

CONDITION ASSESSMENT AND RATE STUDY

Grizzly Ranch Community Services District

October 2023

Prepared for:



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Appendix 1: Sewer Model Results

Appendix 2: Water Model Results

EXECUTIVE SUMMARY

Grizzly Ranch Community Services District (District) has retained DOWL to perform a condition assessment of the existing water and sewer assets and provide an analysis of user rates for its water and sewer systems. The District has the capacity to provide water and sewer treatment services to over 300 customers in Plumas County, California. The District last reviewed the schedule of rates and charges in 2021, at which time increases equal to the annual consumer price index (CPI) adjustments were proposed.

The District’s current rate structure includes an annual standby assessment, a quarterly base rate, and a volumetric rate tied to water consumption. The standby rate is charged as an assessment and applies to both active and inactive customers, while the quarterly and volumetric rates apply to active customers only. As a result of ongoing capital projects and existing debt service, the sewer fund is operating at a cash flow deficiency. The water fund, on the other hand, is in a solid financial position and revenue from rates is sufficient to cover annual expenses.

The rates calculated in this study for the sewer and water utilities follow industry-standard principles of equitable cost-of-service allocations that are in compliance with Proposition 218.

For the sewer fund, it is recommended that the District increase rates in order to fund operating expenses, debt service, and capital projects. The goal of these rate adjustments is to increase revenue by 11% each year from FY 24 through FY 27 and continue to implement annual automatic adjustments up to CPI thereafter.

Table 1: 5-year Sewer Rate Schedule

Customer Class	Current	FY 24	FY 25	FY 26	FY 27	FY 28
Annual Standby Assessment	\$806.00	\$732.65	\$834.49	\$950.48	\$1,082.60	\$1,114.00
Quarterly Residential	\$97.25	\$273.04	\$311.87	\$356.21	\$406.86	\$418.66
Quarterly Commercial	\$97.25	\$223.94	\$255.79	\$292.16	\$333.70	\$343.38
		11% + CPI (2.9%)	11% + CPI (2.9%)	11% + CPI (2.9%)	11% + CPI (2.9%)	CPI (2.9%)

Since the current water rates are sufficient to fund annual operating expenses, no increase was recommended. However, through the cost of the service process, the water rates need to be restructured to ensure equitable charges amongst customer classes. It is recommended that the District continue to adjust rates up to CPI on an annual basis.

Table 2: 5-year Water Rate Schedule

	Existing		FY 2024	
Annual Standby Assessment	\$806.00		\$971.08	
Quarterly Rates	Base	Volume Rate per kgal	Base	Volume Rate per kgal
Residential	\$97.25	\$22.80	\$98.55	\$9.30
Commercial	\$97.25	\$22.80	\$43.00	\$9.94
-			Restructured + CPI (2.9%)	
	FY 2025		FY 2026	
Annual Standby Assessment	\$999.24		\$1,028.22	
Quarterly Rates	Base	Volume Rate per kgal	Base	Volume Rate per kgal
Residential	\$101.41	\$9.57	\$104.35	\$9.85
Commercial	\$44.24	\$10.23	\$45.53	\$10.53
CPI (2.9%)			CPI (2.9%)	
	FY 2027		FY 2028	
Annual Standby Assessment	\$1,058.04		\$1,088.72	
Quarterly Rates	Base	Volume Rate per kgal	Base	Volume Rate per kgal
Residential	\$107.38	\$10.14	\$110.49	\$10.43
Commercial	\$46.85	\$10.83	\$48.20	\$11.15
CPI (2.9%)			CPI (2.9%)	

