year revenue stability.

Rate Structure Terminology

One of the most fundamental points in considering rate structures is the relationship between fixed and variable costs. The vast majority of water and wastewater rate structures contain a fixed or minimum charge, and a volumetric charge.

The District's rate design criteria reflect the characteristics of the District's utilities. Capital and operational reserve funding targets used in this study have been established with the input of District staff in order to meet specific utility objectives. The following discussion describes general industry rate-study practices in California and principals that were reflected in the recommended rates.

FIXED CHARGES

Fixed charges can be called base charges, minimum monthly charges, customer charges, fixed meter charges, etc. Although fixed charges are typically a significant percentage of the utility's overall cost structure, utilities rarely collect 100% of their fixed costs through fixed charges. In general, customers prefer that charges include a volumetric component, as there is an inherent and widely recognized equity in a "pay-for-what-you-use" philosophy.

For a water utility, fixed charges typically increase by meter size. For example, a customer with a 2" meter may have a fixed meter charge that is eight times greater than the 5/8" meter charge based on the meter's maximum flow rate.[5] Because a large portion of water utilities' costs are typically related to meeting capacity requirements, reflecting the capacity demands of each meter size is important in establishing equitable fixed charges for customers.

VARIABLE (CONSUMPTION-BASED) CHARGES

In contrast, variable costs such as the cost of purchased water, electricity used in pumping water, and chemicals used in the water and wastewater treatment facilities tend to change with the quantity of water produced (or wastewater effluent treated). For water utilities, variable charges are generally based on

5 These are typically referred to as "hydraulic capacity factors" that represent the relative capacity required in the water system. See American Water Works Association, Water Meters – Selection, Installation, Testing and Maintenance, M6 Manual, Table 5-3.

metered consumption and charged on a dollar-per-unit cost (per 100 cubic feet, or hcf, in the District's case).

There are significant variations in the basic philosophy of variable charge rate alternatives. Under a uniform (single tier) water rate structure, the cost per unit does not change with consumption, and provides a simple and straightforward approach from the perspective of customer understanding and rate administration/billing. A similar volumetric rate is often used for wastewater utilities to reflect the flow-related costs (i.e., sewage effluent) as well as the costs of treating the level of wastewater "strength" (i.e., the amount of biochemical oxygen demand (BOD) and total suspended solids (TSS) constituents).

KEY FINANCIAL ASSUMPTIONS

The following are the key assumptions used in the water and wastewater rate analyses:

- **Funding Capital Projects –** The analysis for both utilities assume:
  - Capital costs will be funded with rate revenue vs. issuing debt.
  - Capacity charge revenue, to the extent that it is accrued in future years, will be available to help fund upgrades and capacity expansion-related capital costs.
  - All capital projects listed in the financial plans are District projections (for District projects) or projections provided by the City (for City treatment-related projects).
- **Reserve Targets for Water and Wastewater** – Reserves for operations and capital needs are set at levels established by District staff and District Board. Reserve targets used in the analysis are as follows:
  - Operating & Maintenance Reserve – Minimum reserve target of 60 days (typical industry standard target is 90 days), and a maximum reserve target of 180 days of O&M expenses.
  - Water Capital Rehabilitation and Replacement Reserve – Minimum reserve target of five percent of net asset values and a maximum Year 1 reserve target of $2 million based on the projected capital cost over the next 10 years, inflated by CPI annually.
  - Sewer Capital Rehabilitation and Replacement Reserve – Minimum reserve target of five percent of net asset values and a maximum Year 1 reserve target of about $8 million based on the projected capital cost over the next 10 years, inflated by CPI annually.
- **Pass Through Charges** – Increases to purchased water and wastewater treatment costs above what is proposed for the next five years in the adopted rate study may be addressed using pass-through charges, which are intended to keep rates lower while still allowing for recovering additional costs charged by wholesale water or wastewater treatment providers. In the District's case, this includes purchased water costs from Humboldt Bay Municipal Water District and the City of Eureka, and wastewater treatment costs from City of Eureka. Pass through charges will be calculated by an adopted formula[6] and charged as a $/hcf surcharge for both water and wastewater billed consumption.
- **Inflation and Growth Projections** – Inflation and growth projections are applied equally to the water and wastewater utilities. NBS provided advice based on our professional experience, industry

6 Pass through charge structure is designed to adhere to California Government Code 53756. District is required to provide at least a 30-day notice to customers for implementation or adjustments to the pass through charges.

practices, and analysis of Bureau of Labor Statistics data for the area. As a result of working collaboratively with District staff, the following inflation and growth projections were used in this study:

- General inflation is 3 percent annually.
- Customer growth is 0 percent annually.
- Labor cost inflation is 4 percent annually.
- Energy cost inflation is 25 percent in Year 1 and 3 percent annually thereafter.
- Chemical cost inflation is 5 percent annually.

For the purpose of the water and sewer rate studies, NBS has assumed a zero percent growth rate to be conservative by not relying on additional rate revenue from future growth. However, for the capacity charge analyses, we have assumed 0.33% annual growth as shown in the District's 2010 Urban Water Management Plan[7] which reflected the actual population growth experienced within the District between 2000 and 2010.

As additional background on this topic, District staff notes that the 2010 US Census counted 19,291 people living within District boundaries, the 2020 US Census counted 19,551 people living within District Boundaries. The difference is 260 people or 0.135% annual population growth. The City of Eureka's 2040 Master Plan (adopted in October 2018) indicates an expected 0.6% annual population growth in the Greater Eureka Area over the next 20 years. Between 2017 and 2022, the District Single Family Residential connection count rose from 7,007 to 7,123 connections, which corresponds to a 0.33% annual increase in single family housing stock. Arguments could be made to increase or decrease the population growth projection but the authors of this report determined that 0.33% most accurately represents the expected annual population growth within the District for the foreseeable future.

The next two sections discuss the water and wastewater rate studies in further detail.

[7] *Source: UWMP 2013 Final.pdf, page 6.*

Section 3. WATER RATE STUDY

Developing Recommended Water Rates

The water rate analysis was undertaken with a few specific objectives in mind, including:

- Generating sufficient additional revenue needed to meet projected funding requirements,
- Providing revenue stability,
- Providing equity among customer classes,
- Incorporating projected water consumption levels.

NBS developed several water rate alternatives as requested by District staff over the course of this study. All rate structure alternatives were developed using industry standards and cost-of-service principles. District staff, with input from the Board of Directors, selected the rate alternative recommended in this report. The following are the basic components included in this analysis:

- **Developing Cost Allocations:** The water revenue requirements were "functionalized" into three categories: (1) fixed capacity costs; (2) variable (or volume-based) costs; and (3) customer service costs. Each of these functional costs has a distinct allocation factor used to determine revenue requirements by customer class.
- **Determining Revenue Requirements by Customer Class[8]:** Revenue requirements for each customer class were determined based on allocation factors such as water consumption, capacity peaking factors, and number of accounts by meter size. For example, volume-related costs are allocated based on the water consumption for each class, while customer costs are allocated based on number of accounts. Once the costs are allocated and the revenue requirement for each customer class is determined, collecting these revenue requirements from each customer class is addressed in the rate design task.
- **Rate Design and Fixed vs. Variable Costs:** Fixed costs, such as capacity-related and infrastructure costs, billing, and general administrative costs, are typically collected through a fixed monthly charge, while variable costs such as pumping and purchased water costs are typically collected through volumetric charges. The District's current fixed and variable costs are approximately 53 percent fixed and 47 percent variable, and current water rates collect about 48 percent from fixed charges and 52 percent from volumetric rates. However, California law[9] and industry practices are flexible on these percentages, so several rate design alternatives were evaluated.

  Because of the District's desire to promote water conservation, District staff preferred a rate structure alternative that recovers 60 percent of rate revenue from volumetric rates (vs. the current rate design, which is only intended to collect 50 percent) and 40 percent from fixed charges. This 60/40 alternative is the proposed rate alternative.

8 In the District's case, meter sizes serve as customer classes for the water utility while more traditional customer classes, such as single-family, multi-family, and commercial classes were used for the wastewater utility.

9 For example, AB 2882 allows a variety of conservation-oriented rate structures, including tiered water rates, and the California Water Efficiency Council (formerly the California Urban Water Conservation Council) recommends recovering a minimum of 70 percent of rate revenue through volume-based rates. However, water utilities generally develop their own policy and conservation objectives.

Water Utility Revenue Requirements

It is important for municipal utilities to maintain reasonable reserves in order to handle emergencies, fund capital improvements as well as working capital, maintain a good credit rating, and generally follow sound financial management practices. Rate increases are governed by the need to meet these objectives as follows:

- **Meeting Operating Costs:** For Fiscal Years 2023/24 through 2027/28, the net revenue requirement (i.e., total annual O&M expenses, debt service, and rate-funded capital costs less non-rate revenues) is estimated to be approximately $5.5 million to $11.7 million. If no rate increases are implemented, current revenue will not be sufficient to cover these costs.
- **Maintaining Adequate Reserves:** The District's reserves are a critical component in maintaining the financial health of the utility. Normal fluctuations in expenses and rate revenue as well as emergency costs are part of standard practices in the industry.
- **Maintaining Adequate Bond Coverage:** The District is required by its bond covenants for its 1988 and 2012 water bonds[10] to maintain debt-service coverage ratios of at least 1.20. It is projected that, with the recommended rate increases, the District will meet the 1.20 debt coverage ratios for the five-year planning period.

Figure 3 summarizes the sources and uses of funds and net revenue requirements for the next five years and includes the recommended annual rate increases. A summary of the water utility's proposed 5-year financial plan, which is included in Appendix B – Water Rate Study Summary Tables, includes revenue requirements, reserve funds, revenue sources, proposed rate increases, and the District's capital improvement program.

FIGURE 3. SUMMARY OF WATER REVENUE REQUIREMENTS

Summary of Sources and Uses of Funds and Net Revenue Requirements	Budget	5-Year Prop 218 Period				
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Sources of Water Funds						
Rate Revenue Under Prevailing Rates	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000
Non-Rate Revenues	118,344	118,344	118,344	118,344	118,344	118,344
Interest Earnings	74,151	48,584	55,317	61,454	80,081	92,744
Total Sources of Funds	**$ 5,392,495**	**$ 5,366,928**	**$ 5,373,661**	**$ 5,379,798**	**$ 5,398,425**	**$ 5,411,088**
Uses of Water Funds						
Personnel Expenses	$ 1,859,749	$ 1,934,139	$ 2,011,504	$ 2,091,964	$ 2,175,643	$ 2,262,669
Purchased Water	1,941,550	1,999,797	2,059,790	2,121,584	2,185,232	2,250,789
Operating Expenses	866,422	892,666	919,711	947,580	976,299	1,005,894
Debt Service	209,605	94,623	5,906	5,905	-	-
Rate-Funded Capital Expenses	1,889,741	759,710	1,486,655	1,514,372	2,658,911	6,384,502
Total Use of Funds	**$ 6,767,066**	**$ 5,680,935**	**$ 6,483,567**	**$ 6,681,405**	**$ 7,996,085**	**$ 11,903,853**
Net Revenue Requirement[2]	**$ 6,574,572**	**$ 5,514,008**	**$ 6,309,906**	**$ 6,501,607**	**$ 7,797,659**	**$ 11,692,765**
Surplus (Deficiency) before Rate Increase	**$ (1,374,572)**	**$ (314,008)**	**$ (1,109,906)**	**$ (1,301,607)**	**$ (2,597,659)**	**$ (6,492,765)**
Additional Revenue from Rate Increases[1]	-	$676,000	$1,439,880	$2,303,064	$3,278,463	$4,380,663
Surplus (Deficiency) after Rate Increase	**$ (1,374,572)**	**$ 361,992**	**$ 329,974**	**$ 1,001,457**	**$ 680,803**	**$ (2,112,102)**
Total Rate Revenue after Rate Increase	**$ 5,200,000**	**$ 5,876,000**	**$ 6,639,880**	**$ 7,503,064**	**$ 8,478,463**	**$ 9,580,663**
Projected Annual Rate Increase	***0.00%***	***13.00%***	***13.00%***	***13.00%***	***13.00%***	***13.00%***

1. Assumes new rates are implemented July of each year of rate period.
2. Total Use of Funds less non-rate revenues and interest earnings. This is the annual amount needed from water rates.

Figure 4 and **Figure 5** summarize the projected reserve fund balances and reserve targets. However, there is a more complex story behind these projections. Because of the District's history of deferred

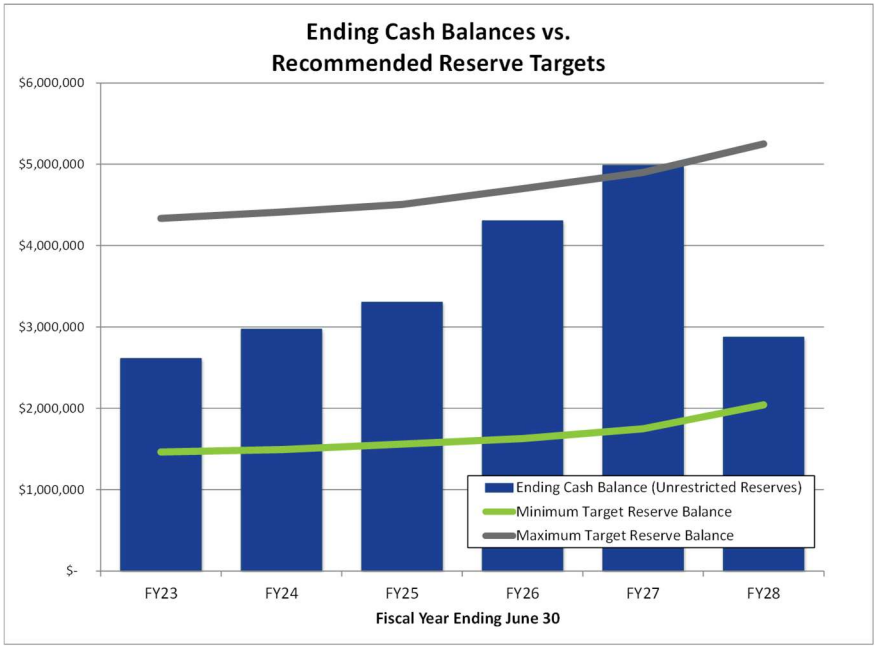
[10] *These bonds are paid in full in FY 2023/24, after which the District's Davis-Grunsky Loan does not have a coverage requirement.*

maintenance, which is the result of keeping rates too low, some of the planned CIP projects will go from planned replacements to emergency projects when failures occur; this will accelerate the rate of capital spending once more funding is available. While this will move some expenses into the nearer term, others are likely to be delayed until later. The net result will likely be an overall smoothing of the ending balances over the five-year rate adoption period.

FIGURE 4. SUMMARY OF WATER RESERVE FUNDS

Beginning Reserve Fund Balances and Recommended Reserve Targets	Budget	5-Year Prop 218 Period				
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Operating Reserve						
Ending Balance	$ 778,000	$ 804,000	$ 832,000	$ 860,000	$ 890,000	$ 920,000
Recommended Minimum Target	*778,000*	*804,000*	*832,000*	*860,000*	*890,000*	*920,000*
Recommended Maximum Target	*2,334,000*	*2,413,000*	*2,496,000*	*2,581,000*	*2,669,000*	*2,760,000*
Capital Rehabilitation & Replacement Reserve						
Ending Balance	$ 1,834,029	$ 2,170,022	$ 2,471,996	$ 3,445,453	$ 4,096,256	$ 1,954,154
Recommended Minimum Target	*684,800*	*689,700*	*729,000*	*767,500*	*858,600*	*1,122,000*
Recommended Maximum Target	*2,000,000*	*2,000,000*	*2,010,000*	*2,120,000*	*2,230,000*	*2,490,000*
Total Ending Balance	**$ 2,612,029**	**$ 2,974,022**	**$ 3,303,996**	**$ 4,305,453**	**$ 4,986,256**	**$ 2,874,154**
Total Recommended Minimum Target	***$ 1,462,800***	***$ 1,493,700***	***$ 1,561,000***	***$ 1,627,500***	***$ 1,748,600***	***$ 2,042,000***
Total Recommended Maximum Target	***$ 4,334,000***	***$ 4,413,000***	***$ 4,506,000***	***$ 4,701,000***	***$ 4,899,000***	***$ 5,250,000***

FIGURE 5. ENDING RESERVE FUND BALANCES



Characteristics of Water Customers by Class

Water customer characteristics are used in allocating costs in the cost-of-service analysis. The District's most recent data by customer class includes the consumption data in **Figure 6**, peaking factors in **Figure 7**, and the total number of accounts in **Figure 8**. In allocating net revenue requirements to individual customer classes, consumption data is used to allocate volumetric-related costs while peaking factors are used to allocate system capacity-related costs and number of accounts are used to allocate customer service-related costs. More details on this process are provided below in the cost-of-service section.

FIGURE 6. WATER CONSUMPTION BY CUSTOMER CLASS

Customer Class	FY 2020/21 Volume (hcf)[1]	Percent of Total Volume
Residential	530,468	**79.8%**
Multi-Family Residential	46,099	**6.9%**
Mobile Home Park	29,578	**4.5%**
Commercial Light	44,753	**6.7%**
Commercial Medium	2,450	**0.4%**
Commercial Heavy	10,076	**1.5%**
Construction Meter	1,020	**0.2%**
Total	**664,444**	**100%**

1. Consumption data is based on the HCSD's billing data.

FIGURE 7. PEAKING FACTORS BY CUSTOMER CLASS

Customer Class	Average Monthly Use (hcf)	Peak Monthly Use (hcf)[1]	Peak Monthly Factor	Max Month Capacity Factor
Residential	44,206	57,858	**1.31**	**79.5%**
Multi-Family Residential	3,842	4,540	**1.18**	**6.2%**
Mobile Home Park	2,465	2,755	**1.12**	**3.8%**
Commercial Light	3,729	5,082	**1.36**	**7.0%**
Commercial Medium	204	275	**1.35**	**0.4%**
Commercial Heavy	840	1,841	**2.19**	**2.5%**
Construction Meter	85	464	**5.46**	**0.6%**
Total	**55,370**	**72,815**	**1.32**	**100%**
Fire Service	0	0	**n.a.**	**0.0%**
Total	**55,370**	**72,815**	**1.32**	**100%**

1. Based on peak monthly data (peak day data not available).

FIGURE 8. NUMBER OF ACCOUNTS BY CUSTOMER CLASS

Customer Class	Number of Meters[1]	Percent of Total
Residential	6,968	**90.4%**
Multi-Family Residential	465	**6.0%**
Mobile Home Park	11	**0.1%**
Commercial Light	234	**3.0%**
Commercial Medium	3	**0.0%**
Commercial Heavy	23	**0.3%**
Construction Meter	6	**0.1%**
Total	**7,710**	**100.0%**
Fire Service	58	**0.7%**
Total	**7,768**	**100.7%**

1. Meter Count data is based on the HCSD's billing data for June 2021.

Cost of Service Analysis – Water

As previously noted in Figure 2, the purpose of the cost-of-service analysis is to fairly and equitably allocate annual water utility revenue requirements to *customer classes*, while the rate design determines the actual rates *within each customer class*. The first step of separating costs into commodity-, capacity-, and customer-related cost classifications is based on their functional purpose in the water utility: results are summarized in **Figure 9**, while more detailed fixed and variable allocations are shown in Appendix B.

FIGURE 9. SUMMARY OF FIXED AND VARIABLE RATE REVENUE REQUIREMENTS

Classification Components	Fixed & Variable Cost Allocations	Adjusted Net Revenue Requirements	
		40% Fixed / 60% Variable	
Commodity-Related Costs	Variable	**$ 3,525,600**	*60.0%*
Capacity-Related Costs	Fixed	**2,085,980**	*35.5%*
Customer-Related Costs	Fixed	**264,420**	*4.5%*
Net Revenue Requirement		**$ 5,876,000**	*100%*

The next step is to allocate these commodity-related, capacity-related, and customer-related costs to each customer class based on the allocation factors previously shown in Figure 6 through Figure 8, as follows:

- Water consumption (Figure 6) is used to allocate commodity-related variable costs shown in **Figure 10**. For example, single-family commodity-related costs are 79.8% of $3.52 million, or $2.81 million.[11]
- Peaking factors (Figure 7) are used to allocate the capacity-related costs shown in **Figure 10**; single-family capacity-related costs are 79.5% of $2.08 million capacity-related costs, or $1.65 million.
- Number of meters (Figure 8) are used to allocate the customer-related costs shown in **Figure 10**; single-family customer-related costs are 90.4% of $264,420, or $238,973.

The results of this cost allocation process are summarized in Figure 10:

FIGURE 10. SUMMARY OF ADJUSTED RATE REVENUE REQUIREMENTS BY CUSTOMER CLASS

Customer Classes	Classification Components			Cost of Service Net Rev. Req'ts	% of COS Net Revenue Req'ts
	Commodity-Related Costs	Peaking-Related Costs	Customer-Related Costs		
Residential	$ 2,814,711	$ 1,657,497	$ 238,973	$ 4,711,181	*80.2%*
Multi-Family Residential	244,605	130,060	15,948	390,613	*6.6%*
Mobile Home Park	156,944	78,924	377	236,245	*4.0%*
Commercial Light	237,463	145,587	8,025	391,076	*6.7%*
Commercial Medium	13,000	7,878	103	20,981	*0.4%*
Commercial Heavy	53,464	52,740	789	106,993	*1.8%*
Construction Meter	5,412	13,293	206	18,911	*0.3%*
Total Net Revenue Requirement	**$ 3,525,600**	**$ 2,085,980**	**$ 264,420**	**$ 5,876,000**	**100%**
Total Net Revenue Requirement by Classification Component	*VARIABLE $3,525,600*	*FIXED $2,350,400*		*$5,876,000*	

As previously shown in Figure 3, the projected rate revenue collected in FY 2023/24 from new rates would be $676,000, which assumes rates are effective beginning in July 2023. When added to the expected rate revenue from current rates (i.e., $5.2 million), the projected rate revenue in FY 2023/24 is $5.876 million, as shown in Figure 10.

Proposed Water Rates

Figure 11 compares the current and proposed rates for FY 2023/24 through 2027/28. Cost-of-service adjustments are reflected in the FY 2023/24 rates; thereafter rate increases are applied on an across-the-board basis. Appendix B provides more detail on the development of the proposed water rates.

11. In each of these examples, there are more decimal places used in the calculations than indicated in the numbers shown here. Because of this, results shown may not exactly duplicate the actual calculation.

As shown in Figure 11, residential 5/8-inch through 1-inch meters now have the same fixed charge. This is because, as District staff have noted, fire sprinkler code requires many single-family homes to upsize their meters from 5/8-inch to 3/4- or even 1-inch meters, even though their expected consumption is the same as any other single-family customer. Because of this, 3/4- and 1-inch residential meters are considered equivalent to older 5/8-inch residential meters in this analysis. Many other water districts in California have made similar adjustments when building codes require larger meters to avoid penalizing those customers for these unrelated code requirements.

FIGURE 11. CURRENT AND PROPOSED WATER RATES FISCAL YEAR 2023/24 – 2027/28

Water Rate Schedule	Current Rates	Proposed Rates (40% Fixed/60% Variable)				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Fixed Service Charge (by Meter Size)						
Monthly Fixed Service Charges:						
Residential 5/8-, 3/4-, and 1-inch[1]	$26.46	$23.55	$26.61	$30.07	$33.98	$38.40
5/8 inch	$26.46	**$23.55**	$26.61	$30.07	$33.98	$38.40
3/4 inch	$38.42	**$33.90**	$38.30	$43.28	$48.91	$55.27
1 inch	$62.34	**$54.59**	$61.68	$69.70	$78.76	$89.00
1 1/2 inch	$122.13	**$106.32**	$120.14	$135.76	$153.40	$173.35
2 inch	$193.89	**$168.39**	$190.28	$215.02	$242.97	$274.56
3 inch	$385.23	**$333.93**	$377.34	$426.39	$481.82	$544.46
4 inch	$600.49	**$1,037.45**	$1,172.32	$1,324.72	$1,496.93	$1,691.53
6 inch	$1,198.44	**$1,658.20**	$1,873.77	$2,117.36	$2,392.61	$2,703.65
Volumetric Charges for All Water Consumed						
Uniform Rate (per hcf)	$4.06	**$5.31**	$6.00	$6.78	$7.66	$8.66

1. Fixed charges for 5/8-, 3/4-, and 1-inch ***single-family residential*** meters are the same.

As a result of the District's approach to fire code requirements for 3/4- and 1-inch meters, the base rate (and water capacity charges) will be based on the meter size needed to accommodate the peaking demand of the residence based on the property's plumbing fixture unit count (PFUC) as defined in the Uniform Plumbing Code, regardless of the size meter that will be installed to accommodate fire flow. This will allow customers that have a 3/4- or 1-inch meter for fire flow to be charged the fixed monthly charge for the 5/8-inch meter they would need to accommodate their PFUC-based demand. Properties with a PFUC-based demand, which requires a 3/4-inch or 1-inch meter, and customers that request a larger meter for reasons other that fire flow will be charged the fixed monthly charge associated with the installed meter size as listed in Figure 11.

Comparison of Current and Proposed Monthly Bills

SINGLE-FAMILY WATER CUSTOMERS

Figure 12 compares monthly water bills under the current and proposed rates, for single-family residential customers, in the first year of the rate adjustment plan. **Figure 13** compares current and proposed typical single-family monthly water bills compared to other communities.

FIGURE 12. MONTHLY WATER BILL COMPARISON FOR SFR CUSTOMERS

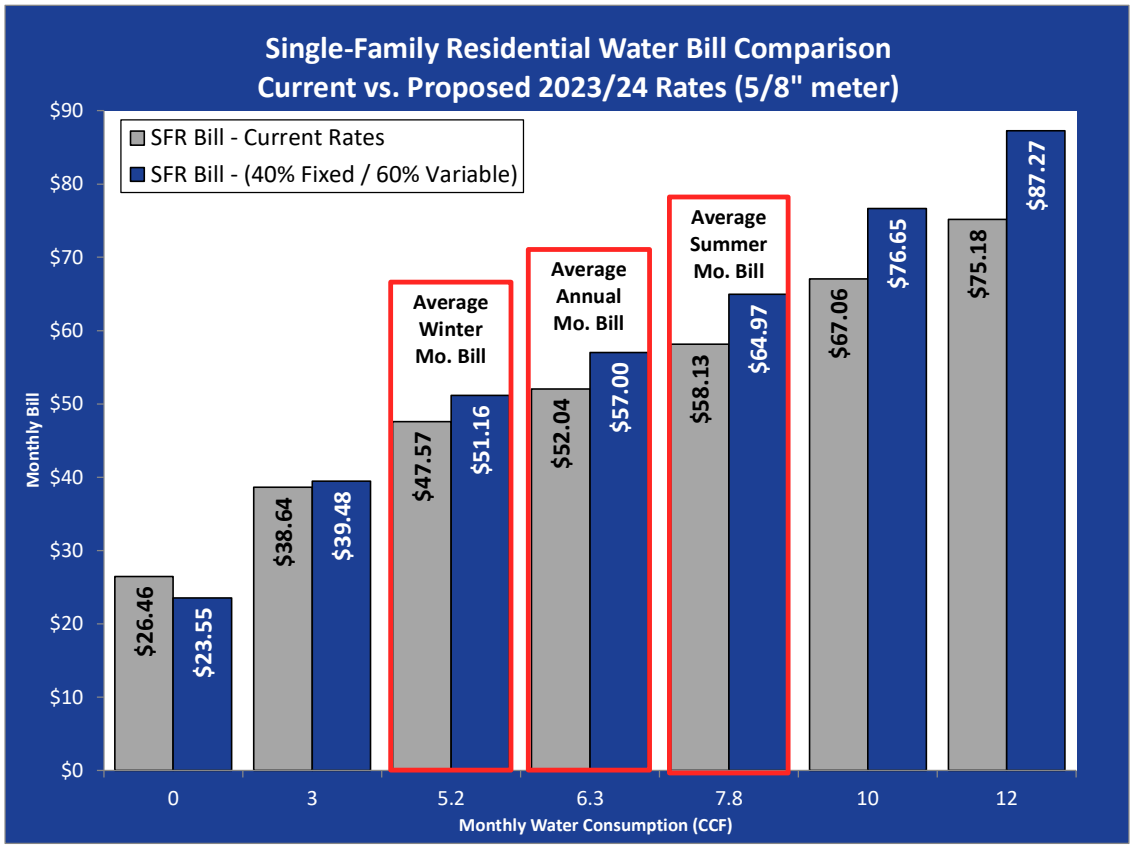
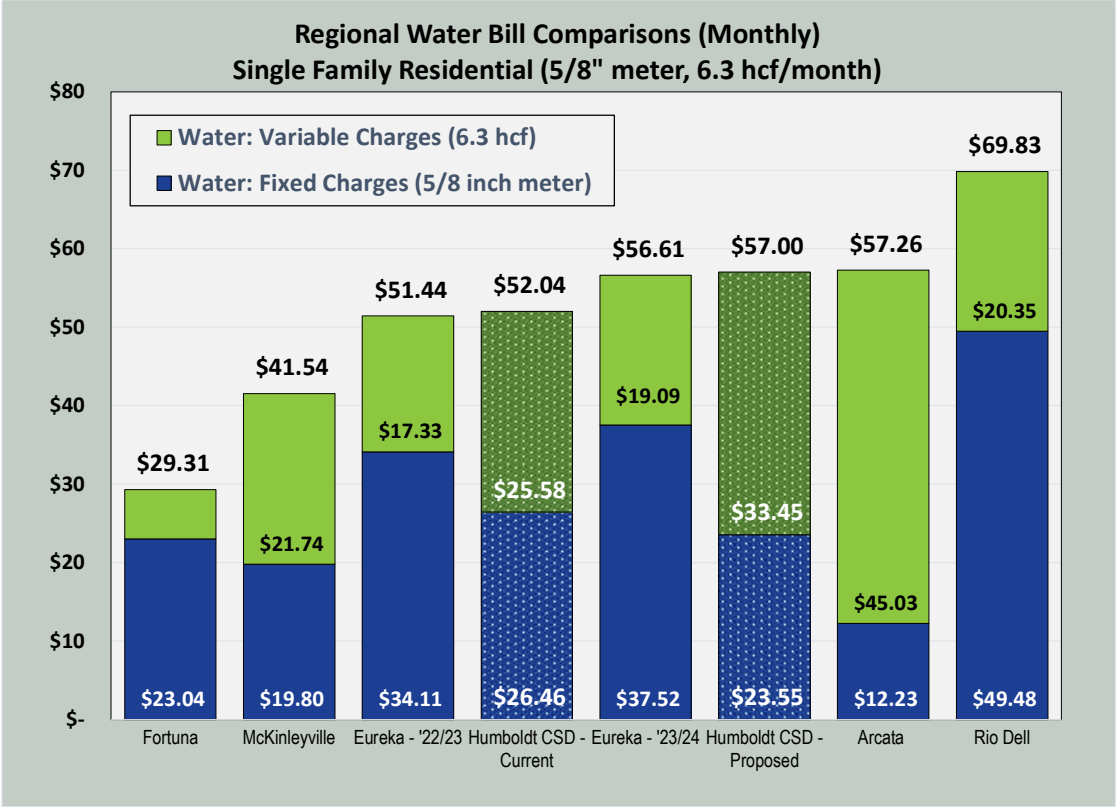


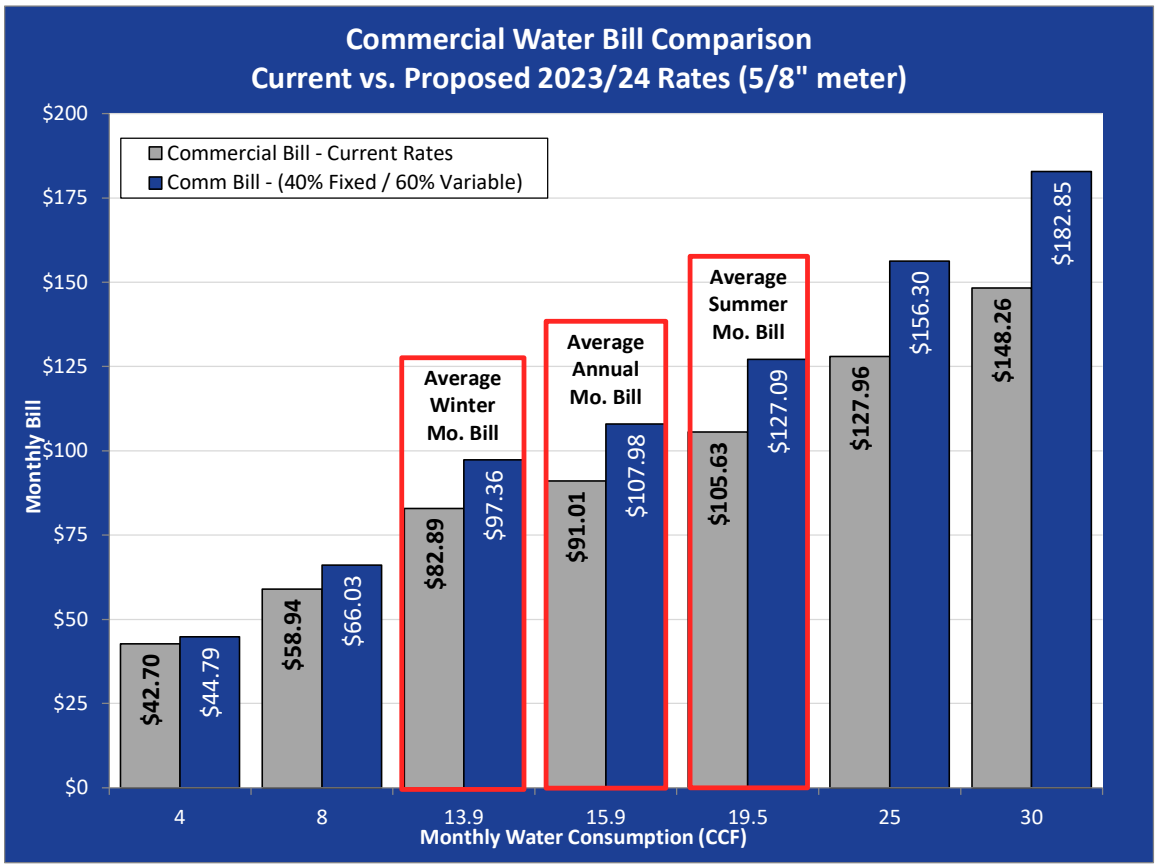
FIGURE 13. MONTHLY WATER BILL COMPARISON WITH OTHER COMMUNITIES



COMMERCIAL WATER CUSTOMERS

Commercial customers are currently subject to the same fixed monthly charges by meter size and uniform volumetric rate as single-family customers. **Figure 14** compares current and proposed monthly bills for commercial customers with a 5/8-inch meter at various levels of consumption, in the first year of the rate adjustment plan.

FIGURE 14. MONTHLY WATER BILL COMPARISON FOR COMMERCIAL USERS



Section 4. WASTEWATER RATE STUDY

Developing Recommended Wastewater Rates

The wastewater rate study focused on key objectives similar to those considered in the water rate study, with the overriding concern being maintaining the financial health of the utility.

Similar wastewater rate tasks were performed, including (1) developing functional cost allocations, (2) developing revenue requirements by customer class, and (3) determining rates within customer classes. Detailed tables showing the step-by-step development of the analysis are presented in Appendix C – Wastewater Rate Summary Tables.

Wastewater Utility Revenue Requirements

To identify the wastewater utility's long-term financial needs, including funding for capital improvement projects, NBS developed a 10-year financial plan that forecasts wastewater revenues, expenditures, and projected reserves. This plan is based on the District's current operating budget for the utility, discussions with District staff, and related information such as debt service schedules and capital improvement plans. This financial plan addresses four primary objectives:

- **Meeting Operating Costs:** The wastewater utility must generate enough revenue to cover the expenses of wastewater operations, including administration, maintenance, and the collection system. Wastewater treatment plant services are contracted with the City of Eureka and accounted for in the District's annual budget as an operating cost.
- **Meeting Capital Improvement Costs:** The wastewater utility plans to adequately fund necessary capital improvements, which includes roughly $26 million in planned capital improvements for FY 2023/24 through the end of FY 2027/28. The District's 32.1 percent share of the City of Eureka's wastewater treatment plant improvement costs account for a large portion of the District's capital improvement costs.
- **Maintaining Adequate Reserves:** The District's reserves are a critical component in maintaining the financial health of the utility. Normal fluctuations in expenses and rate revenue as well as emergency costs are part of standard practices in the industry.
- **Maintaining Adequate Bond Coverage:** The District is required by its bond covenant to maintain a debt service coverage ratio of at least 1.20 for the outstanding Wastewater Revenue Bonds, 2014 Series, and the 2012 loan for the Martin Slough Refinancing. The Utility is projected to meet this coverage requirement through FY 2027/28.

In FY 2023/24, the net revenue requirement of approximately $7 million is sufficient to cover annual operating expenditures, debt service payments, and planned capital improvement costs. However, capital improvements this year are only $2.7 million, while the longer term capital improvement (over the next 10 years) average $8.3 million per year to pay for both the District's neglected collection system projects as well as City treatment-related projects. Because of this, rate increases are needed to fund these costs and maintain positive reserve balances.

Figure 15 summarizes the sources and uses of funds and net revenue requirements for the next five years and includes the recommended annual rate increases**. Figure 16** summarizes the utility's projected reserve funds and target balances.

