

CITY OF VICTORVILLE

Final Report

Sewer Rate Study

August 2023

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BACKGROUND AND PURPOSE

The City of Victorville (City) owns and operates a sewer collection system that collects wastewater from approximately 29,000 connections and transports it either to the City’s Industrial Wastewater Treatment Plant (IWWTP) or the Victor Valley Wastewater Reclamation Authority (VWVRA) for treatment. The City retained NBS to update the current sewer rates. The sewer rate analysis (Study) was undertaken with specific objectives, including:

- Ensuring sewer rates will be able to cover all operating and maintenance costs, including treatment costs.
- Ensuring sufficient funding for essential Capital Improvement Projects.
- Maintaining appropriate reserve funds.
- Complying with legal requirements (such as California Constitution article XIII D, section 6, which is commonly referred to as Proposition 218 [Prop 218]).

The rates resulting from this Study were developed in a manner that is consistent with industry standard cost-of-service principles. In addition to documenting the Study methodology, this technical memorandum is provided with the intent of assisting the City to maintain transparent communications with its residents and businesses.

In developing the updated sewer rates, NBS worked cooperatively with City staff in selecting appropriate rate alternatives. Based on input from City staff, the proposed rates are summarized in this memorandum. This technical memorandum presents an overview of the methodologies, assumptions, and data used, along with the financial plans and proposed rates developed in this Study.

1. OVERVIEW OF THE STUDY

Comprehensive rate studies such as this one typically include the following three components, as outlined in **Figure 1**:

1. Preparation of a **Financial Plan**, which identifies the net revenue requirements for the utility.
2. **Cost of Service Analysis**, which determines the cost of providing service to each customer class.
3. **Rate Design Analysis**, which evaluates different rate design alternatives for each customer class.

Figure 1. Primary Components of a Rate Study



These steps are intended to follow industry standards and reflect the fundamental principles of cost-of-service rate making embodied in the American Water Works Association (AWWA) Principles of Water Rates, Fees, and Charges¹, also referred to as the M1 Manual. They also address requirements under Proposition 218 that rates not exceed the cost of providing the service, and that they 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. Detailed tables and figures documenting development of the proposed rates are provided in the Appendices.

1.1 FINANCIAL PLAN

As a part of this Study, NBS projected revenues and expenditures on a cash flow basis for the next twenty years. The amount of rate revenue required that will allow reserves to be maintained at the recommended levels, is known as the *net revenue requirement*. As current rate revenue falls short of the net revenue requirement, rate adjustments -- or more accurately, adjustments in the total revenue collected from rates -- are recommended.

1.2 COST OF SERVICE ANALYSIS

The cost-of-service analysis process includes the following steps:

1. Allocating budget items to approximate cost components (including for those related to flow, strength of effluent, customer connections and bills)
2. Gathering customers into classes based upon similar characteristics.
3. Distributing costs to customer classes based upon the amount of anticipated flow and strength of wastewater contributed by each customer class.

1.3 RATE DESIGN ANALYSIS

Rate Design is typically the stage in the Study where NBS and City staff must work closely together to develop rate alternatives that will meet the City's objectives. Several criteria are typically considered in setting rates and developing sound rate structures. The fundamentals of this process have been documented in several rate-setting manuals, such as the AWWA Manual M1. The foundation for evaluating rate structures is generally credited to James C. Bonbright in the *Principles of Public Utility Rates*², which outlines pricing policies, theories, and economic concepts along with various rate designs. The following is a simplified list of the attributes of a sound structure:

- 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.

¹ Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices, M1, AWWA, seventh edition, 2017.

² 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.

- Rates should be equitable and non-discriminating (that is, cost-based).
- There should be continuity in the ratemaking philosophy over time.
- Rates should provide month-to-month and year-to-year revenue stability.

A number of criteria were considered when developing sewer rates for each customer class. The details of the Study are discussed in the following sections.

2. SEWER RATE ANALYSIS

The City's sewer rate analysis was undertaken with a few specific objectives, including:

- Avoiding operational deficits and depletion of reserves beyond the target minimum reserve level.
- Generating additional revenue needed to meet projected funding requirements.
- Ensuring cost-of-service principles are followed.

NBS developed various funding alternatives as requested by City staff over the course of this Study. The rate alternative that will be implemented is ultimately the decision of the City Council. The rates developed in this Study are based on the net revenue requirements, number of customer accounts, and other City-provided information.

2.1 Financial Plan

It is important for municipal utilities to maintain reasonable reserves in order to handle emergencies, fund working capital, maintain a good credit rating, and generally follow sound financial management practices. Rate increases are governed by the need to meet operating and capital costs, maintain adequate debt coverage, and build reasonable reserve funds. The current state of the City, with regard to these objectives, is as follows:

- **Meeting Net Revenue Requirements:** For FY 2023/24 through FY 2027/28, the projected annual operating and maintenance costs escalate from approximately **\$28.8 million to \$31.1 million**. General cost inflation for good and services are the primary reasons for this increase. Expected inflation of treatment expenses at VVWRA are not included as part of this analysis³. Including debt service payments and rate-funded capital projects, total expenditures are approximately **\$37.2 million annually between FY 2023/24 to FY 2027/28**.
- **Building and Maintaining Reserve Funds:** Reserve funds provide a basis for a utility to cope with fiscal emergencies such as revenue shortfalls, asset failure, and natural disasters, among other events. Reserve policies provide guidelines for sound financial management, with an overall long-range perspective to maintain financial solvency and mitigate financial risks associated with revenue instability, volatile capital costs, and emergencies. The City plans to have approximately

³ As will be discussed later, any future increases in VVWRA expenses will be directly passed through to ratepayers in future sewer rate adjustments.

\$14.0 million in reserves by the end of FY 2027/28. The reserve funds for the Utility are considered unrestricted reserves and consist of the following:

- **The Operating Reserve** should equal approximately 90 days of operating expenses (approximately **\$7.8 million for FY 2027/28**). An Operating Reserve is intended to promote financial viability in the event of any short-term fluctuation in revenues and/or expenditures. Fluctuations in revenue can be caused by the inflow and outflow of cash during billing cycles, and - particularly in periods of economic distress - changes or trends in age of receivables.
- **The Capital Rehabilitation and Replacement Reserve** should at a minimum, equal approximately three percent of net capital assets (approximately **\$1.8 million for FY 2027/28**, which is set aside to address long-term capital system replacement and rehabilitation needs. Based on input from City Staff in Public Works, the recommended target for the Capital Rehabilitation and Replacement Reserve is approximately \$5 million based on operational needs, as well as the size and age of the existing infrastructure that comprises the City's wastewater system.
- **Funding Capital Improvement Projects:** The City must also be able to fund necessary capital improvements in order to maintain current service levels. City staff has identified roughly **\$30.0 million** in needed capital expenditures for FY 2023/24 through 2027/28. With the recommended rate increases, these expenditures can be accomplished while maintaining reserves to the minimum recommended target.
- **Inflation and Growth Projections** – Assumptions regarding cost inflation were made in order to project future revenues and expenses for the study period. The following inflation factors were used in the analysis:
 - Customer growth is modeled at 0 percent annually, consistent with the previous sewer rate study and the current solid waste study. Since sewer rates are based on the cost-of-service analysis, if additional customers are added during the projected rate period, those revenues will equal expenses.
 - General cost inflation is 4 percent annually.
 - Transportation cost is 4 percent annually.
 - Utilities cost inflation is 5 percent annually.
 - VVWRA cost inflation is currently estimated at 0 percent (VVWRA cannot provide projections of future inflation or cost increases for capital expenses at this point in time beyond those adopted for the next Fiscal Year).
- **Impact of Annual Rate Adjustment Date:** The financial plan modelling assumes that the first rate adjustments will occur on December 1, 2023 and that future rate adjustments will occur each subsequent year starting on July 1. Rate revenue increases as follows will be needed in order to fully fund all operating expenses, planned capital projects and maintain reserves at the recommended targets by FY 2027/28.

Figure 2. Rate Revenue Targets

Fiscal Year	Rate Revenue Target	Percent Increase
FY 2023/24	\$33,758,095	-
FY 2024/25	\$36,310,537	7.0%
FY 2025/26	\$38,126,063	4.8%
FY 2026/27	\$39,269,845	2.9%
FY 2027/28	\$40,447,941	2.9%

Figure 2 summarizes the rate revenue targets for the City over the next 5 years. Note that the percent increase for FY 2024/25 includes the adopted increase for VVWRA cost inflation. Subsequent years do not include VVWRA cost inflation, as VVWRA stated that they cannot provide cost projections at this time.

Figure 3 summarizes the sources and uses of funds, net revenue requirements, and the recommended annual percent increases in total rate revenue recommended for the next 5 years for the City.

Figure 3. Summary of Sewer Revenue Requirements

Summary of Sources and Uses of Funds and Net Revenue Requirements	Projected				
	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Sources of Sewer Funds					
Rate Revenue Under Prevailing Rates	\$ 32,934,727	\$ 32,934,727	\$ 32,934,727	\$ 32,934,727	\$ 32,934,727
Additional Revenue from Rate Increases ¹	823,368	3,375,810	5,191,336	6,335,118	7,513,214
Total Rate Revenue	33,758,095	36,310,537	38,126,063	39,269,845	40,447,941
Sewer Use Fee - Capital and Connection Fees	811,632	811,632	811,632	811,632	811,632
Other Fees	390,628	392,093	393,617	395,202	396,850
Interest Earnings	42,371	64,621	88,656	125,647	166,134
Total Sources of Funds	\$ 35,002,726	\$ 37,578,882	\$ 39,419,969	\$ 40,602,326	\$ 41,822,557
Uses of Sewer Funds					
IWWTP Expenses	\$ 8,123,617	\$ 8,384,843	\$ 8,655,121	\$ 8,934,781	\$ 9,224,168
Sewer Expenses	4,879,966	5,079,740	5,287,887	5,504,771	5,730,776
GIS Expenses	313,800	326,352	339,406	352,982	367,101
DEV Expenses	120,631	125,456	130,475	135,694	141,122
Sewer Asphalt Expenses	81,535	84,797	88,189	91,716	95,386
Engineering Expenses	1,873,036	1,948,206	2,026,399	2,107,732	2,192,335
VVWRA Treatment (No Inflation After FY'23/24)	13,414,183	13,414,183	13,414,183	13,414,183	13,414,183
Debt Service	1,852,016	1,834,269	1,816,460	1,798,589	1,780,653
Rate-Funded Capital Expenses	3,838,064	6,131,484	6,475,750	6,004,243	4,349,286
Total Use of Funds	\$ 34,496,849	\$ 37,329,330	\$ 38,233,870	\$ 38,344,691	\$ 37,295,010
Surplus (Deficiency) before Rate Increase	\$ (317,491)	\$ (3,126,258)	\$ (4,005,238)	\$ (4,077,483)	\$ (2,985,666)
Surplus (Deficiency) after Rate Increase	505,877	249,552	1,186,098	2,257,635	4,527,547
Net Revenue Requirement²	\$ 33,252,218	\$ 36,060,985	\$ 36,939,965	\$ 37,012,210	\$ 35,920,393

1. Assumes new rates are implemented December 1, 2023 and each July 1st thereafter.

2. Total Use of Funds less non-rate revenues and interest earnings. This is the annual amount needed from sewer rates.

Figure 4 summarizes the projected reserve fund balances and reserve targets. A more detailed version of the utility’s proposed 5-year financial plan is included in Tables 1 and 2 of Appendix A. The appendix tables include revenue requirements, reserve funds, revenue sources, proposed rate increases, and the City’s capital improvement program. Based on input from City staff in Public Works, the recommended goal target for the Capital Rehabilitation and Replacement Reserve is approximately \$5 million based on operational needs, as well as the size and age of the existing infrastructure that comprises the City’s wastewater system. As can be seen in Figure 4, given proposed rate increases, reserves will remain above the target recommended minimum levels during the course of the five year rate period. As illustrated by Figure 4, the rate increases were also designed to achieve the City staff recommended reserve goal target levels by FY 2027/28.

Figure 4. Summary of Reserve Funds

Reserve Fund Balances and Recommended Reserve Targets	Projected				
	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Operating Reserve					
Ending Balance	\$ 7,202,000	\$ 7,341,000	\$ 7,485,000	\$ 7,635,000	\$ 7,791,000
<i>Recommended Minimum Target</i>	<i>7,202,000</i>	<i>7,341,000</i>	<i>7,485,000</i>	<i>7,635,000</i>	<i>7,791,000</i>
Capital Rehabilitation & Replacement Reserve					
Ending Balance	\$ 1,414,077	\$ 1,524,629	\$ 2,566,727	\$ 3,822,535	\$ 6,219,047
<i>Recommended Minimum Target</i>	<i>1,276,200</i>	<i>1,416,300</i>	<i>1,562,300</i>	<i>1,714,900</i>	<i>1,847,500</i>
<i>Recommended Goal Target</i>	<i>5,000,000</i>	<i>5,000,000</i>	<i>5,000,000</i>	<i>5,000,000</i>	<i>5,000,000</i>
Total Ending Balance	\$ 8,616,077	\$ 8,865,629	\$ 10,051,727	\$ 11,457,535	\$ 14,010,047
<i>Total Recommended Minimum Target</i>	<i>\$ 8,478,200</i>	<i>\$ 8,757,300</i>	<i>\$ 9,047,300</i>	<i>\$ 9,349,900</i>	<i>\$ 9,638,500</i>
<i>Total Recommended Goal Target</i>	<i>\$ 12,202,000</i>	<i>\$ 12,341,000</i>	<i>\$ 12,485,000</i>	<i>\$ 12,635,000</i>	<i>\$ 12,791,000</i>

Figure 5 summarizes the City’s Capital Improvement Plan, providing the expected cost and timing of capital projects during the 5-year rate period.

Figure 5 Capital Improvement Program

Capital Improvement Program Costs	Projected				
	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
<u>Pipelines</u>	\$ 2,710,000	\$ 4,821,484	\$ 3,565,750	\$ 5,371,070	\$ 4,864,321
<u>Lift Station</u>	\$ 220,000	\$ 250,000	\$ 250,000	\$ -	\$ -
<u>IWWTP & SCLA</u>	\$ -	\$ 1,000,000	\$ 1,600,000	\$ 500,000	\$ 500,000
<u>Vehicles & Equipment</u>	\$ 726,170	\$ 10,000	\$ 1,060,000	\$ 985,000	\$ 960,000
<u>Miscellaneous</u>	\$ 545,806	\$ 50,000	\$ -	\$ -	\$ -
Total	\$ 4,201,976	\$ 6,131,484	\$ 6,475,750	\$ 6,856,070	\$ 6,324,321

2.2 Cost of Service Analysis

Once the net revenue requirements are determined, the cost-of-service analysis proportionately distributes the revenue requirements to each of the customer classes. The cost-of-service analysis consists of two major components: (1) the classification of expenses, and (2) the allocation of costs to customer classes.