1.0 CONDITION ASSESSMENT SUMMARY

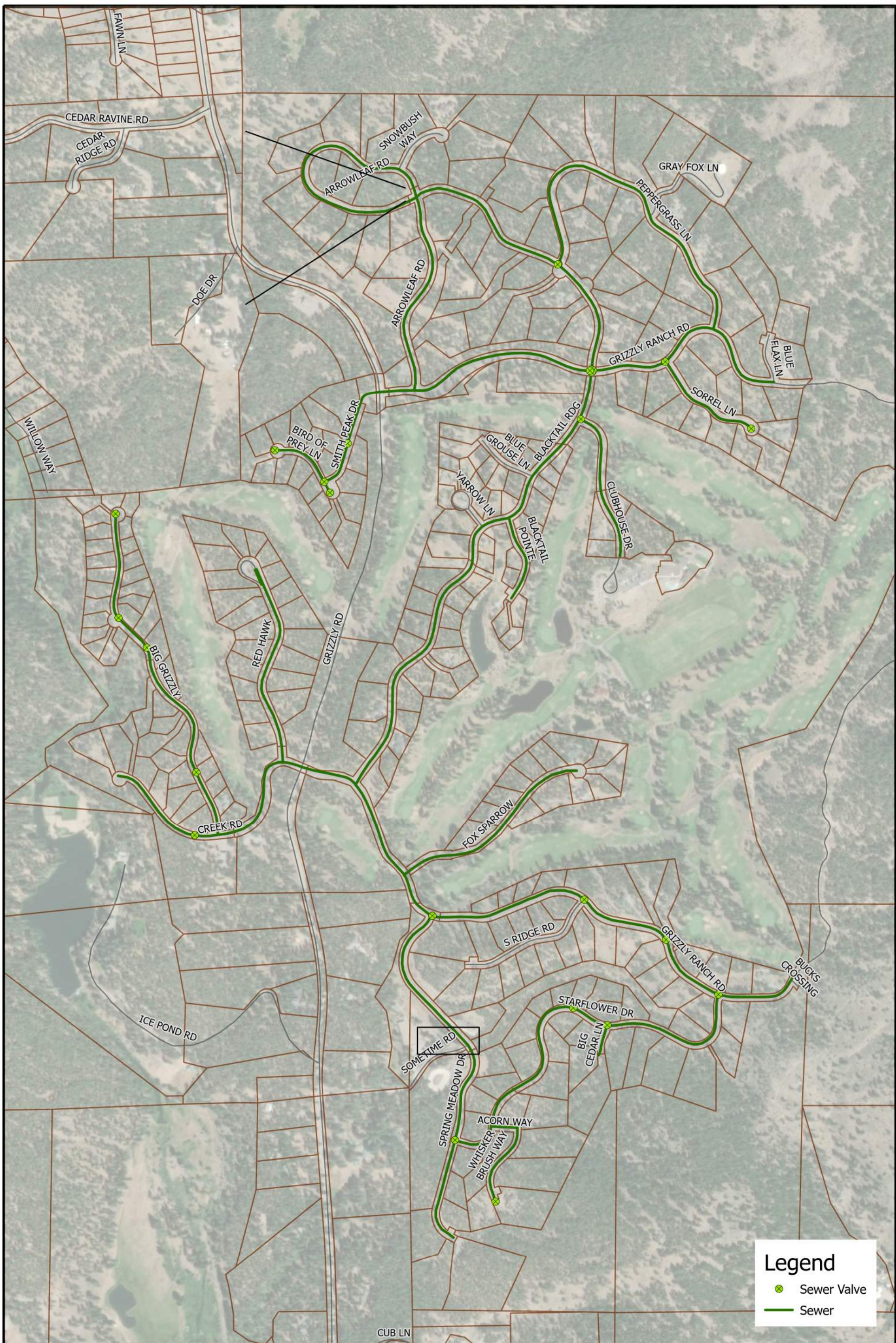
A condition assessment of the District's water and sewer infrastructure was performed to identify any deficiencies in the distribution and collection system. The District's assets have not been assessed since the system was constructed in 2004. The water system consists of a treatment plant, three wells, one storage tank, and 6.2 miles of water pipes ranging from 6 to 8 inches. The existing sewer system consists of a wastewater treatment/recycle facility, an emergency storage pond, an irrigation pond, and 5.8 miles of low-pressure collection system.

1.1 Methods

DOWL performed a visual assessment of the District's water treatment plant, 2 booster stations, and wastewater treatment plant. Acoustic leak detection was used to find possible leaks in the sewer low-pressure collection system and the water distribution system.

1.2 Sewer System

No leaks were discovered in the sewer collection system and therefore, no improvement projects resulted from the condition assessment. A map of the District's sewer collection system can be found in Figure 1.