FIGURE 15. SUMMARY OF WASTEWATER REVENUE REQUIREMENTS

Summary of Sources and Uses of Funds and Net Revenue Requirements	Budget	5-Year Prop 218 Period				
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Sources of Wastewater Funds						
Rate Revenue Under Prevailing Rates	$ 5,620,572	$ 7,068,372	$ 7,068,372	$ 7,068,372	$ 7,068,372	$ 7,068,372
Sewer Pass Through	$ 1,447,800	$ -	$ -	$ -	$ -	$ -
Non-Rate Revenues	89,576	89,576	89,576	89,576	89,576	89,576
Interest Earnings	64,358	71,657	79,474	94,937	126,899	193,234
Total Sources of Funds	**$ 7,222,306**	**$ 7,229,606**	**$ 7,237,422**	**$ 7,252,886**	**$ 7,284,847**	**$ 7,351,182**
Uses of Wastewater Funds						
Personnel Expenses	$ 1,421,035	$ 1,477,877	$ 1,536,992	$ 1,598,471	$ 1,662,410	$ 1,728,907
Sewage Treatment O&M	1,523,600	1,584,544	1,647,926	1,713,843	1,782,397	1,853,692
Operating Expenses	616,491	634,212	652,464	671,264	690,628	710,573
Debt Service	779,216	780,616	781,616	782,216	662,425	664,613
Rate-Funded Capital Expenses	2,489,510	2,724,391	3,917,426	4,184,642	3,593,750	8,316,563
Total Use of Funds	**$ 6,829,852**	**$ 7,201,639**	**$ 8,536,424**	**$ 8,950,436**	**$ 8,391,609**	**$ 13,274,348**
Net Revenue Requirement[1]	**$ 6,675,919**	**$ 7,040,406**	**$ 8,367,374**	**$ 8,765,923**	**$ 8,175,134**	**$ 12,991,538**
Surplus (Deficiency) before Rate Increase	**$ 392,454**	**$ 27,966**	**$ (1,299,002)**	**$ (1,697,550)**	**$ (1,106,762)**	**$ (5,923,166)**
Additional Revenue from Rate Increases[2]	-	989,572	2,117,684	3,403,732	4,660,385	6,067,836
Surplus (Deficiency) after Rate Increase	**$ 392,000**	**$ 1,018,000**	**$ 819,000**	**$ 1,706,000**	**$ 3,554,000**	**$ 145,000**
Total Rate Revenue after Rate Increase	**$ 7,068,372**	**$ 8,057,945**	**$ 9,186,057**	**$ 10,472,105**	**$ 11,728,757**	**$ 13,136,208**
Projected Annual Rate Increase	***0.00%***	***14.00%***	***14.00%***	***14.00%***	***12.00%***	***12.00%***

1. Total Use of Funds less non-rate revenues. This is the annual amount needed from wastewater rates.

2. Assumes new rates are implemented July of each year of rate period.

FIGURE 16. SUMMARY OF WASTEWATER RESERVE FUNDS

Beginning Reserve Fund Balances and Recommended Reserve Targets	Budget	5-Year Prop 218 Period				
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Un-Restricted Reserves						
Operating & Capital Replacement Reserve						
Ending Balance	**$ 593,500**	**$ 616,100**	**$ 639,600**	**$ 663,900**	**$ 689,200**	**$ 715,500**
Recommended Minimum Target	*593,500*	*616,100*	*639,600*	*663,900*	*689,200*	*715,500*
Recommended Maximum Target	*1,780,600*	*1,848,300*	*1,918,700*	*1,991,800*	*2,067,700*	*2,146,600*
Capital Rehabilitation & Replacement Reserve						
Ending Balance	**$ 3,259,035**	**$ 3,656,674**	**$ 4,464,550**	**$ 6,158,626**	**$ 9,699,702**	**$ 6,180,778**
Recommended Minimum Target	*1,086,100*	*1,185,600*	*1,340,000*	*1,502,800*	*1,632,000*	*2,163,400*
Recommended Maximum Target	*8,000,000*	*8,240,000*	*8,490,000*	*8,740,000*	*9,000,000*	*9,270,000*
Total Ending Balance	**$ 3,852,535**	**$ 4,272,774**	**$ 5,104,150**	**$ 6,822,526**	**$ 10,388,902**	**$ 6,896,278**
Total Recommended Minimum Target	***$ 1,679,600***	***$ 1,801,700***	***$ 1,979,600***	***$ 2,166,700***	***$ 2,321,200***	***$ 2,878,900***
Total Recommended Maximum Target	***$ 9,780,600***	***$ 10,088,300***	***$ 10,408,700***	***$ 10,731,800***	***$ 11,067,700***	***$ 11,416,600***

A summary of the entire 10-year financial plan, showing revenue requirements, revenue sources (including rate revenue), and necessary rate increases is presented in Appendix C, along with a summary of the District's capital improvement program.

Cost of Service Analysis – Wastewater

The wastewater cost-of-service analysis is where annual revenue requirements are fairly and equitably allocated to customer classes. In contrast to the District's water customer classes, the District's wastewater customer classes are represented by type of customer: residential, multi-family, and commercial.

The key factors used in the wastewater cost-of-service analysis include the estimated effluent (flow) going to the wastewater treatment plant, the effluent strengths (BOD and TSS), and customer-related costs (e.g., billing and administrative costs). Actual wastewater flow data from 2021 was used.

Figure 17 shows how the volume allocation factors were developed, which are the percentages of annual consumption and estimated flow by various types of customers.

FIGURE 17. SUMMARY OF ESTIMATED FLOW TO TREATMENT PLANT

Customer Class	FY'20/21 Mo. Winter-Avg. Based Billable Vol. (HCF)[2]	FY'20/21 Annualized Vol. Based on Winter-Avg. (Billable Vol.)	% of Total Consumption
Residential	29,062	348,738	**75.4%**
Multi-Family Residential	3,447	41,358	**8.9%**
Mobile Home Park/Trailer Park	1,740	20,877	**4.5%**
Commercial Light	3,125	37,497	**8.1%**
Commercial Medium	178	2,136	**0.5%**
Commercial Heavy	1,003	12,039	**2.6%**
Grand Total:	**38,554**	**462,645**	**100.0%**

1. Consumption data is based on the HCSD's FY 2020/21 customer data.
2. Monthly Billable Volume is equal to the 4-month Average Winter Consumption (December-March).

Customer Class Effluent Strengths – Effluent strength factors for individual customer classes are estimated using the general industry guidelines[12]. The estimated effluent strengths by customer class are described below.

- Residential customers, including single-family, multi-family and mobile homes, are estimated to have BOD and TSS strength factors of 200 mg/l.
- Commercial customers have strength factors ranging from lower to higher than residential users, reflecting three strength-related classes (low-, medium-, and high-strength users).

Figure 18 and **Figure 19** summarize the BOD and TSS strength characteristics and allocation percentages of the utility's wastewater customer classes.

FIGURE 18. SUMMARY OF ANNUAL FLOW AND STRENGTH (BOD) CHARACTERISTICS BY CUSTOMER CLASS:

Customer Class	FY'20/21 Annualized Vol. (Billable Vol.) (HCF)	Adjusted Annual Volume Total (HCF)	Annual Flow (gallons = HCF x 748 gal/HCF)	Biochemical Oxygen Demand (BOD)			
				Average Strength Factor (mg/l)[1]	Calculated BOD (lbs./yr.)	Adjusted BOD (lbs./yr.)	Percent of Total
Residential	348,738	372,577	278,706,371	200	464,882	500,265	**71.0%**
Multi-Family Residential	41,358	44,185	33,052,716	200	55,132	59,328	**8.4%**
Mobile Home Park/Trailer Park	20,877	22,304	16,684,597	200	27,830	29,948	**4.3%**
Commercial Light	37,497	40,060	29,967,061	200	49,985	53,789	**7.6%**
Commercial Medium	2,136	2,282	1,707,060	435	6,193	6,664	**0.9%**
Commercial Heavy	12,039	12,862	9,621,395	630	50,553	54,400	**7.7%**
Grand Total:	**462,645**	**494,271**	369,739,200		654,575	704,395	
Target, from WWTP Data[2]		*494,271*	*Flow (HCF/yr.)*			*704,395*	*BOD (lbs./yr.)*
		1.07	*Flow Adj. Factor*			*1.076*	*BOD Adj. Factor*

1. Average strength factors for BOD and TSS are derived from the State Water Resources Control Board Revenue Program Guidelines, Appendix G.
2. Reported in City of Eureka's Sewer Rate Study, concurrent with this rate study.

12 The State Water Resources Control Council (SWRCB) Revenue Program Guidelines, Appendix G, page G-21 "Commercial User Strength Characteristics," were used for this purpose.

The “adjustments” shown in these tables are mass-balance adjustments to the billable volumes and resulting pounds of BOD and TSS so that they match the actual data from treatment plant records. While these adjustments do not alter the allocation percentages, they demonstrate that field records of system flows are reasonable estimates of the actual performance of the treatment plant.

FIGURE 19. SUMMARY OF ANNUAL FLOW AND STRENGTH (TSS) CHARACTERISTICS BY CUSTOMER CLASS:

Customer Class	FY'20/21 Annualized Vol. (Billable Vol.) (HCF)	Adjusted Annual Volume Total (HCF)	Annual Flow (gallons = HCF x 748 gal/HCF)	Total Suspended Solids (TSS)			
				Average Strength Factor (mg/l)[1]	Calculated TSS (lbs./yr.)	Adjusted TSS (lbs./yr.)	Percent of Total
Residential	348,738	372,577	278,706,371	200	464,882	461,118	**71.0%**
Multi-Family Residential	41,358	44,185	33,052,716	200	55,132	54,686	**8.4%**
Mobile Home Park/Trailer Park	20,877	22,304	16,684,597	200	27,830	27,605	**4.3%**
Commercial Light	37,497	40,060	29,967,061	200	49,985	49,580	**7.6%**
Commercial Medium	2,136	2,282	1,707,060	435	6,193	6,143	**0.9%**
Commercial Heavy	12,039	12,862	9,621,395	630	50,553	50,143	**7.7%**
Grand Total:	**462,645**	**494,271**	369,739,200		654,575	649,275	
Target, from WWTP Data[2]		*494,271*	*Flow (HCF/yr.)*			*649,275*	*TSS (lbs./yr.)*
		1.07	*Flow Adj. Factor*			*0.992*	*TSS Adj. Factor*

1. Average strength factors for BOD and TSS are derived from the State Water Resources Control Board Revenue Program Guidelines, Appendix G.
2. Reported in City of Eureka's Sewer Rate Study, concurrent with this rate study.

Figure 20 compares the total number of accounts by customer class. **Figure 21** then summarizes the total rate revenue requirements by customer class resulting from the cost-of-service cost allocation process and the cost allocation factors shown in Figure 17 through Figure 20. Cost classification components include volume, strength-related (BOD and TSS) and customer-related costs and are represented both as a dollar amount and as a percentage of total net revenue requirements.

FIGURE 20. SUMMARY OF WASTEWATER CUSTOMER ACCOUNTS AND EDU’S

Customer Class	Number of Accounts	Percent of Total
Residential	5,842	**89.5%**
Multi-Family Residential	415	**6.4%**
Mobile Home Park/Trailer Park	10	**0.2%**
Commercial Light	235	**3.6%**
Commercial Medium	3	**0.0%**
Commercial Heavy	21	**0.3%**
Grand Total:	**6,526**	**100.0%**

FIGURE 21. SUMMARY OF ADJUSTED RATE REVENUE REQUIREMENTS BY CUSTOMER CLASS

Customer Class	Cost Classification Components				Cost-of-Service Net Revenue	% of COS Net Rev. Reqts. (2023/24)
	Volume	Treatment/Strength		Customer Related		
		BOD	TSS			
Net Revenue Requirements[1]	***$ 4,587,608***	***$ 1,584,886***	***$ 1,584,886***	***$ 300,565***	***$ 8,057,945***	--
	56.9%	*19.7%*	*19.7%*	*3.7%*	*100.0%*	--
Residential	$ 3,458,102	$ 1,125,593	$ 1,125,593	$ 269,062	**$ 5,978,350**	**74.2%**
Multi-Family Residential	410,108	133,488	133,488	19,113	**696,197**	**8.6%**
Mobile Home Park/Trailer Park	207,017	67,383	67,383	461	**342,244**	**4.2%**
Commercial Light	371,822	121,026	121,026	10,823	**624,697**	**7.8%**
Commercial Medium	21,181	14,995	14,995	138	**51,309**	**0.6%**
Commercial Heavy	119,379	122,401	122,401	967	**365,147**	**4.5%**
	$ 4,587,608	**$ 1,584,886**	**$ 1,584,886**	**$ 300,565**	**$ 8,057,945**	**100%**

1. Revenue requirement for each customer class is determined by multiplying the revenue requirement from each cost classification by the allocation factors for each customer class.

As shown in Figure 21, the total rate revenue expected to be collected in FY 2023/24 would be approximately $8.1 million.

How these costs are then collected from fixed and volumetric charges within each customer class is part of the rate design analysis, the third study component previously shown in Figure 2.

Current vs. Proposed Wastewater Rates

Currently, the District's wastewater rates consist of a small fixed monthly account charge, a fixed monthly base charge per living unit (which varies by customer class), and a volumetric rate (which also varies by customer class). Although rates currently collect 66 percent of rate revenue from volumetric rates and 34 percent from fixed charges, current rates were originally designed to collect 60 percent from volumetric and 40 percent from fixed charges based on FY 2014/15 data. Additionally, other conditions have changed since then -- most notably there have been significant increases in the City's capital expenses which were then passed on to the District.

The proposed rates now collect 60 percent of revenue requirements from volumetric rates and 40 percent from fixed charges. This, along with the removal of the pass-through charge from volumetric rates, the 14 percent increase in revenue requirements, and changes in consumption patterns since the previous rate study, resulted in higher fixed charges and relatively smaller increases in volumetric rates.

Figure 22 shows the current and proposed wastewater rates through FY 2027/28. To improve accounting efficiency certain customer classes are grouped as follows:

- Trailer Parks are included in the Mobile Home customer class.
- Separate Laundry Facility accounts are included in the Commercial – Light Strength class.
- Public Facilities, Schools, Religious & Non-Profit, Fairgrounds, and Commercial Power Plants customer classes are included in the Commercial – Light Strength class.

FIGURE 22. CURRENT AND PROPOSED WASTEWATER RATES FISCAL YEAR 2023/24 – 2027/28

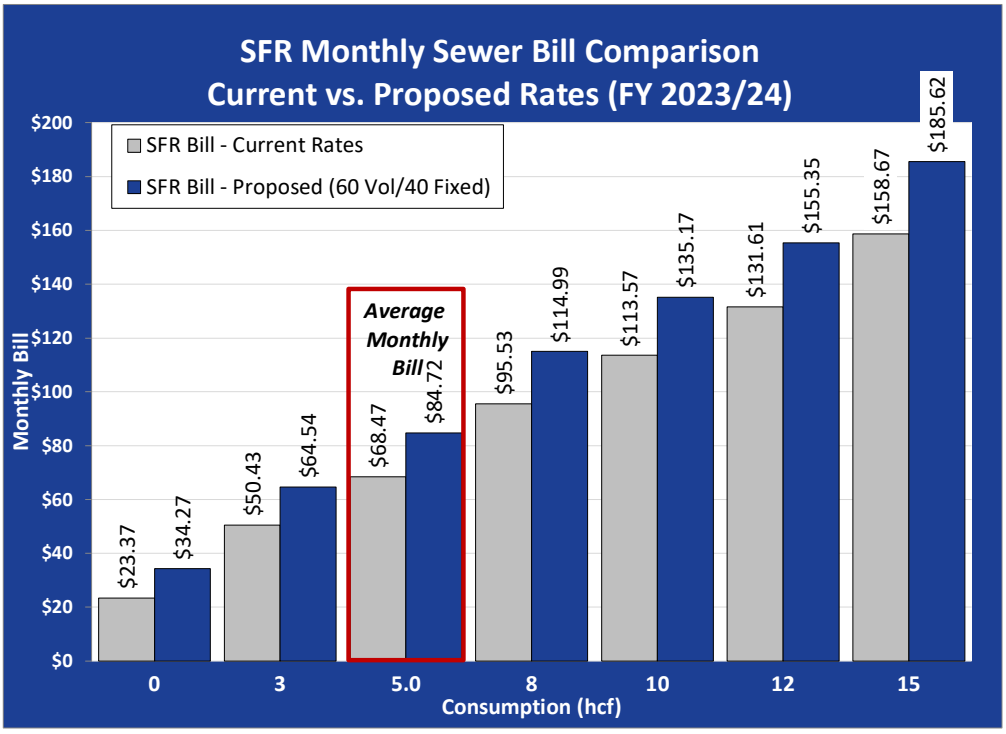
Sewer Rate Schedule	Current Rates	Recommended Monthly Fixed Sewer Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Projected Increase in Rate Revenue per Financial Plan:		*14.00%*	*14.00%*	*14.00%*	*14.00%*	*14.00%*
Monthly Fixed Service Charge						
Customer Service Charge Per Account	$4.28	$3.84	$4.38	$5.00	$5.70	$6.50
Monthly Fixed Service Charge Per Living Unit (LU)						
Residential:						
Single Family Residential (1-3)	$19.09	$30.43	$34.70	$39.56	$45.10	$51.42
Multi-Family (4 or more)	$15.27	$22.42	$25.56	$29.14	$33.22	$37.88
Mobile Homes	$16.61	$18.26	$20.82	$23.74	$27.07	$30.86
Trailer Parks	$16.61	$18.26	$20.82	$23.74	$27.07	$30.86
Commercial:						
Commercial - Light Strength (< 370 mg/liter)	$19.09	$30.43	$34.70	$39.56	$45.10	$51.42
Commercial - Medium Strength (370-500 mg/liter)	$19.09	$30.43	$34.70	$39.56	$45.10	$51.42
Commercial - Heavy Strength (>500 mg/liter)	$19.09	$30.43	$34.70	$39.56	$45.10	$51.42
Volumetric Charge ($/HCF) [1,2]						
Residential[3]	*(Includes Passthrough)* [4]					
Single Family Residential (1-3)	$9.02	$10.09	$11.51	$13.13	$14.97	$17.07
Multi-Family (4 or more)	$9.02	$10.09	$11.51	$13.13	$14.97	$17.07
Mobile Homes	$9.02	$10.09	$11.51	$13.13	$14.97	$17.07
Trailer Parks	$9.02	$10.09	$11.51	$13.13	$14.97	$17.07
Commercial[3]						
Commercial - Light Strength (< 370 mg/liter)	$10.79	$10.10	$11.52	$13.14	$14.98	$17.08
Commercial - Medium Strength (370-500 mg/liter)	$11.97	$17.63	$20.10	$22.92	$26.13	$29.79
Commercial - Heavy Strength (>500 mg/liter)	$13.26	$22.50	$25.65	$29.25	$33.35	$38.02

1. One Unit is equal to one HCF (Hundred Cubic Feet) or 748 gallons.
2. Rate is charged based on the monthly average winter water use of the previous calendar year (December - March) for each account.
3. Volumetric Charges apply to each unit (hcf) billed to all customer classes.
4. Current Volumetric Charges include passthrough adjustments; that additional revenue has been incorporated into both fixed and volumetric charges going forward.

SINGLE-FAMILY WASTEWATER CUSTOMERS

Figure 23 compares typical single-family monthly wastewater bills in year one of the adjusted rate plan.

FIGURE 23. MONTHLY SINGLE-FAMILY WASTEWATER BILL COMPARISON



We note that these bill comparisons reflect shifting the pass-through charges (which are currently included in volumetric rates) into the revenue requirements and, through the rate design, now collects 60 percent of rate revenue from volumetric rates and 40 percent from fixed charges.

Figure 24 compares typical single-family monthly wastewater bills with other communities. The sewer bills for typical District customers are about 30 percent higher than for City customer for two primary reasons:

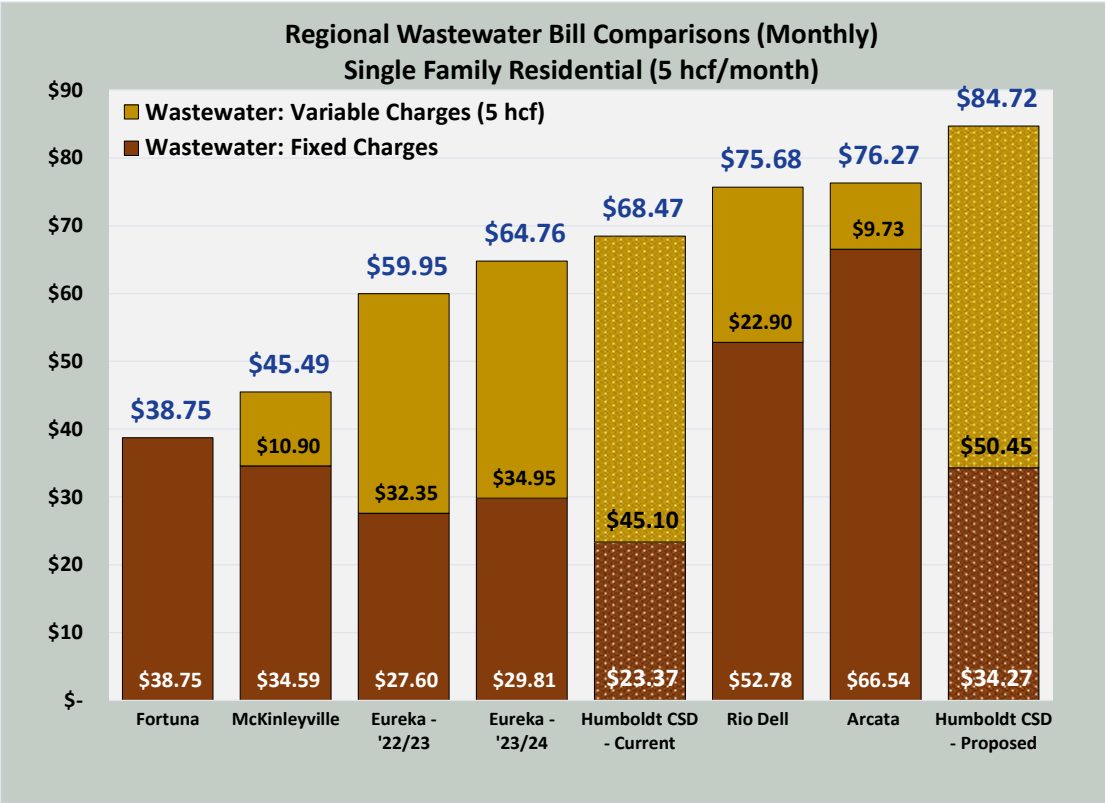
1. **City Costs Are Spread Over More Customers** – The City has about 13,332 "housing equivalent units" (HEUs) whereas the District has about 8,004 "equivalent living units" (ELUs).[13] The greater number of City units tends to spread costs over more customers.
2. **District Capital Costs are Higher** – Assuming HEUs and ELUs are the same, an apples-to-apples comparison of capital costs-per-HEU for the five-year rate period (FY 2023/24 through FY 2027/28) show the District's *rate-funded* capital cost are about 80 percent higher than the City's:
    - City Costs: $20.6 million[14] of rate-funded capital costs = $4.11 million/year
    - City Costs: $4.11 million/year ÷ 13,332 HEUs = $308/HEU/year
    - District Costs: $22.7 million[15] of rate-funded capital costs = $4.55 million/year
    - District Costs: $4.55 million/year ÷ 8,004 HEUs = $568/HEU/year
    - ($568/District HEU) ÷ ($308/City HEU) = 1.84 (i.e., the District's average costs are 84% higher than the City's)

[13] The City's HEUs are equivalent to a single family home; the District's equivalent living units (ELUs) are also equivalent single-family homes based on average winter water use for single-family customers. Therefore, we consider City HEUs and District ELUs to be approximately the same for the purpose of this comparison.

[14] From the City's rate study report, Figure 15 and Sewer Appendix Table 1.

[15] From Figure 15.

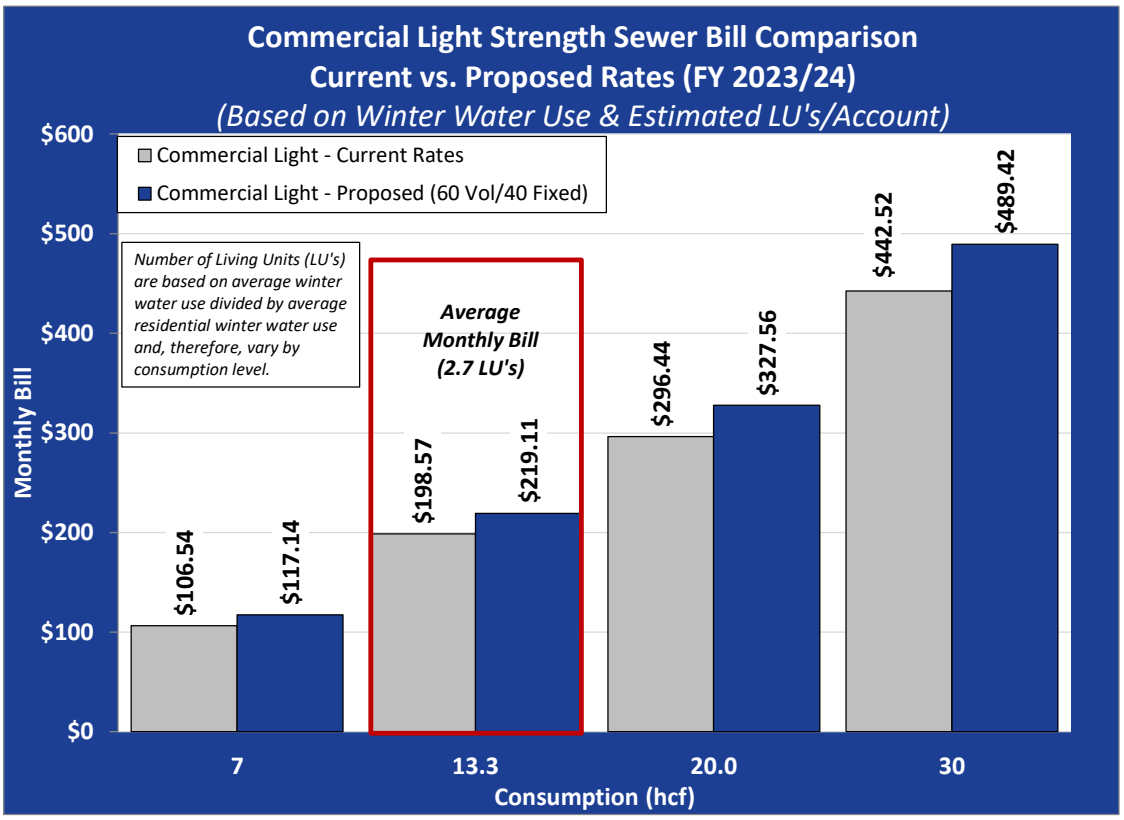
FIGURE 24. MONTHLY SINGLE-FAMILY WASTEWATER BILL COMPARISON WITH OTHER COMMUNITIES



COMMERCIAL WASTEWATER CUSTOMERS

Figure 25 compares typical light-strength commercial monthly wastewater bills in year one[16].

FIGURE 25. MONTHLY LIGHT-STRENGTH COMMERCIAL WASTEWATER BILL COMPARISON



The bills under the proposed rates in this figure reflect moving the pass-through charges currently included in volumetric rates into the total revenue requirements. Also, Figure 25 uses the estimated number of living units, which is the average winter consumption divided by the average winter consumption for residential customers. Typical monthly bills will be different on a case-by-case basis (i.e., commercial sewer customers will need to use their individual living units and winter consumption when comparing their monthly bills under the current vs. proposed rates).

[16] *Commercial light customer bills were used because they have 235 of 259 sewer accounts (over 90 percent of the total).*

Section 5. CAPACITY CHARGE BACKGROUND, PURPOSE AND METHODOLOGY

Background and Purpose

Capacity charges are one-time fees intended to reflect the cost of existing infrastructure and planned improvements available to new services, and place new utility customers on an equal basis from a financial perspective with existing customers. Once new customers are added to the system, they then incur the obligation to pay the same service charges or water and sewer rates that existing customers pay. The next few sections summarize the results of the analysis and present the updated maximum capacity charges that could be imposed on new or upsized connections.

Capacity Charge Methodology

Capacity charges imposed by the District are subject to California's Mitigation Fee Act ("Act"), embodied in Government Code § 66013. The Act prescribes how public agencies may impose water and sewer capacity charges. The capacity charges presented herein are calculated with the intent of complying with the Act and are based on typical industry methodologies.

In its simplest form, capacity charges are calculated by dividing the costs allocated to future development by the number of units of new development:

- Costs of planned future facilities and improvements required to serve new development are those that can be allocated to future development.
- The number of new units (i.e., growth) are those units projected to occur within the timeframe covered by the capacity charge analysis.

Capacity charge revenues may not be used for annual operations or maintenance of existing or new facilities. The cost of the public facilities analyzed do not include the operational costs of these facilities, which, over their useful life, may be quite substantial, and will be borne by customers connected to the system at the time of operation.

Another fundamental premise of capacity charges is that the burden of the fees cannot exceed the actual cost of the public facilities needed to serve the development paying the fee.

Capacity Charge Updates

This capacity charge study and the recommended fees assume a given level of development activity over the study period based on the best available data. The development that actually occurs may result in different fee revenues than those that are calculated in this study. For that reason, regular updates are recommended to adjust the capacity charges to match the needs created by the rate of actual development.

The following sections discuss the development of the water and sewer capacity charges.

Section 6. WATER CAPACITY CHARGE STUDY

Introduction

Various methodologies have been and are currently used to calculate water capacity charges. The most common are:

- The value of existing (historical) system assets, often called a "buy-in" methodology.
- The value of planned future improvements, also called the "incremental" or "system development" methodology.
- A combination of these two approaches.

This analysis uses the combination approach, which requires new customers to pay both their fair share of existing system assets as well as their share of the planned future capital improvements needed to provide them with capacity in the District's water system. As a result, new customers connecting to the District's water system would enter as equal participants with current users regarding their financial commitment and obligations to the utility.

In calculating the water capacity charges, the replacement-cost-new-less-depreciation (RCNLD) value of existing system assets was used to calculate the buy-in component of the capacity charge. The Handy Whitman Index of Public Utility Construction Costs[17], which is a regionally specific construction cost index that tracks water utility construction costs, was used to estimate the replacement value of the existing system assets. We believe this is an accurate inflation index and appropriate for both water and sewer utilities.

A detailed summary of the water utility's capacity charge calculations is included in Appendix D – Water Capacity Charge Study Summary Tables.

Existing Connections and Projected Future Growth

Larger meters have the potential to use more of the water system's capacity, compared to smaller meters. The potential capacity used is proportional to the maximum hydraulic flow through each meter size as established by the American Water Works Association (AWWA) hydraulic capacity ratios. The AWWA capacity ratios (also known as Flow Factors) used in this study are shown in the fourth column of **Figure 26**.

Since meters larger than the typical residential meter (in this case a 5/8-inch) have a greater potential peak demand than a 5/8-inch meter, a "hydraulic capacity factor" is calculated by dividing the maximum capacity or flow of large meters by the capacity of the base meter size (the most common residential meter size).

The flow factors shown in Figure 26 are the ratio of potential flow through each meter size compared to the flow through a 5/8-inch meter and is used to compare the capacities of the larger meters. For example, column 4 in Figure 26 shows the hydraulic capacity of a two-inch meter is 8 times that of a 5/8-inch meter. As a result, while there are currently 7,704 connections, there are 8,616 equivalent meter units.

17 The Handy-Whitman index of public utility construction costs. Baltimore, MD: Whitman, Requardt and Associates, 2017. Print.

FIGURE 26. METER EQUIVALENTS – WATER

Meter Size	Existing Potable Water Meters[1]	Meter Equivalence		Potable Water Meter Equivalent Units
		Maximum Flow (gpm)[2]	Flow Factor for 5/8 inch Base Meter	
5/8 Inch	7,312	20	1.00	7,312
3/4 Inch	200	30	1.50	300
1 Inch	124	50	2.50	310
1 1/2 Inch	33	100	5.00	165
2 Inch	22	160	8.00	176
3 Inch	8	320	16.00	128
4 Inch	1	500	25.00	25
6 Inch	4	1,000	50.00	200
Total	**7,704**			**8,616**

1. Per District utility billing data, as of the June 2021 billing period. Excludes Fire meters and Construction meters.
2. Source: *AWWA M1, Table B-2.* Assumes displacement meters for 1 1/2" through 2", Compound Class I for 3" through 8", and Turbine Class II for 10" through 12" meters. Badger Model 25 (5/8); Model 35 (3/4); and Model 55 (1") meters and their specs have maximum flow 5 gpm higher for each of these three meter sizes (per District records).

The actual number of meters by size is multiplied by the corresponding flow factor to calculate the total number of equivalent meters, which is used as a proxy for the potential demand that each customer can place on the water system. A significant portion of a water system's peak capacity, and in turn, the utility's fixed capital costs, are related to meeting system capacity requirements. Therefore, the capacity charge for a new service will be proportional to the service's meter equivalent units.

The state now requires fire suppression systems in all new single-family home construction. Based on District system pressures, this could require a 5/8-inch meter up to a 1-inch meter. However, the expected use within single-family homes does not change because of this requirement, and the District's policy is to charge all new residential connections the same capacity charge vs. a fee based on the actual meter size.

As a result of the District's approach to fire code requirements for 3/4- and 1-inch meters, the water capacity charges will be based on the meter size needed to accommodate the demand of the residence based on the property's plumbing fixture units count (PFUCs) as defined in the Uniform Plumbing Code, regardless of the size meter that will be installed to accommodate fire flow. This will allow customers that need a 3/4- or 1-inch meter for fire flow to be charged a water capacity charge for the 5/8-inch meter they would need to accommodate their PFUC-based demand. Properties with a PFUC-based demand, which requires a 3/4-inch or 1-inch meter, and customers that request a larger meter for reasons other than fire flow will be charged the capacity charges associated with the installed meter size as listed (as non-residential) in Figure 33.

The District's capital improvement plans provide the basis for defining the costs of planned future capital assets. Based on the District's customer growth projections, there will be approximately 0.33 percent annual growth in the water system. The result, as shown in **Figure 27**, is that the District expects 259 new equivalent meters by 2032.

FIGURE 27. PROJECTED CUSTOMER GROWTH – WATER

Demographic Statistics[1,2]	2020 Existing Total	Projected Service Total *(2032)*	Change (EMUs)	Allocation Factors	
			Number of Units	Existing Services	Future Services
SFR Meter Equivalent Units (EMUs)[3]	8,616	8,875	259	**97.1%**	**2.9%**

1. Demands for potable water (current and projected) from the District's 2020 UWPM.
2. Customer growth in meter equivalents is proportionate to the demands for potable water projections.
3. Per District utility billing data, as of the September 2016 billing period. Excludes Fire meters and Construction meters.

Existing and Planned Future Assets

The water utility's capital assets include existing assets and planned capital improvements (i.e., the buy-in and incremental assets). Existing assets are often valued using "book value" (i.e., original cost less depreciation). However, replacement costs provide a more accurate estimate of these asset values. Ideally, replacement values would reflect the actual field condition of the assets (i.e., whether they are behind or ahead of the depreciation curve based on actual condition rather than just the remaining years of expected life[18]). Since this information was not available for this study, the estimated replacement-cost-new-less-depreciation value (or RCNLD) was developed as the cost basis for the new capacity charges.

In this analysis, assets that have exceeded their useful life (as defined in the District's asset records) were considered to have no remaining value. The resulting RCNLD value of existing assets are summarized in **Figure 28** as the System Buy-In Cost Basis.

[18] *Some fully depreciated assets may have remaining useful life. However, it would require field inspection of these assets to determine what the remaining life is. This level of analysis is beyond most utility's capabilities and/or is cost prohibitive.*

FIGURE 28. SUMMARY OF EXISTING WATER ASSET VALUES

Asset Category	Original Values[1]		Book Value	Replacement Values (System Buy-in Cost Basis)[2]	Allocation Basis (%)[4]			Distribution of Cost Basis ($)	
	Asset Cost	Depreciation to Date			Exclude from Analysis	Existing Services	Future Services	Existing Services	Future Services
Water Fund									
Autos And Trucks	$ 3,018,856	$ 1,936,933	$1,081,923	$ 559,276	0.0%	97.1%	2.9%	$ 543,057	$ 16,219
Buildings	1,009,029	674,256	334,773	394,394	0.0%	97.1%	2.9%	382,956	11,437
Communications Equipment	84,828	64,653	20,175	15,134	0.0%	97.1%	2.9%	14,695	439
Computer Hardware	64,736	64,736	-	-	0.0%	97.1%	2.9%	-	-
Computer Software	221,647	212,047	9,600	5,938	0.0%	97.1%	2.9%	5,766	172
Land And Land Improvements	474,470	-	474,470	241,811	0.0%	97.1%	2.9%	234,798	7,013
Land And Right Of Way - Water - Fw/Mr	1,300	-	1,300	741	0.0%	97.1%	2.9%	720	21
Land And Right Of Way- Water - Original District	113,322	-	113,322	113,322	0.0%	97.1%	2.9%	110,036	3,286
Land And Right Of Way-Sewer - Humboldt Hill	15,000	-	15,000	-	0.0%	97.1%	2.9%	-	-
Land And Right Of Way-Water - Humboldt Hill	81,777	-	81,777	81,777	0.0%	97.1%	2.9%	79,406	2,372
Machinery And Equipment	951,620	602,343	349,276	266,239	0.0%	97.1%	2.9%	258,518	7,721
Office Equipment	10,258	10,258	-	-	0.0%	97.1%	2.9%	-	-
Small Tools	6,273	6,273	-	-	0.0%	97.1%	2.9%	-	-
Telemetry Equipment	367,056	342,895	24,161	14,163	0.0%	97.1%	2.9%	13,752	411
Water Pumping And Distribution: Fw/Mr	4,826,019	3,679,431	1,146,588	3,091,220	0.0%	97.1%	2.9%	3,001,575	89,645
Water Pumping And Distribution: Humboldt Hill	5,102,635	4,123,235	979,400	2,499,269	0.0%	97.1%	2.9%	2,426,790	72,479
Water Pumping And Distribution: Original	11,906,629	9,451,832	2,454,797	5,560,155	0.0%	97.1%	2.9%	5,398,911	161,244
Water Source: Humboldt Hill	753,418	439,555	313,863	564,437	0.0%	97.1%	2.9%	548,069	16,369
Water Source: Original	1,252,992	1,205,825	47,166	133,085	0.0%	97.1%	2.9%	129,226	3,859
Total Capital Facilities & Equipment	**$ 30,261,864**	**$22,814,273**	**$7,447,590**	**$ 13,540,962**	**--**	**97.1%**	**2.9%**	**$ 13,148,274**	**$ 392,688**

1. The source of the original asset cost and depreciation to date is the Asset Data and Acquired Date provided by the District staff in source file: *Depreciation Schedule 6-30-2015.xls* and Depreciation Schedule 6-30-2016.xls.
2. Replication values are calculated by escalating the remaining original values (i.e., book values from District's fixed asset report) to 2022 values using inflation factors from the Handy-Whitman Index of Public Utility Construction Costs, for Water Utility Construction, Pacific Region.
3. Cost basis for consideration is calculated as replication value less accumulated depreciation.
4. Refer to Exhibit 1: proportionate allocation between existing and future users.
5. Assets have no remaining value, therefore allocation is 0% to existing and future users.
6. Assets are 100% allocated to Sewer, and therefore excluded from existing and future water users.

Most of the RCNLD costs were allocated to existing users based on the 97.1 percent allocation factor shown in Figure 27 (and 2.9 percent allocation factor for future users – with some assets excluded). The resulting allocation of exiting system assets to existing and future users is approximately $0.4 million.

As noted earlier, the capital improvement costs are the estimated cost of planned future improvements (in 2022 dollars). The planned improvements used to calculate the system development component of the capacity charge are summarized in **Figure 29**; based on the 2.9 percent allocation factor, future customers were allocated approximately $1.1 million of these future capital project costs.

FIGURE 29. PLANNED WATER ASSET VALUES ALLOCATED TO FUTURE CUSTOMERS

Planned Capital Improvements	Current Cost Estimate ($2022)[1]	System Development Cost Basis for Consideration[2]	% Allocation			
			Existing Services (Weighted Avg.)	Future Services (Weighted Avg.)	Existing Services	Future Services
WATER MAIN LINE REPLACEMENTS ($100.00/LF)	$20,921,657	$ 20,921,657	96.9%	3.1%	$ 20,272,684	$ 648,973
WATER PUMPING FACILITY UPGRADES	12,998,771	12,998,771	97.1%	2.9%	12,621,807	376,964
VEHICLES/ROLLING STOCK/EQUIPMENT	1,245,000	1,245,000	97.1%	2.9%	1,208,895	36,105
BUILDING, YARD & PAVING IMPROVEMENTS	350,500	350,500	97.1%	2.9%	340,336	10,165
Total	**$35,515,928**	**$ 35,515,928**	**97.0%**	**3.0%**	**$ 34,443,721**	**$ 1,072,207**

1. Capital project costs were provided by HCSD Staff in source file: *2016-17 CIP.pdf.*
2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.