Costs were classified corresponding to the function they serve. All costs in the City's budget are allocated to each component of the rate structure in proportion to the level of service required by customers. The levels of service are related to volumes of flow and pounds treated at the wastewater treatment facilities, process treatment, and customer service. Ultimately, a cost-of-service analysis is intended to result in rates that are proportional to the cost of providing service to each customer class.

2.2.1 Functionalization and Classification

Budgeted costs were classified into the following categories to develop the basis for allocating costs to various customer classes in this analysis:

- **Flow Costs ("Volume")** – Flow based costs are primarily related to the collection and distribution system which gather effluent from customers and transports it to the two treatment facilities.
- **Strength Based Costs ("BOD", "TSS")** – Strength based costs are related to the treatment of effluent at the IWWTP. Two factors, Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) measure different aspects of the treatment process.
- **Process Treatment Costs ("Process Treatment")** – Process Treatment costs are those related to the Upflow Anaerobic Sludge Blanket (UASB) Reactor and the Ion Exchange treatment system which are needed to process effluent from the Keurig Dr. Pepper facility (KDP).
- **VVWRA Treatment Costs ("VVWRA Treatment")** – Treatment costs for the VVWRA facility.
- **Customer Related Costs ("Customer")** – Customer based costs are related to the billing of customers (such as mailing and staff time committed to customer service).

All projected expenses from FY 2023/24 are allocated by percentage, to each of the cost factors. Additionally, all costs associated with Process Treatment, which is primarily the UASB Reactor, were allocated as such.

The summary for each Sewer division is shown in **Figure 6**. The details of how each budget item was allocated can be found in Appendix A.

Figure 6. Classification of Expenses

Budget Categories	Total Revenue Req't.	Flow	Strength		Process Treatment	VWRA Treatment	Customer
	FY 2023/24	(VOL)	(BOD)	(TSS)	(PT)	(VWRA)	(CA)
IWWTP	\$ 8,123,617	\$ 2,998,016	\$ 2,126,730	\$ 2,126,730	\$ 872,140	\$ -	\$ -
Sewer	4,879,966	4,596,658	-	-	-	-	283,308
GIS	313,800	313,800	-	-	-	-	-
Sewer DEV	120,631	120,631	-	-	-	-	-
Engineering	1,873,036	1,873,036	-	-	-	-	-
VWRA Treatment	13,414,183	-	-	-	-	13,414,183	-
Debt Service Payments	1,852,016	685,246	481,524	481,524	203,722	-	-
Total Revenue Requirement	\$ 34,496,849	\$ 13,739,373	\$ 2,992,061	\$ 2,992,061	\$ 1,075,862	\$ 13,414,183	\$ 283,308
Less: Non-Rate Revenues	(1,244,631)	(495,710)	(107,952)	(107,952)	(38,817)	(483,978)	(10,222)
Net Revenue Requirements	\$ 33,252,218	\$ 13,243,663	\$ 2,884,109	\$ 2,884,109	\$ 1,037,046	\$ 12,930,205	\$ 273,087
	100.0%	39.8%	8.7%	8.7%	3.1%	38.9%	0.8%

The percentage of costs allocated to each category are then applied to the revenue target for FY 2023/24. This is the Adjusted Net Revenue Requirement and shown in Figure 7.

Figure 7. Adjusted Net Revenue Requirement

Adjusted Net Revenue Requirements		
Projected Rate Revenue at Current Rates	\$ 32,934,727	
Projected Rate Increase	5.0%	
Adjusted Net Revenue Requirement	\$ 34,581,463	
<u>By Cost Category:</u>		<u>% of Total</u>
Volume	13,773,073	39.8%
BOD	2,999,400	8.7%
TSS	2,999,400	8.7%
Process Treatment	1,078,501	3.1%
VWRA Treatment	13,447,086	38.9%
Customer	284,003	0.8%
Total	\$ 34,581,463	100%

2.2.2 Customer Classes

Customers were grouped into four primary categories: single family residential, multi-family residential, commercial and industrial/user-specific. The City uses two different treatment locations to provide service to customers. However, for the purposes of this analysis, residential customers were not differentiated based upon which site was providing treatment.

The cost components used in this analysis and allocated to each customer class are as follows:

- **Flow Costs (“Volume”)** – Costs related to flow are allocated based upon anticipated volume into the collection system. For Single Family Residential customers, volume is based upon average

winter water consumption (metered consumption from Nov through February). For all other customer classes, flow is based upon the total amount of water consumed, annually⁴.

- **Strength Based Costs (“BOD”, “TSS”)** – Costs related to strength are allocated to each customer class based on either the estimated strength of influent treated⁵ or actual measured flow to the IWWTP. Strength characteristics from the three industrial customers were measured as part of the City’s pre-treatment program and used for this analysis.
- **Process Treatment Costs (“Process Treatment”)** – Costs related to Process treatment are allocated to KDP because this is entirely for the Keurig Dr. Pepper facility.
- **VVWRA Treatment Costs (“VVWRA Treatment”)** – Costs related to VVWRA treatment are allocated based upon anticipated flow to the VVWRA treatment plant.
- **Customer Related Costs (“Customer”)** – Costs related to billing and customer service are allocated based upon number of customers within a given customer class.

The percentage allocations for each customer class are summarized in **Figure 8**.

Figure 8. Customer Allocation

Customer Class	Percentage Allocated by Each Factor (1)					
	Volume	BOD	TSS	PT	VVWRA	Customer
Sanitary Flow						
Single Family Residential	60.6%	64.8%	62.8%	0.0%	60.5%	94.9%
Multi-Family Residential	8.0%	7.6%	7.4%	0.0%	8.0%	1.3%
Commercial	22.0%	0.0%	0.0%	0.0%	26.8%	3.8%
Industrial Flow						
FCC	5.9%	11.1%	10.8%	0.0%	4.7%	0.0%
KDP	3.0%	14.5%	14.0%	100.0%	0.0%	0.0%
PlastiPack	0.1%	0.2%	0.9%	0.0%	0.0%	0.0%
Hydration Source	0.5%	1.6%	4.1%	0.0%	0.0%	0.0%
Total	100%	100%	100%	100%	100%	100%

1. Volume - Percentage of Total Adjusted Volume, BOD & TSS - Percentage of Total LBS, Process Treatment - All Allocated to KDP
 VVWRA - Percentage of Adjusted Volume at VVWRA, Customer Related - Percentage of Total Accounts

Figure 9 applies the allocation from Figure 8 to the net revenue requirement from Figure 7 and shows the total amount of rate revenue which should be collected from each customer class in FY 2023/24.

⁴ Water consumption records for Fiscal Year 2021/22 were used as the basis for this analysis.

⁵ Strength factors developed based on State Water Resources Control Board Revenue Program Guidelines Appendix G Strength Factors by customer class.

Figure 9. Cost of Service Allocation to Each Customer Class

Customer Class	Cost Classification Components						Cost-of-Service Net Revenue Reqs.	% of COS Net Revenue Reqs.
	Volume	BOD	TSS	Process Treatment	VVWRA Treatment	Customer Related		
Net Revenue Requirements¹	\$ 13,651,202	\$ 2,995,376	\$ 2,995,376	\$ 1,087,962	\$ 13,565,053	\$ 286,495	\$ 34,581,463	--
	39.5%	8.7%	8.7%	3.1%	39.2%	0.8%	100.0%	
SINGLE FAMILY RESIDENTIAL	\$ 8,274,090	\$ 1,941,978	\$ 1,879,669	\$ -	\$ 8,211,257	\$ 271,936	\$ 20,578,931	59.5%
MULTI-FAMILY RESIDENTIAL	1,092,818	228,705	221,367	-	1,084,519	3,687	2,631,097	7.6%
COMMERCIAL	3,001,195	-	-	-	3,637,067	10,824	6,649,087	19.2%
INDUSTRIAL								
FCC	\$ 804,921	\$ 333,650	\$ 322,945	\$ -	\$ 632,210	\$ 19	\$ 2,093,744	6.1%
KDP	403,344	434,600	420,656	1,087,962	-	9	2,346,572	6.8%
Plastipak	9,873	7,447	27,184	-	-	9	44,514	0.1%
Hydration Source	64,960	48,995	123,554	-	-	9	237,519	0.7%
GRAND TOTAL	\$ 13,651,202	\$ 2,995,376	\$ 2,995,376	\$ 1,087,962	\$13,565,053	\$ 286,495	\$ 34,581,463	100%

1. Determined by multiplying the revenue requirement from each cost classification by the allocation factors for each customer class.
 Volume - Percentage of Total Adjusted Volume, BOD & TSS - Percentage of Total LBS, Process Treatment - All Allocated to KDP
 VVWRA - Percentage of Adjusted Volume at VVWRA, Customer Related - Percentage of Total Accounts

2.3 Current and Proposed Sewer Rates

The proposed rates are designed to capture the cost of service from each customer class. The details on how the costs allocated each customer class were used to develop the rates can be found in Appendix A.

For Single Family and Multi-Family Residential customers, rates are fixed based on the number of dwelling units⁶ per account. As the average volume estimated for Multi-Family customers (per dwelling unit) is approximately half of Single Family volume based on the analysis of winter water consumption data, Multi-Family rates have been adjusted to properly show the difference in the impact to the sewer system, which is why Multi-Family rates are not increasing in the same proportion as Single-family residential customers.

For Commercial customers a variable component (based upon water consumption) is included in the rate structure to demonstrate equity between customers within this class. All commercial accounts will continue to pay a fixed charge that is the same as the single-family residential charge, plus a variable component that collects the remaining commercial revenue requirements from volumetric charges.

For Industrial customers, the monthly minimum service charge per account was set to be equal to the monthly fixed serve charge for Commercial customers. The Study added three variable components to standardize rates and demonstrate equity between all industrial customers: (1) Volumetric charge, per hcf (2) BOD charge, per lb., and (3) TSS charge, per lb. The Study also included two user-specific industrial rates for the Federal Corrections Complex and Keurig Dr. Pepper, respectively. The two user-specific rates are discussed below.

For the Federal Corrections Complex (FCC), the fixed sewer rate is based on the number of calculated EDU’s on a monthly basis. One EDU is estimated to be equal to 200 gallons per day of volume contributed to the sewer system. FCC surcharges for BOD and TSS apply to concentrations above 200 mg/l for BOD and 250 mg/l for TSS.

⁶ A dwelling unit is an individual living unit; for single-family residential customers, this is a single-family home and for multi-family customers, this would be an individual unit (for example, an apartment unit, or one of the living units in a duplex or triplex building).

Finally, in accordance with the existing contract, Keurig Dr. Pepper has been assigned a minimum monthly charge. Per the existing contract agreement, (1) volumetric charges, per 1,000 gallons, as well as wastewater strength charges for (2) COD, per lb and (3) FDS, per lb remain in place per the terms of the Wastewater Capacity and Treatment Agreement. Keurig Dr. Pepper is also assessed a monthly fixed charge for ion exchange treatment services as determined by the Woodard and Curran study.

As noted earlier, VVWRA costs are expected to increase, but that inflation is not included in this rate design, primarily because VVWRA is not able to project future cost increases at this time. Should VVWRA costs increase, those increases will be collected from City customers through a “pass-through” rate adjustment, except for industrial customers. Since none of the City’s Industrial customer participate in VVWRA treatment, their rates will not be adjusted if and when VVWRA’s rates are updated in the future.

Figure 10 provides a comparison of the current and proposed rates through FY 2027/28.

Figure 10. Current and Proposed Sewer Rates

Sewer Rate Schedule	Current Rates	Recommended Sewer Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Residential Customers¹						
<u>Monthly Fixed Service Charge, per Dwelling Unit:</u>						
Single-Family Residential	\$ 51.89	\$ 59.62	\$ 62.60	\$ 65.73	\$ 69.01	\$ 72.46
Multi-Family Residential	\$ 38.09	\$ 31.32	\$ 32.89	\$ 34.53	\$ 36.26	\$ 38.07
Commercial Customers						
<u>Monthly Fixed Service Charge, per Account:</u>						
Volumetric Charge, per hcf ²	4.41	4.54	4.77	5.01	5.26	5.52
Industrial Customers³						
<u>Monthly Fixed Service Charge, per Account:</u>						
Volumetric Charge, per hcf ²	4.41	4.54	4.77	5.01	5.26	5.52
BOD Charge, per lb	-	2.10	2.21	2.32	2.43	2.55
TSS Charge, per lb	-	2.03	2.14	2.24	2.35	2.47
User-Specific Rates						
Federal Corrections Complex (FCC)						
Monthly Fixed Charge Per EDU ⁴	\$ 52.22	\$ 64.32	\$ 67.54	\$ 70.92	\$ 74.46	\$ 78.18
BOD Charge, per lb ⁵	\$ 2.19	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.43	\$ 2.55
TSS Charge, per lb ⁵	\$ 2.20	\$ 2.03	\$ 2.14	\$ 2.24	\$ 2.35	\$ 2.47
Kuerig Dr. Pepper (KDP)⁶						
Monthly Min Charge (excluding capital recovery) ⁷	\$ 162,500	\$ 162,500	\$ 162,500	\$ 162,500	\$ 162,500	\$ 162,500
Monthly Fixed Charge (Ion Exchange Service) ⁸	\$ 10,200	\$ 10,200	\$ 10,200	\$ 10,200	\$ 10,200	\$ 10,200
Volumetric Charge, per 1,000 gal ⁶	\$ 0.37	\$ 0.37	\$ 0.37	\$ 0.37	\$ 0.37	\$ 0.37
COD Charge, per lb ⁶	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13
FDS Charge, per lb ⁹	\$ 2.91	\$ 2.99	\$ 3.07	\$ 3.15	\$ 3.24	\$ 3.32
BOD Charge, per lb ¹⁰	N/A	-	-	-	-	-
TSS Charge, per lb ¹⁰	N/A	-	-	-	-	-

1. Residential customers are assessed on the basis of their number of dwelling units.

2. Volumetric charge will apply to monthly water consumption.

3. All industrial dischargers that discharge wastewater of unusual strength or character are required to obtain a wastewater discharge permit from IWWTP or VVWRA, respectively. Additional surcharges may apply based on wastewater characteristics. Plastipak and Hydration Source included in this customer category.

4. FCC will be billed based on a flow estimate of 200 gallons per day, per EDU.

5. FCC surcharges for BOD and TSS apply to concentrations above 200 mg/l for BOD and 250 mg/l for TSS.

6. Volumetric charges (per 1,000 gal or lbs) for KDP shall apply accordingly if discharge exceeds 585,000 gpd, 28,100 lbs/day of COD or 1,400 lbs/day of SS in accordance with Wastewater Capacity and Treatment Agreement.