Legend

- Sewer Valve
- Sewer



Sewer Low-Pressure System

Grizzly Ranch Community Services District

Figure 1

The data contained herein does not represent survey delineation and should not be construed as a replacement for the authoritative source. No liability is assumed by DOWL as to the sufficiency or accuracy of the data.

1" = 600'

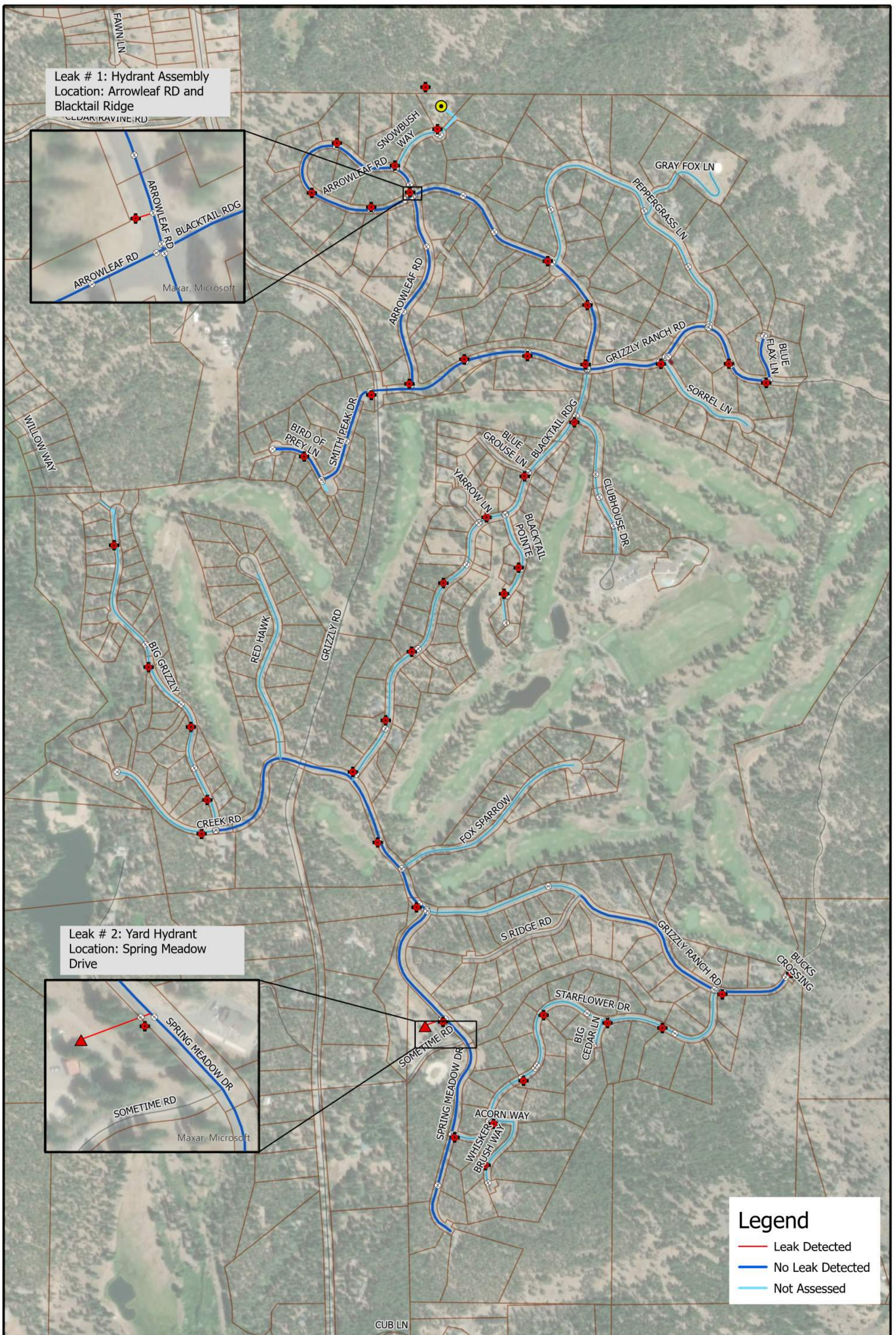
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1.3 Water System

Through the visual assessment, deficiencies were identified. The water treatment plant has a chlorine analyzer, flange adaptor, and ductile iron pipe 90-degree bend that is rusted due to age. The water distribution assessment results reveal leaks occurring at a yard hydrant and two fire hydrant assemblies. The location of the leaks can be found in Figure 2. Booster Station 1 had a ductile iron tee that needed replacement and one pump that was offline and needed repair. The preliminary costs are summarized in Table 3.