Adjustments to the Cost Basis

Before the capacity charges are developed, an adjustment was applied to the cost basis to account for outstanding debt. The credit related to outstanding bonds was included because some existing assets were at least partially funded with revenue bonds that will be paid in future years by the "existing customers" at that time. Since new connections pay their share of existing asset values, including the remaining outstanding debt on those same assets would be double counting the asset values in the capacity charges. Therefore, credit is given in the capacity charge calculation for the value of future principal, to avoid double-charging new customers for bond-funded assets. **Figure 30** shows that the credit provided to future users in the capacity charge development is approximately $0.52 million.

FIGURE 30. OUTSTANDING DEBT ALLOCATED TO FUTURE WATER CUSTOMERS

Bond Issue	Outstanding Principal	% Allocation[1]		$ - Allocation		Total
		Existing Users	Future Users	Existing Users	Future Users	
1988 Freshwater/Mitchell Road Clean Water Bond	$ 422,957	97.1%	2.9%	410,691	12,266	422,957
Davis-Grunsky Loan, $166,000	$ 27,769	97.1%	2.9%	26,964	805	27,769
2012 Refinance of 1981 Bond	$ 73,069	97.1%	2.9%	70,950	2,119	73,069
Grand Total	**$ 523,795**	**97.1%**	**2.9%**	**$ 508,605**	**$ 15,190**	**$ 523,795**

1. Outstanding bond principal is allocated to existing and future services based on projected growth in the system.

Calculated Water Capacity Charges

The sum of the existing and planned asset values (that is, the system buy-in and system development costs), along with the adjustments for existing cash reserves and outstanding principal payments, defines the total cost basis allocated to future customers, as shown in **Figure 31**.

FIGURE 31. SUMMARY OF COST BASIS FOR FUTURE WATER CUSTOMERS

System Asset Values Allocated to Future Development	
System Asset Values Allocated to New Development	
Existing System Buy-In[2]	$ 392,688
Future System Expansion[3]	1,072,207
Total: Existing & Future System Costs	$ 1,464,895
Adjustments to Cost Basis:	
Outstanding Long-Term Debt (Principal) Allocated to Future Users	(15,190)
Total: Adjustments to Cost Basis	$ (15,190)
Total Adjusted Cost Basis for New Development	**$ 1,449,705**

1. Refer to Exhibit 1 (Demographics) for growth projections.
2. Refer to Exhibits 2 and 3 for detail of existing assets.
3. Refer to Exhibit 5 for detail related to planned assets.

The total adjusted cost basis is then divided by the number of future customers (in meter equivalents) expected to connect to the system (previously in Figure 26) to calculate the fee shown in **Figure 32**.

FIGURE 32. SUMMARY OF COSTS ALLOCATED TO FUTURE WATER CUSTOMERS & NEW CAPACITY CHARGES

Summary of Costs Allocated to Capacity Fees	Adjusted System Cost Basis	Planned Additional EDU's *(thru 2032)*	Maximum Capacity Fee
Current Water Capacity Fee Per 5/8-Inch Meter[1]			**$3,045**
Maximum Water Capacity Per Equivalent Meter[2]	$ 1,449,705	259	**$5,597**

1. Current Capacity Fees differentiate between 5/8-, 3/4- and 1-inch meters.
2. Equivalent Meters now include 5/8-, 3/4- and 1-inch meters for single-family only. All others are by meter size.

Based on this methodology and the assumptions used in this analysis, the new capacity charges for each meter size are shown in **Figure 33**. These updated capacity charges represent the maximum fees that the District could charge for new water connections by meter size. As previously noted, because of fire-sprinkler regulations, single-family capacity charges should be the same for 5/8-, 3/4-, and 1-inch meters.

FIGURE 33. UPDATED WATER CAPACITY CHARGES

Meter Size	Current Capacity Fees	Updated Maximum Capacity Fee Per Meter Size[1]
Residential (5/8, 3/4, and 1-inch)	$3,045	**$5,597**
Non-Residential		
5/8 Inch	$3,045	**$5,597**
3/4 Inch	$4,263	**$8,396**
1 Inch	$6,699	**$13,993**
1 1/2 Inch	$12,180	**$27,985**
2 Inch	$19,488	**$44,776**
3 Inch	$38,976	**$89,552**
4 Inch	$60,900	**$139,925**
6 Inch	$121,800	**$279,850**

1. Source: *AWWA M1, Table B-2.*. Assumes displacement meters for 5/8" through 2", Compound Class I for 3" through 8", and Turbine Class II for 10" through 12" meters.

Water Capacity Charge Findings Statements

The new water capacity charges calculated in this report are based on regulatory requirements and generally accepted industry standards, and are further documented in Appendix D. This study makes the following findings:

- The purpose of the District's water capacity charge is to ensure that new and upsized connections reimburse and/or mitigate a reasonable portion of the District's planned capital investments. These investments benefit and/or are necessary to accommodate increased demand for water services.
- The District uses capacity charge proceeds to fund capital investments in the water system, which include the future design and construction of planned facilities.
- All parcels seeking permission to connect to the District's water system are subject to the water capacity charge, payment of which is a condition of connection approval. Figure 26 identifies the total number of projected future water customers.
- Capacity charges for new water customers vary depending on the size of the water meter serving the connection. Meter size is generally proportionate to the demands a parcel places on the water utility system, specifically the peaking requirements related to the meter size.
- Figure 26 illustrates the equivalency factors (or hydraulic capacity factors) differentiating meter sizes, based on their maximum continuous flow. Of the meters currently connected to the system, 95 percent are 5/8-inch meters. The number of equivalent meters for larger meters are calculated based on the 5/8-inch meters.
- The District has made investments in water infrastructure and because infrastructure deteriorates over time, will need to plan to continue to invest in its infrastructure. These investments make possible the availability and continued reliable provision of utility service of high-quality water sufficient to meet the demands of the District's customers.
- Without capital investment in existing facilities, the water system capacity available to serve the needs of customers in the future would be uncertain. Without planned investments in future facilities, water service would not be sustainable at the level of service currently enjoyed by these customers. The total value of planned water system assets that are attributable to serving future connections, should they occur, is identified in Figure 29.
- Capacity charges are derived directly from the value of capital investments in existing and planned water facilities.
- Figure 32 identifies the water infrastructure cost per 5/8-inch meters through 1-inch meters for new water connections, resulting in capacity charge unit cost of **$5,597** per equivalent meter. Figure 33 shows the new capacity charges for larger meters.
- Upon payment of a capacity charge, a new customer incurs the obligation to pay the same ongoing service rates as existing customers, regardless of the date of connection to the systems or the actual start of service. Capacity charges ensure that, over time, ongoing service rates are not disproportionately burdened by the costs of providing service to future customers.

Section 7. SEWER CAPACITY CHARGE STUDY

Introduction

The same methodology used to calculate the District's water capacity charges was used for the sewer capacity charges (i.e., a combination of the buy-in and incremental cost methods). This combination approach requires new customers to pay their fair share of both existing system assets and planned future capital improvements needed to provide them with capacity in the District's sewer system. As a result, new customers connecting to the District's sewer system would enter as equal participants regarding their financial commitment and obligations to the utility.

The sewer capacity charges used the replacement-cost-new-less-depreciation (RCNLD) value of existing system assets to calculate the buy-in component of the capacity charge. The Handy Whitman Index of Public Utility Construction Costs[17], which is a regionally specific construction index that tracks water utility construction costs, was used to estimate the replacement value of the existing system assets. We believe this is an accurate inflation index and can be used for sewer utilities.

A detailed summary of the sewer utility's capacity charge calculations is included in Appendix E – Sewer Capacity Charge Study Summary Tables.

Existing Connections and Projected Future Growth

Different types of customers have the potential to use more of the system's capacity depending on the flow and the strength of effluent. The potential capacity demanded is therefore proportional to the type of customer (i.e., residential, low-, medium-, or high-strength commercial). The third column in **Figure 34** represents the number of Equivalent Dwelling Units (EDUs) that are in the District's sewer system. One EDU is equivalent to the sanitary sewer flows of a single-family residential home.

FIGURE 34. EQUIVALENT DWELLING UNITS – SEWER

Customer Class	Existing Sewer Connections[1]	Consumption Based EDU/Living Unit Equivalents
Residential	5,842	5,998
Multi-Family Residential	415	711
Mobile Home Park	10	359
Commercial - Light Strength	235	644
Commercial - Medium Strength	3	37
Commercial - High Strength	21	255
Total	**6,526**	**8,004**

1. Per District utility billing data, as of the June 2021 billing period.

The number of EDUs is used as a proxy for the potential demand that each customer can place on the sewer system. A significant portion of a sewer system's capacity, and in turn, the utility's fixed capital costs are related to meeting system capacity requirements. Therefore, the capacity charge for a new service will be proportional to the number of EDUs. The result of this analysis is that while there are currently 6,526 connections to the District's sewer system, there are 8,004 EDUs.

The District's sewer capital improvement plans are the basis for defining the costs of planned future capital assets through Fiscal Year 2031/32. Like the water capacity charge analysis, the sewer capacity charge

analysis assumes there will also be approximately 0.33 percent annual growth in the sewer system. The result, as shown in **Figure 35**, is the expected 241 new 5/8-inch equivalent housing units (EDUs) over the next 10 years.

FIGURE 35. PROJECTED CUSTOMER GROWTH – SEWER

Demographic Statistics	Existing Total[1]	Projected Service Total[2] *(FY 2031/32)*	Number of Add'l. Units	Allocation Factors	
				Existing Services	Future Services
Equivalent Living Units	8,004	8,245	241	97.1%	2.9%

1. Consumption-based EDUs per District utility billing data, as of the June 2021 billing period.
2. Customer growth is preliminarily estimated at 0.33% per year.

(Note: previously the water capacity charge section showed a projection of 259 additional water equivalent meters. The Water system currently has 8,616 equivalent meters (excluding fire service) compared to 8,004 equivalent living units for sewer. Therefore, even though the assumed growth rate for both systems is 0.33 percent, projected additional units will be different for water vs. sewer.)

Existing and Planned Future Assets

The sewer utility's capital assets include existing assets and planned capital improvements (i.e., the buy-in and incremental assets). As with the water capacity charge, the estimated replacement costs (RCNLD value) were developed as the cost basis for the new sewer capacity charges.

After adjustments to account for assets that were considered to have no remaining value, the resulting RCNLD value of existing assets are summarized in **Figure 36** as the System Replacement Values.

FIGURE 36. SUMMARY OF EXISTING SEWER ASSET VALUES

Asset Category	Original Values[1]		Book Value	Replacement Values (System Buy-in Cost Basis)[2]	Allocation Basis (%)[4]		Distribution of Cost Basis ($	
	Asset Cost	Depreciation to Date			Existing Services	Future Services	Existing Services	Future Services
Sewer Fund								
Autos And Trucks	$ 3,018,856	$ 1,936,933	$ 1,081,923	$ 910,276	97.1%	2.9%	$ 883,878	$ 26,398
Buildings	1,009,029	674,256	334,773	297,525	97.1%	2.9%	288,897	8,628
Communications Equipment	84,828	64,653	20,175	11,417	97.1%	2.9%	11,086	331
Computer Hardware	64,736	64,736	-	-	97.1%	2.9%	-	-
Computer Software	221,647	212,047	9,600	5,938	97.1%	2.9%	5,766	172
Land And Land Improvements	474,470	-	474,470	232,659	97.1%	2.9%	225,911	6,747
Land And Right Of Way - Water - Fw/Mr	1,300	-	1,300	598	97.1%	2.9%	581	17
Land And Right Of Way- Water - Original District	113,322	-	113,322	-	97.1%	2.9%	-	-
Land And Right Of Way-Sewer - Humboldt Hill	15,000	-	15,000	15,000	97.1%	2.9%	14,565	435
Land And Right Of Way-Water - Humboldt Hill	81,777	-	81,777	-	97.1%	2.9%	-	-
Machinery And Equipment	951,620	602,343	349,276	200,847	97.1%	2.9%	195,023	5,825
Office Equipment	10,258	10,258	-	-	97.1%	2.9%	-	-
Sewer Collection: Humboldt Hill	3,166,423	2,164,732	1,001,691	2,219,291	97.1%	2.9%	2,154,931	64,359
Sewer Collection: Original	25,376,228	12,331,233	13,044,995	18,998,289	97.1%	2.9%	18,447,339	550,950
Small Tools	6,273	6,273	-	-	97.1%	2.9%	-	-
Telemetry Equipment	367,056	342,895	24,161	12,765	97.1%	2.9%	12,395	370
Total Capital Facilities & Equipment	**$ 34,962,823**	**$ 18,410,360**	**$ 16,552,462**	**$ 22,904,606**	**97.1%**	**2.9%**	**$ 22,240,372**	**$664,234**

1. Source of original asset cost/depreciation is Asset Data and Acquired Date, from District staff, files: *Depreciation Schedule 6-30-2015.xls* and *Depreciation Schedule 6-30-2016.xls.*
2. Replication values are calculated by escalating the remaining original values (i.e., book values from District's fixed asset report) to 2022 values using inflation factors from the Handy-Whitman Index of Public Utility Construction Costs, for Water Utility Construction, Pacific Region.
3. Cost basis for consideration is calculated as replication value less accumulated depreciation.
4. Refer to Exhibit 1: proportionate allocation between existing and future users.
5. Assets have no remaining value, therefore allocation is 0% to existing and future users.
6. Assets are 100% allocated to Sewer, and therefore excluded from existing and future water users.

Most of the RCNLD costs were allocated to existing users based on the 97.1 percent allocation factor shown in Figure 35 (and 2.9 percent allocation factor for future users). The resulting allocation of existing system assets to future users shown in Figure 37 is approximately $664,000.

The estimated cost of planned future improvements (in 2022 dollars) used to calculate the system development component of the capacity charge are summarized in **Figure 37**; based on the 2.1 percent allocation factor, future customers were allocated approximately $1.97 million of these future capital project costs.

FIGURE 37. PLANNED ASSET VALUES ALLOCATED TO FUTURE SEWER CUSTOMERS

Facility / Equipment	Current Cost Estimate ($2022)[1]	% Allocation		Distribution of Cost Basis ($)	
		Existing Services	Future Services	Existing Services	Future Services
SEWER FACILITIES	$ 2,882,000	97.1%	2.9%	$ 2,798,422	$ 83,578
MAIN EXTENSION & REPLACEMENTS	38,681,043	97.1%	2.9%	37,559,292	1,121,750
VEHICLES / EQUIPMENT	1,245,000	97.1%	2.9%	1,208,895	36,105
BUILDING, YARD & PAVING IMPROVEMENTS	350,500	97.1%	2.9%	340,336	10,165
CITY OF EUREKA CIP CONTRIBUTIONS	24,915,652	97.1%	2.9%	24,193,098	722,554
Total	**$ 68,074,194**	**97.1%**	**2.9%**	**$ 66,100,043**	**$ 1,974,152**

1. Capital project costs were provided by HCSD Staff in source files: *20220518_22-23CIP_DRAFT.xlsx*
2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.

Adjustments to the Cost Basis

An adjustment was made to the cost basis to account for outstanding debt. Some existing assets were at least partially funded with revenue bonds that will be paid in future years by ratepayers.[19] Therefore, to avoid double charging new connections, this outstanding bond principal is excluded from the cost basis so that new customers don't pay it in both the capacity charge and then again in rates they will be charged once they become existing ratepayers. **Figure 38** shows this credit is approximately $235,000.

FIGURE 38. OUTSTANDING DEBT ALLOCATED TO FUTURE SEWER CUSTOMERS

Bond Issue	% Allocation[1]		$ - Allocation	
	Existing Users	Future Users	Existing Users	Future Users
2014 Wastewater Revenue Bonds, $8,500,000	97.1%	2.9%	$ 5,801,725	$ 173,275
2012 Refinancing for Martin Slough Project, $2,372,000	97.1%	2.9%	1,555,424	46,454
VacCon Installment Sale	97.1%	2.9%	533,162	15,923
Grand Total	**97.1%**	**2.9%**	**$ 7,890,311**	**$ 235,653**

1. Outstanding bond principal is allocated to existing and future services based on projected growth in the system.

Calculated Sewer Capacity Charges

Figure 39 shows the cost basis allocated to future customers (existing and planned asset values, along with the adjustments for existing cash reserves and outstanding principal payments) is about $7.9 million.

[19] *That is, future bond repayment is assumed to be made by ratepayers, not capacity charge reserves.*

FIGURE 39. SUMMARY OF COST BASIS FOR FUTURE SEWER CUSTOMERS

System Asset Values Allocated to Future Development	
System Asset Values Allocated to New Development	
Existing System Buy-In[2]	$ 664,234
Future System Expansion[3]	1,974,152
Total: Existing & Future System Costs	$ 2,638,385
Adjustments to Cost Basis:	
Outstanding Long-Term Debt (Principal) Allocated to Future Users	(235,653)
Total: Adjustments to Cost Basis	$ (235,653)
Total Adjusted Cost Basis for New Development	**$ 2,402,732**

1. *Refer to Exhibit 1 (Demographics) for growth projections.*
2. *Refer to Exhibits 2 and 3 for detail of existing assets.*
3. *Refer to Exhibit 5 for detail related to planned assets.*

This cost basis is then divided by the number of future customers (in EDUs) to calculate the maximum fee per EDU that the District could charge for new sewer connections, as shown in **Figure 40**. This maximum fee also serves as the basis for determining the capacity charges paid by non-standards customers (i.e., by determining the number of EDUs using the single-family EDU as a baseline).

FIGURE 40. CALCULATION OF NEW SEWER CAPACITY CHARGES

Summary of Costs Allocated to Connection Fees	Adjusted System Cost Basis	Planned Additional EDU's *(thru 2032)*	Maximum Connection Fee
Current Sewer Connection Fee Per EDU[1]			$2,958
Maximum Sewer Connection Per EDU	$ 2,402,732	241	**$9,974**

1. *EDU = Equivalent Dwelling Unit or typical single family residential customer.*

Sewer Capacity Charge Findings Statements

The new sewer capacity charges calculated in this report are based on regulatory requirements and generally accepted industry standards, and are further documented in Appendix E. This study makes the following findings:

- The purpose of the District's sewer capacity charge is to ensure that new connections reimburse and/or mitigate a reasonable portion of the District's planned capital investments. These investments benefit and/or are necessary to accommodate increased demand for sewer service.
- The District uses capacity charge proceeds to fund capital investments in the sewer system, which include the future design and construction of planned facilities.
- All parcels seeking permission to connect to the District's sewer system are subject to the sewer capacity charge, payment of which is a condition of connection approval.
- Capacity charges for new sewer customers vary depending on the estimated number of EDU's the connection will serve, which is generally proportionate to the demands a parcel places on the sewer utility system. Figure 34 illustrates the future number of EDU's, along with the number currently connected to the system.
- The District has made investments in sewer infrastructure and, because infrastructure deteriorates over time, will need to plan to continue to invest further in its infrastructure. These investments make possible the availability and continued reliable provision of utility service sufficient to meet the demands of customers in the District's service area.
- Without capital investment in existing and future facilities, the sewer system capacity available to serve the needs of customers in the future would be uncertain and continued sewer service at the level currently enjoyed by users would not be sustainable. Figure 39 identifies the total value of existing and planned sewer system assets attributable to future connections, should they occur. Capacity charges are derived from the value of these existing and planned sewer system investments.
- Figure 40 identifies the calculated unit cost of **$9,974** for the sewer infrastructure cost per single-family housing equivalent unit (EDU) for a new sewer connection.
- Upon payment of a capacity charge, a new customer incurs the obligation to pay the same ongoing service rates as existing customers, regardless of the date of connection to the systems or the actual start of service. Capacity charges ensure that, over time, ongoing service rates are not disproportionately burdened by the costs of providing service to future customers.

Section 8. RECOMMENDATIONS AND NEXT STEPS

Consultant Recommendations

This rate study reflects input from District staff and the Board of Directors and is intended to comply with general industry standards and meet the requirements of Proposition 218, including public hearings and protest balloting requirements.[20] Below are the next steps required to adopt and implement these rates. As a part of this process, NBS recommends the District take the following actions:

- **Implement Recommended Levels of Rate Increases and Proposed Rates**: Based on successfully meeting the Proposition 218 balloting requirements, the District's Board of Directors should implement the rate increases and rate structures recommended in this report for both utilities for the next five years (see Figures 11 and 22). These rate increases are necessary to ensure the continued financial health of the District's water and wastewater utilities.
- **Adopt Reserve Fund Targets**: NBS recommends the Board of Directors adopt and strive to meet at least the recommended minimum reserve fund targets described in this report for each utility. The District should periodically evaluate reserve fund levels in light of the significant capital improvement costs planned for both utilities.
- **Implement New Capacity Charges:** Based on the analysis presented in this report, the District Board should implement the new capacity charges recommended in this report (see Figures 33 and 40).

Next Steps

ANNUALLY REVIEW RATES AND REVENUE

Any time an agency adopts new utility rates, particularly when facing significant capital costs and recent unforeseen expenditures, those new rates should be closely monitored over the next several years to ensure the revenue generated is sufficient to meet the annual revenue requirements. Changing economic and consumption patterns underscore the need for this review, as well as potential and unseen changing revenue requirements, particularly those related to capital improvement and repair and replacement costs that can significantly affect annual cash flows.

PRINCIPAL ASSUMPTIONS AND CONSIDERATIONS

In preparing this report and the recommendations included herein, NBS has relied on a number of principal assumptions and considerations with regard to financial matters, including the District's utility budgets, capital improvement plans, customer accounts, water consumption records. This information and these assumptions were provided by sources we believe to be reliable, although NBS has not independently verified this data.

While we believe NBS' use of such information and assumptions is reasonable for the purpose of this report and its recommendations, some assumptions will invariably not materialize as stated herein or may vary significantly due to unanticipated events and circumstances. Therefore, the actual results can be expected to vary from those projected.

[20] *Per the District's procedures, the District will mail out protest instructions to customers of record (not protest ballots) informing them how to submit a protest under Prop 218 regulations.*

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Section 9. APPENDIX A - ABBREVIATIONS & ACRONYMS[21]

AAF	Average Annual Flow
AF	Acre Foot, equal to 435.6 HCF/CCF or 325,851 gallons
Alt.	Alternative
Avg.	Average
AWWA	American Water Works Association
BMP	Best Management Practice
BOD	Biochemical Oxygen Demand
CA	Customer
CAP	Capacity
CCF	Hundred Cubic Feet (same as HCF); equal to 748 gallons
CCI	Construction Cost Index
COD	Chemical Oxygen Demand
COM	Commodity
Comm.	Commercial
COS	Cost of Service
COSA	Cost of Service Analysis
CPI	Consumer Price Index
CIP	Capital Improvement Program
DU	Dwelling Unit
Excl.	Exclude
ENR	Engineering News Record
EDU	Equivalent Dwelling Unit
Exp.	Expense
FP	Fire Protection
FY	Fiscal Year (e.g., July 1st to June 30th)
FY 2016/17	July 1, 2016 through June 30, 2017
GPD	Gallons per Day
GPM	Gallons per Minute
HCF	Hundred Cubic Feet; equal to 748 gallons or 1 CCF
Ind.	Industrial
Irr.	Irrigation
LAIF	Local Agency Investment Fund
Lbs.	Pounds
MFR	Multi-Family Residential
MGD	Million Gallons per Day
MG/L	Milligrams per Liter
Mo.	Month
Muni.	Municipal
NH3	Ammonia
NPV	Net Present Value
N/A	Not Available or Not Applicable
O&M	Operational & Maintenance Expenses
Prop 13	Proposition 13 (1978) – Article XIIIA of the California Constitution which limits taxes on real property to 1% of the full cash value of such property.
Prop 218	Proposition 218 (1996) – State Constitutional amendment expanded restrictions of local government revenue collections.
Req't	Requirement
Res.	Residential

[21] *This appendix identifies abbreviations and acronyms that may be used in this report. This appendix has not been viewed, arranged, or edited by an attorney, nor should it be relied on as legal advice. The intent of this appendix is to support the recognition and analysis of this report. Any questions regarding clarification of this document should be directed to staff or an attorney specializing in this particular subject matter.*

Rev.	Revenue
RTS	Readiness-to-Serve
R&R	Rehabilitation & Replacement
SFR	Single Family Residential
SRF Loan	State Revolving Fund Loan
SWRCB	State Water Resources Control Council
TSS / SS	Total Suspended Solids
V. / Vs. /vs.	Versus
WWTP	Wastewater Treatment Plant

Section 10. APPENDIX B – WATER RATE SUMMARY TABLES

TABLE 1 : FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS

RATE REVENUE REQUIREMENTS SUMMARY[1]	Budget	5-Year Prop 218 Period					Projected			
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
Sources of Water Funds										
Rate Revenue										
Water Service Charge	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000
Non-Rate Revenue:										
Water Pass Through[2]	-	-	-	-	-	-	-	-	-	-
Fees	99,800	99,800	99,800	99,800	99,800	99,800	99,800	99,800	99,800	99,800
Miscellaneous	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800
Non-Operating Revenues	16,744	16,744	16,744	16,744	16,744	16,744	16,744	16,744	16,744	16,744
Interest/General	74,151	48,584	55,317	61,454	80,081	92,744	53,459	50,924	58,864	78,662
Total Sources of Funds	**$ 5,392,495**	**$ 5,366,928**	**$ 5,373,661**	**$ 5,379,798**	**$ 5,398,425**	**$ 5,411,088**	**$ 5,371,803**	**$ 5,369,268**	**$ 5,377,208**	**$ 5,397,006**
Uses of Water Funds										
OPERATING EXPENSES:										
Personnel Expenses	$ 1,859,749	$ 1,934,139	$ 2,011,504	$ 2,091,964	$ 2,175,643	$ 2,262,669	$ 2,353,176	$ 2,447,303	$ 2,545,195	$ 2,647,002
Purchased Water[2]	1,941,550	1,999,797	2,059,790	2,121,584	2,185,232	2,250,789	2,318,312	2,387,862	2,459,497	2,533,282
Operating Expenses	866,422	892,666	919,711	947,580	976,299	1,005,894	1,036,393	1,067,822	1,100,212	1,133,590
Subtotal: Operating Expenses	4,667,720	4,826,601	4,991,006	5,161,129	5,337,174	5,519,352	5,707,881	5,902,986	6,104,904	6,313,875
Other Expenditures:										
Existing Debt Service	$ 209,605	$ 94,623	$ 5,906	$ 5,905	$ -	$ -	$ -	$ -	$ -	$ -
New Debt Service	-	-	-	-	-	-	-	-	-	-
Rate-Funded Capital Expenses	1,889,741	759,710	1,486,655	1,514,372	2,658,911	6,384,502	6,576,037	6,773,318	6,976,517	7,185,813
Subtotal: Other Expenditures	$ 2,099,346	$ 854,334	$ 1,492,561	$ 1,520,277	$ 2,658,911	$ 6,384,502	$ 6,576,037	$ 6,773,318	$ 6,976,517	$ 7,185,813
Total Uses of Water Funds	**$ 6,767,066**	**$ 5,680,935**	**$ 6,483,567**	**$ 6,681,405**	**$ 7,996,085**	**$ 11,903,853**	**$ 12,283,917**	**$ 12,676,304**	**$ 13,081,421**	**$ 13,499,688**
plus: Revenue from Rate Increases[3]	-	676,000	1,439,880	2,303,064	3,278,463	4,380,663	6,775,829	7,733,895	8,768,607	9,327,351
Annual Surplus/(Deficit)	**$ (1,374,572)**	**$ 361,992**	**$ 329,974**	**$ 1,001,457**	**$ 680,803**	**$ (2,112,102)**	**$ (136,285)**	**$ 426,859**	**$ 1,064,393**	**$ 1,224,669**
Net Rev. Req't. *(Total Uses less Non-Rate Rev.)*	**$ 6,574,572**	**$ 5,514,008**	**$ 6,309,906**	**$ 6,501,607**	**$ 7,797,659**	**$ 11,692,765**	**$ 12,112,114**	**$ 12,507,036**	**$ 12,904,213**	**$ 13,302,682**
Total Rate Revenue After Rate Increases	**$ 5,200,000**	**$ 5,876,000**	**$ 6,639,880**	**$ 7,503,064**	**$ 8,478,463**	**$ 9,580,663**	**$ 11,975,829**	**$ 12,933,895**	**$ 13,968,607**	**$ 14,527,351**
Projected Annual Rate Revenue Increase	***0.00%***	***13.00%***	***13.00%***	***13.00%***	***13.00%***	***13.00%***	***25.00%***	***8.00%***	***8.00%***	***4.00%***
Cumulative Increase from Annual Rev. Increases	*0.00%*	*13.00%*	*27.69%*	*44.29%*	*63.05%*	*84.24%*	*130.30%*	*148.73%*	*168.63%*	*179.37%*
Debt Coverage After Rate Increase[4]	*3.46*	*4.83*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*

1. Revenues and expenses for FY 2021/22 are budgeted in source file: *2020-21 and 2021-22 Budget-Final.xlsx*
2. Assumption includes a Pass-Through charge for additional purchased water; inflation rate set to 0.0%.
3. Assumes new rates are implemented October 1, 2022.
4. The District's 1988 and 2012 revenue bonds are paid in full in FY'23/23; the remaining debt service for the Davis-Grunsky Loan does not have a coverage requirement.

TABLE 2 : RESERVE FUND SUMMARY

SUMMARY OF CASH ACTIVITY	Budget	5-Year Prop 218 Period					Projected			
UN-RESTRICTED RESERVES	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
Total Beginning Cash[1]										
Unrestricted Reserves										
Operating Reserve										
Beginning Reserve Balance[2]	$ 752,000	$ 778,000	$ 804,000	$ 832,000	$ 860,000	$ 890,000	$ 920,000	$ 951,000	$ 984,000	$ 1,017,000
Plus: Net Cash Flow (After Rate Increases)	(1,374,572)	361,992	329,974	1,001,457	680,803	(2,112,102)	(136,285)	426,859	1,064,393	1,224,669
Plus: Transfer of Debt Reserve Surplus	-	-	-	-	-	-	-	-	-	-
Plus: Transfer of Capital R&R Reserve Surplus	1,400,572	-	-	-	-	2,142,102	167,285	-	-	-
Less: Transfer Out to Capital Replacement Reserve	-	(335,992)	(301,974)	(973,457)	(650,803)	-	-	(393,859)	(1,031,393)	(1,189,669)
Ending Operating Reserve Balance	***$ 778,000***	***$ 804,000***	***$ 832,000***	***$ 860,000***	***$ 890,000***	***$ 920,000***	***$ 951,000***	***$ 984,000***	***$ 1,017,000***	***$ 1,052,000***
Minimum Target Ending Balance (60 days of O&M)	*$ 778,000*	*$ 804,000*	*$ 832,000*	*$ 860,000*	*$ 890,000*	*$ 920,000*	*$ 951,000*	*$ 984,000*	*$ 1,017,000*	*$ 1,052,000*
Maximum Target Ending Balance (180 days of O&M)	*$ 2,334,000*	*$ 2,413,000*	*$ 2,496,000*	*$ 2,581,000*	*$ 2,669,000*	*$ 2,760,000*	*$ 2,854,000*	*$ 2,951,000*	*$ 3,052,000*	*$ 3,157,000*
Capital Rehabilitation & Replacement Reserve										
Beginning Reserve Balance[3]	$ 3,234,601	$ 1,834,029	$ 2,170,022	$ 2,471,996	$ 3,445,453	$ 4,096,256	$ 1,954,154	$ 1,786,869	$ 2,180,728	$ 3,212,121
Plus: Grant Proceeds	-	-	-	-	-	-	-	-	-	-
Plus: Transfer of Operating Reserve Surplus	-	335,992	301,974	973,457	650,803	-	-	393,859	1,031,393	1,189,669
Less: Use of Reserves for Operating Reserve	(1,400,572)	-	-	-	-	(2,142,102)	(167,285)	-	-	-
Less: Use of Reserves for Capital Projects	-	-	-	-	-	-	-	-	-	-
Ending Capital Rehab & Replacement Reserve Balance	***$ 1,834,029***	***$ 2,170,022***	***$ 2,471,996***	***$ 3,445,453***	***$ 4,096,256***	***$ 1,954,154***	***$ 1,786,869***	***$ 2,180,728***	***$ 3,212,121***	***$ 4,401,790***
Capital R&R Reserve (5% of Net Assets)	*$ 684,800*	*$ 689,700*	*$ 729,000*	*$ 767,500*	*$ 858,600*	*$ 1,122,000*	*$ 1,381,400*	*$ 1,637,100*	*$ 1,889,800*	*$ 2,139,700*
Maximum Target Ending Balance ($2M)	*$ 2,000,000*	*$ 2,000,000*	*$ 2,010,000*	*$ 2,120,000*	*$ 2,230,000*	*$ 2,490,000*	*$ 3,250,000*	*$ 4,000,000*	*$ 4,740,000*	*$ 5,470,000*
Ending Balance - Excl. Restricted Reserves	***$ 2,612,029***	***$ 2,974,022***	***$ 3,303,996***	***$ 4,305,453***	***$ 4,986,256***	***$ 2,874,154***	***$ 2,737,869***	***$ 3,164,728***	***$ 4,229,121***	***$ 5,453,790***
Min. Target Ending Balance -Excl. Restricted Reserves	***$ 1,462,800***	***$ 1,493,700***	***$ 1,561,000***	***$ 1,627,500***	***$ 1,748,600***	***$ 2,042,000***	***$ 2,332,400***	***$ 2,621,100***	***$ 2,906,800***	***$ 3,191,700***
Ending Surplus/(Deficit) Compared to Reserve Targets	***$ 1,149,229***	***$ 1,480,322***	***$ 1,742,996***	***$ 2,677,953***	***$ 3,237,656***	***$ 832,154***	***$ 405,469***	***$ 543,628***	***$ 1,322,321***	***$ 2,262,090***
Restricted Reserves										
Connection Fee Reserve										
Beginning Reserve Balance	$ 90,000	$ 181,674	$ 371,053	$ 563,955	$ 760,444	$ 960,589	$ 1,164,455	$ 1,372,114	$ 1,583,636	$ 1,799,091
Plus: Interest Earnings	1,674	3,379	6,902	10,490	14,144	17,867	21,659	25,521	29,456	33,463
Plus: Capacity Fee Revenue *(Reflects Updated Conn. Fee*	90,000	186,000	186,000	186,000	186,000	186,000	186,000	186,000	186,000	186,000
Less: Use of Reserves for Capital Projects	-	-	-	-	-	-	-	-	-	-
Ending Connection Fee Fund Balance	***$ 181,674***	***$ 371,053***	***$ 563,955***	***$ 760,444***	***$ 960,589***	***$ 1,164,455***	***$ 1,372,114***	***$ 1,583,636***	***$ 1,799,091***	***$ 2,018,554***
Debt Reserve										
Beginning Reserve Balance[5]	$ 277,166	$ 282,321	$ 287,572	$ 292,921	$ 298,370	$ 303,919	$ 309,572	$ 315,330	$ 321,195	$ 327,170
Plus: Reserve Funding from New Debt Obligations	-	-	-	-	-	-	-	-	-	-
Plus: Interest Earnings	5,155	5,251	5,349	5,448	5,550	5,653	5,758	5,865	5,974	6,085
Less: Transfer of Surplus to Operating Reserve	-	-	-	-	-	-	-	-	-	-
Ending Debt Reserve Balance	***$ 282,321***	***$ 287,572***	***$ 292,921***	***$ 298,370***	***$ 303,919***	***$ 309,572***	***$ 315,330***	***$ 321,195***	***$ 327,170***	***$ 333,255***
Target Ending Balance	*$ 209,605*	*$ 94,623*	*$ 5,906*	*$ 5,905*	*$ - *	*$ - *	*$ - *	*$ - *	*$ - *	*$ - *
Annual Interest Earnings Rate[6]	*1.86%*	*1.86%*	*1.86%*	*1.86%*	*1.86%*	*1.86%*	*1.86%*	*1.86%*	*1.86%*	*1.86%*

1. The District currently maintains one fund for water and sewer operations.
2. The beginning Operating Reserve balance is found in source file: *Cast Account Balances.xlsx*
3. The beginning Capital Rehab and Replacement balance is found in source file: *Cast Account Balances.xlsx*
4. The beginning Bond Project Reserve balance is assumed to be zero.
5. The beginning Debt Reserve balance is found in source file: *Cast Account Balances.xlsx*
6. City's actual or budgeted interest earnings are used in analysis for unrestricted reserves in FY 2021/22. For 2022/23 and beyond, interest earning rates are estimated at the 3-year average (FY '17/18 - '19/20) for funds invested in LAIF, per the California Treasurer's Office website, for the restricted reserves.
   Source: https://www.treasurer.ca.gov/pmia-laif/historical/annual.asp.