Volumetric charges for KDP listed in rate table are in accordance with the Wastewater Capacity and Treatment Agreement.

7. Monthly minimum charge for KDP in accordance with Wastewater Capacity and Treatment Agreement.

8. Monthly fixed charge per Woodard and Curran operational expenses.

9. The FDS surcharge was calculated by Woodard & Curran and is subject to a 2.7% general cost inflation factor in FY 2019/20 and beyond.

This will apply to all pound of FDS treated. Source:2018.03.21 FDS Surcharge Limit Table.xlsx

10. BOD and TSS charges not applicable to KDP due to wastewater strength characteristics.

2.4 Comparison of Current and Proposed Sewer Bills

Figure 11 and Figure 12 compare monthly sewer bills for the current and proposed sewer rates as a result of the planned rate adjustment for single-family residential customers and non-single family residential customers.

Figure 11. Monthly Sewer Bill Comparison for Single Family Customers

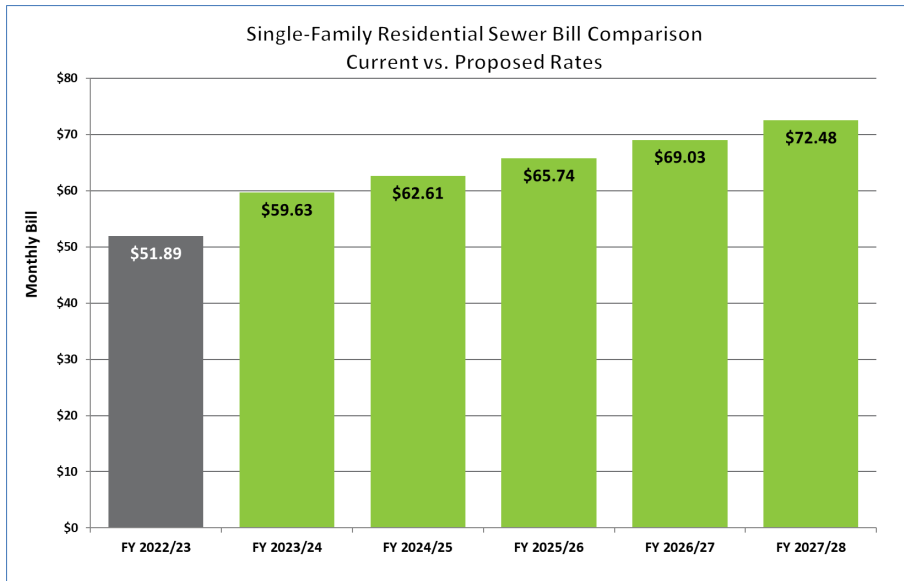
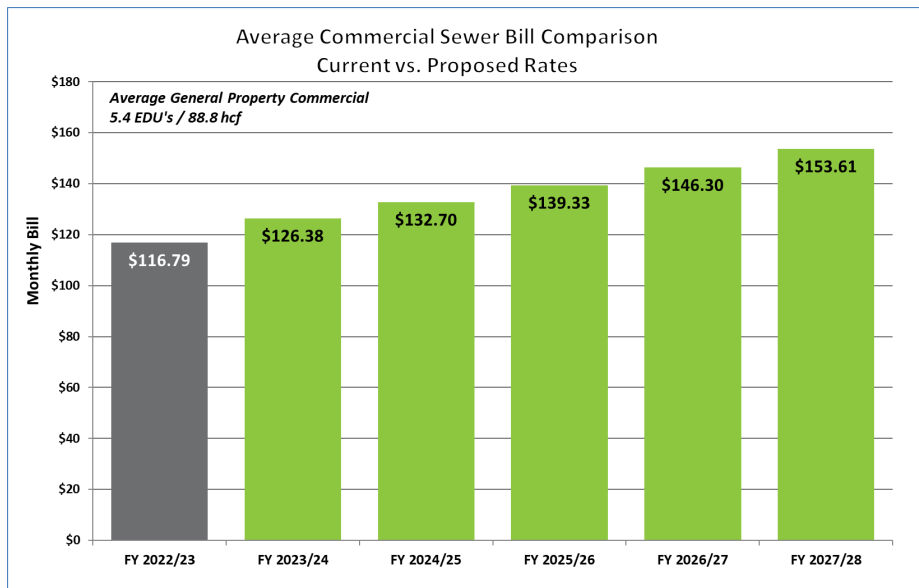


Figure 12. Monthly Sewer Bill Comparison for Commercial Customers



3. CONSULTANT RECOMMENDATIONS

The City's sewer rates need to incorporate historical and projected cost increases. This Study has evaluated the various factors that are a part of the rate adjustment process, and the recommended rates are those that are necessary to adequately fund the City's sewer utility.

The following are the actions that NBS, in consultation with City staff, recommend the City take regarding the sewer rates:

- Review the results of this Study and consider proceeding with the adoption process to implement these recommended rates.
- Formally approve of this Study and approve the proposed new rates, including adopting the recommended reserve fund level.
- Have the City's legal counsel review the proposed rates and Prop 218 notices to ensure that they comply with existing statutes and legal requirements.
- Direct City staff to proceed with sending out Prop 218 public hearing notices, which must be mailed at least forty-five (45) days in advance of the public hearing, and must describe the amount of the fee or charge proposed to be imposed upon each parcel; the basis upon which the amount of the proposed fee or charge was calculated; the reason for the fee or charge; together with the date, time, and location of the public hearing.
- At the October 3, 2023 Public Hearing, the City Council will hear testimony and consider all valid written protests against the proposed Sewer Service Rates received by the City Clerk prior to the close of the Public Hearing. If valid written protests are presented by a majority of owners of the identified parcels (50% plus one, a "Majority Protest"), the City Council will not impose the proposed Sewer Service Rates. If there is no Majority Protest, the City Council may consider for introduction and first reading a Sewer Rate Ordinance to impose the proposed Sewer Service Rates up to the maximum amounts proposed.
- If introduced for first reading on October 3, 2023, the Sewer Rate Ordinance would be brought back to the City Council for second reading and final adoption/passage at its regularly scheduled meeting to be held on October 17, 2023. If finally passed on October 17, 2023 by the requisite two-thirds vote, the new Sewer Service Rates would become effective for all billings made on or after December 1, 2023 and on each July 1 thereafter, for fiscal years 2025, 2026, 2027, and 2028.
- Whenever a utility adopts new rates, it is advisable to closely monitor the rate revenue generated from those new rates in the next few years to ensure adequate revenues are being collected. Changing economic and usage patterns underscore the need for this review, as well as potential and unseen changing revenue requirements—particularly those related to environmental regulations that can significantly affect capital improvements and repair and replacement costs.

4. NBS' PRINCIPAL ASSUMPTIONS AND CONSIDERATIONS

In preparing this memo and the findings included herein, NBS has relied on several principal assumptions and considerations regarding financial and operational matters, including Victorville's billing records, accounting reports, City program cost analyses, and other conditions and events projected to occur in the future. We have assumed this information and these assumptions were provided by sources that are reliable; NBS has not independently verified this data.

While we believe NBS' use of such information and assumptions is reasonable for the purpose of this Study, memo and its findings, 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 to the extent that actual future conditions differ from those assumed by us or provided to us by others.

Appendix A: Detailed Sewer Study Tables and Figures

TABLE 1 : FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS

RATE REVENUE REQUIREMENTS SUMMARY	Budget	5-Year Adopted Rate Period				
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Sources of Funds						
<i>Rate Revenue: ¹</i>						
Rate Revenue from Existing Rates	\$ 30,073,490	\$ 32,934,727	\$ 32,934,727	\$ 32,934,727	\$ 32,934,727	\$ 32,934,727
Revenue from Rate Increases: ²	-	823,368	3,375,810	5,191,336	6,335,118	7,513,214
Total Rate Revenue After Rate Increases	\$ 30,073,490	\$ 33,758,095	\$ 36,310,537	\$ 38,126,063	\$ 39,269,845	\$ 40,447,941
<i>Non-Rate Revenue: ¹</i>						
Sewer Use Fee - Capital & Connection Fees	\$ 886,632	\$ 811,632	\$ 811,632	\$ 811,632	\$ 811,632	\$ 811,632
Late Fee	210,000	354,000	354,000	354,000	354,000	354,000
Water Permit	36,628	36,628	38,093	39,617	41,202	42,850
Interest Income	47,463	42,371	64,621	88,656	125,647	166,134
Total Source of Funds	\$ 31,254,213	\$ 35,002,726	\$ 37,578,882	\$ 39,419,969	\$ 40,602,326	\$ 41,822,557
Uses of Funds						
<i>Regular Operating Expenses: ¹</i>						
IWWTP Expenses	\$ 7,525,511	\$ 8,123,617	\$ 8,384,843	\$ 8,655,121	\$ 8,934,781	\$ 9,224,168
Sewer Expenses	4,620,621	4,879,966	5,079,740	5,287,887	5,504,771	5,730,776
GIS Expenses	326,979	313,800	326,352	339,406	352,982	367,101
DEV Expenses	150,449	120,631	125,456	130,475	135,694	141,122
Engineering Expenses	1,800,769	1,873,036	1,948,206	2,026,399	2,107,732	2,192,335
Sewer Asphalt Expenses	81,170	81,535	84,797	88,189	91,716	95,386
VWRA Treatment (No Inflation After FY'23/24)	12,830,000	13,414,183	13,414,183	13,414,183	13,414,183	13,414,183
Subtotal: Regular Operating Expenses	\$ 27,335,498	\$ 28,806,768	\$ 29,363,577	\$ 29,941,660	\$ 30,541,859	\$ 31,165,071
<i>Other Expenditures: ¹</i>						
Existing Debt Service	\$ 1,869,703	\$ 1,852,016	\$ 1,834,269	\$ 1,816,460	\$ 1,798,589	\$ 1,780,653
Rate-Funded Capital Expenses	-	3,838,064	6,131,484	6,475,750	6,004,243	4,349,286
Subtotal: Other Expenditures	\$ 1,869,703	\$ 5,690,080	\$ 7,965,753	\$ 8,292,210	\$ 7,802,832	\$ 6,129,939
Total Uses of Funds	\$ 29,205,201	\$ 34,496,849	\$ 37,329,330	\$ 38,233,870	\$ 38,344,691	\$ 37,295,010
Annual Surplus/(Deficit)	\$ 2,049,012	\$ 505,877	\$ 249,552	\$ 1,186,098	\$ 2,257,635	\$ 4,527,547
Net Revenue Req't. (Total Uses less Non-Rate Revenue)	\$ 28,024,478	\$ 33,252,218	\$ 36,060,985	\$ 36,939,965	\$ 37,012,210	\$ 35,920,393
Projected Annual Rate Revenue Increase	0.00%	5.00%	5.00%	5.00%	3.00%	3.00%
<i>Cumulative Increase from Annual Revenue Increases</i>	0.00%	5.00%	10.25%	15.76%	19.24%	22.81%
<i>Debt Coverage After Rate Increase</i>	2.10	3.35	4.48	5.22	5.59	5.99

1. Revenue and expenses for were provided by District Staff. Source File: Fund 425 - Sanitary_Sewer O & M Budget Status Reports FY 2022-2023_9-19-22

2. Assumes new rates are implemented January 1, 2024 and each July 1st each year there after.

TABLE 2 : RESERVE FUND SUMMARY, UN-RESTRICTED RESERVES

SUMMARY OF CASH ACTIVITY GENERAL WATER FUND RESERVES	Budget	5-Year Adopted Rate Period				
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Total Beginning Cash ¹	\$ 12,684,627					
Un-Restricted Reserves:						
Operating Reserve						
Beginning Reserve Balance	\$ 5,000,000	\$ 6,834,000	\$ 7,202,000	\$ 7,341,000	\$ 7,485,000	\$ 7,635,000
Plus: Net Cash Flow (After Rate Increases)	2,049,012	505,877	249,552	1,186,098	2,257,635	4,527,547
Plus: Transfer of Debt Reserve Surplus	-	-	-	-	-	-
Plus: Adjustment to Cash Reserves	-	-	-	-	-	-
Net: Transfer To/From Capital Replacement Reserve	(215,012)	(137,877)	(110,552)	(1,042,098)	(2,107,635)	(4,371,547)
Ending Operating Reserve Balance	\$ 6,834,000	\$ 7,202,000	\$ 7,341,000	\$ 7,485,000	\$ 7,635,000	\$ 7,791,000
<i>Target Ending Balance (90-days of O&M)</i>	<i>\$ 6,834,000</i>	<i>\$ 7,202,000</i>	<i>\$ 7,341,000</i>	<i>\$ 7,485,000</i>	<i>\$ 7,635,000</i>	<i>\$ 7,791,000</i>
Capital Rehabilitation & Replacement Reserve						
Beginning Reserve Balance	\$ 7,684,627	\$ 1,640,112	\$ 1,414,077	\$ 1,524,629	\$ 2,566,727	\$ 3,822,535
Plus: Grant Proceeds	-	-	-	-	-	-
Plus: Transfer of Operating Reserve Surplus	215,012	137,877	110,552	1,042,098	2,107,635	4,371,547
Less: Use of Reserves for Capital Projects	(6,259,527)	(363,912)	-	-	(851,827)	(1,975,035)
Ending Capital R&R Reserve Balance	\$ 1,640,112	\$ 1,414,077	\$ 1,524,629	\$ 2,566,727	\$ 3,822,535	\$ 6,219,047
<i>Target Ending Balance (3% of Assets) ²</i>	<i>\$ 1,276,200</i>	<i>\$ 1,276,200</i>	<i>\$ 1,416,300</i>	<i>\$ 1,562,300</i>	<i>\$ 1,714,900</i>	<i>\$ 1,847,500</i>
Ending Cash Balance	\$ 8,474,112	\$ 8,616,077	\$ 8,865,629	\$ 10,051,727	\$ 11,457,535	\$ 14,010,047
Minimum Reserve Target	\$ 8,110,200	\$ 8,478,200	\$ 8,757,300	\$ 9,047,300	\$ 9,349,900	\$ 9,638,500
Ending Surplus/(Deficit) Compared to Target	\$ 363,912	\$ 137,877	\$ 108,329	\$ 1,004,427	\$ 2,107,635	\$ 4,371,547
<i>Annual Interest Earnings Rate ³</i>	<i>0.25%</i>	<i>0.50%</i>	<i>0.75%</i>	<i>1.00%</i>	<i>1.25%</i>	<i>1.45%</i>