Table 3: Preliminary Cost Estimate based on Condition Assessment

Improvement Project Description	Quantity	Unit	Unit Cost	Total Amount
Frost Proof Yard Hydrant near Sometime Road	1	EA	\$100	\$100
Fire Hydrant Assembly on Arrowleaf Road	2	EA	\$10,700	\$21,400
8" DIP Tee at Booster Station 1	1	EA	\$600	\$600
Grundfos Model ME-3-CR45-2 at Booster Station 1	1	EA	\$12,000	\$12,000
Chorine Analyzer Prominent CLE at Water Treatment Plant	1	EA	\$6,000	\$6,000
4" Flange adaptor at Water Treatment Plant	1	EA	\$480	\$480
4" DIP 90-degree bend at Water Treatment Plant	1	EA	\$160	\$160
			Total:	\$40,740



Leak # 1: Hydrant Assembly
Location: Arrowleaf RD and
Blacktail Ridge



Leak # 2: Yard Hydrant
Location: Spring Meadow
Drive



Legend

- Leak Detected
- No Leak Detected
- Not Assessed

2.0 RATE STUDY GOALS AND OBJECTIVES

The following goals and objectives were used as guiding principles in the preparation of the user rate analysis.

- Rate analysis shall have a study period of five years or through the fiscal year ending in 2028 (FY 28)
- Rate model calculations are based on a fiscal year starting on July 1st of each year and ending on June 30th of the following calendar year.
- Rate analysis will only include revenues and expenses based on existing customer user rates (i.e., Operating Fund)
- Rate analysis shall meet all District financial policies throughout the study period, these policies include:
 - Recurring expenses should be paid by recurring revenues
 - Water and sewer funds shall maintain a debt coverage ratio of 1.10 or greater
 - Water and Sewer Operating Funds shall maintain a minimum Operating Reserve equal to 60 days of utility operating expenses
 - Water and Sewer Operating Funds shall maintain a Rate Stabilization Reserve equal to 15 percent of annual revenues
 - Sewer Operating Fund shall maintain a Debt Reserve equal to \$50 thousand
- Rate analysis shall develop a financial plan for each scenario that does not significantly deplete cash reserves and minimize future increases to user rates

These goals and objectives are referenced and expanded upon throughout each section of this report.

2.1 Rate Study Approach

The successful and sustainable operation of any utility is contingent on sound financial policy and proper utility planning. This study was conducted based on methodologies and principles established by the American Water Works Association (AWWA) in the Manual of Water Supply Practices M1 – Principles of Water Rate, Fees and Charges and Financing and Charges for Wastewater Systems – Manual of Practice No. 27 published by the Water Environment Federation. The rate study process uses three interrelated analyses to address the adequacy and equity of the utility’s rates. These three analyses are summarized below in Figure 3.