CHART 1

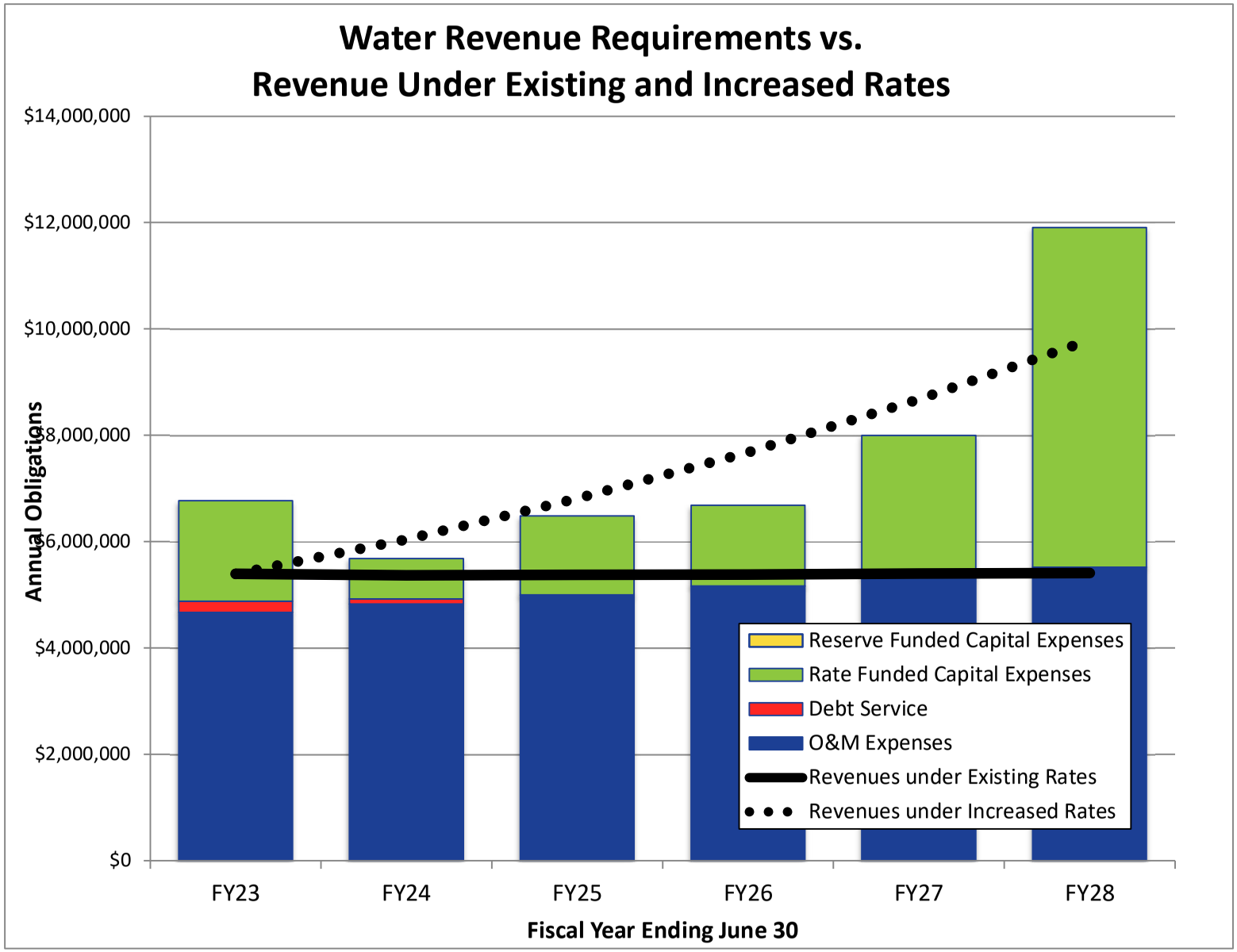

Water Revenue Requirements vs.
Revenue Under Existing and Increased Rates
$14,000,000
$12,000,000
$10,000,000
$8,000,000
$6,000,000
$4,000,000
$2,000,000
$0
Annual Obligations
FY23
FY24
FY25
FY26
FY27
FY28
Fiscal Year Ending June 30
Reserve Funded Capital Expenses
Rate Funded Capital Expenses
Debt Service
O&M Expenses
Revenues under Existing Rates
Revenues under Increased Rates

CHART 2

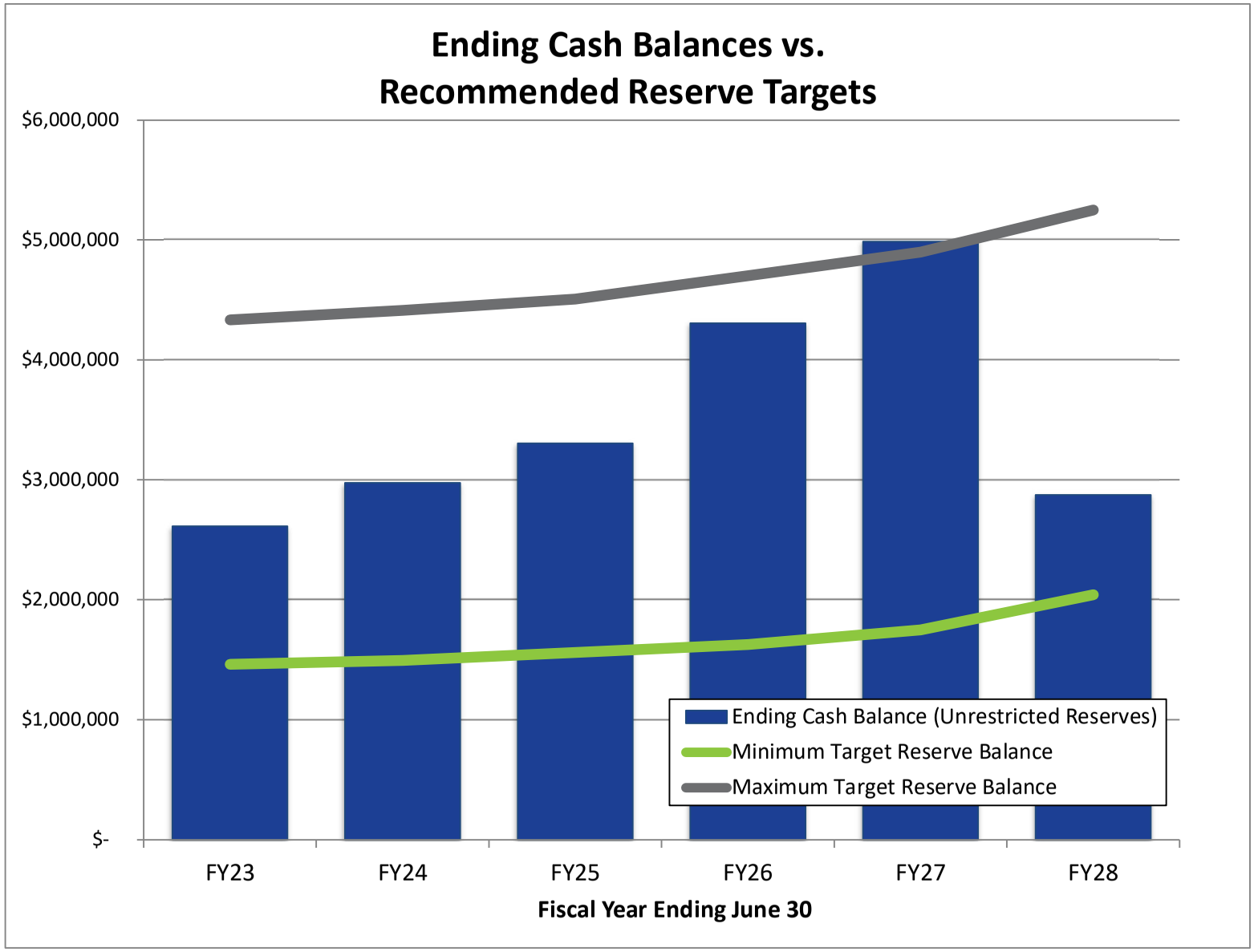

Ending Cash Balances vs.
Recommended Reserve Targets
$6,000,000
$5,000,000
$4,000,000
$3,000,000
$2,000,000
$1,000,000
$-
FY23
FY24
FY25
FY26
FY27
FY28
Fiscal Year Ending June 30
Ending Cash Balance (Unrestricted Reserves)
Minimum Target Reserve Balance
Maximum Target Reserve Balance

CHART 3

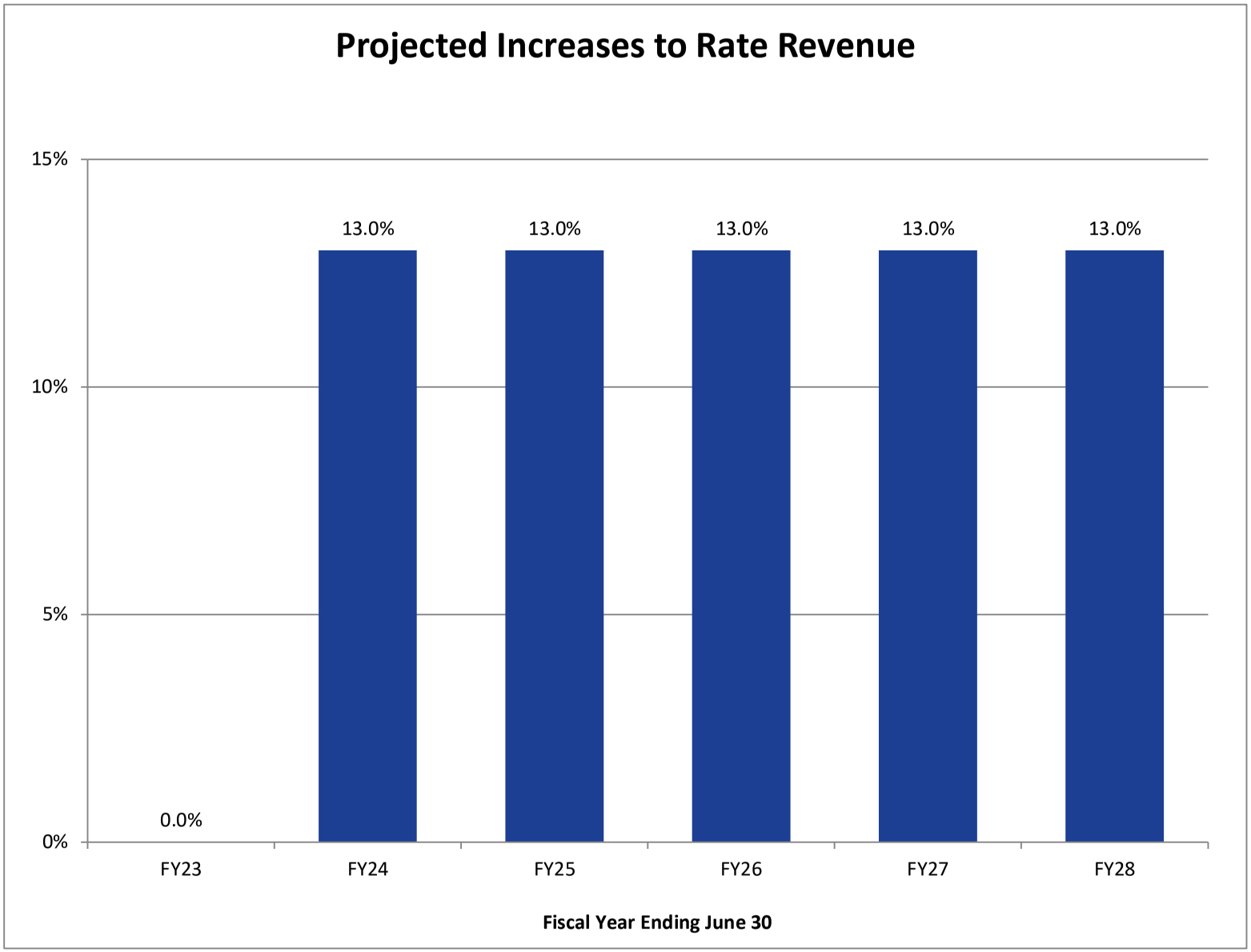

Projected Increases to Rate Revenue
15%
10%
5%
0%
0.0%
13.0%
13.0%
13.0%
13.0%
13.0%
FY23
FY24
FY25
FY26
FY27
FY28
Fiscal Year Ending June 30

TABLE 3 : REVENUE FORECAST

DESCRIPTION[1]	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Operating Revenue												
Metered Water Sales	1	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000
Water Pass Through	1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Water Construction Fees	1	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000
Account Fees	1	$ 79,800	$ 79,800	$ 79,800	$ 79,800	$ 79,800	$ 79,800	$ 79,800	$ 79,800	$ 79,800	$ 79,800	$ 79,800
Reimbursable Maintenance	1	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800
Miscellaneous	1	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000
Non-Operating Revenue												
Water Capital Connection Fees	1	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000
Interest/General	See FP	$ 32,966	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Discounts Earned	1	$ 1,280	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sale of Fixed Assets	1	$ 8,844	$ 8,844	$ 8,844	$ 8,844	$ 8,844	$ 8,844	$ 8,844	$ 8,844	$ 8,844	$ 8,844	$ 8,844
Bad Debt Recovery	1	$ 5,700	$ 5,700	$ 5,700	$ 5,700	$ 5,700	$ 5,700	$ 5,700	$ 5,700	$ 5,700	$ 5,700	$ 5,700
FW/MR Assessment	1	$ 140,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Non-Operating Revenue	1	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200
TOTAL: REVENUE		**$ 5,582,590**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**

TABLE 4 : REVENUE SUMMARY

Water Service Charge		$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000	$ 5,200,000
Water Pass Through		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fees		$ 99,800	$ 99,800	$ 99,800	$ 99,800	$ 99,800	$ 99,800	$ 99,800	$ 99,800	$ 99,800	$ 99,800	$ 99,800
Miscellaneous		$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800
Connection Fees		$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000
Non-Operating Revenues		$ 158,024	$ 16,744	$ 16,744	$ 16,744	$ 16,744	$ 16,744	$ 16,744	$ 16,744	$ 16,744	$ 16,744	$ 16,744
Interest/General		$ 32,966	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TOTAL REVENUE		**$ 5,582,590**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**	**$ 5,408,344**

TABLE 5 : OPERATING EXPENSE FORECAST

DESCRIPTION[1,2]	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Personnel Expenses												
Wages: Operation	3	$ 1,180,110	$ 1,227,314	$ 1,276,407	$ 1,327,463	$ 1,380,562	$ 1,435,784	$ 1,493,216	$ 1,552,944	$ 1,615,062	$ 1,679,665	$ 1,746,851
PERS	3	$ 165,600	$ 172,224	$ 179,113	$ 186,277	$ 193,729	$ 201,478	$ 209,537	$ 217,918	$ 226,635	$ 235,700	$ 245,128
UI	3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Group Insurance	3	$ 375,100	$ 390,104	$ 405,708	$ 421,936	$ 438,814	$ 456,367	$ 474,621	$ 493,606	$ 513,350	$ 533,884	$ 555,240
Workers Comp	3	$ 12,420	$ 12,917	$ 13,433	$ 13,971	$ 14,530	$ 15,111	$ 15,715	$ 16,344	$ 16,998	$ 17,678	$ 18,385
FICA / Medicare	3	$ 54,990	$ 57,190	$ 59,477	$ 61,856	$ 64,331	$ 66,904	$ 69,580	$ 72,363	$ 75,258	$ 78,268	$ 81,399
Misc. Benefits	3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operating Expenses												
Water Purchase HBMWD[3,4]	4	$ 1,075,000	$ 1,107,250	$ 1,140,468	$ 1,174,682	$ 1,209,922	$ 1,246,220	$ 1,283,606	$ 1,322,114	$ 1,361,778	$ 1,402,631	$ 1,444,710
Water Purchase Eureka[3,4]	4	$ 810,000	$ 834,300	$ 859,329	$ 885,109	$ 911,662	$ 939,012	$ 967,182	$ 996,198	$ 1,026,084	$ 1,056,866	$ 1,088,572
Water/Sewer Analysis	2	$ 15,000	$ 15,450	$ 15,914	$ 16,391	$ 16,883	$ 17,389	$ 17,911	$ 18,448	$ 19,002	$ 19,572	$ 20,159
Supplies/Construction	2	$ 99,160	$ 102,135	$ 105,199	$ 108,355	$ 111,605	$ 114,954	$ 118,402	$ 121,954	$ 125,613	$ 129,381	$ 133,263
Supplies / Office-Admin	2	$ 5,700	$ 5,871	$ 6,047	$ 6,229	$ 6,415	$ 6,608	$ 6,806	$ 7,010	$ 7,221	$ 7,437	$ 7,660
Supplies Engineering	2	$ 1,425	$ 1,468	$ 1,512	$ 1,557	$ 1,604	$ 1,652	$ 1,702	$ 1,753	$ 1,805	$ 1,859	$ 1,915
Supplies/Maintenance	2	$ 48,750	$ 50,213	$ 51,719	$ 53,270	$ 54,869	$ 56,515	$ 58,210	$ 59,956	$ 61,755	$ 63,608	$ 65,516
Temp Labor - Maintenance	2	$ 11,544	$ 11,890	$ 12,247	$ 12,614	$ 12,993	$ 13,383	$ 13,784	$ 14,198	$ 14,624	$ 15,062	$ 15,514
Temp Labor - Construction	2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Temp Labor - Customer Service/Finance	2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Repairs & Maint: Trucks	2	$ 30,800	$ 31,724	$ 32,676	$ 33,656	$ 34,666	$ 35,706	$ 36,777	$ 37,880	$ 39,017	$ 40,187	$ 41,393
Building & Grounds Maint	2	$ 1,920	$ 1,978	$ 2,037	$ 2,098	$ 2,161	$ 2,226	$ 2,293	$ 2,361	$ 2,432	$ 2,505	$ 2,580
Electrical Power	5	$ 162,690	$ 167,571	$ 172,598	$ 177,776	$ 183,109	$ 188,602	$ 194,260	$ 200,088	$ 206,091	$ 212,274	$ 218,642
Street Lights	5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Telephone	2	$ 6,080	$ 6,262	$ 6,450	$ 6,644	$ 6,843	$ 7,048	$ 7,260	$ 7,478	$ 7,702	$ 7,933	$ 8,171
Equipment Rental	2	$ 3,700	$ 3,811	$ 3,925	$ 4,043	$ 4,164	$ 4,289	$ 4,418	$ 4,551	$ 4,687	$ 4,828	$ 4,972
Property Lease	2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Postage	2	$ 1,290	$ 1,329	$ 1,369	$ 1,410	$ 1,452	$ 1,495	$ 1,540	$ 1,587	$ 1,634	$ 1,683	$ 1,734
Freight	2	$ 285	$ 294	$ 302	$ 311	$ 321	$ 330	$ 340	$ 351	$ 361	$ 372	$ 383
Chemicals	6	$ 12,000	$ 12,600	$ 13,230	$ 13,892	$ 14,586	$ 15,315	$ 16,081	$ 16,885	$ 17,729	$ 18,616	$ 19,547
Liability Insurance	2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Legal	2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Accounting	2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Engineering	2	$ 390	$ 402	$ 414	$ 426	$ 439	$ 452	$ 466	$ 480	$ 494	$ 509	$ 524
Other Professional Services	2	$ 7,600	$ 7,828	$ 8,063	$ 8,305	$ 8,554	$ 8,810	$ 9,075	$ 9,347	$ 9,627	$ 9,916	$ 10,214
Bank Service Charges	2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transportation	7	$ 34,200	$ 35,226	$ 36,283	$ 37,371	$ 38,492	$ 39,647	$ 40,837	$ 42,062	$ 43,324	$ 44,623	$ 45,962
Office Equip / Maint	2	$ 2,100	$ 2,163	$ 2,228	$ 2,295	$ 2,364	$ 2,434	$ 2,508	$ 2,583	$ 2,660	$ 2,740	$ 2,822
Computer Software Maintenance	2	$ 21,600	$ 22,248	$ 22,915	$ 23,603	$ 24,311	$ 25,040	$ 25,792	$ 26,565	$ 27,362	$ 28,183	$ 29,029
Memberships & Subscriptions	2	$ 1,338	$ 1,378	$ 1,419	$ 1,462	$ 1,506	$ 1,551	$ 1,598	$ 1,646	$ 1,695	$ 1,746	$ 1,798
Bad Debts & Min Bal write-off	2	$ 114,000	$ 117,420	$ 120,943	$ 124,571	$ 128,308	$ 132,157	$ 136,122	$ 140,206	$ 144,412	$ 148,744	$ 153,206
Conferences & Continuing Ed	2	$ 7,000	$ 7,210	$ 7,426	$ 7,649	$ 7,879	$ 8,115	$ 8,358	$ 8,609	$ 8,867	$ 9,133	$ 9,407
Certifications	2	$ 1,620	$ 1,669	$ 1,719	$ 1,770	$ 1,823	$ 1,878	$ 1,934	$ 1,992	$ 2,052	$ 2,114	$ 2,177
State/County & LAFCO Fees & Charges	2	$ 17,000	$ 17,510	$ 18,035	$ 18,576	$ 19,134	$ 19,708	$ 20,299	$ 20,908	$ 21,535	$ 22,181	$ 22,847
Hydraulic Water Model Maintenance	2	$ 6,000	$ 6,180	$ 6,365	$ 6,556	$ 6,753	$ 6,956	$ 7,164	$ 7,379	$ 7,601	$ 7,829	$ 8,063
Elections Expense	2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Human Resources	2	$ 7,800	$ 8,034	$ 8,275	$ 8,523	$ 8,779	$ 9,042	$ 9,314	$ 9,593	$ 9,881	$ 10,177	$ 10,483
Miscellaneous	2	$ 1,980	$ 2,039	$ 2,101	$ 2,164	$ 2,229	$ 2,295	$ 2,364	$ 2,435	$ 2,508	$ 2,583	$ 2,661
General & Admin Expense Allocation	2	$ 217,981	$ 224,520	$ 231,256	$ 238,194	$ 245,340	$ 252,700	$ 260,281	$ 268,089	$ 276,132	$ 284,416	$ 292,948
GRAND TOTAL: WATER EXPENSES		**$ 4,514,173**	**$ 4,667,720**	**$ 4,826,601**	**$ 4,991,006**	**$ 5,161,129**	**$ 5,337,174**	**$ 5,519,352**	**$ 5,707,881**	**$ 5,902,986**	**$ 6,104,904**	**$ 6,313,875**

TABLE 6 : FORECASTING ASSUMPTIONS

INFLATION FACTORS	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Customer Growth	1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Cost Inflation	2	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Labor Cost Inflation	3	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Water Purchases[4]	4	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Energy	5	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Chemicals	6	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Fuel	7	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
No Escalation	8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

1. Revenues for FY 2021/22 are budgeted in source file: *2020-21 and 2021-22 Budget-Final.xlsx*
2. Expenses for FY 2021/22 are budgeted in source file: *2020-21 and 2021-22 Budget-Final.xlsx*
3. This line item is allocated 100% to the Water System.
4. Water Purchases are inflated at 3% from sources and the District may implement pass-through as costs increase for purchased water.

TABLE 8 : CAPITAL FUNDING SUMMARY

CAPITAL FUNDING FORECAST	Budget	Budget	5-Year Prop 218 Period					Projected			
Funding Sources:	**FY 2021/22**	**FY 2022/23**	**FY 2023/24**	**FY 2024/25**	**FY 2025/26**	**FY 2026/27**	**FY 2027/28**	**FY 2028/29**	**FY 2029/30**	**FY 2030/31**	**FY 2031/32**
SRF Loan Funding	-	-	-	-	-	-	-	-	-	-	-
Use of Capital Rehab. and Replacement Reserve	293,907	-	-	-	-	-	-	-	-	-	-
Rate Revenue	937,023	1,889,741	759,710	1,486,655	1,514,372	2,658,911	6,384,502	6,576,037	6,773,318	6,976,517	7,185,813
Total Sources of Capital Funds	**$ 1,230,930**	**$ 1,889,741**	**$ 759,710**	**$ 1,486,655**	**$ 1,514,372**	**$ 2,658,911**	**$ 6,384,502**	**$ 6,576,037**	**$ 6,773,318**	**$ 6,976,517**	**$ 7,185,813**
Uses of Capital Funds:											
Total Project Costs	$ 1,230,930	$ 1,889,741	$ 759,710	$ 1,486,655	$ 1,514,372	$ 2,658,911	$ 6,384,502	$ 6,576,037	$ 6,773,318	$ 6,976,517	$ 7,185,813
Capital Funding Surplus (Deficiency)	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***
SRF Loan Funding	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***

TABLE 9 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Current-Year Dollars)

Project Description[1]	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
WATER MAIN LINE REPLACEMENTS ($100.00/LF)											
New Connections	$ 7,500	$ 7,500	$ 7,500	$ 7,500	$ 7,500	$ 7,500					
Christian Lane	$ 28,359	$ 35,000									
Water Rate Study	$ 50,000										
Tower Lane	$ 5,000	$ 162,000									
Park Street	$ 90,000										
18th Street		$ 243,000									
Stanford Court			$ 27,000								
Temple Circle			$ 35,100								
Crane Street			$ 67,500								
Vista Tie In Phase 1				$ 189,000							
Shady Lane				$ 108,000							
Vista Tie In Phase 2					$ 189,000						
Meadowood					$ 108,000						
Mitchell Road						$ 1,190,000					
Beechwood Dr.						$ 99,900					
Austin Court						$ 70,200					
AC Water Main Replacement Program							$ 3,635,920	$ 3,635,920	$ 3,635,920	$ 3,635,920	$ 3,635,920
WATER PUMPING FACILITY UPGRADES											
AMR Program	$ 141,000	$ 141,000	$ 141,000	$ 141,000	$ 141,000	$ 141,000	$ 141,000	$ 141,000	$ 141,000	$ 141,000	$ 141,000
SCADA Upgrade	$ 25,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000						
Humboldt County ADA Access	$ -	$ 5,000									
Water Storage Tanks	$ 9,281										
South Bay School Backflow Device	$ -	$ 15,000									
Donna Drive Hydro-tank	$ 95,000	$ 55,000									
Ridgewood Tank	$ 615,800	$ 54,200									
Spruce Point Well	$ 3,490	$ 30,000									
South Bay well	$ 10,000	$ 10,000									
Brier Lane 0.5 MG Tank	$ 40,000	$ 660,000									
Hubbard 3rd Pump	$ 15,000	$ 35,000									
Truesdale WBS		$ 25,000	$ 25,000	$ 25,000	$ 25,000						
Donna Drive 0.5 MG Tank		$ 40,000	$ 30,000	$ 660,000							
Ridgewood Water Booster Station			$ 30,000								
18th & Quaker PSV			$ 30,000								
Walnut Drive 0.5 MG Tank				$ 40,000	$ 660,000						
Cummings Road Tank					$ 40,000	$ 660,000					
Pigeon Point WBS						$ 15,000					
Donna Drive WBS						$ 65,000					
Water Resiliency at Little CA St.							$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000
Meyers Well							$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000
Princeton Well							$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000
Rehabilitate Remaining Tanks							$ 900,000	$ 900,000	$ 900,000	$ 900,000	$ 900,000
Subtotal: Capital Improvement Program Costs	$ 1,135,430	$ 1,617,700	$ 493,100	$ 1,270,500	$ 1,270,500	$ 2,248,600	$ 5,176,920	$ 5,176,920	$ 5,176,920	$ 5,176,920	$ 5,176,920

TABLE 10 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Current-Year Dollars)

Project Description[1]	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
BUILDING, YARD & PAVING IMPROVEMENTS											
Office Building Exterior phase 1	$ 17,500	$ 25,000									
Yard Paving Repairs	$ 17,500										
Vehicle Storage Upgrades	$ 8,000	$ 5,000									
Office Building and breakroom Roof	$ 20,000	$ 10,000									
Office ADA	$ 7,500	$ 7,000	$ 8,000	$ 10,000							
Office Building Exterior phase 2			$ 40,000								
Small Truck Garage				$ 50,000							
Seal Coat Parking Lot					$ 10,000						
Drying Bed Cover						$ 15,000					
Future Yard Paving							$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000
Office and Yard Facility Upgrades											
VEHICLES / EQUIPMENT											
2006 Ford Van	$ 25,000										
2010 Ford F450 w/Crane		$ 70,000									
2005 Dodge				$ 30,000							
2012 Ford 4x4						$ 30,000					
2010 Peterbilt 7 CY Dump Truck		$ 100,000									
2004 580 Super M Backhoe					$ 65,000						
Sewer Camera			$ 175,000								
Fleet Replacement Program							$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000
Subtotal: Capital Improvement Program Costs	$ 95,500	$ 217,000	$ 223,000	$ 90,000	$ 75,000	$ 45,000	$ 170,000	$ 170,000	$ 170,000	$ 170,000	$ 170,000
Total: CIP Program Costs *(Current-Year Dollars*	**$ 1,230,930**	**$ 1,834,700**	**$ 716,100**	**$ 1,360,500**	**$ 1,345,500**	**$ 2,293,600**	**$ 5,346,920**	**$ 5,346,920**	**$ 5,346,920**	**$ 5,346,920**	**$ 5,346,920**

TABLE 11 : FORECASTING ASSUMPTIONS

Economic Variables	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Annual Construction Cost Inflation, Per Engineeri	*0.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*
Cumulative Construction Cost Multiplier from 2	*1.00*	*1.03*	*1.06*	*1.09*	*1.13*	*1.16*	*1.19*	*1.23*	*1.27*	*1.30*	*1.34*

1. Capital project costs were provided by HCSD Staff in source files: *20220518_22-23CIP_DRAFT.xlsx*
2. Project costs are inflated by 3.0% per year in FY 2022/23 and beyond.
3. For reference purposes, the annual Construction Cost Inflation percentage is the 10 year average change in the Construction Cost Index for 2012-2021 (3.0%). Source: *Engineering News Record website (http://enr.construction.com).*

TABLE 12 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Future-Year Dollars)

Project Description[1,2]	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
WATER MAIN LINE REPLACEMENTS ($100.00/LF)											
New Connections	$ 7,500	$ 7,725	$ 7,957	$ 8,195	$ 8,441	$ 8,695	$ -	$ -	$ -	$ -	$ -
Christian Lane	$ 28,359	$ 36,050	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Water Rate Study	$ 50,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tower Lane	$ 5,000	$ 166,860	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Park Street	$ 90,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
18th Street	$ -	$ 250,290	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Stanford Court	$ -	$ -	$ 28,644	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Temple Circle	$ -	$ -	$ 37,238	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Crane Street	$ -	$ -	$ 71,611	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Vista Tie In Phase 1	$ -	$ -	$ -	$ 206,525	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Shady Lane	$ -	$ -	$ -	$ 118,015	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Vista Tie In Phase 2	$ -	$ -	$ -	$ -	$ 212,721	$ -	$ -	$ -	$ -	$ -	$ -
Meadowood	$ -	$ -	$ -	$ -	$ 121,555	$ -	$ -	$ -	$ -	$ -	$ -
Mitchell Road	$ -	$ -	$ -	$ -	$ -	$ 1,379,536	$ -	$ -	$ -	$ -	$ -
Beechwood Dr.	$ -	$ -	$ -	$ -	$ -	$ 115,811	$ -	$ -	$ -	$ -	$ -
Austin Court	$ -	$ -	$ -	$ -	$ -	$ 81,381	$ -	$ -	$ -	$ -	$ -
AC Water Main Replacement Program	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,341,478	$ 4,471,723	$ 4,605,874	$ 4,744,050	$ 4,886,372
WATER PUMPING FACILITY UPGRADES	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
AMR Program	$ 141,000	$ 145,230	$ 149,587	$ 154,075	$ 158,697	$ 163,458	$ 168,361	$ 173,412	$ 178,615	$ 183,973	$ 189,492
SCADA Upgrade	$ 25,000	$ 103,000	$ 106,090	$ 109,273	$ 112,551	$ -	$ -	$ -	$ -	$ -	$ -
Humboldt County ADA Access	$ -	$ 5,150	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Water Storage Tanks	$ 9,281	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
South Bay School Backflow Device	$ -	$ 15,450	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Donna Drive Hydro-tank	$ 95,000	$ 56,650	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Ridgewood Tank	$ 615,800	$ 55,826	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Spruce Point Well	$ 3,490	$ 30,900	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
South Bay well	$ 10,000	$ 10,300	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Brier Lane 0.5 MG Tank	$ 40,000	$ 679,800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Hubbard 3rd Pump	$ 15,000	$ 36,050	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Truesdale WBS	$ -	$ 25,750	$ 26,523	$ 27,318	$ 28,138	$ -	$ -	$ -	$ -	$ -	$ -
Donna Drive 0.5 MG Tank	$ -	$ 41,200	$ 31,827	$ 721,200	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Ridgewood Water Booster Station	$ -	$ -	$ 31,827	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
18th & Quaker PSV	$ -	$ -	$ 31,827	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Walnut Drive 0.5 MG Tank	$ -	$ -	$ -	$ 43,709	$ 742,836	$ -	$ -	$ -	$ -	$ -	$ -
Cummings Road Tank	$ -	$ -	$ -	$ -	$ 45,020	$ 765,121	$ -	$ -	$ -	$ -	$ -
Pigeon Point WBS	$ -	$ -	$ -	$ -	$ -	$ 17,389	$ -	$ -	$ -	$ -	$ -
Donna Drive WBS	$ -	$ -	$ -	$ -	$ -	$ 75,353	$ -	$ -	$ -	$ -	$ -
Water Resiliency at Little CA St.	$ -	$ -	$ -	$ -	$ -	$ -	$ 238,810	$ 245,975	$ 253,354	$ 260,955	$ 268,783
Meyers Well	$ -	$ -	$ -	$ -	$ -	$ -	$ 179,108	$ 184,481	$ 190,016	$ 195,716	$ 201,587
Princeton Well	$ -	$ -	$ -	$ -	$ -	$ -	$ 179,108	$ 184,481	$ 190,016	$ 195,716	$ 201,587
Rehabilitate Remaining Tanks	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,074,647	$ 1,106,886	$ 1,140,093	$ 1,174,296	$ 1,209,525
Subtotal: Capital Improvement Program Costs	$ 1,135,430	$ 1,666,231	$ 523,130	$ 1,388,310	$ 1,429,959	$ 2,606,744	$ 6,181,513	$ 6,366,958	$ 6,557,967	$ 6,754,706	$ 6,957,347

TABLE 13 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Future-Year Dollars)

Project Description[1,2]	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
BUILDING, YARD & PAVING IMPROVEMENTS											
Office Building Exterior phase 1	$ 17,500	$ 25,750	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Yard Paving Repairs	$ 17,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Vehicle Storage Upgrades	$ 8,000	$ 5,150	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office Building and breakroom Roof	$ 20,000	$ 10,300	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office ADA	$ 7,500	$ 7,210	$ 8,487	$ 10,927	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office Building Exterior phase 2	$ -	$ -	$ 42,436	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Small Truck Garage	$ -	$ -	$ -	$ 54,636	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Seal Coat Parking Lot	$ -	$ -	$ -	$ -	$ 11,255	$ -	$ -	$ -	$ -	$ -	$ -
Drying Bed Cover	$ -	$ -	$ -	$ -	$ -	$ 17,389	$ -	$ -	$ -	$ -	$ -
Future Yard Paving	$ -	$ -	$ -	$ -	$ -	$ -	$ 23,881	$ 24,597	$ 25,335	$ 26,095	$ 26,878
Office and Yard Facility Upgrades	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
VEHICLES / EQUIPMENT											
2006 Ford Van	$ 25,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2010 Ford F450 w/Crane	$ -	$ 72,100	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2005 Dodge	$ -	$ -	$ -	$ 32,782	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2012 Ford 4x4	$ -	$ -	$ -	$ -	$ -	$ 34,778	$ -	$ -	$ -	$ -	$ -
2010 Peterbilt 7 CY Dump Truck	$ -	$ 103,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2004 580 Super M Backhoe	$ -	$ -	$ -	$ -	$ 73,158	$ -	$ -	$ -	$ -	$ -	$ -
Sewer Camera	$ -	$ -	$ 185,658	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Replacement Program	$ -	$ -	$ -	$ -	$ -	$ -	$ 179,108	$ 184,481	$ 190,016	$ 195,716	$ 201,587
Estimated Future Projects	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Future Projects4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal: Capital Improvement Program Costs	$ 95,500	$ 223,510	$ 236,581	$ 98,345	$ 84,413	$ 52,167	$ 202,989	$ 209,079	$ 215,351	$ 221,811	$ 228,466
Total: CIP Program Costs *(Future-Year Dollars)*	**$ 1,230,930**	**$ 1,889,741**	**$ 759,710**	**$ 1,486,655**	**$ 1,514,372**	**$ 2,658,911**	**$ 6,384,502**	**$ 6,576,037**	**$ 6,773,318**	**$ 6,976,517**	**$ 7,185,813**

TABLE 14 : EXISTING DEBT OBLIGATIONS

Annual Repayment Schedules[1]	Budget	5-Year Prop 218 Period					Projected				
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
1988 Freshwater/Mitchell Road Clean Water Bond, $3,399,562.92											
Principal Payment	$ 165,149	$ 170,499	$ 87,308	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest Payment	$ 12,280	$ 7,030	$ 1,407	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal: Annual Debt Service	**$ 177,429**	**$ 177,529**	**$ 88,715**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Coverage Requirement ($-Amnt above annual payment)[2]	$ 213,035	$ 213,035	$ 106,457	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reserve Requirement (total fund balance)[2]	$ 177,529	$ 177,529	$ 88,715	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Davis-Grunsky Loan, $166,000											
Principal Payment	$ 5,283	$ 5,415	$ 5,551	$ 5,689	$ 5,831	$ -	$ -	$ -	$ -	$ -	$ -
Interest Payment	$ 629	$ 495	$ 358	$ 217	$ 73	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal: Annual Debt Service	**$ 5,912**	**$ 5,910**	**$ 5,909**	**$ 5,906**	**$ 5,905**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Coverage Requirement ($-Amnt above annual payment)[2]	$ 7,094	$ 7,092	$ 7,091	$ 7,088	$ 7,086	$ -	$ -	$ -	$ -	$ -	$ -
Reserve Requirement (total fund balance)[2]	$ 5,912	$ 5,910	$ 5,909	$ 5,906	$ 5,905	$ -	$ -	$ -	$ -	$ -	$ -
2012 Refinance of 1981 Bond											
Principal Payment	$ 47,353	$ 25,716	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest Payment	$ 2,147	$ 450	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal: Annual Debt Service	**$ 49,500**	**$ 26,166**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Coverage Requirement ($-Amnt above annual payment)[2]	$ 59,400	$ 31,399	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reserve Requirement (total fund balance)[2]	$ 49,500	$ 26,166	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

1. File provided by HCSD staff: *Loan Repayment Schedules.xlsx*
2. Coverage requirement assumed to be 120% of annual payment. Reserve Requirement is equal to the maximum annual payment.

TABLE 15 : EXISTING ANNUAL DEBT OBLIGATIONS TO BE SATISFIED BY WATER RATES

Existing Annual Debt Service	***$ 232,841***	***$ 209,605***	***$ 94,623***	***$ 5,906***	***$ 5,905***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***
Existing Annual Coverage Requirement	***$ 279,529***	***$ 251,526***	***$ 113,548***	***$ 7,088***	***$ 7,086***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***
Existing Debt Reserve Target	***$ 232,941***	***$ 209,605***	***$ 94,623***	***$ 5,906***	***$ 5,905***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***

TABLE 16 : CURRENT WATER RATE SCHEDULE

Fixed Charges	Current Rates FY 2020/21
Meter Size, Residential & Commercial	
5/8 inch	$26.46
3/4 inch	$38.42
1 inch	$62.34
1 1/2 inch	$122.13
2 inch	$193.89
3 inch	$385.23
4 inch	$600.49
6 inch	$1,198.44

Volumetric Charges	
Residential & Commercial	
Uniform (per hcf)[2]	$4.06

1. Water rates found in on webite, source file: *2021-22 Master Fee Schedule-UPDATE 07-01-2021-Final.pdf*
2. One Unit is equal to one HCF (Hundred Cubic Feet) or 748 gallons.