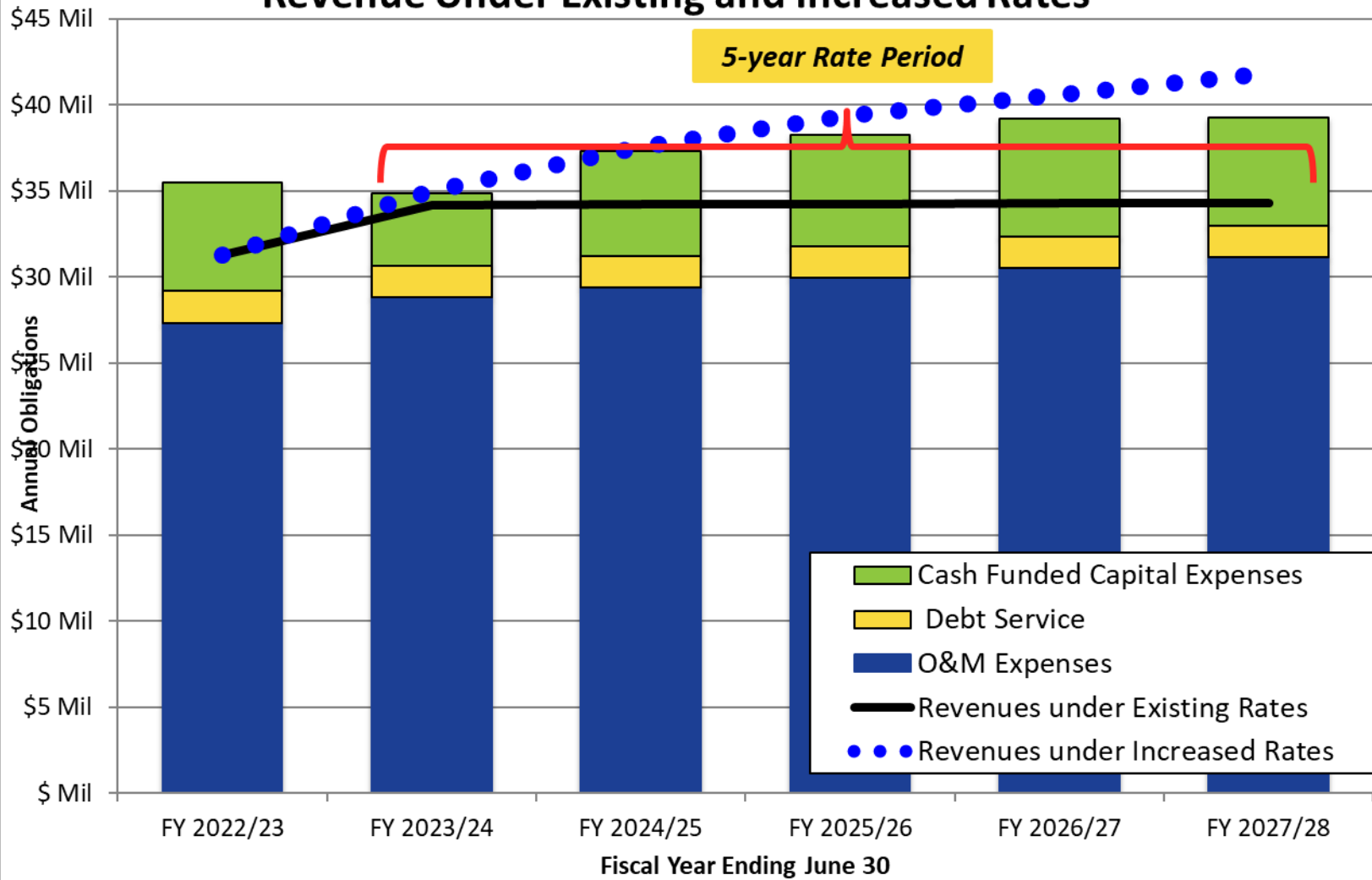
1. Total beginning cash balance for FY 2022/23 from Source File: Source File: Fund 425 FY 2022-2023 Trial Balance_9-19-22.xlsx

2. The Capital Rehabilitation & Replacement Reserve target is set to 3% of net assets. This is based on a net capital asset value of \$39 million.

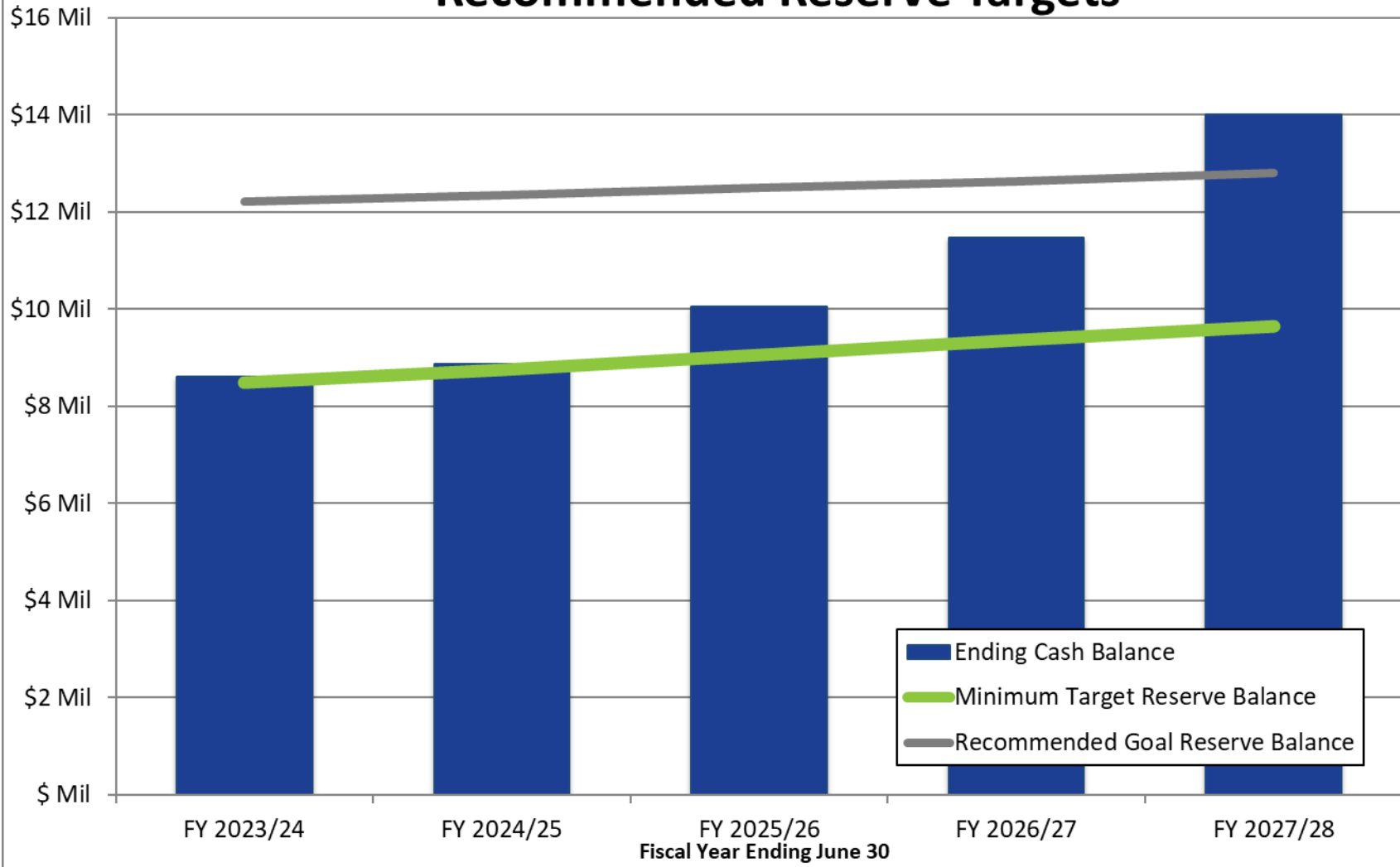
Source file: 20202021 Comprehensive Ann.pdf, page 31.

3. Interest earnings conservatively estimated through the planning period and increase to 10-year LAIF average by FY 2022/23.

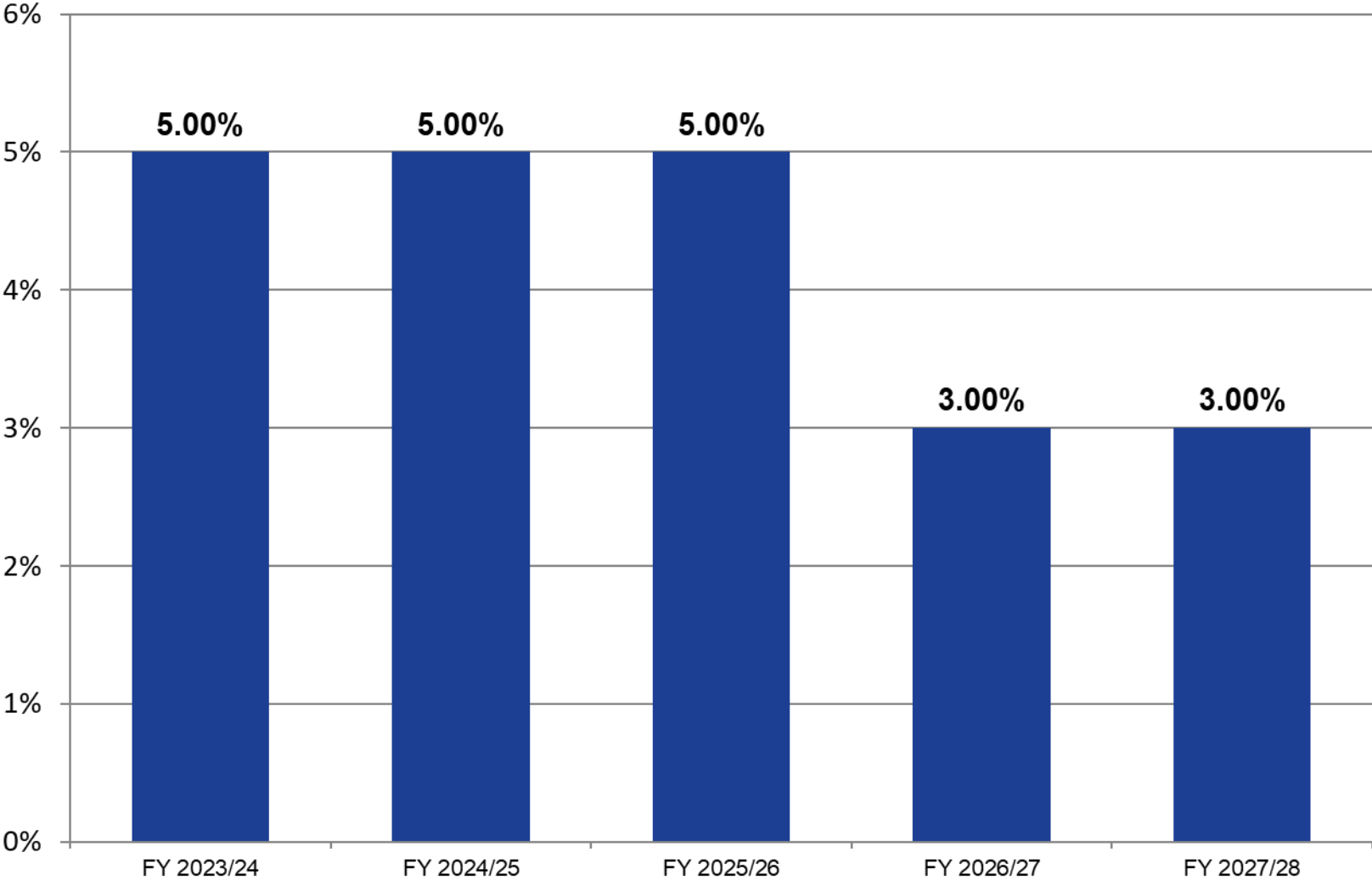
Wastewater Revenue Requirements vs. Revenue Under Existing and Increased Rates



Ending Cash Balances vs. Recommended Reserve Targets



Projected Increases to Rate Revenue



Fiscal Year Ending June 30

TABLE 3 : REVENUE FORECAST ¹

OBJECT	DESCRIPTION	Basis	Budget	5-Year Adopted Rate Period				
			FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
INDUSTRIAL WASTEWATER TREATMENT REVENUE								
44450	IWWTP-Sewer Use Fee - O & M	1	\$ 9,166,768	9,050,000	9,050,000	9,050,000	9,050,000	9,050,000
44452	IWWTP-Sewer Use Fee - Capital	1	586,632	586,632	586,632	586,632	586,632	586,632
45110	IWWTP-Interest Income	1	1,500	30,000	30,000	30,000	30,000	30,000
41280	Water Permit	2	36,628	36,628	38,093	39,617	41,202	42,850
SEWER REVENUE								
42150	San/Swrt-Late Fee	1	210,000	354,000	354,000	354,000	354,000	354,000
44450	Sewer Use Fee	1	20,906,722	23,884,727	23,884,727	23,884,727	23,884,727	23,884,727
45110	Sewer -Interest Income	1	45,963					
44540	Sewer - Sewer Cnctn	1	300,000	225,000	225,000	225,000	225,000	225,000
TOTAL: REVENUE			\$ 31,254,213	\$ 34,166,987	\$ 34,168,452	\$ 34,169,976	\$ 34,171,561	\$ 34,173,209

TABLE 4 : REVENUE SUMMARY

OBJECT	DESCRIPTION	Basis	Budget	5-Year Adopted Rate Period				
			FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
	Rate Revenue		\$ 30,073,490	\$ 32,934,727	\$ 32,934,727	\$ 32,934,727	\$ 32,934,727	\$ 32,934,727
	Sewer Use Fee - Capital & Connection Fees		886,632	811,632	811,632	811,632	811,632	811,632
	Late Fee		210,000	354,000	354,000	354,000	354,000	354,000
	Water Permit		36,628	36,628	38,093	39,617	41,202	42,850
	Interest Income		47,463	30,000	30,000	30,000	30,000	30,000
TOTAL: REVENUE			\$ 31,254,213	\$ 34,166,987	\$ 34,168,452	\$ 34,169,976	\$ 34,171,561	\$ 34,173,209