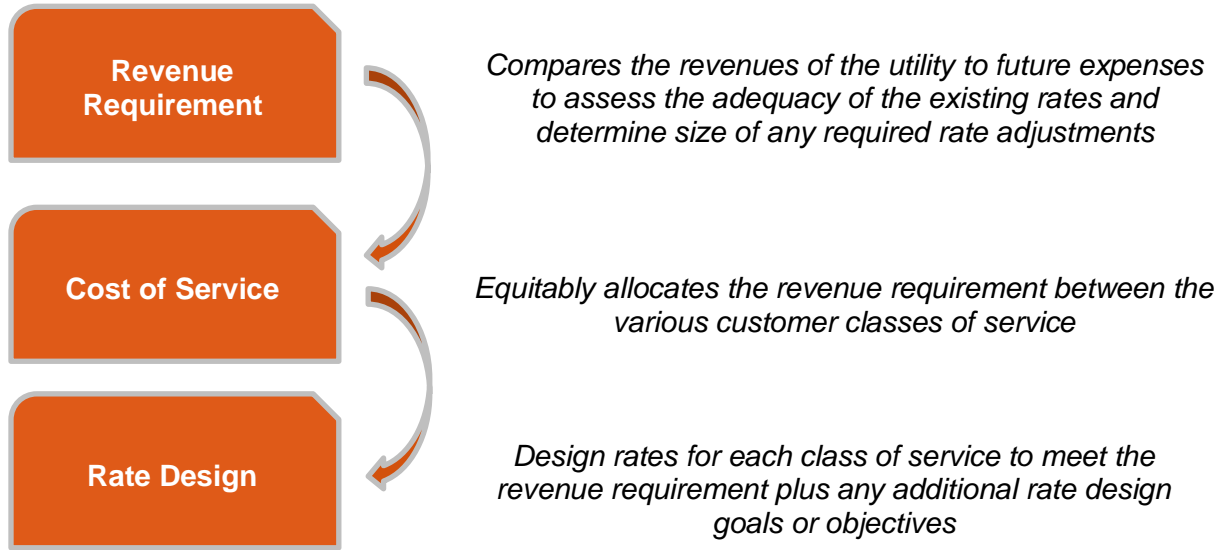


Figure 3: Process of Rate Making

There are two industry-standard methods used to project the revenue required on an annual basis. These methods are the Cash Basis approach and the Utility Basis approach. The primary difference between the two methods is that the duty of the Cash Basis approach is to recover annual costs, while the Utility Basis approach sets out to earn a fair return on its investment. This rate study utilizes a Cash Basis approach which is most common for public utilities. Figure 4 shows a comparison of the two approaches, and Figure 5 provides a detailed breakdown of the Cash Basis approach.

Another requirement of Article XIII D as part of Proposition 218 is that:

The amount of a fee imposed upon any parcel or person as an incident of property ownership must not exceed the proportional cost of the service attributable to the parcel.

In other words, any rate associated with water service shall be proportional to that customer’s equitable share of water system expenses. A detailed cost of service (CoS) analysis for the sewer and water system is provided in Sections 5.3 and 6.3 respectively.

3.0 SUMMARY OF KEY FINDINGS AND RECOMMENDATIONS

The findings and recommendations presented in this study were developed in coordination with District staff. This study has found that the current sewer rates do not generate sufficient revenues to maintain financial solvency. However, the current water rates are adequate for generating sufficient revenue. For the sewer fund, it is recommended that the District increase rates from FY 24 through FY 26 in addition to an annual increase equal to the Consumer Price Index for all Urban Consumers (CPI) thereafter. For the water fund, it is recommended that the District continue to increase revenues annually by a percentage equal to the CPI. The proposed increases for the sewer rates are summarized in Section 3.2.

3.1 Summary of Rate Analysis

This study evaluated sewer and water user rates through FY 28 under different alternatives in accordance with Proposition 218. These alternatives were developed in coordination with the District. The analysis proposed user rates that provided sufficient revenues to cover utility expenses on a year-to-year basis without significantly depleting or building reserves.

Sewer

The sewer rate analysis proposed 4 alternatives. The alternatives are listed below, with the recommended alternative shown in bold.

Alternative 1 - Fund Depreciation; Fund Short Lived Assets – Under this alternative, the District would fund depreciation and short lived assets. This alternative revealed that the District cannot afford to fund both depreciation and short-lived assets without falling into an annual cash flow deficiency. Therefore, this alternative was excluded from the study.

Alternative 2 - No Depreciation; No Short-Lived Assets – Under this alternative, the District would neither fund depreciation nor short-lived assets. This alternative revealed that the District falls short of annual expenses even without funding depreciation and short-lived assets. Therefore, this alternative was excluded from the study.

Alternative 3 – Manual increase; Fund Depreciation; Fund Short-Lived Assets – Under this alternative, revenues were increased until the District was able to fund depreciation and short-lived assets. The alternative was excluded from the study because a significant rate hike would be necessary to cover depreciation and short-lived assets.

Alternative 4 - Manual Increase; No Depreciation; No Short Lived Assets – Under this alternative, rate increases were implemented until the District was able to fund annual expenses, debt service, and ongoing capital projects. This alternative allows the District to cover annual expenses and all required reserves.