TABLE 17 : CLASSIFICATION OF EXPENSES

Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Basis of Classification		
	FY 2023/24	(COM)	(CAP)	(CA)	(COM)	(CAP)	(CA)
Personnel Expenses							
Wages: Operation	$ 1,276,407	$ 446,742	$ 765,844	$ 63,820	35.0%	60.0%	5.0%
PERS	$ 179,113	$ 62,690	$ 107,468	$ 8,956	35.0%	60.0%	5.0%
UI	$ -	$ -	$ -	$ -	35.0%	60.0%	5.0%
Group Insurance	$ 405,708	$ 141,998	$ 243,425	$ 20,285	35.0%	60.0%	5.0%
Workers Comp	$ 13,433	$ 4,702	$ 8,060	$ 672	35.0%	60.0%	5.0%
FICA / Medicare	$ 59,477	$ 20,817	$ 35,686	$ 2,974	35.0%	60.0%	5.0%
Misc. Benefits	$ -	$ -	$ -	$ -	35.0%	60.0%	5.0%
Operating Expenses							
Water Purchase HBMWD3,4	$ 1,140,468	$ 1,140,468	$ -	$ -	100.0%	0.0%	0.0%
Water Purchase Eureka3,4	$ 859,329	$ 859,329	$ -	$ -	100.0%	0.0%	0.0%
Water/Sewer Analysis	$ 15,914	$ 3,978	$ 11,935	$ -	25.0%	75.0%	0.0%
Supplies/Construction	$ 105,199	$ 26,300	$ 78,899	$ -	25.0%	75.0%	0.0%
Supplies / Office-Admin	$ 6,047	$ -	$ 3,024	$ 3,024	0.0%	50.0%	50.0%
Supplies Engineering	$ 1,512	$ 756	$ 756	$ -	50.0%	50.0%	0.0%
Supplies/Maintenance	$ 51,719	$ 12,930	$ 38,789	$ -	25.0%	75.0%	0.0%
Temp Labor - Maintenance	$ 12,247	$ 3,062	$ 9,185	$ -	25.0%	75.0%	0.0%
Temp Labor - Construction	$ -	$ -	$ -	$ -	25.0%	75.0%	0.0%
Temp Labor - Customer Service/Finance	$ -	$ -	$ -	$ -	0.0%	20.0%	80.0%
Repairs & Maint: Trucks	$ 32,676	$ 6,535	$ 24,507	$ 1,634	20.0%	75.0%	5.0%
Building & Grounds Maint	$ 2,037	$ 1,018	$ 917	$ 102	50.0%	45.0%	5.0%
Electrical Power	$ 172,598	$ 138,078	$ 31,068	$ 3,452	80.0%	18.0%	2.0%
Street Lights	$ -	$ -	$ -	$ -	0.0%	90.0%	10.0%
Telephone	$ 6,450	$ -	$ -	$ 6,450	0.0%	0.0%	100.0%
Equipment Rental	$ 3,925	$ 1,178	$ 2,551	$ 196	30.0%	65.0%	5.0%
Property Lease	$ -	$ -	$ -	$ -	0.0%	100.0%	0.0%
Postage	$ 1,369	$ -	$ -	$ 1,369	0.0%	0.0%	100.0%
Freight	$ 302	$ -	$ -	$ 302	0.0%	0.0%	100.0%
Chemicals	$ 13,230	$ 9,923	$ 3,308	$ -	75.0%	25.0%	0.0%
Liability Insurance	$ -	$ -	$ -	$ -	0.0%	100.0%	0.0%
Legal	$ -	$ -	$ -	$ -	0.0%	50.0%	50.0%
Accounting	$ -	$ -	$ -	$ -	0.0%	50.0%	50.0%
Engineering	$ 414	$ 186	$ 186	$ 41	45.0%	45.0%	10.0%
Other Professional Services	$ 8,063	$ -	$ 4,838	$ 3,225	0.0%	60.0%	40.0%
Bank Service Charges	$ -	$ -	$ -	$ -	0.0%	0.0%	100.0%
Transportation	$ 36,283	$ 16,327	$ 16,327	$ 3,628	45.0%	45.0%	10.0%
Office Equip / Maint	$ 2,228	$ 446	$ 446	$ 1,337	20.0%	20.0%	60.0%
Computer Software Maintenance	$ 22,915	$ 4,583	$ 4,583	$ 13,749	20.0%	20.0%	60.0%
Memberships & Subscriptions	$ 1,419	$ 497	$ 497	$ 426	35.0%	35.0%	30.0%
Bad Debts & Min Bal write-off	$ 120,943	$ -	$ 120,943	$ -	0.0%	100.0%	0.0%
Conferences & Continuing Ed	$ 7,426	$ 1,857	$ 5,570	$ -	25.0%	75.0%	0.0%
Certifications	$ 1,719	$ -	$ 1,719	$ -	0.0%	100.0%	0.0%
State/County & LAFCO Fees & Charges	$ 18,035	$ -	$ 18,035	$ -	0.0%	100.0%	0.0%
Hydraulic Water Model Maintenance	$ 6,365	$ 3,183	$ 3,183	$ -	50.0%	50.0%	0.0%
Elections Expense	$ -	$ -	$ -	$ -	0.0%	0.0%	100.0%
Human Resources	$ 8,275	$ 2,896	$ 2,896	$ 2,483	35.0%	35.0%	30.0%
Miscellaneous	$ 2,101	$ 735	$ 735	$ 630	35.0%	35.0%	30.0%
General & Admin Expense Allocation	$ 231,256	$ 80,940	$ 80,940	$ 69,377	35.0%	35.0%	30.0%
GRAND TOTAL: WATER EXPENSES	**$ 4,826,601**	**$ 2,992,152**	**$ 1,626,318**	**$ 208,132**	**62.0%**	**33.7%**	**4.3%**

TABLE 18 : CLASSIFICATION OF EXPENSES, continued

Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Basis of Classification		
	FY 2023/24	(COM)	(CAP)	(CA)	(COM)	(CAP)	(CA)
Debt Service Payments							
1988 Freshwater/Mitchell Road Clean Water Bond,	$ 88,715	$ -	$ 88,715	$ -	0.0%	100.0%	0.0%
Davis-Grunsky Loan, $166,000	$ 5,909	$ -	$ 5,909	$ -	0.0%	100.0%	0.0%
2012 Refinance of 1981 Bond	$ -	$ -	$ -	$ -	0.0%	100.0%	0.0%
Total Debt Service Payments	**$ 94,623**	**$ -**	**$ 94,623**	**$ -**	**0.0%**	**100.0%**	**0.0%**
Capital Expenditures							
Rate Funded Capital Expenses	$ 759,710	$ -	$ 759,710	$ -	0.0%	100.0%	0.0%
TOTAL REVENUE REQUIREMENTS	**$ 5,680,935**	**$ 2,992,152**	**$ 2,480,652**	**$ 208,132**	**52.7%**	**43.7%**	**3.7%**
Less: Non-Rate Revenues							
Operating Revenue							
Metered Water Sales							
Water Pass Through							
Water Construction Fees	$ (20,000)	$ (10,534)	$ (8,733)	$ (733)	52.7%	43.7%	3.7%
Account Fees	$ (79,800)	$ (42,031)	$ (34,846)	$ (2,924)	52.7%	43.7%	3.7%
Inspection Fees	$ -	$ -	$ -	$ -	52.7%	43.7%	3.7%
Reimbursable Maintenance	$ (800)	$ (421)	$ (349)	$ (29)	52.7%	43.7%	3.7%
Miscellaneous	$ (1,000)	$ (527)	$ (437)	$ (37)	52.7%	43.7%	3.7%
Non-Operating Revenue							
Water Capital Connection Fees							
Interest/General	$ (48,584)	$ (25,589)	$ (21,215)	$ (1,780)	52.7%	43.7%	3.7%
Discounts Earned	$ -	$ -	$ -	$ -	52.7%	43.7%	3.7%
Sale of Fixed Assets	$ (8,844)	$ (4,658)	$ (3,862)	$ (324)	52.7%	43.7%	3.7%
Sales of Scrap Metal	$ -	$ -	$ -	$ -	52.7%	43.7%	3.7%
Bad Debt Recovery	$ (5,700)	$ (3,002)	$ (2,489)	$ (209)	52.7%	43.7%	3.7%
FW/MR Assessment	$ -	$ -	$ -	$ -	52.7%	43.7%	3.7%
Other Non-Operating Revenue	$ (2,200)	$ (1,159)	$ (961)	$ (81)	52.7%	43.7%	3.7%
NET REVENUE REQUIREMENTS	**$ 5,514,008**	**$ 2,904,231**	**$ 2,407,761**	**$ 202,016**			
Allocation of Revenue Requirements	**100.0%**	**52.7%**	**43.7%**	**3.7%**			

TABLE 19 : ADJUSTMENTS TO CLASSIFICATION OF EXPENSES

Adjustment for Current Rate Level:	Total	(COM)	(CAP)	(CA)
Test Year (FY 2023/24) Target Rate Rev. After Rate Increases	$ 5,876,000			
Projected Rate Revenue at Current Rates	$ 5,200,000			
Test Year (FY 2023/24) Projected Rate Adjustment	13%			
Adjusted Net Revenue Req'ts	**$ 5,876,000**	**$ 3,094,892**	**$ 2,565,829**	**$ 215,278**
Percent of Revenue	*100.0%*	*52.67%*	*43.67%*	*3.66%*

TABLE 20

Rate Alternative #1 Net Revenue Requirements - Allocation of 40% Fixed / 60% Variable	Total Rate Revenue Requirements FY 2023/24	Variable Costs	Fixed Costs	
		Commodity Related Costs	Capacity Related Costs	Customer Related Costs
Rate-Design Adjustments to Fixed/Variable %	**100.0%**	**60.0%**	**35.5%**	**4.5%**
Rate-Design Adjustments to Fixed/Variable ($)	**$5,876,000**	**$3,525,600**	**$2,085,980**	**$264,420**

Variable Charges (Volumetric Rates)	*60.0%*
Fixed Charges	*40.0%*

TABLE 21 : DEVELOPMENT OF THE COMMODITY ALLOCATION FACTOR

Customer Class	FY 2020/21 Volume (hcf)[1]	% Adjustment for Conservation[2]	Estimated FY2021/22 Volume Adjusted for Conservation	Percent of Total Volume
Residential	530,468	0%	530,468	**79.8%**
Multi-Family Residential	46,099	0%	46,099	**6.9%**
Mobile Home Park	29,578	0%	29,578	**4.5%**
Commercial Light	44,753	0%	44,753	**6.7%**
Commercial Medium	2,450	0%	2,450	**0.4%**
Commercial Heavy	10,076	0%	10,076	**1.5%**
Construction Meter	1,020	0%	1,020	**0.2%**
Total	**664,444**	**0%**	**664,444**	**100%**

1. Consumption data is based on the HCSD's billing data.

Commodity Related Costs: *These costs are associated with the total consumption (flow) of water over a specified period of time (e.g. annual).*

TABLE 22 : DEVELOPMENT OF THE CAPACITY ALLOCATION FACTOR

Customer Class	Average Monthly Use (hcf)	Peak Monthly Use (hcf)[1]	Peak Monthly Factor	Max Month Capacity Factor
Residential	44,206	57,858	**1.31**	**79.5%**
Multi-Family Residential	3,842	4,540	**1.18**	**6.2%**
Mobile Home Park	2,465	2,755	**1.12**	**3.8%**
Commercial Light	3,729	5,082	**1.36**	**7.0%**
Commercial Medium	204	275	**1.35**	**0.4%**
Commercial Heavy	840	1,841	**2.19**	**2.5%**
Construction Meter	85	464	**5.46**	**0.6%**
Total	**55,370**	**72,815**	**1.32**	**100%**

1. Based on peak monthly data (peak day data not available).

Capacity Related Costs: *Costs associated with the maximum demand required at one point in time or the maximum size of facilities required to meet this demand.*

TABLE 23 : DEVELOPMENT OF THE CUSTOMER SERVICE ALLOCATION FACTOR

Customer Class	Number of Meters[1]	Percent of Total
Residential	6,968	**90.4%**
Multi-Family Residential	465	**6.0%**
Mobile Home Park	11	**0.1%**
Commercial Light	234	**3.0%**
Commercial Medium	3	**0.0%**
Commercial Heavy	23	**0.3%**
Construction Meter	6	**0.1%**
Total	**7,710**	**100.0%**
Fire Service	58	**0.7%**
Total	**7,768**	**100.7%**

1. Meter Count data is based on the HCSD's billing data for June 2021.

Customer Related Costs *: Costs associated with having a customer on the water system. These costs vary with the addition or deletion of customers on the system. Examples: Meter-reading, Postage and billing.*

TABLE 24 : PROPOSED VOLUMETRIC CHARGES

Proposed Rate Alt. 1 (40% Fixed/60% Variable)

Customer Classes	Number of Meters[1]	Water Consumption (hcf/yr.)[2]	Total Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates ($/hcf)[2]	*Proposed Rate Structure*
Residential	6,968	530,468	$ 2,814,711	47.9%	$5.310	*Uniform*
Multi-Family Residential	465	46,099	$ 244,605	4.2%	$5.310	*Uniform*
Mobile Home Park	11	29,578	$ 156,944	2.7%	$5.310	*Uniform*
Commercial Light	234	44,753	$ 237,463	4.0%	$5.310	*Uniform*
Commercial Medium	3	2,450	$ 13,000	0.2%	$5.310	*Uniform*
Commercial Heavy	23	10,076	$ 53,464	0.9%	$5.310	*Uniform*
Construction Meter	6	1,020	$ 5,412	0.1%	$5.310	*Uniform*
Total Potable Water	**7,710**	**664,444**	**$ 3,525,600**	**60%**		

1. Consumption data is based on the HCSD's billing data.
2. Uniform commodity rate rounded to the nearest cent.

TABLE 25 : METER EQUIVALENCY FACTORS USED IN FIXED CHARGES CALCULATIONS

Meter Size	Standard Meters		Fire Meters	
	Meter Capacity (gpm)[1]	Equivalency to 5/8 inch	Meter Capacity (gpm)[2]	Equivalency to 5/8 inch
	Displacement Meters		*Displacement Meters*	
5/8 inch	20	1.00	20	1.00
3/4 inch	30	1.50	30	1.50
1 inch	50	2.50	50	2.50
1.5 inch	100	5.00	100	5.00
2 inch	160	8.00	160	8.00
	Compound Class I Meters		*Fire Service Type I & II Meters*	
3 inch	320	16.00	350	17.50
4 inch	500	25.00	700	35.00
6 inch	1,000	50.00	1,600	80.00
8 inch	1,600	80.00	2,800	140.00
	Turbine Class II Meters			
10 inch	4,200	210.00	4,400	220.00
12 inch	5,300	265.00	*N/A*	--

1. Per *AWWA M-1, Table B-1.*
2. Per *AWWA M-6, Table 5-3.*

TABLE 26 : COST OF SERVICE SUMMARY OF REVENUE REQUIREMENTS

Customer Class	Rate Revenue - FY2020/21		Proposed Rate Alt. 1 (40% Fixed/60% Variable)		
	Rate Revenue	% of Revenue	COS Rev. Req't	% of COS Rev. Req't.	% of FY 2020/21 vs. FY 2023/24
Residential	$ 4,545,543	82.2%	$ 4,711,181	80.2%	*-2.0%*
Multi-Family Residential	$ 394,922	7.1%	$ 390,613	6.6%	*-0.5%*
Mobile Home Park	$ 152,515	2.8%	$ 236,245	4.0%	*1.3%*
Commercial Light	$ 362,547	6.6%	$ 391,076	6.7%	*0.1%*
Commercial Medium	$ 11,601	0.2%	$ 20,981	0.4%	*0.1%*
Commercial Heavy	$ 58,270	1.1%	$ 106,993	1.8%	*0.8%*
Construction Meter	$ 4,598	0.1%	$ 18,911	0.3%	*0.2%*
Total	**$ 5,529,996**	**100.0%**	**$ 5,876,000**	**100%**	***0.0%***

TABLE 27 : ALLOCATION OF WATER REVENUE REQUIREMENTS

		Proposed Rate Alt. 1	
Classification Components	**Fixed & Variable Cost Allocations**	**Adjusted Net Revenue Requirements**	
		40% Fixed / 60% Variable	
Commodity-Related Costs	Variable	**$ 3,525,600**	*60.0%*
Capacity-Related Costs	Fixed	**2,085,980**	*35.5%*
Customer-Related Costs	Fixed	**264,420**	*4.5%*
Net Revenue Requirement		**$ 5,876,000**	*100%*
Fire-Related Costs		-	*0.0%*
Net Revenue Requirement		**$ 5,876,000**	*100%*

Adjusted Net Rev. Req'ts.
60% total variable
40% total fixed
100%

TABLE 28 : ALLOCATION OF UNADJUSTED NET REVENUE REQUIREMENTS

Proposed Rate Alt. 1 (40% Fixed/60% Variable)					
Customer Classes	**Classification Components**			**Cost of Service Net Rev. Req'ts**	**% of COS Net Revenue Req'ts**
	Commodity-Related Costs	**Peaking-Related Costs**	**Customer-Related Costs**		
Residential	$ 2,814,711	$ 1,657,497	$ 238,973	$ 4,711,181	*80.2%*
Multi-Family Residential	244,605	130,060	15,948	390,613	*6.6%*
Mobile Home Park	156,944	78,924	377	236,245	*4.0%*
Commercial Light	237,463	145,587	8,025	391,076	*6.7%*
Commercial Medium	13,000	7,878	103	20,981	*0.4%*
Commercial Heavy	53,464	52,740	789	106,993	*1.8%*
Construction Meter	5,412	13,293	206	18,911	*0.3%*
Total Net Revenue Requirement	**$ 3,525,600**	**$ 2,085,980**	**$ 264,420**	**$ 5,876,000**	**100%**
Total Net Revenue Requirement by Classification Component	*VARIABLE $3,525,600*	*FIXED $2,350,400*		*$5,876,000*	
	60%	*36%*	*5%*	*100.0%*	

TABLE 29 : CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES

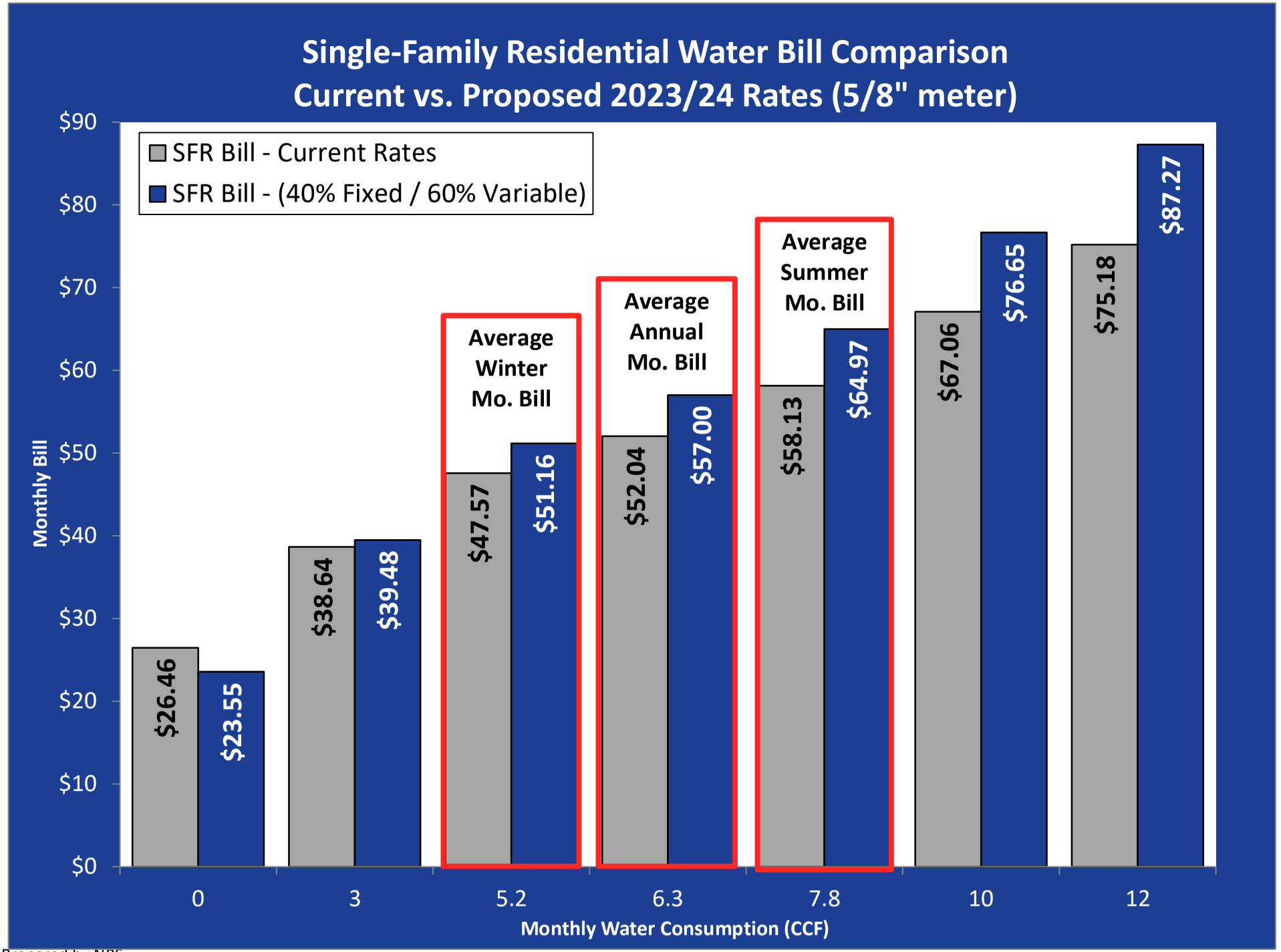
Proposed Rate Alt. 1 (40% Fixed/60% Variable)											
Number of Meters by Class and Size[1]	**5/8 inch**	**3/4 inch**	**1 inch**	**1.5 inch**	**2 inch**	**3 inch**	**4 inch**	**6 inch**	**8 inch**	**10 inch**	**Total**
Residential	6,962	-	-	4	1	-	1	-	-	-	6,968
Multi-Family Residential	429	4	16	11	2	1	-	2	-	-	465
Mobile Home Park	1	-	1	4	4	1	-	-	-	-	11
Commercial Light	151	27	25	12	13	5	-	1	-	-	234
Commercial Medium	3	-	-	-	-	-	-	-	-	-	3
Commercial Heavy	14	2	1	2	2	1	1	-	-	-	23
Construction Meter	-	-	6	-	-	-	-	-	-	-	6
Total Meters/Accounts	**7,560**	**33**	**49**	**33**	**22**	**8**	**2**	**3**	**-**	**-**	**7,710**
Hydraulic Capacity Factor[2]	*1.00*	*1.50*	*2.50*	*5.00*	*8.00*	*16.00*	*25.00*	*50.00*	*80.00*	*210.00*	
Total Equivalent Meters	**7,560**	**50**	**123**	**165**	**176**	**128**	**50**	**150**	**-**	**-**	**8,401**
Monthly Fixed Service Charges											
Customer Costs ($/Acct/month)[3]	$2.86	$2.86	$2.86	$2.86	$2.86	$2.86	$2.86	$2.86	$2.86	$2.86	
Capacity Costs ($/Acct/month)[4]	$20.69	$31.04	$51.73	$103.46	$165.53	$331.07	$517.29	$1,034.59	$1,655.34	$4,345.27	
Total Monthly Meter Charge	**$23.55**	**$33.90**	**$54.59**	**$106.32**	**$168.39**	**$333.93**	**$520.15**	**$1,037.45**	**$1,658.20**	**$4,348.13**	
Annual Fixed Costs Allocated to Monthly Meter Charges											
Customer Costs	$ 264,420										
Capacity Costs	2,085,980										
Total Fixed Meter Costs	$ 2,350,400										
Annual Revenue from Monthly Meter Charges											
Customer Charges	$ 259,276	$ 1,132	$ 1,680	$ 1,132	$ 755	$ 274	$ 69	$ 103	$ -	$ -	**$ 264,420**
Capacity Charges	1,877,159	12,291	30,417	40,970	43,701	31,783	12,415	37,245	-	-	**2,085,980**
Total Revenue from Monthly Meter	**$ 2,136,434**	**$ 13,423**	**$ 32,097**	**$ 42,101**	**$ 44,456**	**$ 32,057**	**$ 12,484**	**$ 37,348**	**$ -**	**$ -**	**$ 2,350,400**

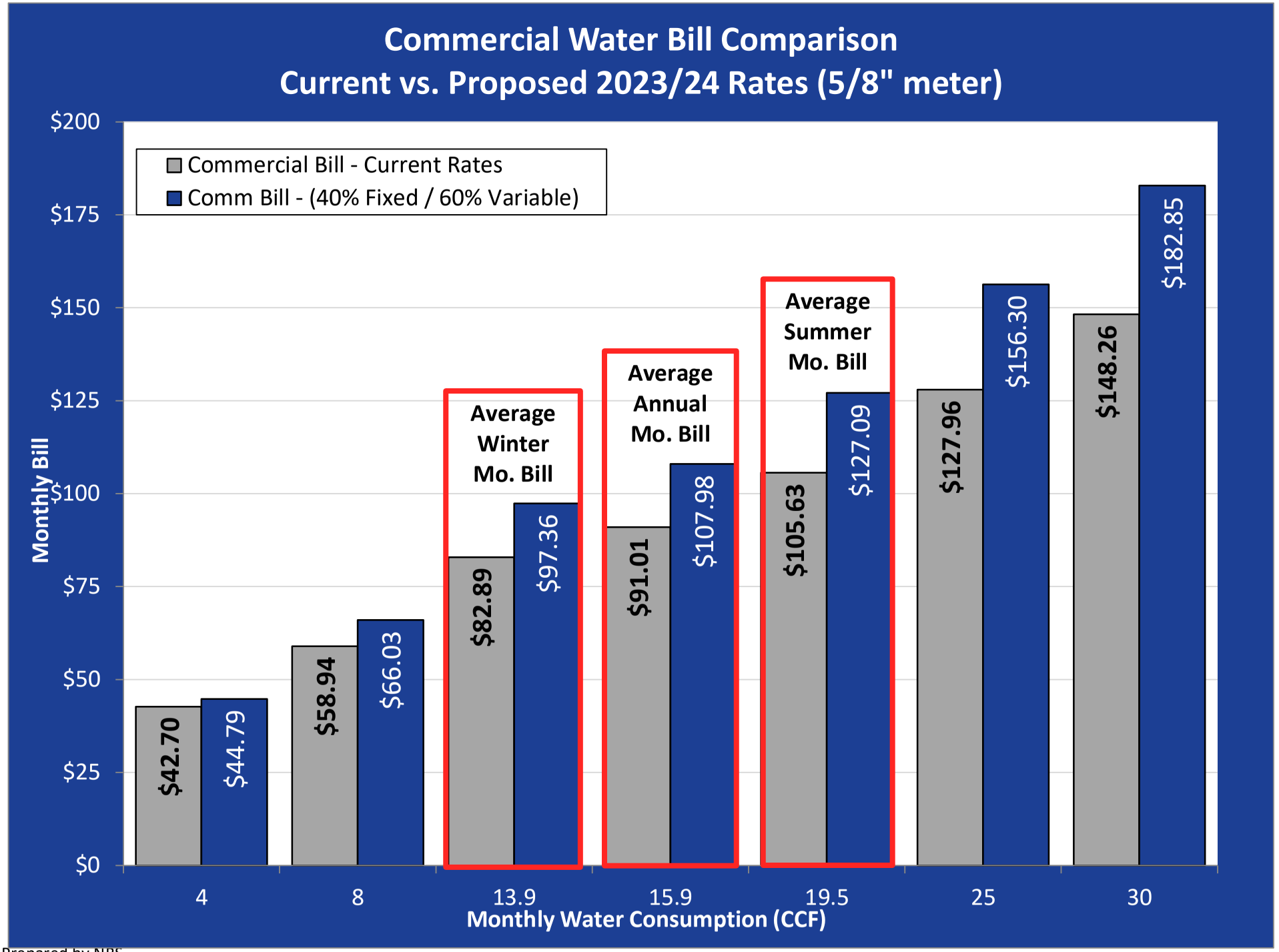
1. Meter by Class and Size are based on June 2021 customer billing data.
2. Source: *AWWA Manual M1, "Principles of Water Rates, Fees, and Charges", Table B-1.*
3. Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.
4. Capacity costs are allocated by meter size and the hydraulic capacity of the meter.

TABLE 30 : METER EQUIVALENCY FACTORS USED IN FIXED CHARGES CALCULATIONS

Water Rate Schedule	Current Rates	Proposed Rates (40% Fixed/60% Variable)				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Fixed Service Charge (by Meter Size)						
Monthly Fixed Service Charges:						
Residential 5/8-, 3/4-, and 1-inch[1]	$26.46	$23.55	$26.61	$30.07	$33.98	$38.40
5/8 inch	$26.46	**$23.55**	$26.61	$30.07	$33.98	$38.40
3/4 inch	$38.42	**$33.90**	$38.30	$43.28	$48.91	$55.27
1 inch	$62.34	**$54.59**	$61.68	$69.70	$78.76	$89.00
1 1/2 inch	$122.13	**$106.32**	$120.14	$135.76	$153.40	$173.35
2 inch	$193.89	**$168.39**	$190.28	$215.02	$242.97	$274.56
3 inch	$385.23	**$333.93**	$377.34	$426.39	$481.82	$544.46
4 inch	$600.49	**$1,037.45**	$1,172.32	$1,324.72	$1,496.93	$1,691.53
6 inch	$1,198.44	**$1,658.20**	$1,873.77	$2,117.36	$2,392.61	$2,703.65
Volumetric Charges for All Water Consumed						
Uniform Rate (per hcf)	$4.06	**$5.31**	$6.00	$6.78	$7.66	$8.66

1. Fixed charges for 5/8-, 3/4-, and 1-inch ***single-family residential*** meters are the same.


Single-Family Residential Water Bill Comparison
Current vs. Proposed 2023/24 Rates (5/8" meter)
SFR Bill - Current Rates
SFR Bill - (40% Fixed / 60% Variable)
Monthly Bill
$0
$10
$20
$30
$40
$50
$60
$70
$80
$90
$26.46
$23.55
$38.64
$39.48
Average Winter Mo. Bill
$47.57
$51.16
Average Annual Mo. Bill
$52.04
$57.00
Average Summer Mo. Bill
$58.13
$64.97
$67.06
$76.65
$75.18
$87.27
0
3
5.2
6.3
7.8
10
12
Monthly Water Consumption (CCF)


Commercial Water Bill Comparison
Current vs. Proposed 2023/24 Rates (5/8" meter)
Commercial Bill - Current Rates
Comm Bill - (40% Fixed / 60% Variable)
Monthly Bill
$200
$175
$150
$125
$100
$75
$50
$25
$0
$42.70
$44.79
$58.94
$66.03
$82.89
$97.36
$91.01
$107.98
$105.63
$127.09
$127.96
$156.30
$148.26
$182.85
Average Winter Mo. Bill
Average Annual Mo. Bill
Average Summer Mo. Bill
4
8
13.9
15.9
19.5
25
30
Monthly Water Consumption (CCF)

Section 11. APPENDIX C – WASTEWATER RATE SUMMARY TABLES

TABLE 1 : FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS

RATE REVENUE REQUIREMENTS SUMMARY[1]	Budget	5-Year Prop 218 Period					Projected		
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31
Sources of Sewer Funds									
Sewer Service Charge	$ 5,620,572	$ 7,068,372	$ 7,068,372	$ 7,068,372	$ 7,068,372	$ 7,068,372	$ 7,068,372	$ 7,068,372	$ 7,068,372
Sewer Pass Through *(Adusted as Needed Each Year)*	1,447,800	-	-	-	-	-	-	-	-
Fees	72,200	72,200	72,200	72,200	72,200	72,200	72,200	72,200	72,200
Miscellaneous	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Non-Operating Revenues	16,176	16,176	16,176	16,176	16,176	16,176	16,176	16,176	16,176
Interest Earned	64,358	71,657	79,474	94,937	126,899	193,234	128,271	86,632	73,154
Total Sources of Funds	**$ 7,222,306**	**$ 7,229,606**	**$ 7,237,422**	**$ 7,252,886**	**$ 7,284,847**	**$ 7,351,182**	**$ 7,286,219**	**$ 7,244,581**	**$ 7,231,103**
Uses of Funds									
Operating Expenses									
Personnel Expenses	$ 1,421,035	$ 1,477,877	$ 1,536,992	$ 1,598,471	$ 1,662,410	$ 1,728,907	$ 1,798,063	$ 1,869,985	$ 1,944,785
Sewage Treatment O&M[2]	1,523,600	1,584,544	1,647,926	1,713,843	1,782,397	1,853,692	1,927,840	2,004,954	2,085,152
Operating Expenses	616,491	634,212	652,464	671,264	690,628	710,573	731,116	752,275	774,070
Subtotal: Operating Expenses	*$ 3,561,126*	*$ 3,696,632*	*$ 3,837,381*	*$ 3,983,578*	*$ 4,135,435*	*$ 4,293,172*	*$ 4,457,019*	*$ 4,627,214*	*$ 4,804,006*
Other Expenditures									
Existing Debt Service	$ 779,216	$ 780,616	$ 781,616	$ 782,216	$ 662,425	$ 664,613	$ 661,163	$ 662,219	$ 662,594
Future Debt Service ($10M SRF Loan)	-	-	-	-	-	-	-	-	-
Rate-Funded Capital Expenses	2,489,510	2,724,391	3,917,426	4,184,642	3,593,750	8,316,563	9,925,560	11,825,327	13,076,187
Subtotal: Other Expenditures	*$ 3,268,726*	*$ 3,505,007*	*$ 4,699,042*	*$ 4,966,858*	*$ 4,256,175*	*$ 8,981,176*	*$ 10,586,723*	*$ 12,487,546*	*$ 13,738,781*
Total Uses of Water Funds	**$ 6,829,852**	**$ 7,201,639**	**$ 8,536,424**	**$ 8,950,436**	**$ 8,391,609**	**$ 13,274,348**	**$ 15,043,742**	**$ 17,114,760**	**$ 18,542,787**
plus: Revenue from Rate Increases[3]	-	989,572	2,117,684	3,403,732	4,660,385	6,067,836	7,906,905	10,003,444	12,393,498
Contribution to Reserves	**$ 392,454**	**$ 1,018,000**	**$ 819,000**	**$ 1,706,000**	**$ 3,554,000**	**$ 145,000**	**$ 149,000**	**$ 133,000**	**$ 1,082,000**
Net Revenue Reqt.	**$ 6,675,919**	**$ 7,040,406**	**$ 8,367,374**	**$ 8,765,923**	**$ 8,175,134**	**$ 12,991,538**	**$ 14,825,895**	**$ 16,938,552**	**$ 18,380,057**
Total Rate Revenue After Rate Increases	**$ 7,068,372**	**$ 8,057,945**	**$ 9,186,057**	**$ 10,472,105**	**$ 11,728,757**	**$ 13,136,208**	**$ 14,975,277**	**$ 17,071,816**	**$ 19,461,870**
Projected Annual Rate Revenue Increase	***0.00%***	***14.00%***	***14.00%***	***14.00%***	***12.00%***	***12.00%***	***14.00%***	***14.00%***	***14.00%***
Cumulative Increase from Annual Revenue Increases	*0.00%*	*14.00%*	*29.96%*	*48.15%*	*65.93%*	*85.84%*	*111.86%*	*141.52%*	*175.34%*
Debt Coverage After Rate Increase	*1.50*	*2.30*	*2.05*	*3.18*	*6.36*	*1.22*	*1.23*	*1.20*	*2.63*

1. Revenues and expenses for FY 2021/22 are budgeted in source file: *2020-21 and 2021-22 Budget-Final.xlsx*
2. Sewage Treatment O&M assumes additional increases in charges will be a pass-through rate.
3. Assumes new rates are implemented April 1, 2023.

TABLE 2 : RESERVE FUND SUMMARY, UN-RESTRICTED RESERVES

SUMMARY OF CASH ACTIVITY	Budget	5-Year Prop 218 Period					Projected		
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31
Total Beginning Cash[1]									
Un-Restricted Reserves:									
Operating Reserve									
Beginning Reserve Balance[2]	$ 569,300	$ 593,500	$ 616,100	$ 639,600	$ 663,900	$ 689,200	$ 715,500	$ 742,800	$ 771,200
Plus: Net Cash Flow (After Rate Increases)	392,454	1,018,000	819,000	1,706,000	3,554,000	145,000	149,000	133,000	1,082,000
Plus: Transfer of Debt Reserve Surplus	-	1,235	12,376	12,376	12,376	12,376	12,376	12,376	12,376
Plus: Transfer in from Capital R&R Reserve	-	-	-	-	-	-	-	-	-
Less: Transfer Out to Debt Reserve	-	(598,996)	-	-	-	-	-	-	-
Less: Transfer Out to Sinking Fund Reserve	-	-	-	-	-	-	-	-	-
Less: Transfer Out to Capital Replacement Reserve	(368,254)	(397,639)	(807,876)	(1,694,076)	(3,541,076)	(131,076)	(134,076)	(116,976)	(1,064,876)
Ending Operating Reserve Balance	***$ 593,500***	***$ 616,100***	***$ 639,600***	***$ 663,900***	***$ 689,200***	***$ 715,500***	***$ 742,800***	***$ 771,200***	***$ 800,700***
Minimum Target Ending Balance (60 days of O&M)	*$ 593,500*	*$ 616,100*	*$ 639,600*	*$ 663,900*	*$ 689,200*	*$ 715,500*	*$ 742,800*	*$ 771,200*	*$ 800,700*
Maximum Target Ending Balance (180 days of O&M)	*$ 1,780,600*	*$ 1,848,300*	*$ 1,918,700*	*$ 1,991,800*	*$ 2,067,700*	*$ 2,146,600*	*$ 2,228,500*	*$ 2,313,600*	*$ 2,402,000*
Capital Rehabilitation & Replacement Reserve									
Beginning Reserve Balance[3]	$ 2,890,781	$ 3,259,035	$ 3,656,674	$ 4,464,550	$ 6,158,626	$ 9,699,702	$ 6,180,778	$ 3,914,854	$ 3,161,830
Plus: Grant Proceeds	-	-	-	-	-	-	-	-	-
Plus: Transfer of Operating Reserve Surplus	368,254	397,639	807,876	1,694,076	3,541,076	131,076	134,076	116,976	1,064,876
Less: Use of Reserves for Operating Reserve	-	-	-	-	-	-	-	-	-
Less: Use of Reserves for Capital Projects	-	-	-	-	-	(3,650,000)	(2,400,000)	(870,000)	-
Ending Capital Rehab & Replacement Reserve Balance	***$ 3,259,035***	***$ 3,656,674***	***$ 4,464,550***	***$ 6,158,626***	***$ 9,699,702***	***$ 6,180,778***	***$ 3,914,854***	***$ 3,161,830***	***$ 4,226,706***
Capital R&R Reserve (5% of Net Assets)	*$ 1,086,100*	*$ 1,185,600*	*$ 1,340,000*	*$ 1,502,800*	*$ 1,632,000*	*$ 2,163,400*	*$ 2,696,300*	*$ 3,231,200*	*$ 3,768,400*
Maximum Target Ending Balance ($5M)	*$ 8,000,000*	*$ 8,240,000*	*$ 8,490,000*	*$ 8,740,000*	*$ 9,000,000*	*$ 9,270,000*	*$ 9,550,000*	*$ 9,840,000*	*$ 10,140,000*
Ending Balance - Excl. Restricted Reserves	**$ 3,852,535**	**$ 4,272,774**	**$ 5,104,150**	**$ 6,822,526**	**$ 10,388,902**	**$ 6,896,278**	**$ 4,657,654**	**$ 3,933,030**	**$ 5,027,406**
Min. Target Ending Balance -Excl. Restricted Reserves	**$ 1,679,600**	**$ 1,801,700**	**$ 1,979,600**	**$ 2,166,700**	**$ 2,321,200**	**$ 2,878,900**	**$ 3,439,100**	**$ 4,002,400**	**$ 4,569,100**
Ending Surplus/(Deficit) Compared to Reserve Targets	***$ 2,172,935***	***$ 2,471,074***	***$ 3,124,550***	***$ 4,655,826***	***$ 8,067,702***	***$ 4,017,378***	***$ 1,218,554***	***$ (69,370)***	***$ 458,306***

TABLE 3 : RESERVE FUND SUMMARY, RESTRICTED RESERVES

SUMMARY OF CASH ACTIVITY	Budget	5-Year Prop 218 Period					Projected		
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31
Restricted Reserves:									
Connection Fee Reserve									
Beginning Reserve Balance	$ 90,000	$ 181,674	$ 405,053	$ 632,587	$ 864,353	$ 1,100,430	$ 1,340,898	$ 1,585,839	$ 1,835,336
Plus: Interest Earnings	1,674	3,379	7,534	11,766	16,077	20,468	24,941	29,497	34,137
Plus: Capacity Fee Revenue *(Reflects Updated Conn. Fees)*	90,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000
Less: Use of Reserves for Capital Projects	-	-	-	-	-	-	-	-	-
Ending Connection Fee Fund Balance	***$ 181,674***	***$ 405,053***	***$ 632,587***	***$ 864,353***	***$ 1,100,430***	***$ 1,340,898***	***$ 1,585,839***	***$ 1,835,336***	***$ 2,089,473***
Target Ending Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Bond Project Fund									
Beginning Reserve Balance[4]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Plus: SRF Loan Funding Proceeds	-	-	-	-	-	-	-	-	-
Plus: Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-
Less: Use of Bond & Loan Funds for Capital Projects	-	-	-	-	-	-	-	-	-
Ending Bond Project Fund Balance	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***
Target Ending Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Debt Reserve									
Beginning Reserve Balance[5]	$ 65,167	$ 66,379	$ 665,375	$ 665,375	$ 665,375	$ 665,375	$ 665,375	$ 665,375	$ 665,375
Plus: Reserve Funding from Future Debt Obligations	-	-	-	-	-	-	-	-	-
Plus: Reserve Funding from Excess Operating Funds	-	598,996	-	-	-	-	-	-	-
Plus: Interest Earnings	1,212	1,235	12,376	12,376	12,376	12,376	12,376	12,376	12,376
Less: Transfer of Surplus to Operating Reserve	-	(1,235)	(12,376)	(12,376)	(12,376)	(12,376)	(12,376)	(12,376)	(12,376)
Ending Debt Reserve Balance	***$ 66,379***	***$ 665,375***	***$ 665,375***	***$ 665,375***	***$ 665,375***	***$ 665,375***	***$ 665,375***	***$ 665,375***	***$ 665,375***
Target Ending Balance	*$ 665,375*	*$ 665,375*	*$ 665,375*	*$ 665,375*	*$ 665,375*	*$ 665,375*	*$ 665,375*	*$ 665,375*	*$ 665,375*
Ending Balance - Restricted Reserves	***$ 248,053***	***$ 1,070,428***	***$ 1,297,962***	***$ 1,529,728***	***$ 1,765,805***	***$ 2,006,273***	***$ 2,251,214***	***$ 2,500,711***	***$ 2,754,848***
Min. Target Ending Balance - Restricted Reserves	***$ 665,375***	***$ 665,375***	***$ 665,375***	***$ 665,375***	***$ 665,375***	***$ 665,375***	***$ 665,375***	***$ 665,375***	***$ 665,375***
Ending Surplus/(Deficit) Compared to Reserve Targets	***$ (417,322)***	***$ 405,053***	***$ 632,587***	***$ 864,353***	***$ 1,100,430***	***$ 1,340,898***	***$ 1,585,839***	***$ 1,835,336***	***$ 2,089,473***
Annual Interest Earnings Rate [6]	*1.86%*	*1.86%*	*1.86%*	*1.86%*	*1.86%*	*1.86%*	*1.86%*	*1.86%*	*1.86%*

1. The District currently maintains one fund for water and sewer operations.
2. The beginning Operating Reserve balance is found in source file: *Cast Account Balances.xlsx*
3. The beginning Capital Rehab and Replacement balance is is found in source file: *Cast Account Balances.xlsx*
4. The beginning Bond Project Reserve balance is assumed to be zero.
5. The beginning Debt Reserve balance is is found in source file: *Cast Account Balances.xlsx*
6. City's actual or budgeted interest earnings are used in analysis for unrestricted reserves in FY 2021/22. For 2022/23 and beyond, interest earning rates are estimated at the 3-year average (FY '17/18 - '19/20) for funds invested in LAIF, per the California Treasurer's Office website, for the restricted reserves.
   Source: https://www.treasurer.ca.gov/pmia-laif/historical/annual.asp.