TABLE 5 : OPERATING EXPENSE FORECAST ^{1,2}

OBJECT	DESCRIPTION	Basis	Budget	5-Year Adopted Rate Period				
			FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
WASTEWATER TREATMENT EXPENSES (IWWTP) - 4120710								
51100	IWWTP-Full Time Wages	2	\$ 133,440	\$ 119,373	\$ 124,148	\$ 129,114	\$ 134,279	\$ 139,650
51200	IWWTP-Fringe Benefits	2	51,522	47,153	49,039	51,001	53,041	55,163
51220	IWWTP-Retiree Exp	2	2,500	2,498	2,598	2,702	2,810	2,922
51300	IWWTP-Payroll Taxes	2	3,360	3,031	3,153	3,279	3,410	3,546
52010	IWWTP-Electricity	5	885,000	850,000	892,500	937,125	983,981	1,033,180
52020	IWWTP-Water Use	5	1,150	1,200	1,260	1,323	1,389	1,458
52030	IWWTP-Natural Gas	5	150,000	165,000	173,250	181,913	191,009	200,559
52040	IWWTP-Sanitation	5	15,000	22,800	23,940	25,137	26,394	27,714
52130	IWWTP-Subs/Pubs/Dues	2	1,019	519	540	562	584	607
52140	IWWTP-Training & Education	2		-	-	-	-	-
52150	IWWTP-Travel & Meetings	2		-	-	-	-	-
52160	IWWTP-Marketing & Promotions	8	50,500	50,500	50,500	50,500	50,500	50,500
52202	IWWTP-Equipment Fuel	3	13,000	10,000	10,875	11,827	12,862	13,987
52220	IWWTP-Equipment Exp	2	2,500	2,500	2,600	2,704	2,812	2,924
52300	IWWTP-Contract Services	6	5,808,602	6,463,013	6,656,903	6,856,610	7,062,308	7,274,177
52340	IWWTP-Insurance	2	1,875	2,000	2,080	2,163	2,250	2,340
52350	IWWTP-Legal	2	35,000	15,000	15,600	16,224	16,873	17,548
52360	IWWTP-Fed/Stat/Local Fees	2	35,000	35,000	36,400	37,856	39,370	40,945
52440	IWWTP-Infrastructure Repairs	2	3,000	3,000	3,120	3,245	3,375	3,510
54020	IWWTP-Cost Allocations Paid	8	198,468	168,737	168,737	168,737	168,737	168,737
54050	IWWTP-Uncollectible Write Offs	8	12,000	12,000	12,000	12,000	12,000	12,000
54120	Interest Expense-Inter-Fund Loan-IWWTP To Water	Exh ³	-	-	-	-	-	-
51100	Full time Wages	2	30,000	56,420	58,677	61,024	63,465	66,004
51200	Fringe Benefits	2	21,606	22,064	22,947	23,865	24,820	25,813
51300	Payroll Taxes	2	600	1,439	1,496	1,556	1,618	1,683
52300	Contract Services	6	70,369	70,369	72,480	74,654	76,894	79,201
SUBTOTAL: WASTEWATER TREATMENT EXPENSES			\$ 7,525,511	\$ 8,123,617	\$ 8,384,843	\$ 8,655,121	\$ 8,934,781	\$ 9,224,168

TABLE 6 : OPERATING EXPENSE FORECAST, cont.¹

OBJECT	DESCRIPTION	Basis	Budget	5-Year Adopted Rate Period				
			FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
SEWER EXPENSES - 4250700								
51100	Sewer-Full Time Wages	2	\$ 1,353,149	\$ 1,438,162	\$ 1,495,688	\$ 1,555,516	\$ 1,617,737	\$ 1,682,446
51100	Sewer-Added Staff	2		-	-	-	-	-
51110	Sewer-Overtime Wages	2	36,668	45,000	46,800	48,672	50,619	52,644
51200	Sewer-Fringe Benefits	2	605,026	665,746	692,376	720,071	748,874	778,829
51200	Sewer-Added Staff	2		-	-	-	-	-
51220	Sewer-Retiree Expense	2	25,000	12,335	12,828	13,341	13,875	14,430
51300	Sewer-Payroll Taxes	2	34,439	36,534	37,995	39,515	41,096	42,740
51300	Sewer-Added Staff	2		-	-	-	-	-
52010	Sewer-Electricity	5	25,000	25,000	26,250	27,563	28,941	30,388
52020	Sewer-Water Use	5	4,800	4,800	5,040	5,292	5,557	5,835
52030	Sewer-Natural Gas	5	4,300	9,000	9,450	9,923	10,419	10,940
52060	Sewer-Telephone	5	15,000	15,000	15,750	16,538	17,365	18,233
52110	Sewer-Supplies	2	79,075	86,475	89,934	93,531	97,272	101,163
52130	Sewer-Subs/Pubs/Dues	2	6,550	6,550	6,812	7,084	7,367	7,662
52140	Sewer-Training & Education	2	31,000	31,000	32,240	33,530	34,871	36,266
52150	Sewer-Travel & Meetings	4	1,800	1,800	1,872	1,947	2,025	2,106
52170	Sewer-Advertg/Notices	2	1,000	1,000	1,040	1,082	1,125	1,170
52180	Sewer-Recruitment	2	4,000	4,000	4,160	4,326	4,499	4,679
52201	Sewer-Vehicle Fuel	3	40,000	40,000	43,500	47,306	51,445	55,946
52202	Sewer-Equipment Fuel	3	45,000	45,000	48,938	53,220	57,877	62,941
52220	Sewer-Equipment Exp	2	82,750	84,500	87,880	91,395	95,051	98,853
52230	Sewer-Vehicle Exp	2	19,000	21,500	22,360	23,254	24,184	25,151
52240	Sewer-Frnt/Small Tools	2	11,200	11,200	11,648	12,114	12,599	13,103
52250	Sewer-Rentals	2	5,000	5,000	5,200	5,408	5,624	5,849
52260	Sewer-Computer Equip	2	18,100	18,100	18,824	19,577	20,360	21,174
52300	Sewer-Contract Services	2	327,470	434,470	451,849	469,923	488,720	508,269
52300	Sewer-Contract Services Cctv	7		-	-	-	-	-
52350	Sewer-Legal	2	15,000	7,500	7,800	8,112	8,436	8,773
52350	Potential Regulatory Compliance	2		-	-	-	-	-
52360	Sewer-Fed/State/Local Fees	2	26,600	26,600	27,664	28,771	29,922	31,119
52410	Sewer-Building Maintenance	2	18,000	18,000	18,720	19,469	20,248	21,058
52420	Sewer-Grounds Maintenance	2	3,500	3,500	3,640	3,786	3,937	4,094
52440	Sewer-Infrastructure Repairs	2	722,000	722,000	750,880	780,915	812,152	844,638
52450	Sewer-Vandalism	2	20,000	20,000	20,800	21,632	22,497	23,397
54020	Sewer-Cost Allocations	2	1,020,194	1,020,194	1,061,002	1,103,442	1,147,580	1,193,483
54050	Sewer-Uncollectible Write-Offs	2	20,000	20,000	20,800	21,632	22,497	23,397
SUBTOTAL: SEWER SYSTEM EXPENSES			\$ 4,620,621	\$ 4,879,966	\$ 5,079,740	\$ 5,287,887	\$ 5,504,771	\$ 5,730,776

TABLE 7 : OPERATING EXPENSE FORECAST, cont.^{1,2}

OBJECT	DESCRIPTION	Basis	5-Year Adopted Rate Period					
			Budget	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27
SEWER GIS EXPENSES - 4251510								
52300	IT GIS-Sewer Network Mapping	2			\$ -	\$ -	\$ -	\$ -
52300	IT GIS-Sewer	2			-	-	-	-
51100	Sewer GIS-Full Time Wages	2	100,621	90,640	94,265	98,036	101,957	106,035
51200	Sewer GIS-Fringe Benefits	2	37,891	34,949	36,347	37,801	39,313	40,886
51300	Sewer GIS-Payroll Taxes	2	2,566	2,311	2,404	2,500	2,600	2,704
52300	Sewer Network Mapping	2	185,900	185,900	193,336	201,069	209,112	217,476
SEWER DEV EXPENSES - 4254000								
51100	Sewer Dev-Full Time Wages	2	100,090	78,964	82,122	85,407	88,823	92,376
51200	Sewer Dev-Fringe Benefits	2	47,806	39,654	41,240	42,890	44,606	46,390
51300	Sewer Dev-Payroll Taxes	2	2,552	2,014	2,094	2,178	2,265	2,356
SEWER ENGINEER EXPENSES - 4254500								
51100	Sewer Engineering-Full Time Wages	2	1,062,258	1,104,748	1,148,938	1,194,896	1,242,692	1,292,400
51110	Sewer Engineering-Overtime Wages	2	-	-	-	-	-	-
51200	Sewer Engineering-Fringe Benefits	2	411,613	428,078	445,201	463,009	481,529	500,790
51220	Sewer Engineering-Retiree Expense	2	30,674	31,901	33,177	34,504	35,884	37,319
51300	Sewer Engineering-Payroll Taxes	2	27,024	28,105	29,229	30,398	31,614	32,879
52010	Sewer Engineering-Electricity	5	16,000	16,800	17,640	18,522	19,448	20,420
52020	Sewer Engineering-Water Use	5	1,000	1,050	1,103	1,158	1,216	1,277
52030	Sewer Engineering-Natural Gas	5	1,500	1,575	1,654	1,737	1,824	1,915
52060	Sewer Engineering-Telephone	5	1,300	1,365	1,433	1,505	1,580	1,659
52110	Sewer Engineering-Supplies	2	4,300	4,472	4,651	4,837	5,030	5,231
52140	Sewer Engineering-Training & Education	2	4,200	4,368	4,543	4,725	4,914	5,111
52150	Sewer Engineering-Travel & Meetings	4	1,000	1,040	1,082	1,125	1,170	1,217
52201	Sewer Engineering-Vehicle Fuel	3	800	870	946	1,029	1,119	1,217
52220	Sewer Engineering-Equipment Exp	2	900	936	973	1,012	1,052	1,094
52230	Sewer Engineering-Vehicle Exp	2	23,400	24,336	25,309	26,321	27,374	28,469
52240	Sewer Engineering-Frnt/Small Tools	2	800	832	865	900	936	973
52240	Sewer Engineering-Manhole Covers	2	-	-	-	-	-	-
52260	Sewer Engineering-Computer Equip	2	4,000	4,160	4,326	4,499	4,679	4,866
52300	Sewer Engineering-Contract Services	2	200,000	208,000	216,320	224,973	233,972	243,331
52350	Sewer Engineering-Legal	2	10,000	10,400	10,816	11,249	11,699	12,167
52300	Sewer VVWRA-Contract Services	9	\$12,830,000	13,414,183	13,414,183	13,414,183	13,414,183	13,414,183
SEWER ASPHALT EXPENSES - 4255001								
51100	Sewer Asphalt-Full Time Wages	2	43,625	43,621	45,366	47,181	49,068	51,031
51110	Sewer Asphalt-Overtime Wages	2	1,569	1,569	1,632	1,697	1,765	1,836
51200	Sewer Asphalt-Fringe Benefits	2	23,138	24,108	25,072	26,075	27,118	28,203
51200	Sewer Asphalt-Payroll Taxes	2	1,112	1,112	1,157	1,203	1,251	1,301
52201	Sewer Asphalt-Vehicle	2	50	-	-	-	-	-
52202	Sewer Asphalt-Equipment	2	100	-	-	-	-	-
52240	Sewer Asphalt-Frnt/Small Tools	2	450	-	-	-	-	-
52440	Sewer Asphalt-Infrastructure	2	11,125	11,125	11,570	12,033	12,514	13,015
SUBTOTAL: SEWER SYSTEM EXPENSES			\$ 15,189,366	\$ 15,803,185	\$ 15,898,994	\$ 15,998,652	\$ 16,102,307	\$ 16,210,127
GRAND TOTAL: IWWTP & SEWER OPERATING EXPENSES			\$ 27,335,498	\$ 28,806,768	\$ 29,363,577	\$ 29,941,660	\$ 30,541,859	\$ 31,165,071

TABLE 8 : FORECASTING ASSUMPTIONS:

COST INFLATION FACTORS ²	Basis	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
No growth	1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Cost inflation	2	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Fuel cost	3	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%
Transportation	4	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Utilities	5	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Woodard and Curran Costs	6	7.00%	3.00%	3.00%	3.00%	3.00%	3.00%
CCTV Rate	7	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
No Inflation	8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<i>VVWRA cost Increase + Customer Growth</i>	9	<i>0.00%</i>	<i>0.00%</i>	<i>0.00%</i>	<i>0.00%</i>	<i>0.00%</i>	<i>0.00%</i>

1. Revenue and expenses for were provided by District Staff. Source File: *Fund 425 - Sanitary_Sewer O & M Budget Status Reports FY 2022-2023_9-19-22,*

Fund 412-IWWTP_OM Budget Status Reports FY 2022-2023_9-19-22.pdf, FY 2023-24 - FUND 412 & 425.xlsx

2. Inflation Factors based on Bureau of Labor Statistics average of the last 5 years.

TABLE 9 : CAPITAL FUNDING SUMMARY

CAPITAL FUNDING FORECAST	Budget	5-Year Adopted Rate Period				
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
<i>Funding Sources:</i>						
Grants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Capacity Fee Reserves	-	-	-	-	-	-
SRF Loan Funding	-	-	-	-	-	-
Use of New Revenue Bond Proceeds	-	-	-	-	-	-
Use of Capital Rehabilitation and Replacement Reserve	6,259,527	363,912	-	-	851,827	1,975,035
Rate Revenue	-	3,838,064	6,131,484	6,475,750	6,004,243	4,349,286
Total Sources of Capital Funds	\$ 6,259,527	\$ 4,201,976	\$ 6,131,484	\$ 6,475,750	\$ 6,856,070	\$ 6,324,321

TABLE 10 : CAPITAL IMPROVEMENT PROGRAM COSTS¹

Project No	Description	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Pipelines							
1	Sewer Main Lining - Phase 2		\$ 1,650,000				
2	Sewer Main Lining - Phase 3, 4, 5		\$ -	\$ 1,731,240	\$ -	\$ 1,669,070	\$ 2,383,595
3	MH Rehab		\$ -	\$ -	\$ -		\$ 680,726
4	Sewer Re-Alignment East of Cobalt St.		\$ -	\$ -	\$ 665,750	\$ -	\$ -
5	Santa Fe Wash Sewer Re-Alignment Design		\$ 500,000	\$ 190,244			
6	Santa Fe Wash Sewer Re-Alignment Construction		\$ -	\$ -	\$ -	\$ 3,702,000	\$ -
7	Sewer Capacity C2		\$ -	\$ -	\$ 2,000,000	\$ -	\$ -
8	Sewer Capacity C3		\$ -	\$ 2,000,000	\$ -	\$ -	\$ -
9	Old Town Septic to Sewer Conversion		\$ 460,000				
10	Citywide CCTV Inspections & Rehabilitations		\$ 100,000	\$ 900,000	\$ 900,000		\$ 1,800,000
Lift Station							
11	SCADA - Stoddard Wells Pump/Lift Station		\$ 200,000				
12	Replace VFD-Stoddard Wells Station		\$ 20,000				
13	Perimeter Block Wall/Security		\$ -		\$ 250,000		
14	Replace Aerator System Stoddard Wells Sewer Pump		\$ -	\$ 250,000			
IWWTP & SCLA							
15	IWWTP to VVRA Sewer System Improvements		\$ -	\$ -	\$ -	\$ 500,000	\$ 500,000
16	Repairs & Replacements at IWWTP			\$ 1,000,000	\$ 1,500,000		
17	SCLA Lift Station Rehab				\$ 100,000		
Vehicles & Equipment							
18	Pickup Truck Utility Services Vehicle		\$ 70,000				
19	New Vacuum Trailer		\$ 45,000				
20	SKD Steer Rubber Tire with Trailer		\$ 48,000				
21	Replace GPS Unit		\$ 15,750				
22	New Patch Truck		\$ 137,420				
23	2007 sterling 10 Yard Dump Truck		\$ 150,000				
24	Combo Van				\$ 950,000		
25	CAT Motor Grader					\$ 700,000	
26	Replace 2002 Chevy 2500 with Utility Bed				\$ 100,000		
27	Replace (1) Expedition with SUV					\$ 60,000	
28	Replace 6" Sewer Bypass Pump					\$ 75,000	
29	Replacement of 2009 Combo Vac Truck						\$ 950,000
30	Tow Behind Arrow board					\$ 15,000	
31	Replace Dodge Truck with Utility Bed					\$ 125,000	
32	Sanitary Related Equipment		\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
33	Work Order System & Software		\$ 250,000				
Miscellaneous							
34	Sewer Master Plan Update		\$ 350,000				
35	Sanitary Sewer Management Plan (SSMP) Update		\$ 50,000	\$ 50,000			
36	Palmdale Corp Yard Improvements		\$ 145,806				
Placeholder for Future Year Capital Projects ²			\$ -	\$ -	\$ -	\$ -	\$ -
Sub-Total: CIP Program Costs		\$ 6,900,000	\$ 4,201,976	\$ 6,131,484	\$ 6,475,750	\$ 6,856,070	\$ 6,324,321
Total: CIP Program Costs		\$ 6,900,000	\$ 4,201,976	\$ 6,131,484	\$ 6,475,750	\$ 6,856,070	\$ 6,324,321

1. Capital project costs from Source File: 5 Year Sewer CIP Rate Study Plan_Final_SN 2.3.2023.xlsx, Fund 425 - Sanitary_Sewer O & M Budget Status Reports FY 2022-2023_9-19-22.p
 2. Future year projects based upon the annual average CIP cost for 2023/24 through 2027/28.

TABLE 11 : OUTSTANDING DEBT OBLIGATIONS

OUTSTANDING DEBT OBLIGATIONS	Budget		5-Year Adopted Rate Period			
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Annual Repayment Schedules: ¹						
Inter Agency Loan - \$35,320,581 ²						
Principal Payment	\$ 1,190,798	\$ 1,202,881	\$ 1,215,206	\$ 1,227,777	\$ 1,240,600	\$ 1,253,679
Interest Payment	678,905	649,135	619,063	588,683	557,989	526,974
Subtotal: Annual Debt Service	\$ 1,869,703	\$ 1,852,016	\$ 1,834,269	\$ 1,816,460	\$ 1,798,589	\$ 1,780,653
Coverage Requirement (\$-Amnt above annual payment)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Requirement (total fund balance)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

TABLE 12 : CURRENT WASTEWATER RATE SCHEDULE

Sewer Rate Schedule	Sewer Service Rates ¹				
	8/1/2018	7/1/2019	7/1/2020	7/1/2021	7/1/2022
Residential Customers					
Monthly Fixed Service Charge per Dwelling Unit					
Single-Family Residential (See Note 1)	\$33.03	\$37.98	\$42.20	\$46.80	\$51.89
Multi-Family Residential (See Note 1)	\$24.25	\$27.88	\$30.98	\$34.35	\$38.09
Commercial Customers					
Monthly Fixed Service Charge per Account (See Note 1)	\$33.03	\$37.98	\$42.20	\$46.80	\$51.89
Volumetric Charge, per hcf (See Note 1)	\$2.81	\$3.23	\$3.59	\$3.98	\$4.41
Industrial Customers (user specific)					
Federal Corrections Complex (FCC)					
Monthly Fixed Charge per EDU (See Note 1 & Note 2)	\$33.34	\$38.22	\$42.47	\$47.10	\$52.22
BOD Charge per lb.	\$1.39	\$1.60	\$1.78	\$1.97	\$2.19
SS Charge per lb.	\$1.40	\$1.61	\$1.79	\$1.98	\$2.20
Keurig Dr. Pepper					
Monthly Min. Charge (excluding capital recovery)	\$166,100	\$191,016	\$205,342	\$220,742	\$237,298
Volumetric Charge per 1,000 gal. (See Note 3)	\$0.92	\$1.06	\$1.14	\$1.23	\$1.32
COD Charge per lb.	\$0.16	\$0.19	\$0.20	\$0.22	\$0.23
FDS Surcharge (See Note 4)	\$2.62	\$2.69	\$2.76	\$2.84	\$2.91
Plastipak					
Monthly Fixed Charge per Account	\$118.93	\$136.77	\$147.02	\$158.05	\$169.91
FDS Charge per lb. (See Note 4)	N/A	N/A	\$2.76	\$2.84	\$2.91
Volumetric Charge per hcf (See Note 5)	\$7.95	\$9.14	\$9.82	\$10.56	\$11.35
Hydration Source					
Monthly Fixed Charge per Account (See Note 6)	N/A	N/A	\$2,257.00	\$2,426.00	\$2,608.00
FDS Charge per lb. (See Note 4)	N/A	N/A	\$2.76	\$2.84	\$2.91

TABLE 13 : O&M BUDGET LINE ITEM EXPENSE:

O&M Budget Line Item Expense	Expenses
WASTEWATER TREATMENT EXPENSES (IWWTP) - 4120710	
IWWTP-Electricity	\$ 850,000
IWWTP-Natural Gas	165,000
SEWER EXPENSES - 4250700	
Sewer-Natural Gas	9,000
Sewer-Supplies	86,475
SEWER ENGINEER EXPENSES - 4254500	
Sewer Engineering-Electricity	16,800
Sewer Engineering-Natural Gas	1,575
Total	\$ 1,128,850

TABLE 14 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS:

Classification of Expenses													
Budget Categories	Total Revenue Requirements	Flow	Strength		Process Treatment	VVWRA Treatment	Customer	Basis of Classification					
	FY 2023/24	(VOL)	(BOD)	(TSS)	(PT)	(VVWRA)	(CA)	(VOL)	(BOD)	(TSS)	(PT)	(VVWRA)	(CA)
WASTEWATER TREATMENT EXPENSES (IWWTP) - 4120710													
IWWTP-Full Time Wages	\$ 119,373	\$ 41,781	\$ 38,796	\$ 38,796	\$ -	\$ -	\$ -	35%	33%	33%	0%	0%	0%
IWWTP-Fringe Benefits	47,153	16,504	15,325	15,325	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Retiree Exp	2,498	874	812	812	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Payroll Taxes	3,031	1,061	985	985	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Electricity	850,000	510,000	85,000	85,000	170,000	-	-	60%	10%	10%	20%	0%	0%
IWWTP-Water Use	1,200	420	390	390	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Natural Gas	165,000	-	61,875	61,875	41,250	-	-	0%	38%	38%	25%	0%	0%
IWWTP-Sanitation	22,800	7,980	7,410	7,410	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Subs/Pubs/Dues	519	182	169	169	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Training & Education	-	-	-	-	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Travel & Meetings	-	-	-	-	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Marketing & Promot	50,500	17,675	16,413	16,413	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Equipment Fuel	10,000	3,500	3,250	3,250	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Equipment Exp	2,500	875	813	813	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Contract Services	6,463,013	2,262,055	1,770,034	1,770,034	660,890	-	-	35%	27%	27%	10%	0%	0%
IWWTP-Insurance	2,000	700	650	650	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Legal	15,000	5,250	4,875	4,875	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Fed/Stat/Local Fees	35,000	12,250	11,375	11,375	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Infrastructure Repair	3,000	1,050	975	975	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Cost Allocations Paid	168,737	59,058	54,840	54,840	-	-	-	35%	33%	33%	0%	0%	0%
IWWTP-Uncollectible Write	12,000	4,200	3,900	3,900	-	-	-	35%	33%	33%	0%	0%	0%
Interest Expense-Inter-Fund	-	-	-	-	-	-	-	35%	33%	33%	0%	0%	0%
Full time Wages	56,420	19,747	18,337	18,337	-	-	-	35%	33%	33%	0%	0%	0%
Fringe Benefits	22,064	7,723	7,171	7,171	-	-	-	35%	33%	33%	0%	0%	0%
Payroll Taxes	1,439	504	468	468	-	-	-	35%	33%	33%	0%	0%	0%
Contract Services	70,369	24,629	22,870	22,870	-	-	-	35%	33%	33%	0%	0%	0%
Sub-Total IWWTP	\$ 8,123,617	\$ 2,998,016	\$ 2,126,730	\$ 2,126,730	\$ 872,140	\$ -	\$ -	37%	26%	26%	11%	0%	0%

TABLE 15 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS, cont.

Classification of Expenses, continued													
Budget Categories	Total Revenue Requirements	Flow	Strength		Process Treatment	VVWRA Treatment	Customer	Basis of Classification					
	FY 2023/24	(VOL)	(BOD)	(TSS)	(PT)	(VVWRA)	(CA)	(VOL)	(BOD)	(TSS)	(PT)	(VVWRA)	(CA)
SEWER EXPENSES - 4250700													
Sewer-Full Time Wages	\$ 1,438,162	\$ 1,366,254	\$ -	\$ -	\$ -	\$ -	\$ 71,908	95%	0%	0%	0%	0%	5%
Sewer-Overtime Wages	45,000	42,750	-	-	-	-	2,250	95%	0%	0%	0%	0%	5%
Sewer-Fringe Benefits	665,746	632,459	-	-	-	-	33,287	95%	0%	0%	0%	0%	5%
Sewer-Retiree Expense	12,335	11,718	-	-	-	-	617	95%	0%	0%	0%	0%	5%
Sewer-Payroll Taxes	36,534	34,707	-	-	-	-	1,827	95%	0%	0%	0%	0%	5%
Sewer-Added Staff	-	-	-	-	-	-	-	95%	0%	0%	0%	0%	5%
Sewer-Electricity	25,000	23,750	-	-	-	-	1,250	95%	0%	0%	0%	0%	5%
Sewer-Water Use	4,800	4,560	-	-	-	-	240	95%	0%	0%	0%	0%	5%
Sewer-Natural Gas	9,000	8,550	-	-	-	-	450	95%	0%	0%	0%	0%	5%
Sewer-Telephone	15,000	14,250	-	-	-	-	750	95%	0%	0%	0%	0%	5%
Sewer-Supplies	86,475	82,151	-	-	-	-	4,324	95%	0%	0%	0%	0%	5%
Sewer-Subs/Pubs/Dues	6,550	4,913	-	-	-	-	1,638	75%	0%	0%	0%	0%	25%
Sewer-Training & Education	31,000	29,450	-	-	-	-	1,550	95%	0%	0%	0%	0%	5%
Sewer-Travel & Meetings	1,800	1,710	-	-	-	-	90	95%	0%	0%	0%	0%	5%
Sewer-Advertg/Notices	1,000	950	-	-	-	-	50	95%	0%	0%	0%	0%	5%
Sewer-Recruitment	4,000	3,800	-	-	-	-	200	95%	0%	0%	0%	0%	5%
Sewer-Vehicle Fuel	40,000	-	-	-	-	-	40,000	0%	0%	0%	0%	0%	100%
Sewer-Equipment Fuel	45,000	42,750	-	-	-	-	2,250	95%	0%	0%	0%	0%	5%
Sewer-Equipment Exp	84,500	80,275	-	-	-	-	4,225	95%	0%	0%	0%	0%	5%
Sewer-Vehicle Exp	21,500	20,425	-	-	-	-	1,075	95%	0%	0%	0%	0%	5%
Sewer-Frnt/Small Tools	11,200	10,640	-	-	-	-	560	95%	0%	0%	0%	0%	5%
Sewer-Rentals	5,000	4,750	-	-	-	-	250	95%	0%	0%	0%	0%	5%
Sewer-Computer Equip	18,100	17,195	-	-	-	-	905	95%	0%	0%	0%	0%	5%
Sewer-Contract Services	434,470	412,747	-	-	-	-	21,724	95%	0%	0%	0%	0%	5%
Sewer-Contract Services Cctv	-	-	-	-	-	-	-	95%	0%	0%	0%	0%	5%
Sewer-Legal	7,500	7,125	-	-	-	-	375	95%	0%	0%	0%	0%	5%
Potential Regulatory Compli	-	-	-	-	-	-	-	95%	0%	0%	0%	0%	5%
Sewer-Fed/State/Local Fees	26,600	25,270	-	-	-	-	1,330	95%	0%	0%	0%	0%	5%
Sewer-Building Maintenance	18,000	17,100	-	-	-	-	900	95%	0%	0%	0%	0%	5%
Sewer-Grounds Maintenance	3,500	3,325	-	-	-	-	175	95%	0%	0%	0%	0%	5%
Sewer-Infrastructure Repairs	722,000	685,900	-	-	-	-	36,100	95%	0%	0%	0%	0%	5%
Sewer-Vandalism	20,000	19,000	-	-	-	-	1,000	95%	0%	0%	0%	0%	5%
Sewer-Cost Allocations	1,020,194	969,184	-	-	-	-	51,010	95%	0%	0%	0%	0%	5%
Sewer-Uncollectible Write-O	20,000	19,000	-	-	-	-	1,000	95%	0%	0%	0%	0%	5%
Sub-Total Sewer	\$ 4,879,966	\$ 4,596,658	\$ -	\$ -	\$ -	\$ -	\$ 283,308	94%	0%	0%	0%	0%	6%

TABLE 16 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS, cont.