CHART 1

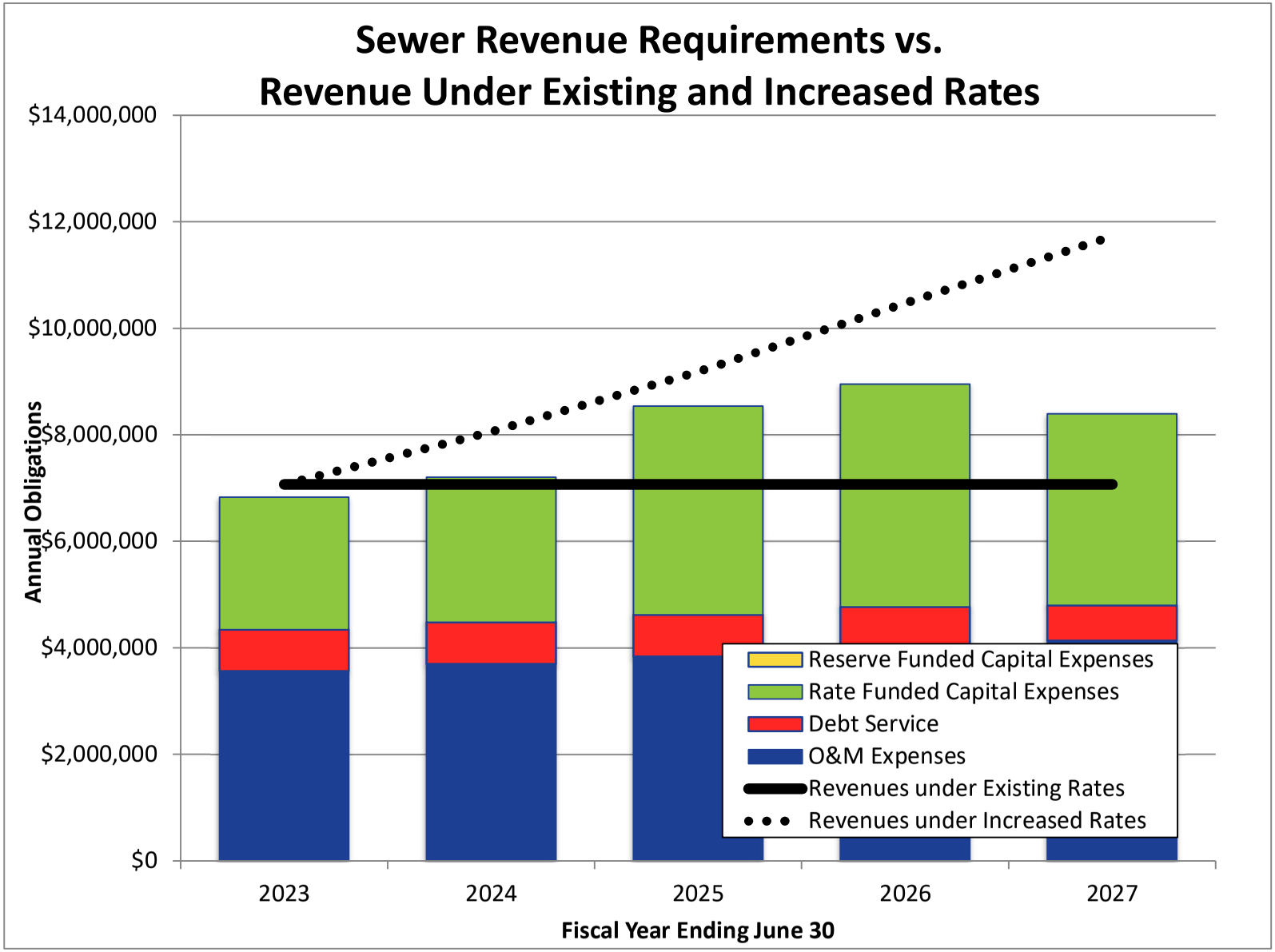

Sewer Revenue Requirements vs.
Revenue Under Existing and Increased Rates
$14,000,000
$12,000,000
$10,000,000
$8,000,000
$6,000,000
$4,000,000
$2,000,000
$0
Annual Obligations
2023
2024
2025
2026
2027
Fiscal Year Ending June 30
Reserve Funded Capital Expenses
Rate Funded Capital Expenses
Debt Service
O&M Expenses
Revenues under Existing Rates
Revenues under Increased Rates

CHART 2

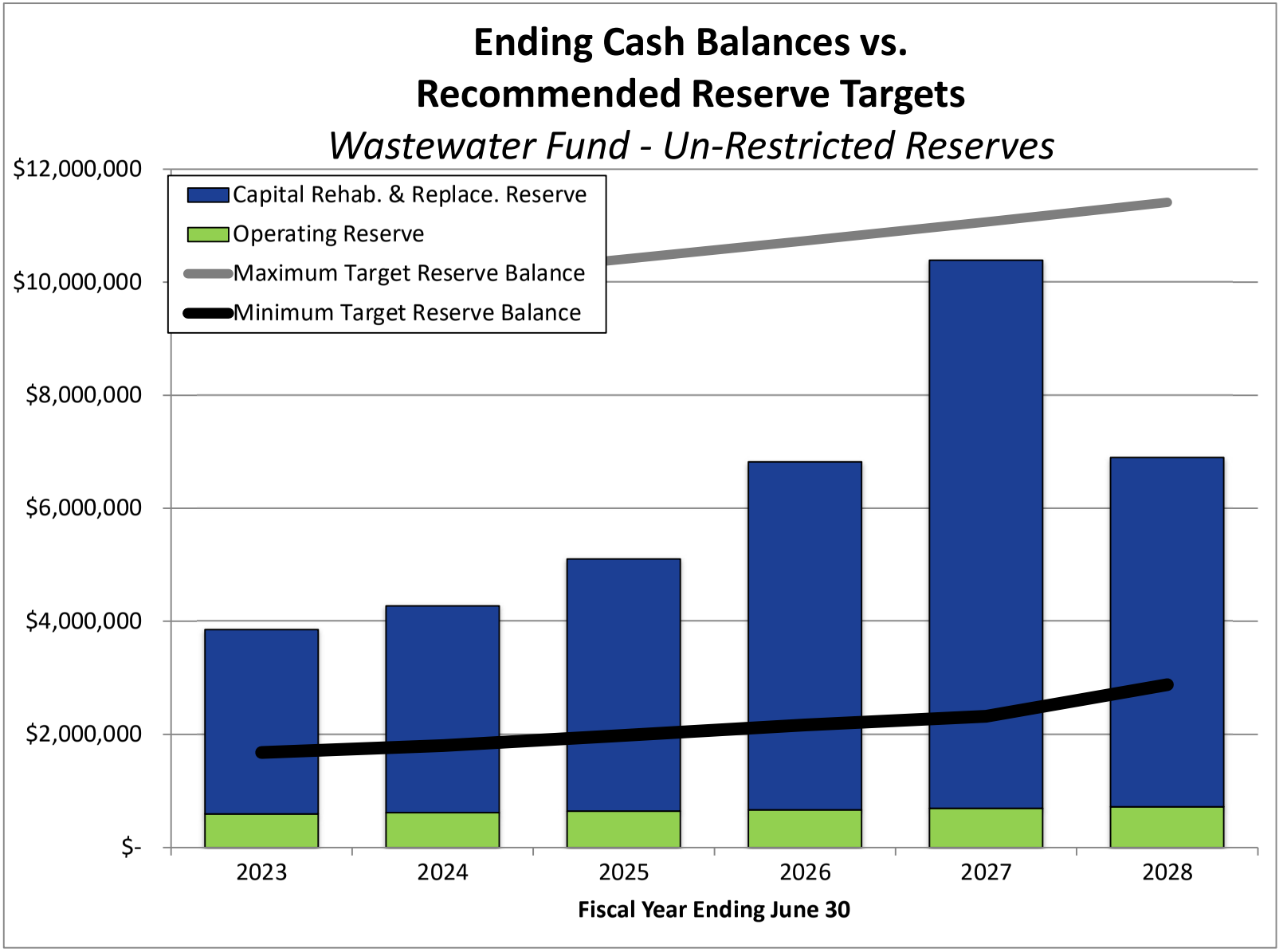

Ending Cash Balances vs.
Recommended Reserve Targets
Wastewater Fund - Un-Restricted Reserves
$12,000,000
$10,000,000
$8,000,000
$6,000,000
$4,000,000
$2,000,000
$-
Capital Rehab. & Replace. Reserve
Operating Reserve
Maximum Target Reserve Balance
Minimum Target Reserve Balance
2023
2024
2025
2026
2027
2028
Fiscal Year Ending June 30

CHART 3

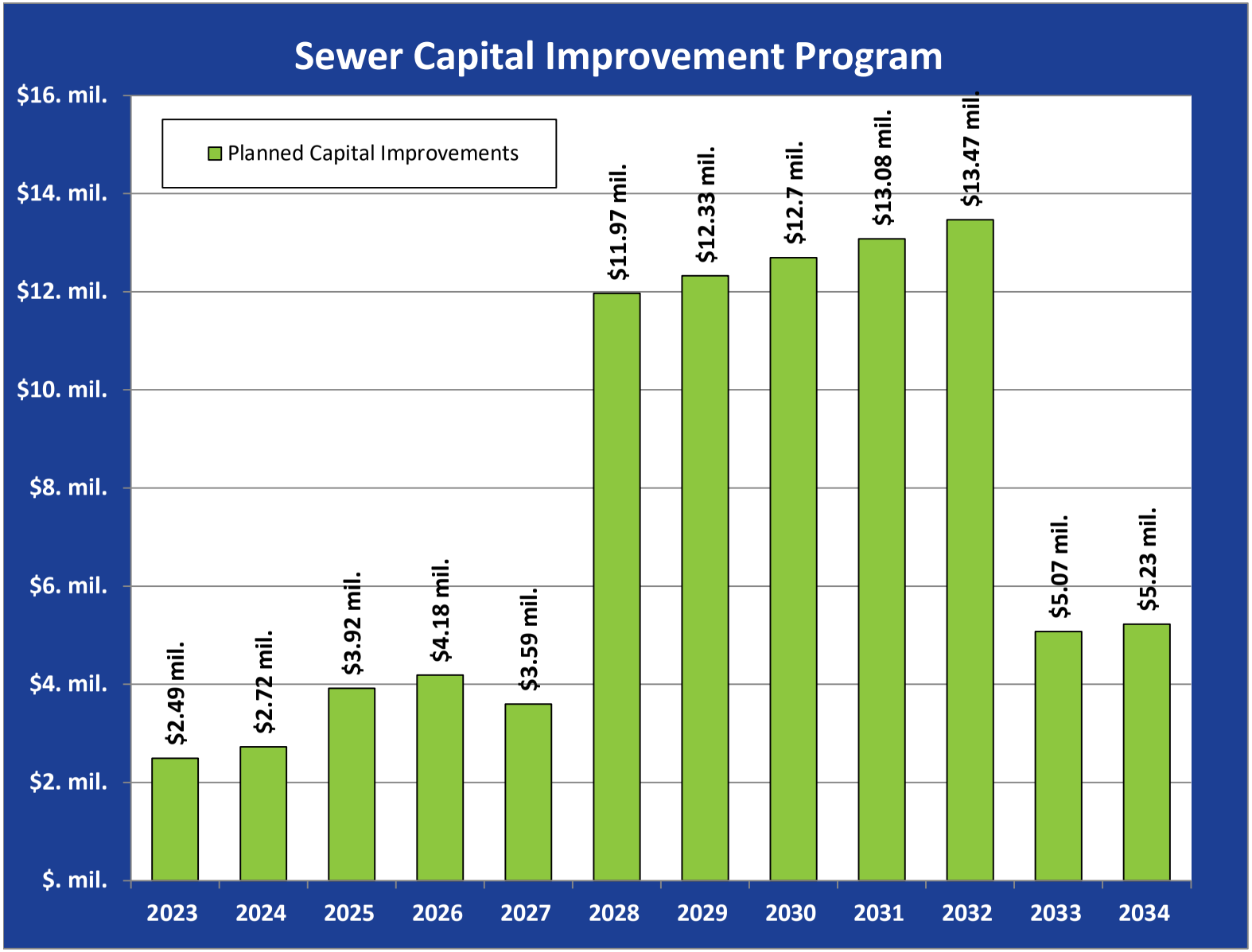
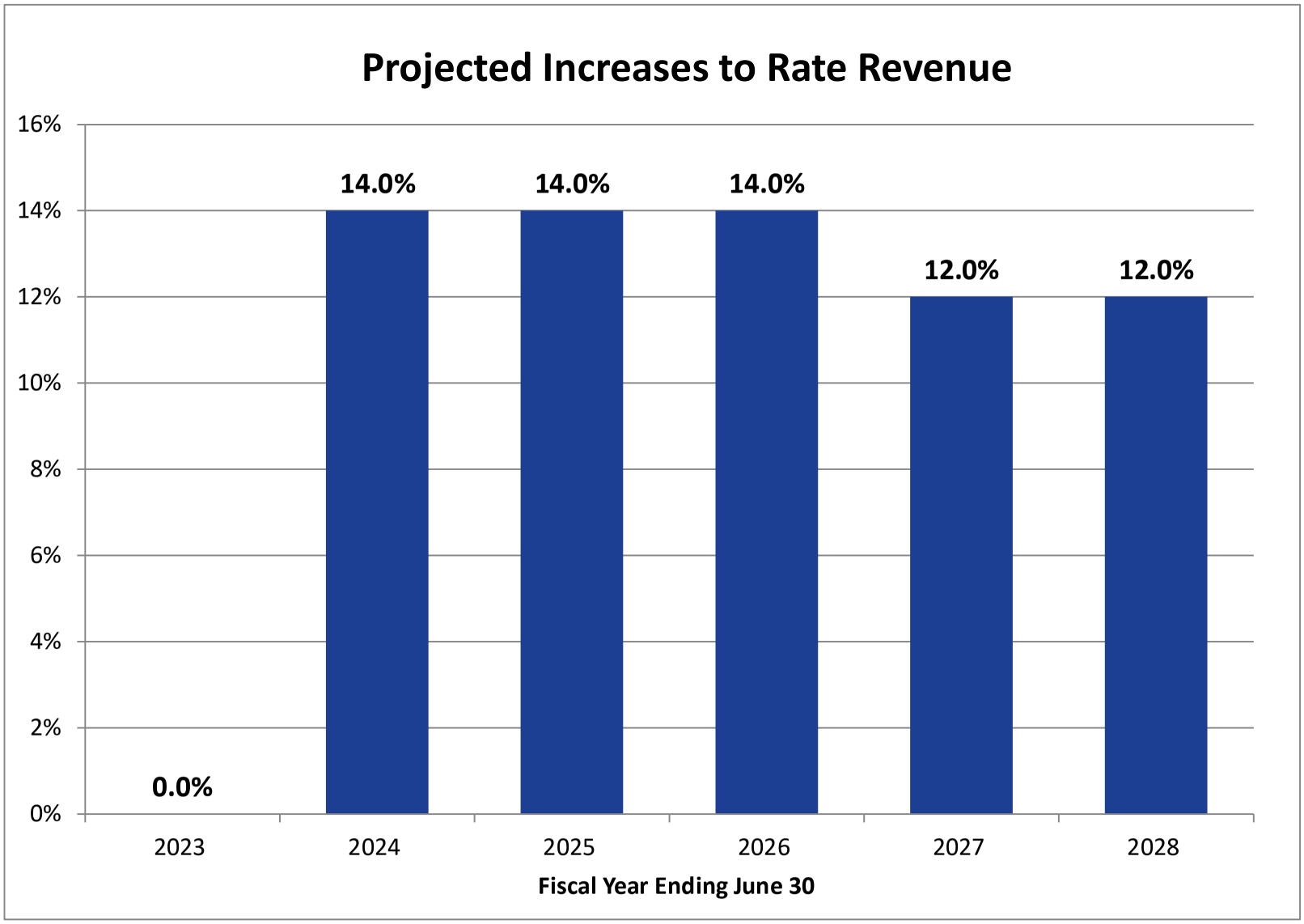

Sewer Capital Improvement Program
Planned Capital Improvements
$16. mil.
$14. mil.
$12. mil.
$10. mil.
$8. mil.
$6. mil.
$4. mil.
$2. mil.
$. mil.
$2.49 mil.
$2.72 mil.
$3.92 mil.
$4.18 mil.
$3.59 mil.
$11.97 mil.
$12.33 mil.
$12.7 mil.
$13.08 mil.
$13.47 mil.
$5.07 mil.
$5.23 mil.
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
2033
2034

CHART 4


Projected Increases to Rate Revenue
16%
14%
12%
10%
8%
6%
4%
2%
0%
0.0%
14.0%
14.0%
14.0%
12.0%
12.0%
2023
2024
2025
2026
2027
2028
Fiscal Year Ending June 30

HUMBOLDT COMMUNITY SERVICE DISTRICT **EXHIBIT 1**
SEWER RATE ANALYSIS
Operating Revenue and Expenses

TABLE 4 : REVENUE FORECAST

DESCRIPTION[1]	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Operating Revenue											
Sewer Service Charges	1	$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572
Sewer Pass Through	1	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800
Sewer Construction Fees	1	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Account Fees	1	60,200	60,200	60,200	60,200	60,200	60,200	60,200	60,200	60,200	60,200
Inspection Fees	1	-	-	-	-	-	-	-	-	-	-
Reimbursable Maintenance	1	200	200	200	200	200	200	200	200	200	200
Miscellaneous	1	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Non-Operating Revenue											
Sewer Capital Connection Fees	1	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000
Interest/General	See FP	9,034									
Discounts Earned	1	720	720	720	720	720	720	720	720	720	720
Sale of Fixed Assets	1	6,856	6,856	6,856	6,856	6,856	6,856	6,856	6,856	6,856	6,856
Sales of Scrap Metal	1	-	-	-	-	-	-	-	-	-	-
Bad Debt Recovery	1	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300
Other Non-Operating Revenue	1	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300
TOTAL: REVENUE		**$ 7,256,983**	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**

TABLE 5 : REVENUE SUMMARY

Sewer Service Charge		$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572	$ 5,620,572
Sewer Pass Through		1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800
Fees		72,200	72,200	72,200	72,200	72,200	72,200	72,200	72,200	72,200	72,200
Miscellaneous		1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Connection Fees		90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Non-Operating Revenues		16,176	16,176	16,176	16,176	16,176	16,176	16,176	16,176	16,176	16,176
Interest/General		9,034	-	-	-	-	-	-	-	-	-
		$ 7,256,983	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**	**$ 7,247,948**

TABLE 6 : OPERATING EXPENSE FORECAST

DESCRIPTION[2]	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Personnel Expenses											
Wages: Operation	3	$ 987,990	$ 1,027,510	$ 1,068,610	$ 1,111,354	$ 1,155,809	$ 1,202,041	$ 1,250,123	$ 1,300,127	$ 1,352,133	$ 1,406,218
PERS	3	105,800	110,032	114,433	119,011	123,771	128,722	133,871	139,226	144,795	150,586
UI	3	-	-	-	-	-	-	-	-	-	-
Group Insurance	3	229,900	239,096	248,660	258,606	268,950	279,709	290,897	302,533	314,634	327,219
Workers Comp	3	7,590	7,894	8,209	8,538	8,879	9,234	9,604	9,988	10,387	10,803
FICA / Medicare	3	35,100	36,504	37,964	39,483	41,062	42,705	44,413	46,189	48,037	49,958
Misc. Benefits	3	-	-	-	-	-	-	-	-	-	-
Operating Expenses											
Sewage Treatment: O&M[3]	5	1,465,000	1,523,600	1,584,544	1,647,926	1,713,843	1,782,397	1,853,692	1,927,840	2,004,954	2,085,152
Water/Sewer Analysis	2	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
Supplies/Construction	2	34,840	35,885	36,962	38,071	39,213	40,389	41,601	42,849	44,134	45,458
Supplies / Office-Admin	2	5,700	5,871	6,047	6,229	6,415	6,608	6,806	7,010	7,221	7,437
Supplies Engineering	2	1,075	1,107	1,140	1,175	1,210	1,246	1,284	1,322	1,362	1,403
Supplies/Maintenance	2	48,750	50,213	51,719	53,270	54,869	56,515	58,210	59,956	61,755	63,608
Temp Labor - Maintenance	2	4,056	4,178	4,303	4,432	4,565	4,702	4,843	4,988	5,138	5,292
Temp Labor - Construction	2	-	-	-	-	-	-	-	-	-	-
Temp Labor - Customer Service/Finance	2	-	-	-	-	-	-	-	-	-	-
Repairs & Maint: Trucks	2	24,200	24,926	25,674	26,444	27,237	28,054	28,896	29,763	30,656	31,576
Building & Grounds Maint	2	1,600	1,648	1,697	1,748	1,801	1,855	1,910	1,968	2,027	2,088
Electrical Power	4	70,992	88,740	91,402	94,144	96,969	99,878	102,874	105,960	109,139	112,413
Street Lights	4	-	-	-	-	-	-	-	-	-	-
Telephone	2	3,040	3,131	3,225	3,322	3,422	3,524	3,630	3,739	3,851	3,967

Equipment Rental	2	1,300	1,339	1,379	1,421	1,463	1,507	1,552	1,599	1,647	1,696
Property Lease	2	-	-	-	-	-	-	-	-	-	-
Postage	2	960	989	1,018	1,049	1,080	1,113	1,146	1,181	1,216	1,253
Freight	2	215	221	228	235	242	249	257	264	272	281
Chemicals	5	-	-	-	-	-	-	-	-	-	-
Liability Insurance	2	-	-	-	-	-	-	-	-	-	-
Legal	2	-	-	-	-	-	-	-	-	-	-
Accounting	2	-	-	-	-	-	-	-	-	-	-
Engineering	2	100	103	106	109	113	116	119	123	127	130
Other Professional Services	2	7,600	7,828	8,063	8,305	8,554	8,810	9,075	9,347	9,627	9,916
Bank Service Charges	2	-	-	-	-	-	-	-	-	-	-
Transportation	7	25,800	25,800	25,800	25,800	25,800	25,800	25,800	25,800	25,800	25,800
Office Equip / Maint	2	1,540	1,586	1,634	1,683	1,733	1,785	1,839	1,894	1,951	2,009
Computer Software Maintenance	2	16,200	16,686	17,187	17,702	18,233	18,780	19,344	19,924	20,522	21,137
Memberships & Subscriptions	2	892	919	946	975	1,004	1,034	1,065	1,097	1,130	1,164
Bad Debts & Min Bal write-off	2	86,000	88,580	91,237	93,975	96,794	99,698	102,688	105,769	108,942	112,210
Conferences & Continuing Ed	2	8,800	9,064	9,336	9,616	9,904	10,202	10,508	10,823	11,148	11,482
Certifications	2	1,242	1,279	1,318	1,357	1,398	1,440	1,483	1,528	1,573	1,621
State/County & LAFCO Fees & Charges	2	9,000	9,270	9,548	9,835	10,130	10,433	10,746	11,069	11,401	11,743
Elections Expense	2	-	-	-	-	-	-	-	-	-	-
Human Resources	2	5,800	5,974	6,153	6,338	6,528	6,724	6,926	7,133	7,347	7,568
Miscellaneous	2	1,440	1,483	1,528	1,574	1,621	1,669	1,719	1,771	1,824	1,879
General & Admin Expense Allocation	2	217,981	224,520	231,256	238,194	245,340	252,700	260,281	268,089	276,132	284,416
GRAND TOTAL: WASTEWATER EXPENSES		**$ 3,415,503**	**$ 3,561,126**	**$ 3,696,632**	**$ 3,837,381**	**$ 3,983,578**	**$ 4,135,435**	**$ 4,293,172**	**$ 4,457,019**	**$ 4,627,214**	**$ 4,804,006**

1. Revenues for FY 2021/22 are budgeted in source file: *2020-21 and 2021-22 Budget-Final.xlsx*
2. Expenses for FY 2021/22 are budgeted in source file: *2020-21 and 2021-22 Budget-Final.xlsx*
3. Analysis assumes increases in sewage treatment O&M (paid to the City of Eureka) will be an additional pass-through charge to customers.

TABLE 7 : FORECASTING ASSUMPTIONS

COST INFLATION FACTORS	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Customer Growth	1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Cost Inflation	2	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Labor Cost Inflation	3	0.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Energy Inflation	4	0.00%	25.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
WWTP O&M Inflation (COE)	5	0.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Fuel	6	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
No Escalation	7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

1. Cost inflation assumptions are forecasted by District staff.

TABLE 8 : CAPITAL FUNDING SUMMARY

CAPITAL FUNDING FORECAST	Budget	Budget	Projected 5-Year Rate Period					Projected		
Funding Sources:	**FY 2021/22**	**FY 2022/23**	**FY 2023/24**	**FY 2024/25**	**FY 2025/26**	**FY 2026/27**	**FY 2027/28**	**FY 2028/29**	**FY 2029/30**	**FY 2030/31**
Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Use of Connection Fee Reserves	-	-	-	-	-	-	-	-	-	-
SRF Loan Funding	-	-	-	-	-	-	-	-	-	-
Use of Future Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-	-
Use of Capital Rehabilitation and Replacement Reserve	-	-	-	-	-	-	3,650,000	2,400,000	870,000	-
Rate Revenue	1,885,152	2,489,510	2,724,391	3,917,426	4,184,642	3,593,750	8,316,563	9,925,560	11,825,327	13,076,187
Total Sources of Capital Funds	**$ 1,885,152**	**$ 2,489,510**	**$ 2,724,391**	**$ 3,917,426**	**$ 4,184,642**	**$ 3,593,750**	**$ 11,966,563**	**$ 12,325,560**	**$ 12,695,327**	**$ 13,076,187**
Uses of Capital Funds:										
Total Project Costs	$ 1,885,152	$ 2,489,510	$ 2,724,391	$ 3,917,426	$ 4,184,642	$ 3,593,750	$ 11,966,563	$ 12,325,560	$ 12,695,327	$ 13,076,187
Capital Funding Surplus (Deficiency)	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***
SRF Loan Funding	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***
Future Revenue Bond Proceeds	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***

CAPITAL IMPROVEMENT PROGRAM

TABLE 9 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Current-Year dollars)

Project Description[1]	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
City of Eureka CIP *(from Terrence's email of 10/10/22)*	$ 1,565,652	***$ 1,335,000***	***$ 1,335,000***	***$ 1,335,000***	***$ 1,335,000***	***$ 1,335,000***	***$ 1,335,000***	***$ 1,335,000***	***$ 1,335,000***	***$ 1,335,000***
SEWER FACILITIES										
Sea Avenue SLS	$ 50,000	$ 20,000								
Sewer Rate Study	$ 50,000									
Sequoia SLS	$ 10,000									
Blackberry SLS	$ 60,000	$ 40,000								
Bailey SLS	$ 32,000	$ 100,000								
Artino SLS		$ 75,000								
Allard Access Vault			$ 10,000							
Roth Court SLS			$ 70,000							
Pine Hill SLS Generator			$ 75,000			$ 15,000				
Hoover SLS Upgrade			$ 100,000	$ 300,000	$ 450,000	$ 450,000				
Christine SLS				$ 50,000						
Pine Hill SLS Rehab					$ 200,000					
Beechwood SLS Panel					$ 50,000	$ 50,000				
King Salmon SLS					$ 75,000					
Wellington SLS						$ 50,000				
SCADA Upgrade						$ 100,000	$ 80,000	$ 80,000	$ 80,000	$ 80,000
WWTP Upgrades *(from Terrence's email of 10/10/22)*							***$ 2,000,000***	***$ 2,000,000***	***$ 2,000,000***	***$ 2,000,000***
MAIN EXTENSION & REPLACEMENTS										
New Connections	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000				
Hemlock	$ 17,000	$ 250,000	$ 250,000	$ 250,000						
Dr. Office Lane		$ 148,000								
Hartman Lane		$ 65,000	$ 360,000							
Noe Street		$ 162,000								
Mesa /Bell Terrace			$ 40,000	$ 280,000						
South Broadway FM			$ 100,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000
Walnut Drive Trouble Spot				$ 210,000						
Walnut Drive Laterals				$ 40,000						
F Street				$ 25,000	$ 360,000					
London Drive at Burns					$ 88,000					
Ridgewood Drive					$ 80,000					
Summit Ridge to David					$ 106,000					
Spruce SLS					$ 50,000	$ 486,000				
Quaker Street						$ 50,000	.			
Worthington St.						$ 50,000				
Martin Slough Reversals							$ 300,000	$ 300,000	$ 300,000	$ 300,000
Trouble Spots							$ 300,000	$ 300,000	$ 300,000	$ 300,000
Fields Landing FM							$ 572,000	$ 572,000	$ 572,000	$ 572,000
Humboldt Hill Sewer Sys							$ 1,500,000	$ 1,500,000	$ 1,500,000	$ 1,500,000
Gravity Main Replacement							$ 3,121,262	$ 3,121,262	$ 3,121,262	$ 3,121,262
Forcemain Replacement							$ 343,547	$ 343,547	$ 343,547	$ 343,547
Sub-Total: CIP Program Costs	**$ 1,789,652**	**$ 2,200,000**	**$ 2,345,000**	**$ 3,495,000**	**$ 3,799,000**	**$ 3,591,000**	**$ 9,851,809**	**$ 9,851,809**	**$ 9,851,809**	**$ 9,851,809**

TABLE 10 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Current-Year dollars)

Project Description[1]	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
BUILDING, YARD & PAVING IMPROVEMENTS										
Office Building Exterior phase 1	$ 17,500	$ 25,000								
Yard Paving Repairs	$ 17,500									
Vehicle Storage Upgrades	$ 8,000	$ 5,000								
Office Building and breakroom Roof	$ 20,000	$ 10,000								
Office ADA	$ 7,500	$ 7,000	$ 8,000	$ 10,000						
Office Building Exterior phase 2			$ 40,000							
Small Truck Garage				$ 50,000						
Seal Coat Parking Lot					$ 10,000					
Drying Bed Cover						$ 15,000				
Future Yard Paving							$ 20,000	$ 20,000	$ 20,000	$ 20,000
Office and Yard Facility Upgrades										
VEHICLES / EQUIPMENT										
2006 Ford Van	$ 25,000									
2010 Ford F450 w/Crane		$ 70,000								
2005 Dodge				$ 30,000						
2012 Ford 4x4						$ 30,000				
2010 Peterbilt 7 CY Dump Truck		$ 100,000								
2004 580 Super M Backhoe					$ 65,000					
Sewer Camera			$ 175,000							
Fleet Replacement Program							$ 150,000	$ 150,000	$ 150,000	$ 150,000
Sub-Total: CIP Program Costs	**$ 95,500**	**$ 217,000**	**$ 223,000**	**$ 90,000**	**$ 75,000**	**$ 45,000**	**$ 170,000**	**$ 170,000**	**$ 170,000**	**$ 170,000**
Grand Total: Capital Improvement Program Costs *(Current Do*	**$ 1,885,152**	**$ 2,417,000**	**$ 2,568,000**	**$ 3,585,000**	**$ 3,874,000**	**$ 3,636,000**	**$ 10,021,809**	**$ 10,021,809**	**$ 10,021,809**	**$ 10,021,809**

TABLE 11 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Future-Year dollars)

Project Description[2]	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
City of Eureka CIP (from Terrence's email of 10/10/22)	$ 1,565,652	**$ 1,375,050**	**$ 1,416,302**	**$ 1,458,791**	**$ 1,502,554**	**$ 1,547,631**	**$ 1,594,060**	**$ 1,641,882**	**$ 1,691,138**	**$ 1,741,872**
SEWER MAIN EXTENSION AND REPLACEMENTS ($175.00 LF)										
Sea Avenue SLS	$ 50,000	$ 20,600	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sewer Rate Study	$ 50,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sequoia SLS	$ 10,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Blackberry SLS	$ 60,000	$ 41,200	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Bailey SLS	$ 32,000	$ 103,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Artino SLS	$ -	$ 77,250	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Allard Access Vault	$ -	$ -	$ 10,609	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Roth Court SLS	$ -	$ -	$ 74,263	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pine Hill SLS Generator	$ -	$ -	$ 79,568	$ -	$ -	$ 17,389	$ -	$ -	$ -	$ -
Christine SLS	$ -	$ -	$ -	$ 54,636	$ -	$ -	$ -	$ -	$ -	$ -
Hoover SLS Upgrade	$ -	$ -	$ 106,090	$ 327,818	$ 506,479	$ 521,673	$ -	$ -	$ -	$ -
Pine Hill SLS Rehab	$ -	$ -	$ -	$ -	$ 225,102	$ -	$ -	$ -	$ -	$ -
Beechwood SLS Panel	$ -	$ -	$ -	$ -	$ 56,275	$ 57,964	$ -	$ -	$ -	$ -
King Salmon SLS	$ -	$ -	$ -	$ -	$ 84,413	$ -	$ -	$ -	$ -	$ -
Wellington SLS	$ -	$ -	$ -	$ -	$ -	$ 57,964	$ -	$ -	$ -	$ -
SCADA Upgrade	$ -	$ -	$ -	$ -	$ -	$ 115,927	$ 95,524	$ 98,390	$ 101,342	$ 104,382
WWTP Upgrades (from Terrence's email of 10/10/22)	$ -	$ -	$ -	$ -	$ -	$ -	**$ 2,388,105**	**$ 2,459,748**	**$ 2,533,540**	**$ 2,609,546**
MAIN EXTENSION & REPLACEMENTS	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
New Connections	$ 5,000	$ 5,150	$ 5,305	$ 5,464	$ 5,628	$ 5,796	$ -	$ -	$ -	$ -
Hemlock	$ 17,000	$ 257,500	$ 265,225	$ 273,182	$ -	$ -	$ -	$ -	$ -	$ -
Dr. Office Lane	$ -	$ 152,440	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Hartman Lane	$ -	$ 66,950	$ 381,924	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Noe Street	$ -	$ 166,860	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Mesa /Bell Terrace	$ -	$ -	$ 42,436	$ 305,964	$ -	$ -	$ -	$ -	$ -	$ -
South Broadway FM	$ -	$ -	$ 106,090	$ 1,092,727	$ 1,125,509	$ 1,159,274	$ 358,216	$ 368,962	$ 380,031	$ 391,432
Walnut Drive Trouble Spot	$ -	$ -	$ -	$ 229,473	$ -	$ -	$ -	$ -	$ -	$ -
Walnut Drive Laterals	$ -	$ -	$ -	$ 43,709	$ -	$ -	$ -	$ -	$ -	$ -
F Street	$ -	$ -	$ -	$ 27,318	$ 405,183	$ -	$ -	$ -	$ -	$ -
London Drive at Burns	$ -	$ -	$ -	$ -	$ 99,045	$ -	$ -	$ -	$ -	$ -
Ridgewood Drive	$ -	$ -	$ -	$ -	$ 90,041	$ -	$ -	$ -	$ -	$ -
Forcemain Replacements & Other										
Worthington St.	$ -	$ -	$ -	$ -	$ -	$ 57,964	$ -	$ -	$ -	$ -
Martin Slough Reversals	$ -	$ -	$ -	$ -	$ -	$ -	$ 358,216	$ 368,962	$ 380,031	$ 391,432
Trouble Spots	$ -	$ -	$ -	$ -	$ -	$ -	$ 358,216	$ 368,962	$ 380,031	$ 391,432
Fields Landing FM	$ -	$ -	$ -	$ -	$ -	$ -	$ 682,998	$ 703,488	$ 724,592	$ 746,330
Humboldt Hill Sewer Sys	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,791,078	$ 1,844,811	$ 1,900,155	$ 1,957,160
Gravity Main Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,726,950	$ 3,838,758	$ 3,953,921	$ 4,072,539
Forcemain Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ 410,213	$ 422,519	$ 435,195	$ 448,250
Sub-Total: CIP Program Costs	**$ 1,789,652**	**$ 2,266,000**	**$ 2,487,811**	**$ 3,819,081**	**$ 4,100,229**	**$ 3,541,582**	**$ 11,763,575**	**$ 12,116,482**	**$ 12,479,976**	**$ 12,854,376**

TABLE 12 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Future-Year dollars)

Project Description[2]	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
VEHICLES/ROLLING STOCK/EQUIPMENT	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office Building Exterior phase 1	$ 17,500	$ 25,750	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Yard Paving Repairs	$ 17,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Vehicle Storage Upgrades	$ 8,000	$ 5,150	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office Building and breakroom Roof	$ 20,000	$ 10,300	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office ADA	$ 7,500	$ 7,210	$ 8,487	$ 10,927	$ -	$ -	$ -	$ -	$ -	$ -
Office Building Exterior phase 2	$ -	$ -	$ 42,436	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Small Truck Garage	$ -	$ -	$ -	$ 54,636	$ -	$ -	$ -	$ -	$ -	$ -
Seal Coat Parking Lot	$ -	$ -	$ -	$ -	$ 11,255	$ -	$ -	$ -	$ -	$ -
Drying Bed Cover	$ -	$ -	$ -	$ -	$ -	$ 17,389	$ -	$ -	$ -	$ -
Future Yard Paving	$ -	$ -	$ -	$ -	$ -	$ -	$ 23,881	$ 24,597	$ 25,335	$ 26,095
Office and Yard Facility Upgrades	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
VEHICLES / EQUIPMENT	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2006 Ford Van	$ 25,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
ENGINEERING NEEDS	$ -	$ 72,100	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2005 Dodge	$ -	$ -	$ -	$ 32,782	$ -	$ -	$ -	$ -	$ -	$ -
2012 Ford 4x4	$ -	$ -	$ -	$ -	$ -	$ 34,778	$ -	$ -	$ -	$ -
2010 Peterbilt 7 CY Dump Truck	$ -	$ 103,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2004 580 Super M Backhoe	$ -	$ -	$ -	$ -	$ 73,158	$ -	$ -	$ -	$ -	$ -
Sewer Camera	$ -	$ -	$ 185,658	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Replacement Program	$ -	$ -	$ -	$ -	$ -	$ -	$ 179,108	$ 184,481	$ 190,016	$ 195,716
Sub-Total: CIP Program Costs	**$ 95,500**	**$ 223,510**	**$ 236,581**	**$ 98,345**	**$ 84,413**	**$ 52,167**	**$ 202,989**	**$ 209,079**	**$ 215,351**	**$ 221,811**
Grand Total: Capital Improvement Program Costs *(Future Dolla*	**$ 1,885,152**	**$ 2,489,510**	**$ 2,724,391**	**$ 3,917,426**	**$ 4,184,642**	**$ 3,593,750**	**$ 11,966,563**	**$ 12,325,560**	**$ 12,695,327**	**$ 13,076,187**

1. Capital project costs were provided by HCSD Staff in source files: *20220518_22-23CIP_DRAFT.xlsx*
2. Project costs are inflated by 3.0% per year in FY 2022/23 and beyond.

TABLE 13 : FORECASTING ASSUMPTIONS

Economic Variables	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Annual Construction Cost Inflation, Per Engineering News	*0.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*
Cumulative Construction Cost Multiplier from 2022	*1.00*	*1.03*	*1.06*	*1.09*	*1.13*	*1.16*	*1.19*	*1.23*	*1.27*	*1.30*

3. For reference purposes, the annual Construction Cost Inflation percentage is the 10 year average change in the Construction Cost Index for 2012-2021 (3.0%).

Source: Engineering News Record website (http://enr.construction.com).

TABLE 14 : WASTEWATER UTILITY EXISTING DEBT OBLIGATIONS

Annual Repayment Schedules[1]	Budget FY 2021/22	Budget FY 2022/23	5-Year Prop 218 Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31
2014 Wastewater Revenue Bonds, $8,500,000										
Principal Payment	$ 210,000	$ 215,000	$ 225,000	$ 235,000	$ 245,000	$ 250,000	$ 260,000	$ 265,000	$ 275,000	$ 285,000
Interest Payment	$ 277,575	$ 269,175	$ 260,575	$ 251,575	$ 242,175	$ 234,825	$ 227,013	$ 218,563	$ 209,619	$ 199,994
Subtotal: Annual Debt Service	**$ 487,575**	**$ 484,175**	**$ 485,575**	**$ 486,575**	**$ 487,175**	**$ 484,825**	**$ 487,013**	**$ 483,563**	**$ 484,619**	**$ 484,994**
Coverage Requirement ($-Amnt above annual payment)[2]	$ 585,120	$ 585,120	$ 585,120	$ 585,120	$ 585,120	$ 585,120	$ 585,120	$ 585,120	$ 585,120	$ 585,120
Reserve Requirement (total fund balance)[2]	$ 487,775	$ 487,775	$ 487,775	$ 487,775	$ 487,775	$ 487,775	$ 487,775	$ 487,775	$ 487,775	$ 487,775
2012 Refinancing for Martin Slough Project, $2,372,000										
Principal Payment	$ 110,684	$ 115,438	$ 120,396	$ 125,567	$ 130,961	$ 136,586	$ 142,452	$ 148,571	$ 154,952	$ 161,607
Interest Payment	$ 66,916	$ 62,162	$ 57,204	$ 52,033	$ 46,639	$ 41,014	$ 35,148	$ 29,029	$ 22,648	$ 15,993
Subtotal: Annual Debt Service	**$ 177,600**	**$ 177,600**	**$ 177,600**	**$ 177,600**	**$ 177,600**	**$ 177,600**	**$ 177,600**	**$ 177,600**	**$ 177,600**	**$ 177,600**
Coverage Requirement ($-Amnt above annual payment)[3]	$ 213,120	$ 213,120	$ 213,120	$ 213,120	$ 213,120	$ 213,120	$ 213,120	$ 213,120	$ 213,120	$ 213,120
Reserve Requirement (total fund balance)[3]	$ 177,600	$ 177,600	$ 177,600	$ 177,600	$ 177,600	$ 177,600	$ 177,600	$ 177,600	$ 177,600	$ 177,600
VacCon Loan 2021										
Principal Payment	$ 109,864	$ 105,387	$ 108,279	$ 111,251	$ 114,304	$ -	$ -	$ -	$ -	$ -
Interest Payment	$ 7,576	$ 12,054	$ 9,162	$ 6,190	$ 3,137	$ -	$ -	$ -	$ -	$ -
Subtotal: Annual Debt Service	**$ 117,441**	**$ 117,441**	**$ 117,441**	**$ 117,441**	**$ 117,441**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Coverage Requirement ($-Amnt above annual payment)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reserve Requirement (total fund balance)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Grand Total: Existing Annual Debt Service	**$ 782,616**	**$ 779,216**	**$ 780,616**	**$ 781,616**	**$ 782,216**	**$ 662,425**	**$ 664,613**	**$ 661,163**	**$ 662,219**	**$ 662,594**
Grand Total: Existing Annual Coverage Requirement	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**
Grand Total: Existing Debt Reserve Target	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**

1. File provided by HCSD staff: *Loan Repayment Schedules.xlsx*
2. Coverage requirement equal to 120% of the maximum annual payment. Reserve Requirement is identified in the Official Statement, page 7.
3. Coverage requirement assumed to be equal to 120% of the maximum annual payment. Reserve Requirement is equal to the maximum annual payment.

TABLE 15 : EXISTING ANNUAL DEBT OBLIGATIONS TO BE SATISFIED BY SEWER RATES

Existing Annual Debt Service	**$ 782,616**	**$ 779,216**	**$ 780,616**	**$ 781,616**	**$ 782,216**	**$ 662,425**	**$ 664,613**	**$ 661,163**	**$ 662,219**	**$ 662,594**
Existing Annual Coverage Requirement	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**	**$ 798,240**
Existing Debt Reserve Target	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**	**$ 665,375**

TABLE 16 : CURRENT MONTHLY SEWER RATE SCHEDULE

Customer Class	Account Charges (Per Customer Account)[1]	Base Charges (Per Living Unit - LU)[1]	Water Flow Rate Per Unit[1,2]
Residential			
Single Family Residential (1-3)	$4.28	$19.09	$5.94
Multi-Family (4 or more)	$4.28	$15.27	$5.94
Mobile Homes	$4.28	$16.61	$5.94
Trailer Parks	$4.28	$16.61	$5.94
Non-Residential			
Commercial - Light Strength (< 370 mg/liter)	$4.28	$19.09	$7.10
Commercial - Medium Strength (370-500 mg/liter)	$4.28	$19.09	$9.41
Commercial - Heavy Strength (>500 mg/liter)	$4.28	$19.09	$11.89
Pass through sewer charges (added to volumetric rate)			
Single family/Multi family/Mobile Homes/Trailer parks	*n/a*	*n/a*	$3.08
Commercial Light Strength	*n/a*	*n/a*	$3.69
Commercial Medium Strength	*n/a*	*n/a*	$4.87
Commercial High Strength	*n/a*	*n/a*	$6.16

1. Current rates from District website *(2021-22 Master Fee Schedule-UPDATE 07-01-2021-Final.pdf)* , passthrough surcharges added on to volumetric rates.
2. One Unit is equal to one HCF (Hundred Cubic Feet) or 748 gallons.

TABLE 17 : CLASSIFICATION OF EXPENSES

Budget Categories	Total Rev. Reqts.	Flow	Strength		Customer	Basis of Classification			
	FY 2023/24	(VOL)	(BOD)	(TSS)	(CA)	(VOL)	(BOD)	(TSS)	(CA)
Operating Expenses									
Personnel Expenses									
Wages: Operation	$ 1,068,610	$ 748,027	$ 133,576	$ 133,576	$ 53,430	70%	12.5%	12.5%	5%
PERS	$ 114,433	$ 80,103	$ 11,443	$ 11,443	$ 11,443	70%	10.0%	10.0%	10%
UI	$ -	$ -	$ -	$ -	$ -	70%	10.0%	10.0%	10%
Group Insurance	$ 248,660	$ 174,062	$ 24,866	$ 24,866	$ 24,866	70%	10.0%	10.0%	10%
Workers Comp	$ 8,209	$ 5,747	$ 821	$ 821	$ 821	70%	10.0%	10.0%	10%
FICA / Medicare	$ 37,964	$ 26,575	$ 3,796	$ 3,796	$ 3,796	70%	10.0%	10.0%	10%
Misc. Benefits	$ -	$ -	$ -	$ -	$ -	70%	10.0%	10.0%	10%
Operating Expenses									
Water Purchase HBMWD	$ -	$ -	$ -	$ -	$ -	55%	20%	20%	5%
Water Purchase Eureka	$ -	$ -	$ -	$ -	$ -	55%	20%	20%	5%
Sewage Treatment: O&M	$ 1,584,544	$ 950,726	$ 316,909	$ 316,909	$ -	60%	20%	20%	0%
Water/Sewer Analysis	$ 5,305	$ 2,917	$ 1,061	$ 1,061	$ 265	55%	20%	20%	5%
Supplies/Construction	$ 36,962	$ 14,785	$ 7,392	$ 7,392	$ 7,392	40%	20%	20%	20%
Supplies / Office-Admin	$ 6,047	$ 1,209	$ 1,209	$ 1,209	$ 2,419	20%	20%	20%	40%
Supplies Engineering	$ 1,140	$ 570	$ 228	$ 228	$ 114	50%	20%	20%	10%
Supplies/Maintenance	$ 51,719	$ 25,859	$ 10,344	$ 10,344	$ 5,172	50%	20%	20%	10%
Temp Labor - Maintenance	$ 4,303	$ 2,367	$ 861	$ 861	$ 215	55%	20%	20%	5%
Temp Labor - Construction	$ -	$ -	$ -	$ -	$ -	55%	20%	20%	5%
Temp Labor - Customer Service/Finance	$ -	$ -	$ -	$ -	$ -	20%	20%	20%	40%
Repairs & Maint: Trucks	$ 25,674	$ 14,121	$ 5,135	$ 5,135	$ 1,284	55%	20%	20%	5%
Building & Grounds Maint	$ 1,697	$ 849	$ 339	$ 339	$ 170	50%	20%	20%	10%
Electrical Power	$ 91,402	$ 91,402	$ -	$ -	$ -	100%	0%	0%	0%
Street Lights	$ -	$ -	$ -	$ -	$ -	0%	0%	0%	100%
Telephone	$ 3,225	$ 645	$ 161	$ 161	$ 2,258	20%	5%	5%	70%
Equipment Rental	$ 1,379	$ 759	$ 276	$ 276	$ 69	55%	20%	20%	5%
Property Lease	$ -	$ -	$ -	$ -	$ -	55%	20%	20%	5%
Postage	$ 1,018	$ -	$ -	$ -	$ 1,018	0%	0%	0%	100%
Freight	$ 228	$ 125	$ 46	$ 46	$ 11	55%	20%	20%	5%
Chemicals	$ -	$ -	$ -	$ -	$ -	50%	25%	25%	0%
Liability Insurance	$ -	$ -	$ -	$ -	$ -	55%	5%	5%	35%
Legal	$ -	$ -	$ -	$ -	$ -	20%	20%	20%	40%
Accounting	$ -	$ -	$ -	$ -	$ -	20%	20%	20%	40%
Engineering	$ 106	$ 58	$ 21	$ 21	$ 5	55%	20%	20%	5%
Other Professional Services	$ 8,063	$ 4,031	$ 1,209	$ 1,209	$ 1,613	50%	15%	15%	20%
Bank Service Charges	$ -	$ -	$ -	$ -	$ -	0%	0%	0%	100%
Transportation	$ 25,800	$ 14,190	$ 5,160	$ 5,160	$ 1,290	55%	20%	20%	5%
Office Equip / Maint	$ 1,634	$ 327	$ 327	$ 327	$ 654	20%	20%	20%	40%
Computer Software Maintenance	$ 17,187	$ 3,437	$ 3,437	$ 3,437	$ 6,875	20%	20%	20%	40%
Memberships & Subscriptions	$ 946	$ 189	$ 189	$ 189	$ 379	20%	20%	20%	40%
Bad Debts & Min Bal write-off	$ 91,237	$ -	$ -	$ -	$ 91,237	0%	0%	0%	100%
Conferences & Continuing Ed	$ 9,336	$ 4,668	$ 1,400	$ 1,400	$ 1,867	50%	15%	15%	20%
Certifications	$ 1,318	$ 659	$ 198	$ 198	$ 264	50%	15%	15%	20%
State/County & LAFCO Fees & Charges	$ 9,548	$ 4,774	$ 1,432	$ 1,432	$ 1,910	50%	15%	15%	20%
Elections Expense	$ -	$ -	$ -	$ -	$ -	20%	20%	20%	40%
Human Resources	$ 6,153	$ 3,077	$ 923	$ 923	$ 1,231	50%	15%	15%	20%
Miscellaneous	$ 1,528	$ 764	$ 229	$ 229	$ 306	50%	15%	15%	20%
General & Admin Expense Allocation	$ 231,256	$ 92,502	$ 46,251	$ 46,251	$ 46,251	40%	20%	20%	20%
GRAND TOTAL: WASTEWATER EXPENSES	**$ 3,696,632**	**$ 2,269,525**	**$ 579,241**	**$ 579,241**	**$ 268,624**	**61%**	**16%**	**16%**	**7%**

TABLE 18 : CLASSIFICATION OF EXPENSES

HUMBOLDT COMMUNITY SERVICE DISTRICT
SEWER RATE STUDY
Cost of Service Analysis

Budget Categories	Total Rev. Reqts.	Flow	Strength		Customer	Basis of Classification			
	FY 2023/24	(VOL)	(BOD)	(TSS)	(CA)	(VOL)	(BOD)	(TSS)	(CA)
Debt Service Payments									
Existing Annual Debt Service	$ 780,616	$ 468,370	$ 156,123	$ 156,123	$ -	60%	20%	20%	0%
Future Annual Debt Service	$ -	$ -	$ -	$ -	$ -	50%	25%	25%	0%
Total Debt Service Payments	**$ 780,616**	**$ 468,370**	**$ 156,123**	**$ 156,123**	**$ -**	**60%**	**20%**	**20%**	**0%**
Capital Expenditures									
Rate Funded Capital Expenses	$ 2,724,391	$ 1,362,196	$ 681,098	$ 681,098	$ -	50%	25%	25%	0%
TOTAL REVENUE REQUIREMENTS	**$ 7,201,639**	**$ 4,100,090**	**$ 1,416,462**	**$ 1,416,462**	**$ 268,624**	**57%**	**20%**	**20%**	**4%**
Less: Non-Rate Revenues									
Operating Revenue									
Metered Water Sales	$ -	$ -	$ -	$ -	$ -	57%	20%	20%	4%
Sewer Service Charges									
Sewer Pass Through									
Sewer Construction Fees	$ (12,000)	$ (6,832)	$ (2,360)	$ (2,360)	$ (448)	57%	20%	20%	4%
Account Fees	$ (60,200)	$ (34,274)	$ (11,841)	$ (11,841)	$ (2,245)	57%	20%	20%	4%
Inspection Fees	$ -	$ -	$ -	$ -	$ -	57%	20%	20%	4%
Reimbursable Maintenance	$ (200)	$ (114)	$ (39)	$ (39)	$ (7)	57%	20%	20%	4%
Miscellaneous	$ (1,000)	$ (569)	$ (197)	$ (197)	$ (37)	57%	20%	20%	4%
Non-Operating Revenue	$ -	$ -	$ -	$ -	$ -	57%	20%	20%	4%
Sewer Capital Connection Fees									
Interest/General	$ (71,657)	$ (40,796)	$ (14,094)	$ (14,094)	$ (2,673)	57%	20%	20%	4%
Discounts Earned	$ (720)	$ (410)	$ (142)	$ (142)	$ (27)	57%	20%	20%	4%
Sale of Fixed Assets	$ (6,856)	$ (3,903)	$ (1,348)	$ (1,348)	$ (256)	57%	20%	20%	4%
Sales of Scrap Metal	$ -	$ -	$ -	$ -	$ -	57%	20%	20%	4%
Bad Debt Recovery	$ (4,300)	$ (2,448)	$ (846)	$ (846)	$ (160)	57%	20%	20%	4%
Other Non-Operating Revenue	$ (4,300)	$ (2,448)	$ (846)	$ (846)	$ (160)	57%	20%	20%	4%
NET REVENUE REQUIREMENTS	**$ 7,040,406**	**$ 4,008,296**	**$ 1,384,750**	**$ 1,384,750**	**$ 262,610**				
Allocation of Revenue Requirements	**100.0%**	**56.9%**	**19.7%**	**19.7%**	**3.7%**				
Net Revenue Reqt. Check from Financial Plan	$ -								
Current Rate Variable/Fixed %'s		**65.9% Variable**		**34.1% Fixed**					
Last Rate Study (Funct.) Variable/Fixed %'s		**60.5% Variable**		**39.5% Fixed**					

TABLE 19 : ADJUSTMENTS TO CLASSIFICATION OF EXPENSES

Adjustment to Current Rate Level:	Total	(VOL)	(BOD)	(TSS)	(CA)
FY 2023/24 Target Rate Rev. After Rate Increases	*$8,057,945*				
Projected Rate Revenue at Current Rates	*$7,068,372*				
FY 2023/24 Projected Rate Increase	*14.0%*				
Adjusted Net Revenue Req'ts	**$ 8,057,945**	**$ 4,587,608**	**$ 1,584,886**	**$ 1,584,886**	**$ 300,565**
Percent of Revenue		*56.9%*	*19.7%*	*19.7%*	*3.7%*

TABLE 20 : DEVELOPMENT OF THE VOLUME ALLOCATION FACTOR

				Summary of Allocation Factors				
				Volumetric	Effl. Strength	Effl. Strength	Cust. Service	
Customer Class	FY'20/21 Annual Sewer Volume Total (HCF)[1]	FY'20/21 Mo. Winter-Avg. Based Billable Vol. (HCF)[2]	FY'20/21 Annualized Vol. Based on Winter-Avg. (Billable Vol.)	% of Total Consumption	BOD - % of Total	TSS - % of Total	Number of Accounts (% of Meters)	% of COS Net Revenue Reqts.
Residential	349,712	29,062	348,738	**75.4%**	**71.0%**	**71.0%**	**89.5%**	**74.2%**
Multi-Family Residential	41,025	3,447	41,358	**8.9%**	**8.4%**	**8.4%**	**6.4%**	**8.6%**
Mobile Home Park/Trailer Park	20,712	1,740	20,877	**4.5%**	**4.3%**	**4.3%**	**0.2%**	**4.2%**
Commercial Light	37,038	3,125	37,497	**8.1%**	**7.6%**	**7.6%**	**3.6%**	**7.8%**
Commercial Medium	2,136	178	2,136	**0.5%**	**0.9%**	**0.9%**	**0.0%**	**0.6%**
Commercial Heavy	12,040	1,003	12,039	**2.6%**	**7.7%**	**7.7%**	**0.3%**	**4.5%**
Grand Total:	**462,663**	**38,554**	**462,645**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

1. Consumption data is based on the HCSD's FY 2020/21 customer data.
2. Monthly Billable Volume is equal to the 4-month Average Winter Consumption (December-March).
3. Multi-Family Residential Lot/Living Units are equal to 80 percent of a SFR unit; Mobile Home Park Lot/Living Units are equal to 87 percent of a SFR unit.
4. For Mobile Home Park and Commercial Customers, EDUs/Lus based on SFR Winter Consumption was calculated per account and summarized by customer class. all customers; for Non-Residential only, monthly consumption is less two (2) units of water.

TABLE 21 : DEVELOPMENT OF THE STRENGTH ALLOCATION FACTOR

Customer Class	FY'20/21 Annualized Vol. (Billable Vol.) (HCF)	Adjusted Annual Volume Total (HCF)	Annual Flow (gallons = HCF x 748 gal/HCF)	Biochemical Oxygen Demand (BOD)			
				Average Strength Factor (mg/l)[1]	Calculated BOD (lbs./yr.)	Adjusted BOD (lbs./yr.)	Percent of Total
Residential	348,738	372,577	278,706,371	200	464,882	500,265	**71.0%**
Multi-Family Residential	41,358	44,185	33,052,716	200	55,132	59,328	**8.4%**
Mobile Home Park/Trailer Park	20,877	22,304	16,684,597	200	27,830	29,948	**4.3%**
Commercial Light	37,497	40,060	29,967,061	200	49,985	53,789	**7.6%**
Commercial Medium	2,136	2,282	1,707,060	435	6,193	6,664	**0.9%**
Commercial Heavy	12,039	12,862	9,621,395	630	50,553	54,400	**7.7%**
Grand Total:	**462,645**	**494,271**	369,739,200		654,575	704,395	
Target, from WWTP Data[2]		*494,271*	*Flow (HCF/yr.)*			*704,395*	*BOD (lbs./yr.)*
		1.07	*Flow Adj. Factor*			*1.076*	*BOD Adj. Factor*

1. Average strength factors for BOD and TSS are derived from the State Water Resources Control Board Revenue Program Guidelines, Appendix G.

2. Reported in City of Eureka's Sewer Rate Study, concurrent with this rate study.

Total Suspended Solids (TSS)			
Average	Calculated	Adjusted TSS	Percent of
200	464,882	461,118	**71.0%**
200	55,132	54,686	**8.4%**
200	27,830	27,605	**4.3%**
200	49,985	49,580	**7.6%**
435	6,193	6,143	**0.9%**
630	50,553	50,143	**7.7%**
	654,575	649,275	
		649,275	*TSS (lbs./yr.)*
		0.992	*TSS Adj. Factor*

TABLE 22 : DEVELOPMENT OF THE CUSTOMER ALLOCATION FACTOR

Customer Class	Number of Accounts	Percent of Total	Actual No. of Living Units *(From '20/21*	Percent of Total (EDU/LU	Avg. Annual Winter Consumption	Avg. Winter Water Use as a % of SFR[1,2]	Equiv. Living Units based on SFR	Percent of Consumption-Based Total
Residential	5,842	**89.5%**	5,998	**70.6%**	58.14	100%	5,998	**74.9%**
Multi-Family Residential	415	**6.4%**	965	**11.4%**	42.84	74%	711	**8.9%**
Mobile Home Park/Trailer Park	10	**0.2%**	598	**7.0%**	34.89	60%	359	**4.5%**
Commercial Light	235	**3.6%**	644	**7.6%**	58.26	100%	644	**8.0%**
Commercial Medium	3	**0.0%**	37	**0.4%**	57.73	100%	37	**0.5%**
Commercial Heavy	21	**0.3%**	255	**3.0%**	47.14	100%	255	**3.2%**
Grand Total:	**6,526**	**100.0%**	**8,498**	**100.0%**	--	--	**8,004**	**100.0%**

1. Average winter water use per Living Unit as a % of SFR avg. winter water use.
2. Consistent with the last rate study, the commercial class living units from the customer data are assumed to reflect equivalent living units.
3. Number of equivalent single-family living units based on average winter water use.

	% of Consumption Based Units		*% BOD*		*% TSS*		*% of LU Equivalents*	
	2017	*2022*	*2017*	*2022*	*2017*	*2022*	*2017*	*2022*
Residential	*74.5%*	*75.4%*	*72.0%*	*71.0%*	*72.0%*	*71.0%*	*74.5%*	*74.9%*
Multi-Family Residential	*7.5%*	*8.9%*	*8.7%*	*8.4%*	*8.7%*	*8.4%*	*7.5%*	*8.9%*
Mobile Home Park/Trailer Park	*4.0%*	*4.5%*	*3.7%*	*4.3%*	*3.7%*	*4.3%*	*4.0%*	*4.5%*
Commercial Light	*10.9%*	*8.1%*	*9.3%*	*7.6%*	*9.3%*	*7.6%*	*10.9%*	*8.0%*
Commercial Medium	*1.1%*	*0.5%*	*1.8%*	*0.9%*	*1.8%*	*0.9%*	*1.1%*	*0.5%*
Commercial Heavy	*2.0%*	*2.6%*	*4.5%*	*7.7%*	*4.5%*	*7.7%*	*2.0%*	*3.2%*

	Annual Billable Consumption		*No. of Accounts*		*No. of Living Units*		*No. of Equiv. Living Units*	
	2017	*2022*	*2017*	*2022*	*2017*	*2022*	*2017*	*2022*
Residential	*396,519*	*348,738*	*5,811*	*5,842*	*6,006*	*5,998*	*6,006*	*5,998*
Multi-Family Residential	*49,992*	*41,358*	*335*	*415*	*775*	*965*	*606*	*711*
Mobile Home Park/Trailer Park	*22,596*	*20,877*	*10*	*10*	*468*	*598*	*325*	*359*
Commercial Light	*46,308*	*37,497*	*196*	*235*	*243*	*644*	*880*	*644*
Commercial Medium	*5,055*	*2,136*	*5*	*3*	*5*	*37*	*86*	*37*
Commercial Heavy	*9,318*	*12,039*	*14*	*21*	*17*	*255*	*160*	*255*
	529,788	*462,645*	*6,371*	*6,526*	*7,514*	*8,498*	*8,063*	*8,004*
	% Change:	*-12.7%*		*2.4%*		*13.1%*		*-0.7%*
		% annual diff. from 2017		*0.49%*				

TABLE 23 : ALLOCATION OF REVENUE REQUIREMENTS BY CUSTOMER CLASS

Customer Class	Cost Classification Components				Cost-of-Service Net Revenue	% of COS Net Rev. Reqts. (2023/24)
	Volume	Treatment/Strength		Customer Related		
		BOD	TSS			
Net Revenue Requirements [1]	***$ 4,587,608***	***$ 1,584,886***	***$ 1,584,886***	***$ 300,565***	***$ 8,057,945***	--
	56.9%	*19.7%*	*19.7%*	*3.7%*	*100.0%*	--
Residential	$ 3,458,102	$ 1,125,593	$ 1,125,593	$ 269,062	**$ 5,978,350**	**74.2%**
Multi-Family Residential	410,108	133,488	133,488	19,113	**696,197**	**8.6%**
Mobile Home Park/Trailer Park	207,017	67,383	67,383	461	**342,244**	**4.2%**
Commercial Light	371,822	121,026	121,026	10,823	**624,697**	**7.8%**
Commercial Medium	21,181	14,995	14,995	138	**51,309**	**0.6%**
Commercial Heavy	119,379	122,401	122,401	967	**365,147**	**4.5%**
	$ 4,587,608	**$ 1,584,886**	**$ 1,584,886**	**$ 300,565**	**$ 8,057,945**	**100%**

1. Revenue requirement for each customer class is determined by multiplying the revenue requirement from each cost classification by the allocation factors for each customer class.

TABLE 24 : PROPOSED SEWER RATES - 60% VOLUMETRIC/40% FIXED

Customer Class	No. of Accounts	Actual No. of Living Units *(From '20/21 Customer Data)*	Annual Billable Volume (hcf)	Annual Rev. Req't				Monthly Sewer Rates		
				Total	Volumetric (Flow)	Fixed (Treatment/ Strength)	Fixed (Customer Service)	Volumetric Charges Per HCF	Fixed Charge Per Living Unit	Customer Service Charge Per Account
Residential	5,842	5,998	348,738	$ 5,978,350	$ 3,519,246	$ 2,190,042	$ 269,062	$10.09	$30.43	$3.84
Multi-Family Residential	415	965	41,358	696,197	417,359	$ 259,724	19,113	$10.09	$22.42	$3.84
Mobile Home Park/Trailer Park	10	598	20,877	342,244	210,678	$ 131,106	461	$10.09	$18.26	$3.84
Commercial Light	235	644	37,497	624,697	378,894	$ 234,979	10,823	$10.10	$30.43	$3.84
Commercial Medium	3	37	2,136	51,309	37,661	$ 13,509	138	$17.63	$30.43	$3.84
Commercial Heavy	21	255	12,039	365,147	270,928	$ 93,252	967	$22.50	$30.43	$3.84
Total	**6,526**	**8,498**	**462,645**	**$ 8,057,945**	**$ 4,834,767**	**$ 2,922,613**	**$ 300,565**			
Percent of Revenue from Fixed vs. Volumetric Charges				*100%*	*60.0%*	*36.3%*	*3.7%*			

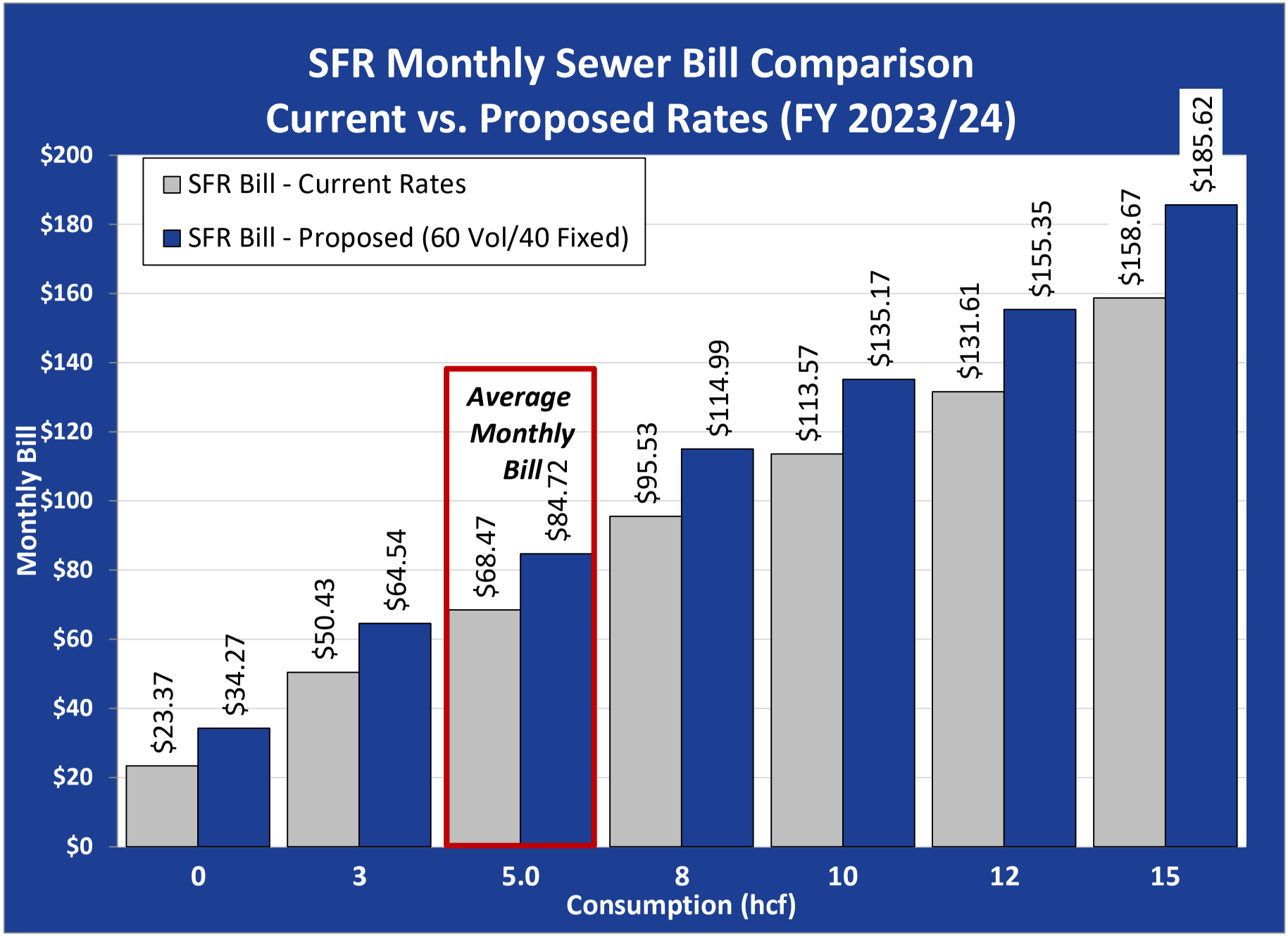
TABLE 25 : REVENUE CHECK FOR PROPOSED RATES - 60% VOLUMETRIC/40% FIXED

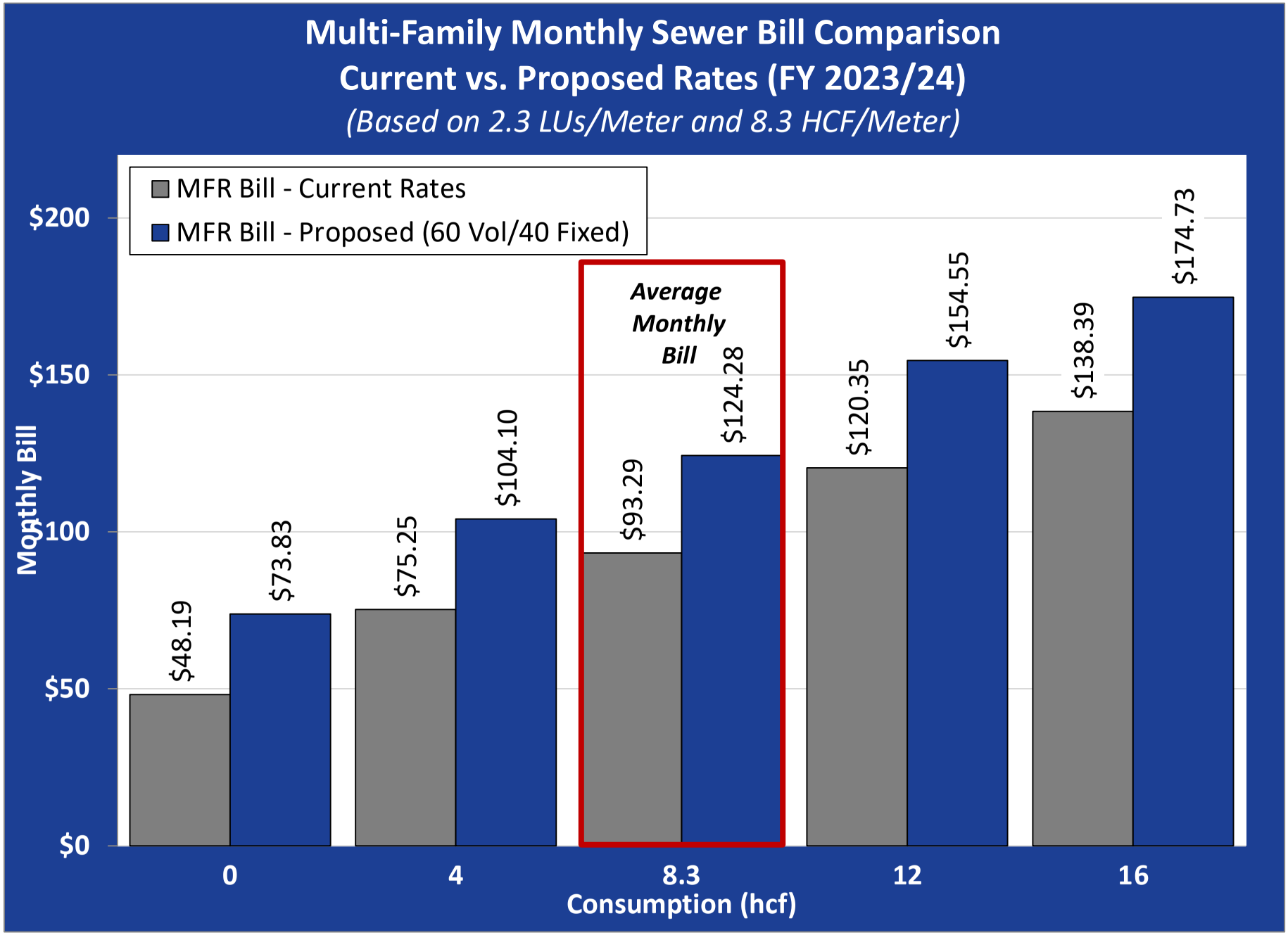
Customer Class	COSA Revenue Requirements	Customer Service Charges	Fixed Charges	Volumetric Charges	Total Revenue	Over/(Under) Collected
Residential	$5,978,350	$269,062	$2,190,042	$3,519,246	$5,978,350	$0
Multi-Family Residential	$696,197	$19,113	$259,724	$417,359	$696,197	$0
Mobile Home Park/Trailer Park	$342,244	$461	$131,106	$210,678	$342,244	$0
Commercial Light	$624,697	$10,823	$234,979	$378,894	$624,697	$0
Commercial Medium	$51,309	$138	$13,509	$37,661	$51,309	$0
Commercial Heavy	$365,147	$967	$93,252	$270,928	$365,147	$0
Total	**$8,057,945**	**$300,565**	**$2,922,613**	**$4,834,767**	**$8,057,945**	**$0**