Classification of Expenses, continued													
Budget Categories	Total Revenue Requirements	Flow	Strength		Process Treatment	VVWRA Treatment	Customer	Basis of Classification					
	FY 2023/24	(VOL)	(BOD)	(TSS)	(PT)	(VVWRA)	(CA)	(VOL)	(BOD)	(TSS)	(PT)	(VVWRA)	(CA)
SEWER GIS EXPENSES - 4251510													
IT GIS-Sewer Network Mapping	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	100%	0%	0%	0%	0%	0%
IT GIS-Sewer	-	-	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer GIS-Full Time Wages	90,640	90,640	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer GIS-Fringe Benefits	34,949	34,949	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer GIS-Payroll Taxes	2,311	2,311	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Network Mapping	185,900	185,900	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sub-Total GIS	\$ 313,800	\$ 313,800	\$ -	\$ -	\$ -	\$ -	\$ -	100%	0%	0%	0%	0%	0%
SEWER DEV EXPENSES - 4254000													
Sewer Dev-Full Time Wages	\$ 78,964	\$ 78,964	\$ -	\$ -	\$ -	\$ -	\$ -	100%	0%	0%	0%	0%	0%
Sewer Dev-Fringe Benefits	39,654	39,654	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Dev-Payroll Taxes	2,014	2,014	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sub-Total DEV	\$ 120,631	\$ 120,631	\$ -	\$ -	\$ -	\$ -	\$ -	100%	0%	0%	0%	0%	0%
SEWER ENGINEER EXPENSES - 4254500													
Sewer Engineering-Full Time Wages	\$ 1,104,748	\$ 1,104,748	\$ -	\$ -	\$ -	\$ -	\$ -	100%	0%	0%	0%	0%	0%
Sewer Engineering-Overtime Wages	-	-	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Fringe Benefits	428,078	428,078	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Retiree Expense	31,901	31,901	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Payroll Taxes	28,105	28,105	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Electricity	16,800	16,800	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Water Use	1,050	1,050	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Natural Gas	1,575	1,575	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Telephone	1,365	1,365	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Supplies	4,472	4,472	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Training & Educa	4,368	4,368	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Travel & Meeting	1,040	1,040	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Vehicle Fuel	870	870	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Equipment Exp	936	936	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Vehicle Exp	24,336	24,336	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Frnt/Small Tools	832	832	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Manhole Covers	-	-	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Computer Equip	4,160	4,160	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Contract Services	208,000	208,000	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Engineering-Legal	10,400	10,400	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer VVWRA-Contract Services	13,414,183	-	-	-	-	13,414,183	-	0%	0%	0%	0%	100%	0%
SEWER ASPHALT EXPENSES - 4255001													
Sewer Asphalt-Full Time Wages	43,621	43,621	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Asphalt-Overtime Wages	1,569	1,569	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Asphalt-Fringe Benefits	24,108	24,108	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Asphalt-Payroll Taxes	1,112	1,112	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Asphalt-Vehicle	-	-	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Asphalt-Equipment	-	-	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Asphalt-Frnt/Small Tools	-	-	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sewer Asphalt-Infrastructure	11,125	11,125	-	-	-	-	-	100%	0%	0%	0%	0%	0%
Sub-Total Engineering	\$ 15,368,754	\$ 1,954,571	\$ -	\$ -	\$ -	\$ 13,414,183	\$ -	13%	0%	0%	0%	87%	0%

TABLE 17 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS, cont.

Classification of Expenses, continued													
Budget Categories	Total Revenue Requirements	Flow	Strength		Process Treatment	VVWRA Treatment	Customer	Basis of Classification					
	FY 2023/24	(VOL)	(BOD)	(TSS)	(PT)	(VVWRA)	(CA)	(VOL)	(BOD)	(TSS)	(PT)	(VVWRA)	(CA)
Debt Service Payments													
Inter Agency Loan - Principal Payment	\$ 1,202,881	\$ 445,066	\$ 312,749	\$ 312,749	\$ 132,317	\$ -	\$ -	37%	26%	26%	11%	0%	0%
Inter Agency Loan - Interest Payment	\$ 649,135	\$ 240,180	\$ 168,775	\$ 168,775	\$ 71,405	\$ -	\$ -	37%	26%	26%	11%	0%	0%
New Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	37%	26%	26%	11%	0%	0%
Total Debt Service Payments	\$ 1,852,016	\$ 685,246	\$ 481,524	\$ 481,524	\$ 203,722	\$ -	\$ -	37%	26%	26%	11%	0%	0%
Capital Expenditures													
Rate Funded Capital Expenses	\$ 3,838,064	\$ 3,070,451	\$ 383,806	\$ 383,806	\$ -	\$ -	\$ -	80%	10%	10%	0%	0%	0%
TOTAL REVENUE REQUIREMENTS	\$ 34,496,849	\$ 13,739,373	\$ 2,992,061	\$ 2,992,061	\$ 1,075,862	\$ 13,414,183	\$ 283,308	40%	9%	9%	3%	39%	1%
<i>Less: Non-Rate Revenues</i>													
Sewer Use Fee - Capital & Connectio	\$ (811,632)	\$ (323,256)	\$ (70,396)	\$ (70,396)	\$ (25,313)	\$ (315,605)	\$ (6,666)	40%	9%	9%	3%	39%	1%
Late Fee	\$ (354,000)	\$ (140,991)	\$ (30,704)	\$ (30,704)	\$ (11,040)	\$ (137,654)	\$ (2,907)	40%	9%	9%	3%	39%	1%
Water Permit	\$ (36,628)	\$ (14,588)	\$ (3,177)	\$ (3,177)	\$ (1,142)	\$ (14,243)	\$ (301)	40%	9%	9%	3%	39%	1%
Interest Income	\$ (42,371)	\$ (16,875)	\$ (3,675)	\$ (3,675)	\$ (1,321)	\$ (16,476)	\$ (348)	40%	9%	9%	3%	39%	1%
NET REVENUE REQUIREMENTS	\$ 33,252,218	\$ 13,243,663	\$ 2,884,109	\$ 2,884,109	\$ 1,037,046	\$ 12,930,205	\$ 273,087						
<i>Allocation of Revenue Requirements</i>	<i>100.0%</i>	<i>39.8%</i>	<i>8.7%</i>	<i>8.7%</i>	<i>3.1%</i>	<i>38.9%</i>	<i>0.8%</i>						

TABLE 18 : ADJUSTMENT TO CLASSIFICATION FOR COST OF SERVICE ANALYSIS, cont.

Adjustment to Current Rate Level:	Total	(VOL)	(BOD)	(TSS)	(PT)	(VVWRA)	(CA)
Target Rate Rev. After Rate Increases	\$ 34,581,463						
Projected Rate Revenue at Current Ra	32,934,727						
Projected Rate Increase	5.0%						
Adjusted Net Revenue Req'ts	\$ 34,581,463	\$ 13,773,073	\$ 2,999,400	\$ 2,999,400	\$ 1,078,501	\$ 13,447,086	\$ 284,003
<i>Percent of Revenue</i>	<i>100.0%</i>	<i>39.8%</i>	<i>8.7%</i>	<i>8.7%</i>	<i>3.1%</i>	<i>38.9%</i>	<i>0.8%</i>

TABLE 19 : ADJUSTED NET REVENUE REQUIREMENTS

Adjusted Net Revenue Requirements		
Projected Rate Revenue at Current Rates	\$	32,934,727
Projected Rate Increase		5.0%
Adjusted Net Revenue Requirement	\$	34,581,463
<u>By Cost Category:</u>		<u>% of Total</u>
Volume		13,651,202 39.5%
BOD		2,995,376 8.7%
TSS		2,995,376 8.7%
Process Treatment		1,087,962 3.1%
VVWRA Treatment		13,565,053 39.2%
Customer		286,495 0.8%
Total	\$	34,581,463 100%

TABLE 20 : ADJUSTED NET REVENUE REQUIREMENTS

Budget Categories	Total Revenue Req't.	Flow	Strength		Process Treatment	VVWRA Treatment	Customer
	FY 2023/24	(VOL)	(BOD)	(TSS)	(PT)	(VVWRA)	(CA)
IWWTP	\$ 8,123,617	\$ 2,998,016	\$ 2,126,730	\$ 2,126,730	\$ 872,140	\$ -	\$ -
Sewer	4,879,966	4,596,658	-	-	-	-	283,308
GIS	313,800	313,800	-	-	-	-	-
Sewer DEV	120,631	120,631	-	-	-	-	-
Engineering	1,873,036	1,873,036	-	-	-	-	-
VVWRA Treatment	13,414,183	-	-	-	-	13,414,183	-
Debt Service Payments	1,852,016	685,246	481,524	481,524	203,722	-	-
Total Revenue Requirement	\$ 34,496,849	\$ 13,739,373	\$ 2,992,061	\$ 2,992,061	\$ 1,075,862	\$ 13,414,183	\$ 283,308
Less: Non-Rate Revenues	(1,244,631)	(495,710)	(107,952)	(107,952)	(38,817)	(483,978)	(10,222)
Net Revenue Requirements	\$ 33,252,218	\$ 13,243,663	\$ 2,884,109	\$ 2,884,109	\$ 1,037,046	\$ 12,930,205	\$ 273,087
	100.0%	39.8%	8.7%	8.7%	3.1%	38.9%	0.8%

TABLE 21 : DEVELOPMENT OF THE COMMODITY ALLOCATION FACTOR

Development of the Volume Allocation Factor ¹						
Customer Class	Annual Water Consumption/ (hcf)	Annualized Winter Average Consumption (hcf) ⁴	Estimated Annual Volume Total (hcf) ⁵	Adjusted Annual Sewer Volume Total (hcf)	Percentage of Adjusted Volume by Treatment Location	Percentage of Total Adjusted Volume
IWWTP						
SINGLE FAMILY RESIDENTIAL	846,741	641,160	641,160	492,777	61.0%	11.0%
MULTI-FAMILY RESIDENTIAL	99,720	84,683	84,683	65,085	8.1%	1.4%
INDUSTRIAL⁶						
FCC ^{7,8} - Nevada	n/a	n/a	93,148	93,148	11.5%	2.1%
KDP ⁹	n/a	n/a	132,646	132,646	16.4%	3.0%
PlastiPak ¹⁰	n/a	n/a	3,247	3,247	0.4%	0.1%
Hydration Source	n/a	n/a	21,363	21,363	2.6%	0.5%
Sub-Total IWWTP	946,461	--	976,247	808,267	100%	18%
VVWRA						
SINGLE FAMILY RESIDENTIAL	3,828,869	2,899,256	2,899,256	2,228,286	60.5%	49.6%
MULTI-FAMILY RESIDENTIAL	450,923	382,925	382,925	294,306	8.0%	6.6%
COMMERCIAL (ALL USERS)	1,284,187	677,432	1,284,187	986,990	26.8%	22.0%
INDUSTRIAL	171,563	n/a	171,563	171,563	4.7%	3.8%
Sub-Total VVWRA	5,735,542	--	4,737,931	3,681,145	100%	82%
Total:	6,682,003	--	5,714,178	4,489,411		100.0%
	<i>Estimated Combined WWTP Flow (hcf/yr.)¹¹</i>			4,489,411		
	<i>Estimated Combined WWTP Flow (mgd) (11)</i>			9.20		
	<i>Flow Adj. Factor (Non-Industrial)</i>			0.77		

TABLE 22 :DEVELOPMENT OF THE CUSTOMER ALLOCATION FACTORS

Development of the Customer Allocation Factor			
Customer Class	Number of Accounts ¹	Number of Dwelling Units	Percent of Total Accounts
SINGLE FAMILY RESIDENTIAL	28,766	28,766	95%
MULTI-FAMILY RESIDENTIAL	390	7,000	1%
COMMERCIAL	1,145	--	4%
INDUSTRIAL:			
FCC	2	--	0%
KDP	1	--	0%
PlastiPak	1	--	0%
Hydration Source	1		0%
Total	30,306	35,766	100%

Notes for Customer Allocation Factor Table:

1. Number of accounts is based on the number of sewer customers billed a charge in May 2023.

Source file: Water_FY22-23-Data_nbs.xlsx

TABLE 23 : ESTIMATED FLOW PER DWELLING UNIT

Estimated Flow Per Dwelling Unit			
Customer Class	Est. Annual Wastewater Flow (hcf)	Est. Flow/DU/Day (gallons)	% of SFR Flow
SINGLE FAMILY RESIDENTIAL	2,721,064	194	--
MULTI-FAMILY RESIDENTIAL	359,390	105	54%

TABLE 24: N/A

TABLE 25 :DEVELOPMENT OF THE CUSTOMER ALLOCATION FACTORS

Development of Allocation Factors - Biochemical Oxygen Demand (BOD) / Chemical Oxygen Demand (COD) ¹ at IWWTP (Sanitary Flow)							
Customer	Annual Flow (hcf)	Average Strength Factor (BOD mg/l)	Calculated Strength BOD (lbs./yr.)	Average Strength Factor (COD mg/l)	Calculated Strength COD (lbs./yr.)	Adjusted Strength COD (lbs./yr.)	Percent of Total BOD / COD
Sanitary Flow							
Single Family Residential	846,741	175	924,392	495	2,615,083	498	64.8%
Multi-Family Residential	99,720	175	108,865	495	307,976	59	7.6%
Commercial	0	175	0	495	0	0	0.0%
Industrial Flow							
FCC ³	93,148	273	158,819	661	384,116	73	11.1%
Dr. Pepper/Snapple ⁴	132,646	250	206,872	622	514,428	98	14.5%
PlastiPack ⁵	3,247	175	3,545	495	10,028	2	0.2%
Hydration Source	21,363	175	23,322	495	65,978	13	1.6%
Total	1,196,865	1,398	1,425,815	3,758	3,897,609	742	100%
<i>Total Annual COD Treated at IWWTP (lbs)</i>					742		
<i>Adjustment Facto</i>					0.00		

TABLE 26 :DEVELOPMENT OF THE CUSTOMER ALLOCATION FACTORS

Customer	Annual Flow (hcf)	Average Strength Factor	Calculated TSS (lbs./yr.)	Percent of Total TSS
Sanitary Flow				
Single Family Residential	846,741	175	924,392	62.8%
Multi-Family Residential	99,720	175	108,865	7.4%
Commercial	0	175	0	0.0%
Industrial Flow				
FCC ²	93,148	273	158,819	10.8%
KDP ³	132,646	250	206,872	14.0%
PlastiPack ⁴	3,247	660	13,369	0.9%
Hydration Source	21,363	456	60,762	4.1%
Total	1,196,865	197	1,473,079	100.0%

TABLE 28 : ALLOCATION OF REVENUE REQUIREMENTS BY CUSTOMER CLASS

Customer Class	Cost Classification Components						Cost-of-Service Net Revenue Reqts.	% of COS Net Revenue Reqts.
	Volume	BOD	TSS	Process Treatment	VVWRA Treatment	Customer Related		
Net Revenue Requirements¹	\$ 13,651,202	\$ 2,995,376	\$ 2,995,376	\$ 1,087,962	\$ 13,565,053	\$ 286,495	\$ 34,581,463	--
	39.5%	8.7%	8.7%	3.1%	39.2%	0.8%	100.0%	
SINGLE FAMILY RESIDENTIAL	\$ 8,274,090	\$ 1,941,978	\$ 1,879,669	\$ -	\$ 8,211,257	\$ 271,936	\$ 20,578,931	59.5%
MULTI-FAMILY RESIDENTIAL	1,092,818	228,705	221,367	-	1,084,519	3,687	2,631,097	7.6%
COMMERCIAL	3,001,195	-	-	-	3,637,067	10,824	6,649,087	19.2%
INDUSTRIAL								
FCC	\$ 804,921	\$ 333,650	\$ 322,945	\$ -	\$ 632,210	\$ 19	\$ 2,093,744	6.1%
KDP	403,344	434,600	420,656	1,087,962	-	9	2,346,572	6.8%
Plastipak	9,873	7,447	27,184	-	-	9	44,514	0.1%
Hydration Source	64,960	48,995	123,554	-	-	9	237,519	0.7%
GRAND TOTAL	\$ 13,651,202	\$ 2,995,376	\$ 2,995,376	\$ 1,087,962	\$13,565,053	\$ 286,495	\$ 34,581,463	100%