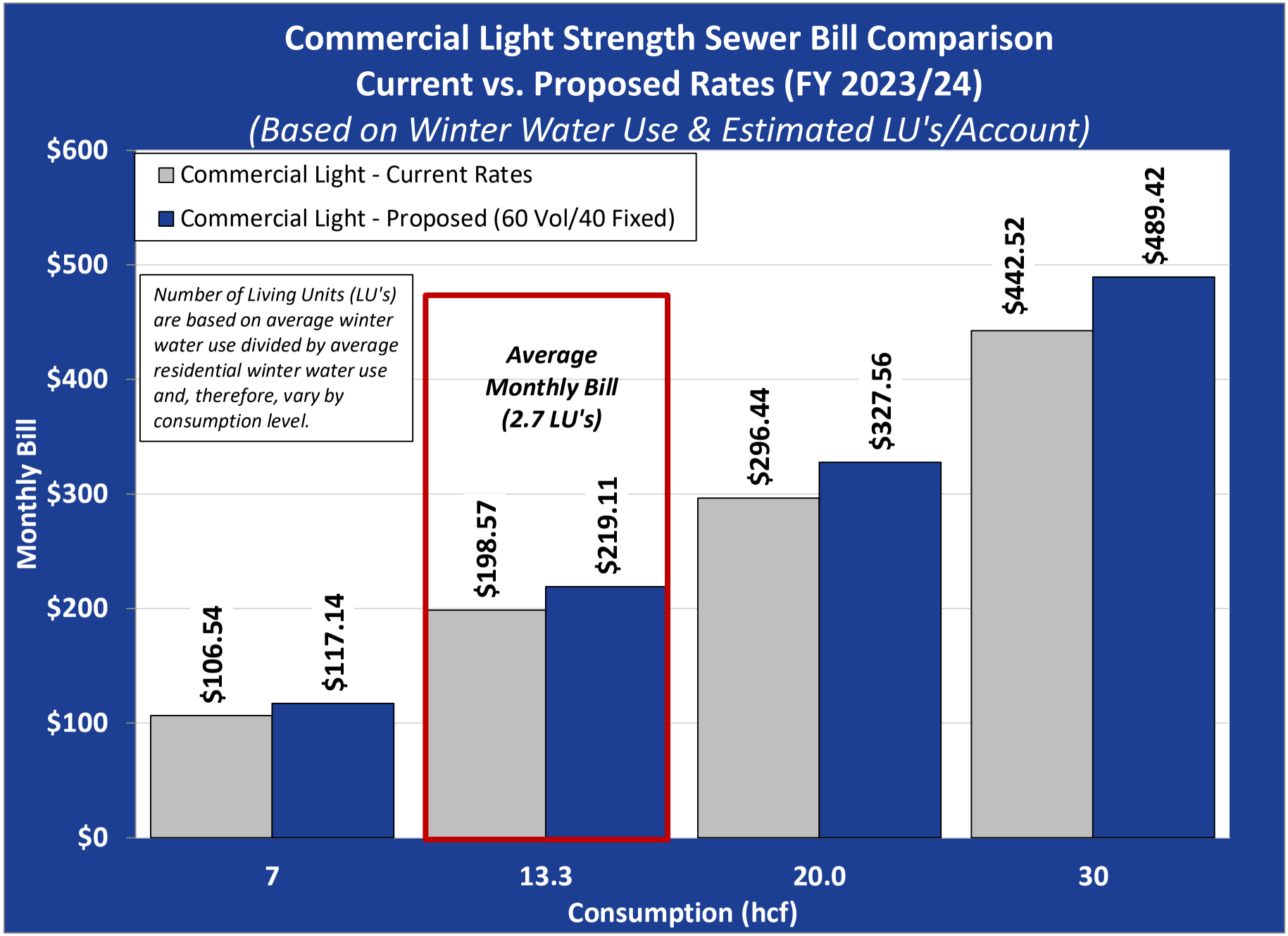
TABLE 30 : CURRENT VS. PROPOSED SEWER RATES - 60% VOLUMETRIC/40% FIXED

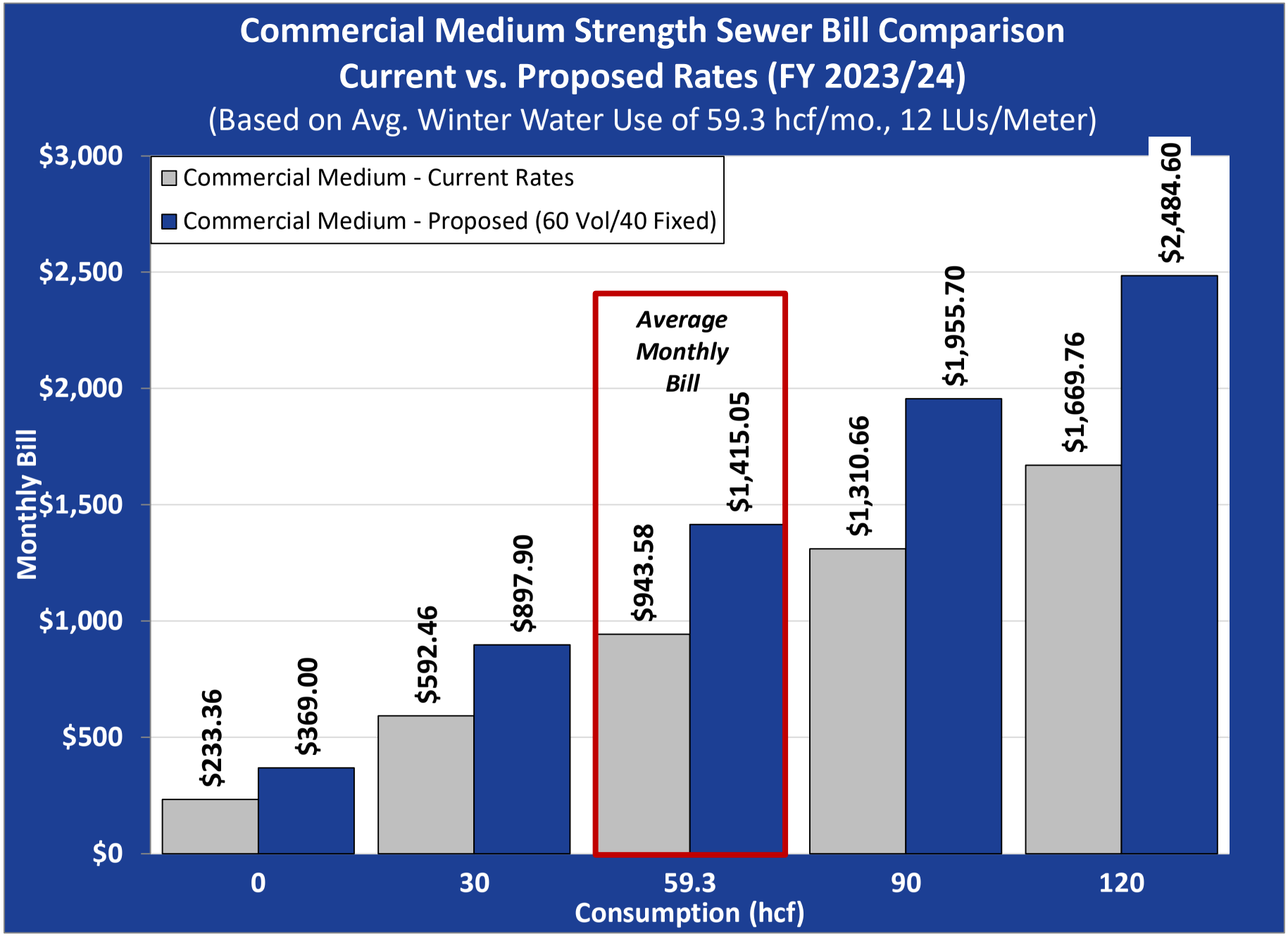
Sewer Rate Schedule	Current Rates	Recommended Monthly Fixed Sewer Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Monthly Fixed Service Charge						
Customer Service Charge Per Account	$4.28	$3.84	$4.38	$5.00	$5.70	$6.50
Monthly Fixed Service Charge Per Living Unit (LU)						
Residential:						
Single Family Residential (1-3)	$19.09	$30.43	$34.70	$39.56	$45.10	$51.42
Multi-Family (4 or more)	$15.27	$22.42	$25.56	$29.14	$33.22	$37.88
Mobile Homes	$16.61	$18.26	$20.82	$23.74	$27.07	$30.86
Trailer Parks	$16.61	$18.26	$20.82	$23.74	$27.07	$30.86
Commercial:						
Commercial - Light Strength (< 370 mg/liter)	$19.09	$30.43	$34.70	$39.56	$45.10	$51.42
Commercial - Medium Strength (370-500 mg/liter	$19.09	$30.43	$34.70	$39.56	$45.10	$51.42
Commercial - Heavy Strength (>500 mg/liter)	$19.09	$30.43	$34.70	$39.56	$45.10	$51.42
Volumetric Charge ($/HCF) [1,2]						
Residential[3]	*(Includes Passthrough)*					
Single Family Residential (1-3)	$9.02	$10.09	$11.51	$13.13	$14.97	$17.07
Multi-Family (4 or more)	$9.02	$10.09	$11.51	$13.13	$14.97	$17.07
Mobile Homes	$9.02	$10.09	$11.51	$13.13	$14.97	$17.07
Trailer Parks	$9.02	$10.09	$11.51	$13.13	$14.97	$17.07
Commercial[3]						
Commercial - Light Strength (< 370 mg/liter)	$10.79	$10.10	$11.52	$13.14	$14.98	$17.08
Commercial - Medium Strength (370-500 mg/liter	$11.97	$17.63	$20.10	$22.92	$26.13	$29.79
Commercial - Heavy Strength (>500 mg/liter)	$13.26	$22.50	$25.65	$29.25	$33.35	$38.02

1. One Unit is equal to one HCF (Hundred Cubic Feet) or 748 gallons.
2. Rate is charged based on the monthly average winter water use of the previous calendar year (December - March) for each account.
3. Volumetric Charges apply to each unit (hcf) billed to all customer classes.
4. Current Volumetric Charges include passthrough adjustments; that additional revenue has been incorporated into both fixed and volumetric charges going forward.


SFR Monthly Sewer Bill Comparison
Current vs. Proposed Rates (FY 2023/24)
SFR Bill - Current Rates
SFR Bill - Proposed (60 Vol/40 Fixed)
Monthly Bill
$0
$20
$40
$60
$80
$100
$120
$140
$160
$180
$200
$23.37
$34.27
$50.43
$64.54
$68.47
$84.72
$95.53
$114.99
$113.57
$135.17
$131.61
$155.35
$158.67
$185.62
Average Monthly Bill
0
3
5.0
8
10
12
15
Consumption (hcf)


Multi-Family Monthly Sewer Bill Comparison
Current vs. Proposed Rates (FY 2023/24)
(Based on 2.3 LUs/Meter and 8.3 HCF/Meter)
MFR Bill - Current Rates
MFR Bill - Proposed (60 Vol/40 Fixed)
Monthly Bill
$200
$150
$100
$50
$0
$48.19
$73.83
$75.25
$104.10
Average Monthly Bill
$93.29
$124.28
$120.35
$154.55
$138.39
$174.73
0
4
8.3
12
16
Consumption (hcf)


Commercial Light Strength Sewer Bill Comparison
Current vs. Proposed Rates (FY 2023/24)
(Based on Winter Water Use & Estimated LU's/Account)
Commercial Light - Current Rates
Commercial Light - Proposed (60 Vol/40 Fixed)
Number of Living Units (LU's) are based on average winter water use divided by average residential winter water use and, therefore, vary by consumption level.
Average Monthly Bill (2.7 LU's)
Monthly Bill
$600
$500
$400
$300
$200
$100
$0
$106.54
$117.14
$198.57
$219.11
$296.44
$327.56
$442.52
$489.42
7
13.3
20.0
30
Consumption (hcf)


Commercial Medium Strength Sewer Bill Comparison
Current vs. Proposed Rates (FY 2023/24)
(Based on Avg. Winter Water Use of 59.3 hcf/mo., 12 LUs/Meter)
Commercial Medium - Current Rates
Commercial Medium - Proposed (60 Vol/40 Fixed)
Monthly Bill
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$0
Average Monthly Bill
$233.36
$369.00
$592.46
$897.90
$943.58
$1,415.05
$1,310.66
$1,955.70
$1,669.76
$2,484.60
0
30
59.3
90
120
Consumption (hcf)

Section 12. APPENDIX D – WATER CAPACITY CHARGE SUMMARY TABLES

HUMBOLDT COMMUNITY SERVICES DISTRICT **EXHIBIT 1**
Water Capacity Fee Analysis
Demographic Data and Projections

TABLE 1 : METER EQUIVALENT UNITS

Meter Size	Existing Potable Water Meters[1]	Meter Equivalence		Potable Water Meter Equivalent Units
		Maximum Flow (gpm)[2]	Flow Factor for 5/8 inch Base Meter	
5/8 Inch	7,312	20	1.00	7,312
3/4 Inch	200	30	1.50	300
1 Inch	124	50	2.50	310
1 1/2 Inch	33	100	5.00	165
2 Inch	22	160	8.00	176
3 Inch	8	320	16.00	128
4 Inch	1	500	25.00	25
6 Inch	4	1,000	50.00	200
Total	**7,704**			**8,616**

1. Per District utility billing data, as of the June 2021 billing period. Excludes Fire meters and Construction meters.
2. Source: *AWWA M1, Table B-2.* Assumes displacement meters for 1 1/2" through 2", Compound Class I for 3" through 8", and Turbine Class II for 10" through 12" meters. Badger Model 25 (5/8); Model 35 (3/4); and Model 55 (1") meters and their specs have maximum flow 5 gpm higher for each of these three meter sizes (per District records).

TABLE 2 : EXISTING AND PROJECTED SERVICE NUMBERS

Demographic Statistics[1,2]	2020 Existing Total	Projected Service Total *(2032)*	Change (EMUs)	Allocation Factors	
			Number of Units	Existing Services	Future Services
SFR Meter Equivalent Units (EMUs)[3]	8,616	8,875	259	**97.1%**	**2.9%**

1. Demands for potable water (current and projected) from the District's 2020 UWPM.
2. Customer growth in meter equivalents is proportionate to the demands for potable water projections.
3. Per District utility billing data, as of the September 2016 billing period. Excludes Fire meters and Construction meters.

HUMBOLDT COMMUNITY SERVICES DISTRICT
Water Capacity Fee Analysis
Existing Capital Facilities and Equipment for Consideration (System Buy-In)

TABLE 3 : SUMMARY OF EXISTING WATER ASSETS

Asset Category	Original Values[1]		Book Value	Replacement Values (System Buy-in Cost Basis)[2]	Allocation Basis (%)[4]		Distribution of Cost Basis ($)	
	Asset Cost	Depreciation to Date			Existing Services	Future Services	Existing Services	Future Services
Water Fund								
Autos And Trucks	$ 3,018,856	$ 1,936,933	$ 1,081,923	$ 559,276	97.1%	2.9%	$ 543,057	$ 16,219
Buildings	1,009,029	674,256	334,773	394,394	97.1%	2.9%	382,956	11,437
Communications Equipment	84,828	64,653	20,175	15,134	97.1%	2.9%	14,695	439
Computer Hardware	64,736	64,736	-	-	97.1%	2.9%	-	-
Computer Software	221,647	212,047	9,600	5,938	97.1%	2.9%	5,766	172
Land And Land Improvements	474,470	-	474,470	241,811	97.1%	2.9%	234,798	7,013
Land And Right Of Way - Water - Fw/Mr	1,300	-	1,300	741	97.1%	2.9%	720	21
Land And Right Of Way- Water - Original District	113,322	-	113,322	113,322	97.1%	2.9%	110,036	3,286
Land And Right Of Way-Sewer - Humboldt Hill	15,000	-	15,000	-	97.1%	2.9%	-	-
Land And Right Of Way-Water - Humboldt Hill	81,777	-	81,777	81,777	97.1%	2.9%	79,406	2,372
Machinery And Equipment	951,620	602,343	349,276	266,239	97.1%	2.9%	258,518	7,721
Office Equipment	10,258	10,258	-	-	97.1%	2.9%	-	-
Small Tools	6,273	6,273	-	-	97.1%	2.9%	-	-
Telemetry Equipment	367,056	342,895	24,161	14,163	97.1%	2.9%	13,752	411
Water Pumping And Distribution: Fw/Mr	4,826,019	3,679,431	1,146,588	3,091,220	97.1%	2.9%	3,001,575	89,645
Water Pumping And Distribution: Humboldt Hill	5,102,635	4,123,235	979,400	2,499,269	97.1%	2.9%	2,426,790	72,479
Water Pumping And Distribution: Original	11,906,629	9,451,832	2,454,797	5,560,155	97.1%	2.9%	5,398,911	161,244
Water Source: Humboldt Hill	753,418	439,555	313,863	564,437	97.1%	2.9%	548,069	16,369
Water Source: Original	1,252,992	1,205,825	47,166	133,085	97.1%	2.9%	129,226	3,859
Total Capital Facilities & Equipment	**$ 30,261,864**	**$ 22,814,273**	**$ 7,447,590**	**$ 13,540,962**	**97.1%**	**2.9%**	**$ 13,148,274**	**$ 392,688**

1. The source of the original asset cost and depreciation to date is the Asset Data and Acquired Date provided by the District staff in source file: *Depreciation Schedule 6-30-2015.xls* and Depreciation Schedule 6-30-2016.xls.
2. Replication values are calculated by escalating the remaining original values (i.e., book values from District's fixed asset report) to 2022 values using inflation factors from the Handy-Whitman Index of Public Utility Construction Costs, for Water Utility Construction, Pacific Region.
3. Cost basis for consideration is calculated as replication value less accumulated depreciation.
4. Refer to Exhibit 1: proportionate allocation between existing and future users.
5. Assets have no remaining value, therefore allocation is 0% to existing and future users.
6. Assets are 100% allocated to Sewer, and therefore excluded from existing and future water users.

TABLE 4 : ALLOCATION OF DEBT TO EXISTING AND FUTURE USERS

Bond Issue	Outstanding Principal	% Allocation[1]		$ - Allocation		Total
		Existing Users	Future Users	Existing Users	Future Users	
1988 Freshwater/Mitchell Road Clean Water Bond	$ 422,957	97.1%	2.9%	410,691	12,266	422,957
Davis-Grunsky Loan, $166,000	$ 27,769	97.1%	2.9%	26,964	805	27,769
2012 Refinance of 1981 Bond	$ 73,069	97.1%	2.9%	70,950	2,119	73,069
Grand Total	**$ 523,795**	**97.1%**	**2.9%**	**$ 508,605**	**$ 15,190**	**$ 523,795**

1. Outstanding bond principal is allocated to existing and future services based on projected growth in the system.

TABLE 5 : ALLOCATION OF CASH RESERVES TO EXISTING AND FUTURE USERS

Water Cash Reserves	Beginning Cash[2]	% Allocation		$ - Allocation	
		Existing Users	Future Users	Existing Users	Future Users
Operating Reserve	$ 3,555,048	97.1%	2.9%	$ 3,451,952	$ 103,096
Capital Rehabilitation & Replacement Reserve	916,907	97.1%	2.9%	890,317	26,590
Capacity Fee Reserve	-	97.1%	2.9%	-	-
Cash Net of Unspent Capacity Fees	**$ 4,471,955**	**97.1%**	**2.9%**	**$ 4,342,269**	**$ 129,687**

2. The beginning cash balance is found in source file: *Cast Account Balances.xlsx*

HUMBOLDT COMMUNITY SERVICES DISTRICT
Water Capacity Fee Analysis
Water Planned Capital Facilities and Equipment for Consideration (System Development)

TABLE 6 : PLANNED CAPITAL IMPROVEMENTS

Planned Capital Improvements	Current Cost Estimate ($2022)[1]	System Development Cost Basis for Consideration[2]	% Allocation			
			Existing Services (Weighted Avg.)	Future Services (Weighted Avg.)	Existing Services	Future Services
WATER MAIN LINE REPLACEMENTS ($100.00/LF)	$ 20,921,657	$ 20,921,657	96.9%	3.1%	$ 20,272,684	$ 648,973
WATER PUMPING FACILITY UPGRADES	12,998,771	12,998,771	97.1%	2.9%	12,621,807	376,964
VEHICLES/ROLLING STOCK/EQUIPMENT	1,245,000	1,245,000	97.1%	2.9%	1,208,895	36,105
BUILDING, YARD & PAVING IMPROVEMENTS	350,500	350,500	97.1%	2.9%	340,336	10,165
Total	**$ 35,515,928**	**$ 35,515,928**	**97.0%**	**3.0%**	**$ 34,443,721**	**$ 1,072,207**

1. Capital project costs were provided by HCSD Staff in source file: *2016-17 CIP.pdf.*
2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.

HUMBOLDT COMMUNITY SERVICES DISTRICT
Water Capacity Fee Analysis
Water Planned Capital Facilities and Equipment for Consideration (System Development)

TABLE 6 : PLANNED CAPITAL IMPROVEMENTS

Planned Capital Improvements	Current Cost Estimate ($2022)[1]	System Development Cost Basis for Consideration[2]	% Allocation			
			Existing Services (Weighted Avg.)	Future Services (Weighted Avg.)	Existing Services	Future Services
Facility / Equipment (1)	**Current Cost Estimate ($2022)[1]**	**System Development Cost Basis for Consideration[2]**	**% Allocation**			
			Existing Services	**Future Services**	**Existing Services**	**Future Services**
WATER MAIN LINE REPLACEMENTS ($100.00/LF)						
New Connections	$ 45,000	$ 45,000	0.0%	100.0%	$ -	$ 45,000
Christian Lane	$ 63,359	63,359	97.1%	2.9%	61,522	1,837
Water Rate Study	$ 50,000	50,000	100.0%	0.0%	50,000	-
Tower Lane	$ 167,000	167,000	97.1%	2.9%	162,157	4,843
Park Street	$ 90,000	90,000	97.1%	2.9%	87,390	2,610
18th Street	$ 243,000	243,000	97.1%	2.9%	235,953	7,047
Stanford Court	$ 27,000	27,000	97.1%	2.9%	26,217	783
Temple Circle	$ 35,100	35,100	97.1%	2.9%	34,082	1,018
Crane Street	$ 67,500	67,500	97.1%	2.9%	65,543	1,958
Vista Tie In Phase 1	$ 189,000	189,000	97.1%	2.9%	183,519	5,481
Shady Lane	$ 108,000	108,000	97.1%	2.9%	104,868	3,132
Vista Tie In Phase 2	$ 189,000	189,000	97.1%	2.9%	183,519	5,481
Meadowood	$ 108,000	108,000	97.1%	2.9%	104,868	3,132
Mitchell Road	$ 1,190,000	1,190,000	97.1%	2.9%	1,155,490	34,510
Beechwood Dr.	$ 99,900	99,900	97.1%	2.9%	97,003	2,897
Austin Court	$ 70,200	70,200	97.1%	2.9%	68,164	2,036
AC Water Main Replacement Program	$ 18,179,598	18,179,598	97.1%	2.9%	17,652,390	527,208
Sub-Total	$ 20,921,657	$ 20,921,657	96.9%	3.1%	$ 20,272,684	$ 648,973

1. Capital project costs were provided by HCSD Staff in source files: *20220518_22-23CIP_DRAFT.xlsx*
2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.

HUMBOLDT COMMUNITY SERVICES DISTRICT
Water Capacity Fee Analysis
Water Planned Capital Facilities and Equipment for Consideration (System Development)

TABLE 6 : PLANNED CAPITAL IMPROVEMENTS

Planned Capital Improvements	Current Cost Estimate ($2022)[1]	System Development Cost Basis for Consideration[2]	% Allocation			
			Existing Services (Weighted Avg.)	Future Services (Weighted Avg.)	Existing Services	Future Services
WATER PUMPING FACILITY UPGRADES						
AMR Program	$ 1,551,000	$ 1,551,000	97.1%	2.9%	$ 1,506,021	$ 44,979
SCADA Upgrade	$ 425,000	425,000	97.1%	2.9%	412,675	12,325
Humboldt County ADA Access	$ 5,000	5,000	97.1%	2.9%	4,855	145
Water Storage Tanks	$ 9,281	9,281	97.1%	2.9%	9,012	269
South Bay School Backflow Device	$ 15,000	15,000	97.1%	2.9%	14,565	435
Donna Drive Hydro-tank	$ 150,000	150,000	97.1%	2.9%	145,650	4,350
Ridgewood Tank	$ 670,000	670,000	97.1%	2.9%	650,570	19,430
Spruce Point Well	$ 33,490	33,490	97.1%	2.9%	32,519	971
South Bay well	$ 20,000	20,000	97.1%	2.9%	19,420	580
Brier Lane 0.5 MG Tank	$ 700,000	700,000	97.1%	2.9%	679,700	20,300
Hubbard 3rd Pump	$ 50,000	50,000	97.1%	2.9%	48,550	1,450
Truesdale WBS	$ 100,000	100,000	97.1%	2.9%	97,100	2,900
Donna Drive 0.5 MG Tank	$ 730,000	730,000	97.1%	2.9%	708,830	21,170
Ridgewood Water Booster Station	$ 30,000	30,000	97.1%	2.9%	29,130	870
18th & Quaker PSV	$ 30,000	30,000	97.1%	2.9%	29,130	870
Walnut Drive 0.5 MG Tank	$ 700,000	700,000	97.1%	2.9%	679,700	20,300
Cummings Road Tank	$ 700,000	700,000	97.1%	2.9%	679,700	20,300
Pigeon Point WBS	$ 15,000	15,000	97.1%	2.9%	14,565	435
Donna Drive WBS	$ 65,000	65,000	97.1%	2.9%	63,115	1,885
Water Resiliency at Little CA St.	$ 1,000,000	1,000,000	97.1%	2.9%	971,000	29,000
Meyers Well	$ 750,000	750,000	97.1%	2.9%	728,250	21,750
Princeton Well	$ 750,000	750,000	97.1%	2.9%	728,250	21,750
Rehabilitate Remaining Tanks	$ 4,500,000	4,500,000	97.1%	2.9%	4,369,500	130,500
VEHICLES/ROLLING STOCK/EQUIPMENT						
2006 Ford Van	25,000	25,000	97.1%	2.9%	24,275	725
2010 Ford F450 w/Crane	70,000	70,000	97.1%	2.9%	67,970	2,030
2005 Dodge	30,000	30,000	97.1%	2.9%	29,130	870
2012 Ford 4x4	30,000	30,000	97.1%	2.9%	29,130	870
2010 Peterbilt 7 CY Dump Truck	100,000	100,000	97.1%	2.9%	97,100	2,900
2004 580 Super M Backhoe	65,000	65,000	97.1%	2.9%	63,115	1,885
Sewer Camera	175,000	175,000	97.1%	2.9%	169,925	5,075
Fleet Replacement Program	750,000	750,000	97.1%	2.9%	728,250	21,750
Sub-Total	$ 14,243,771	$ 14,243,771	97.1%	2.9%	$ 13,830,702	$ 413,069

1. Capital project costs were provided by HCSD Staff in source files: *20220518_22-23CIP_DRAFT.xlsx*
2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.

HUMBOLDT COMMUNITY SERVICES DISTRICT
Water Capacity Fee Analysis
Water Planned Capital Facilities and Equipment for Consideration (System Development)

TABLE 6 : PLANNED CAPITAL IMPROVEMENTS

Planned Capital Improvements	Current Cost Estimate ($2022)[1]	System Development Cost Basis for Consideration[2]	% Allocation			
			Existing Services (Weighted Avg.)	Future Services (Weighted Avg.)	Existing Services	Future Services
BUILDING, YARD & PAVING IMPROVEMENTS						
Office Building Exterior phase 1	$ 42,500	$ 42,500	97.1%	2.9%	$ 41,268	$ 1,233
Yard Paving Repairs	$ 17,500	17,500	97.1%	2.9%	16,993	508
Vehicle Storage Upgrades	$ 13,000	13,000	97.1%	2.9%	12,623	377
Office Building and breakroom Roof	$ 30,000	30,000	97.1%	2.9%	29,130	870
Office ADA	$ 32,500	32,500	97.1%	2.9%	31,558	943
Office Building Exterior phase 2	$ 40,000	40,000	97.1%	2.9%	38,840	1,160
Small Truck Garage	$ 50,000	50,000	97.1%	2.9%	48,550	1,450
Seal Coat Parking Lot	$ 10,000	10,000	97.1%	2.9%	9,710	290
Drying Bed Cover	$ 15,000	15,000	97.1%	2.9%	14,565	435
Future Yard Paving	$ 100,000	100,000	97.1%	2.9%	97,100	2,900
Office and Yard Facility Upgrades	$ -	-	97.1%	2.9%	-	-
Sub-Total	$ 350,500	$ 350,500	97.1%	2.9%	$ 340,336	$ 10,165

Total	$ 35,515,928	$ 35,515,928	97.0%	3.0%	$ 34,443,721	$ 1,072,207

1. Capital project costs were provided by HCSD Staff in source files: *20220518_22-23CIP_DRAFT.xlsx*
2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.

HUMBOLDT COMMUNITY SERVICES DISTRICT
Water Capacity Fee Analysis
Unit Cost Calculation

TABLE 7 : DEVELOPMENT OF THE MAXIMUM BASE CAPACITY FEE

System Asset Values Allocated to Future Development	
System Asset Values Allocated to New Development	
Existing System Buy-In[2]	$ 392,688
Future System Expansion[3]	1,072,207
Total: Existing & Future System Costs	$ 1,464,895
Adjustments to Cost Basis:	
Outstanding Long-Term Debt (Principal) Allocated to Future Users	(15,190)
Total: Adjustments to Cost Basis	$ (15,190)
Total Adjusted Cost Basis for New Development	**$ 1,449,705**

1. Refer to Exhibit 1 (Demographics) for growth projections.
2. Refer to Exhibits 2 and 3 for detail of existing assets.
3. Refer to Exhibit 5 for detail related to planned assets.
4. Equivalent Meters include 5/8-, 3/4- and 1-inch meters.

Summary of Costs Allocated to Capacity Fees	Adjusted System Cost Basis	Planned Additional EDU's *(thru 2032)*	Maximum Capacity Fee	*% Increase*	
Current Water Capacity Fee Per 5/8-Inch Meter[1]			**$3,045**		
Maximum Water Capacity Per Equivalent Meter[2]	$ 1,449,705	259	**$5,597**	*84%*	**$6,098**

1. Current Capacity Fees differentiate between 5/8-, 3/4- and 1-inch meters.
2. Equivalent Meters now include 5/8-, 3/4- and 1-inch meters for single-family only. All others are by meter size.

HUMBOLDT COMMUNITY SERVICES DISTRICT
Water Capacity Fee Analysis
Water Fee Classification and Calculation of Maximum Fee

WATER Capacity FEES BASED ON METER SIZE:

Meter Size	Equivalency Factor		Maximum Unit Cost ($/EDU)	Maximum Water Capacity Fee Per Meter
	Maximum Continuous Flow (gpm)[1]	Equivalency to 5/8-inch Base Meter Size		
5/8 Inch	20	1.00	$5,597	**$5,597**
3/4 Inch	30	1.50	$5,597	**$8,396**
1 Inch	50	2.50	$5,597	**$13,993**
1 1/2 Inch	100	5.00	$5,597	**$27,985**
2 Inch	160	8.00	$5,597	**$44,776**
3 Inch	320	16.00	$5,597	**$89,552**
4 Inch	500	25.00	$5,597	**$139,925**
6 Inch	1,000	50.00	$5,597	**$279,850**

1. Source: *AWWA M1, Table B-2.*. Assumes displacement meters for 5/8" through 2", Compound Class I for 3" through 8", and Turbine Class II for 10" through 12" meters.

CURRENT VS. PROPOSED Capacity FEES

Meter Size	Current Capacity Fees	Updated Maximum Capacity Fee Per Meter Size[1]
Residential (5/8, 3/4, and 1-inch)	$3,045	**$5,597**
Non-Residential		
5/8 Inch	$3,045	**$5,597**
3/4 Inch	$4,263	**$8,396**
1 Inch	$6,699	**$13,993**
1 1/2 Inch	$12,180	**$27,985**
2 Inch	$19,488	**$44,776**
3 Inch	$38,976	**$89,552**
4 Inch	$60,900	**$139,925**
6 Inch	$121,800	**$279,850**

1. Source: *AWWA M1, Table B-2.*. Assumes displacement meters for 5/8" through 2", Compound Class I for 3" through 8", and Turbine Class II for 10" through 12" meters.

Section 13. APPENDIX E – WASTEWATER CAPACITY CHARGE SUMMARY TABLES

HUMBOLDT COMMUNITY SERVICES DISTRICT
Sewer Connection Fee Analysis
Demographic Data and Projections

EXHIBIT 1

TABLE 1 : EQUIVALENT DWELLING UNITS

Customer Class	Existing Sewer Connections[1]	Consumption Based EDU/Living Unit Equivalents
Residential	5,842	5,998
Multi-Family Residential	415	711
Mobile Home Park	10	359
Commercial - Light Strength	235	644
Commercial - Medium Strength	3	37
Commercial - High Strength	21	255
Total	**6,526**	**8,004**

1. Per District utility billing data, as of the June 2021 billing period.

TABLE 2 : EXISTING AND PROJECTED SERVICE NUMBERS

Demographic Statistics	Existing Total[1]	Projected Service Total[2] *(FY 2031/32)*	Number of Add'l. Units	Allocation Factors	
				Existing Services	Future Services
Equivalent Living Units	8,004	8,245	241	97.1%	2.9%

1. Consumption-based EDUs per District utility billing data, as of the June 2021 billing period.
2. Customer growth is preliminarily estimated at 0.33% per year.

TABLE 3 : SUMMARY OF EXISTING SEWER ASSETS

Asset Category	Original Values[1]		Book Value	Replacement Values (System Buy-in Cost Basis)[2]	Allocation Basis (%)[4]		Distribution of Cost Basis ($)	
	Asset Cost	Depreciation to Date			Existing Services	Future Services	Existing Services	Future Services
Sewer Fund								
Autos And Trucks	$ 3,018,856	$ 1,936,933	$ 1,081,923	$ 910,276	97.1%	2.9%	$ 883,878	$ 26,398
Buildings	1,009,029	674,256	334,773	297,525	97.1%	2.9%	288,897	8,628
Communications Equipment	84,828	64,653	20,175	11,417	97.1%	2.9%	11,086	331
Computer Hardware	64,736	64,736	-	-	97.1%	2.9%	-	-
Computer Software	221,647	212,047	9,600	5,938	97.1%	2.9%	5,766	172
Land And Land Improvements	474,470	-	474,470	232,659	97.1%	2.9%	225,911	6,747
Land And Right Of Way - Water - Fw/Mr	1,300	-	1,300	598	97.1%	2.9%	581	17
Land And Right Of Way- Water - Original District	113,322	-	113,322	-	97.1%	2.9%	-	-
Land And Right Of Way-Sewer - Humboldt Hill	15,000	-	15,000	15,000	97.1%	2.9%	14,565	435
Land And Right Of Way-Water - Humboldt Hill	81,777	-	81,777	-	97.1%	2.9%	-	-
Machinery And Equipment	951,620	602,343	349,276	200,847	97.1%	2.9%	195,023	5,825
Office Equipment	10,258	10,258	-	-	97.1%	2.9%	-	-
Sewer Collection: Humboldt Hill	3,166,423	2,164,732	1,001,691	2,219,291	97.1%	2.9%	2,154,931	64,359
Sewer Collection: Original	25,376,228	12,331,233	13,044,995	18,998,289	97.1%	2.9%	18,447,339	550,950
Small Tools	6,273	6,273	-	-	97.1%	2.9%	-	-
Telemetry Equipment	367,056	342,895	24,161	12,765	97.1%	2.9%	12,395	370
Total Capital Facilities & Equipment	**$ 34,962,823**	**$ 18,410,360**	**$ 16,552,462**	**$ 22,904,606**	**97.1%**	**2.9%**	**$ 22,240,372**	**$ 664,234**

1. Source of original asset cost/depreciation is Asset Data and Acquired Date, from District staff, files: *Depreciation Schedule 6-30-2015.xls* and *Depreciation Schedule 6-30-2016.xls*.
2. Replication values are calculated by escalating the remaining original values (i.e., book values from District's fixed asset report) to 2022 values using inflation factors from the Handy-Whitman Index of Public Utility Construction Costs, for Water Utility Construction, Pacific Region.
3. Cost basis for consideration is calculated as replication value less accumulated depreciation.
4. Refer to Exhibit 1: proportionate allocation between existing and future users.
5. Assets have no remaining value, therefore allocation is 0% to existing and future users.
6. Assets are 100% allocated to Sewer, and therefore excluded from existing and future water users.

HUMBOLDT COMMUNITY SERVICES DISTRICT **EXHIBIT 4**

Sewer Connection Fee Analysis

Allocation of Cash Reserves and Outstanding Debt to Existing and Future Services

TABLE 4 : ALLOCATION OF DEBT TO EXISTING AND FUTURE SEWER USERS

Bond Issue	% Allocation[1]		$ - Allocation	
	Existing Users	Future Users	Existing Users	Future Users
2014 Wastewater Revenue Bonds, $8,500,000	97.1%	2.9%	$ 5,801,725	$ 173,275
2012 Refinancing for Martin Slough Project, $2,372,000	97.1%	2.9%	1,555,424	46,454
VacCon Installment Sale	97.1%	2.9%	533,162	15,923
Grand Total	**97.1%**	**2.9%**	**$ 7,890,311**	**$ 235,653**

1. Outstanding bond principal is allocated to existing and future services based on projected growth in the system.
See Demographics tab for detail.

TABLE 5 : ALLOCATION OF CASH RESERVES TO EXISTING AND FUTURE SEWER USERS

Sewer Cash Reserves	Beginning Cash[1]	% Allocation	$ - Allocation	
		Future Users	Exclude from Analysis	Future Users
Operating Reserve Fund	$ 2,159,148	2.9%	$ -	$ 62,615
Capital R&R Reserve Fund	$ 217,222	2.9%	$ -	$ 6,299
Connection Fee Reserve Fund	$ -	2.9%	$ -	$ -
Total Beginning Cash	$ 2,376,369	2.9%	$ -	$ 68,915
Cash Net of Unspent Capacity Fees	**$ 2,376,369**	**2.9%**	**$ -**	**$ 68,915**

1. The beginning cash balances are found in source file: *Cast Account Balances.xlsx*

HUMBOLDT COMMUNITY SERVICES DISTRICT **EXHIBIT 5**

Sewer Connection Fee Analysis

Sewer Planned Capital Facilities and Equipment for Consideration (System Development)

TABLE 6 : PLANNED CAPITAL IMPROVEMENTS

Facility / Equipment	Current Cost Estimate ($2022)[1]	% Allocation		Distribution of Cost Basis ($)	
		Existing Services	Future Services	Existing Services	Future Services
SEWER FACILITIES	$ 2,882,000	97.1%	2.9%	$ 2,798,422	$ 83,578
MAIN EXTENSION & REPLACEMENTS	38,681,043	97.1%	2.9%	37,559,292	1,121,750
VEHICLES / EQUIPMENT	1,245,000	97.1%	2.9%	1,208,895	36,105
BUILDING, YARD & PAVING IMPROVEMENTS	350,500	97.1%	2.9%	340,336	10,165
CITY OF EUREKA CIP CONTRIBUTIONS	24,915,652	97.1%	2.9%	24,193,098	722,554
Total	**$ 68,074,194**	**97.1%**	**2.9%**	**$ 66,100,043**	**$ 1,974,152**

1. Capital project costs were provided by HCSD Staff in source files: *20220518_22-23CIP_DRAFT.xlsx*
2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.
3. New Connections are allocated 100% to Future Services.

HUMBOLDT COMMUNITY SERVICES DISTRICT **EXHIBIT 6**
Sewer Connection Fee Analysis
Unit Cost Calculation

TABLE 7 : DEVELOPMENT OF THE MAXIMUM CAPACITY FEE FOR A EQUIVALENT DWELLING UNIT (or EDU)

System Asset Values Allocated to Future Development	
System Asset Values Allocated to New Development	
Existing System Buy-In[2]	$ 664,234
Future System Expansion[3]	1,974,152
Total: Existing & Future System Costs	$ 2,638,385
Adjustments to Cost Basis:	
Outstanding Long-Term Debt (Principal) Allocated to Future Users	(235,653)
Total: Adjustments to Cost Basis	$ (235,653)
Total Adjusted Cost Basis for New Development	**$ 2,402,732**

1. *Refer to Exhibit 1 (Demographics) for growth projections.*
2. *Refer to Exhibits 2 and 3 for detail of existing assets.*
3. *Refer to Exhibit 5 for detail related to planned assets.*

Summary of Costs Allocated to Connection Fees	Adjusted System Cost Basis	Planned Additional EDU's *(thru 2032)*	Maximum Connection Fee	*% Increase*	
Current Sewer Connection Fee Per EDU[1]			$2,958		
Maximum Sewer Connection Per EDU	$ 2,402,732	241	**$9,974**	*237%*	**$10,260**

1. *EDU = Equivalent Dwelling Unit or typical single family residential customer.*