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

Volume - Percentage of Total Adjusted Volume, BOD & TSS - Percentage of Total LBS, Process Treatment - All Allocated to KDP

VVWRA - Percentage of Adjusted Volume at VVWRA, Customer Related - Percentage of Total Accounts

TABLE 29 : RESIDENTIAL SEWER RATES:

Customer Class	No. of Dwelling Units (1)	Total Annual Revenue	Mo. Fixed Charge Per Dwelling Unit
Residential			
SINGLE FAMILY RESIDENTIAL	28,766	\$ 20,584,159	\$59.63
MULTI-FAMILY RESIDENTIAL	7,000	2,631,994	\$31.33
Subtotal: Residential	35,766	\$ 23,216,153	--

1. Number of dwelling units/accounts used from most recent month of billing data for May 2023.

TABLE 30 : COMMERCIAL SEWER RATES:

Customer Class	No. of Accounts (1)	Annual Volume (hcf)	Total Annual Revenue Requirement	Monthly Fixed Charge Per Account	Volumetric Charge Per hcf
Commercial					
COMMERCIAL	1,145	1,284,187	\$ 6,644,156	\$59.63	\$4.54

1. Number of dwelling units/accounts used from most recent month of billing data for May 2023.

TABLE 31 : INDUSTRIAL SEWER RATES:

Industrial Customer	Annual Revenue Requirement	Annual Volume (hcf)	Volumetric Charge Per hcf	BOD (\$/lb) (COD \$/lb. for KDP)	TSS (per lbs)	Monthly Minimum Charge	(Other)
FCC¹	\$ 2,093,744	264,711	\$3.04	\$2.10	\$2.03	N.A.	N.A.
Monthly Fixed Charge Per EDU							\$64.32
Approx. # EDU Equiv. (200 gal/day) ²							2,713
KDP	\$ 2,346,572	132,646	\$3.04	\$2.10	\$2.03	\$195,548	
BOD Charge, lbs							\$0.84
Volumetric Charge (1,000 gal)							\$2.27
Plastipak	\$ 44,514	3,247	\$3.04	\$ 2.10	\$ 2.03	\$3,710	
Monthly Fixed Charge Per Account							\$0.79
Hydration Source	\$ 237,519	21,363	\$3.04	\$ 2.10	\$ 2.03	\$19,793	
Volumetric Charge (1,000 gal)							\$0.79

1. Rates assume that FCC will be billed for all consumption and not adjusted as is currently the case.

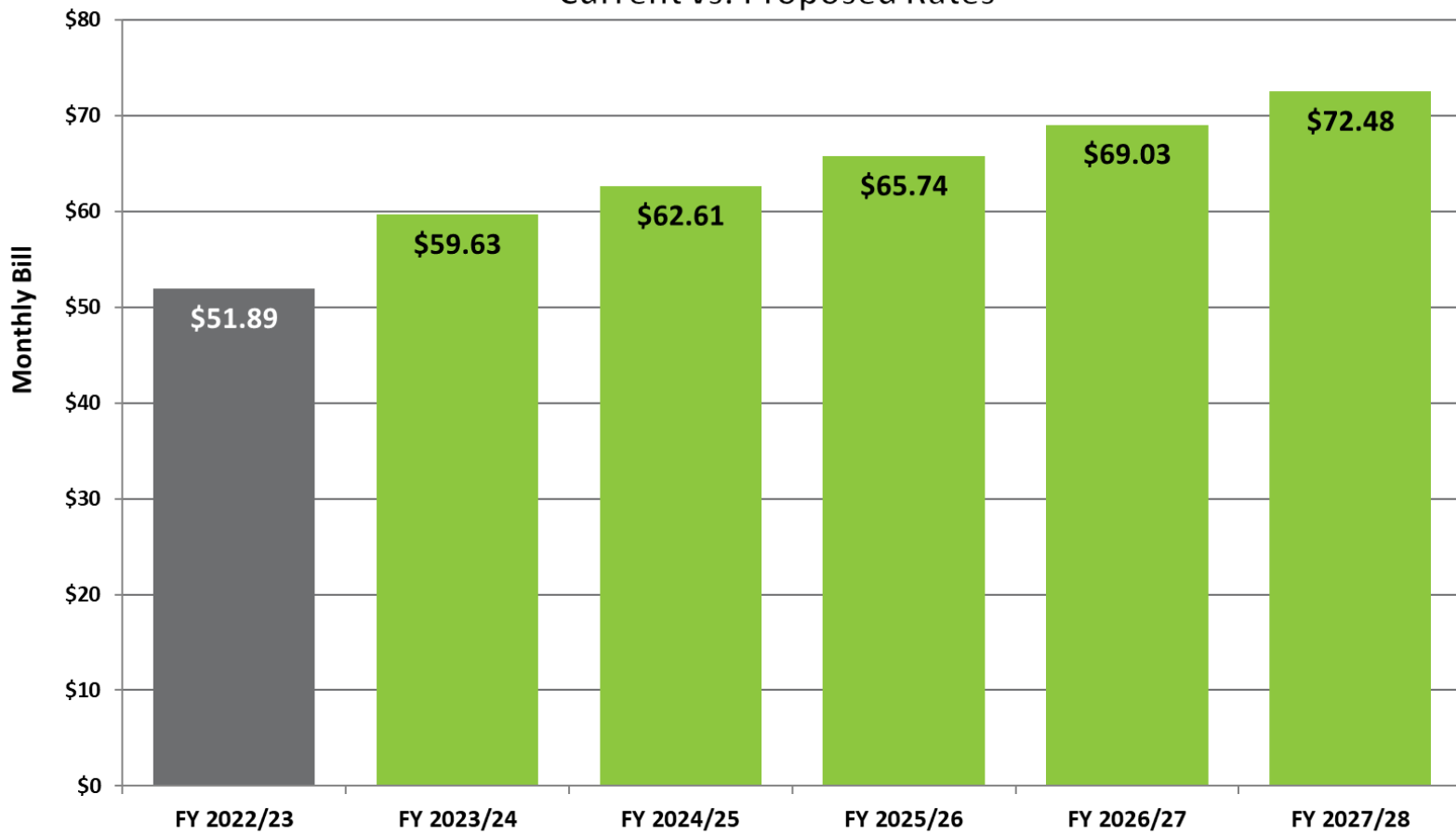
2. FCC was previously charged based on # EDU's using 250 gpd/EDU estimate that totalled 3,344 EDUs.

TABLE 32 : CURRENT vs PROPOSED SEWER RATES

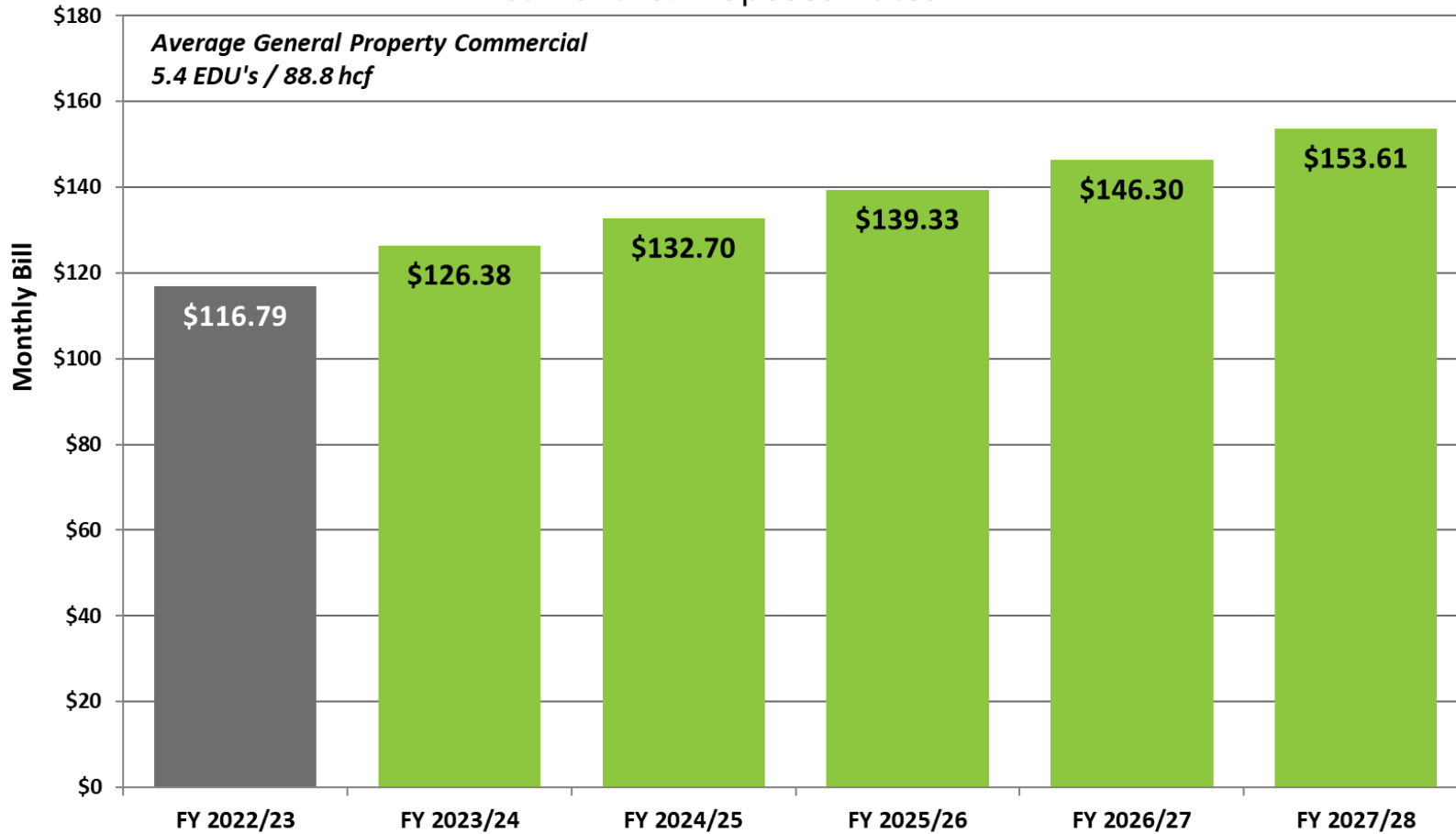
Sewer Rate Schedule	Current Rates	Recommended Sewer Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Residential Customers ¹						
<u>Monthly Fixed Service Charge, per Dwelling Unit:</u>						
Single-Family Residential	\$ 51.89	\$ 59.62	\$ 62.60	\$ 65.73	\$ 69.01	\$ 72.46
Multi-Family Residential	\$ 38.09	\$ 31.32	\$ 32.89	\$ 34.53	\$ 36.26	\$ 38.07
Commercial Customers						
<u>Monthly Fixed Service Charge, per Account:</u>						
Volumetric Charge, per hcf ²	4.41	4.54	4.77	5.01	5.26	5.52
Industrial Customers ³						
<u>Monthly Fixed Service Charge, per Account:</u>						
Volumetric Charge, per hcf ²	4.41	4.54	4.77	5.01	5.26	5.52
BOD Charge, per lb	-	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.43	\$ 2.55
TSS Charge, per lb	-	\$ 2.03	\$ 2.14	\$ 2.24	\$ 2.35	\$ 2.47
User-Specific Rates						
<u>Federal Corrections Complex (FCC)</u>						
Monthly Fixed Charge Per EDU ⁴	\$ 52.22	\$ 64.32	\$ 67.54	\$ 70.92	\$ 74.46	\$ 78.18
BOD Charge, per lb ⁵	\$ 2.19	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.43	\$ 2.55
TSS Charge, per lb ⁵	\$ 2.20	\$ 2.03	\$ 2.14	\$ 2.24	\$ 2.35	\$ 2.47
<u>Kuerig Dr. Pepper (KDP) ⁶</u>						
Monthly Min Charge (excluding capital recovery) ⁷	\$ 162,500	\$ 162,500	\$ 162,500	\$ 162,500	\$ 162,500	\$ 162,500
Monthly Fixed Charge (Ion Exchange Service) ⁸	\$ 10,200	\$ 10,200	\$ 10,200	\$ 10,200	\$ 10,200	\$ 10,200
Volumetric Charge, per 1,000 gal ⁶	\$ 0.37	\$ 0.37	\$ 0.37	\$ 0.37	\$ 0.37	\$ 0.37
COD Charge, per lb ⁶	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13
FDS Charge, per lb ⁹	\$ 2.91	\$ 2.99	\$ 3.07	\$ 3.15	\$ 3.24	\$ 3.32
BOD Charge, per lb ¹⁰	N/A	-	-	-	-	-
TSS Charge, per lb ¹⁰	N/A	-	-	-	-	-

1. Residential customers are assessed on the basis of their number of dwelling units.
2. Volumetric charge will apply to monthly water consumption.
3. All industrial dischargers that discharge wastewater of unusual strength or character are required to obtain a wastewater discharge permit from IWWTP or VVWRA, respectively. Additional surcharges may apply based on wastewater characteristics. Plastipak and Hydration Source included in this customer category.
4. FCC will be billed based on a flow estimate of 200 gallons per day, per EDU.
5. FCC surcharges for BOD and TSS apply to concentrations above 200 mg/l for BOD and 250 mg/l for TSS.
6. Volumetric charges (per 1,000 gal or lbs) for KDP shall apply accordingly if discharge exceeds 585,000 gpd, 28,100 lbs/day of COD or 1,400 lbs/day of SS in accordance with Wastewater Capacity and Treatment Agreement. Volumetric charges for KDP listed in rate table are in accordance with the Wastewater Capacity and Treatment Agreement.
7. Monthly minimum charge for KDP in accordance with Wastewater Capacity and Treatment Agreement.
8. Monthly fixed charge per Woodard and Curran operational expenses.
9. The FDS surcharge was calculated by Woodard & Curran and is subject to a 2.7% general cost inflation factor in FY 2019/20 and beyond. This will apply to all pound of FDS treated. Source:2018.03.21 FDS Surcharge Limit Table.xlsx
10. BOD and TSS charges not applicable to KDP due to wastewater strength characteristics.

Single-Family Residential Sewer Bill Comparison Current vs. Proposed Rates



Average Commercial Sewer Bill Comparison Current vs. Proposed Rates



Regional SFR Monthly Sewer Bill Comparison