Water

The water rate analysis proposed 3 alternatives. The alternatives are listed below, with the recommended alternative shown in bold.

Alternative 1 - Fund Depreciation; Fund Short-Lived Assets – Under this alternative, the District would fund depreciation and short lived assets. This alternative revealed that the District cannot afford to fund both depreciation and short-lived assets without falling into an annual cash flow deficiency. Therefore, this alternative was excluded from the study.

Alternative 2 - No Depreciation; No Short-Lived Assets – Under this alternative, the District would be able to fund all annual expenses and required reserves without needing to increase rates.

Alternative 3 – Manual increase; Fund Depreciation; Fund Short Lived Assets – The alternative was excluded from the study because a significant rate hike would be necessary to cover depreciation and short-lived assets.

4.0 DATA USED AND GENERAL ASSUMPTIONS

The District provided historical financial reports, budgets, and other financial information regarding the sewer utility for Fiscal Years Ending 2019 (FY 19) to FY 23. This information was used to develop long-term financial projections for the sewer utility. This report presents a 5-year financial plan and proposes rates through FY 28. The assumptions used to evaluate the financial stability of the utility were developed in coordination with or provided by District staff. Assumptions such as future inflation factors, customer account growth rates, and beginning cash balances are summarized in this section.

3.2 Inflation

To prepare the 5-year financial plan, inflation factors are applied to future revenue and expense projections over the study period. The inflation factors used, shown in Table 4, were developed in coordination with District staff and considered commonly used price indices such as the CPI. CPI is assumed to escalate by 2.9% based on average historical increases between the years 2017 and 2021. Rate revenues are assumed to escalate at CPI. 2022 customer base is described in Section 4.1. Based on input from the District, labor cost inflation was assumed to escalate by 5 percent and benefits cost inflation was assumed to escalate by 10 percent. See Appendix A for a detailed summary of inflation factors used in this analysis.

Table 4: Inflation Factor Assumptions

Key Factors	Inflation Rate per Year
General (CPI)	2.9%
Construction Costs	3%
Labor Cost Inflation	5%
Benefits	10%

4.1 Customer Base And Growth

Through conversation with District staff, growth amounts to 0 to 2 connections per year. As a result, customer growth projections in this analysis equate to 0.33% per year.

4.2 Account Balances

Based on the District’s financial records, both Operating Funds have a combined cash balance of \$562,791. Per the District, this cash balance is split 51/49 between the Sewer Operating Fund and the Water Operating Fund. The beginning cash balances for both funds are shown in Table 5.

Table 5: Beginning FY 24 Cash Balance for Operating Fee Funds.

FY 22	Balance
Sewer Operating Fund	\$287,023
Water Operating Fund	\$275,768
Total	\$562,791

Maintaining a cash balance that allows for variability in revenues and expenses on an annual basis can be accomplished through funding or using reserves to offset annual shortfalls. In developing the revenue requirement presented in the following sections, the following financial policies have been incorporated.

Working Capital Reserve

The Operating Fund shall maintain a minimum balance of \$51,000 for the sewer fund and \$49,000 for the water fund throughout the study period.

Emergency Reserve

This is a restricted reserve. The minimum required is \$25,500 for the sewer fund and \$24,500 for the water fund.

Debt Reserve

The operating fund shall maintain a debt reserve equal to \$50,000 for the duration of the loan term.

Capital Replacement Reserves

This restricted reserve includes 5 percent of the District's assets. For the sewer fund, this amounts to \$128,506 and for the water fund, this amounts to \$169,176.

Rate Stabilization Reserve

This restricted reserve includes 5 percent of the District's annual revenue. This amounts to \$12,977 in FY 24 for the sewer fund and \$16,479 in FY 24 for the water fund.

5.0 DEVELOPMENT OF THE SEWER RATE STUDY

5.1 Revenue Requirement

The revenue requirement presents the relationship between revenue collected from user fees and the costs incurred by serving those customers. This study performs an analysis over the 5-year study period and is used to determine the approximate rate adjustments needed to support projected expenses and capital improvement projects for the sewer system. In the course of developing the revenue requirement, it is assumed that the District's sewer utility, as an enterprise fund, is self-sufficient and without financial support from other funds. This analysis found that the existing sewer rates are not sufficient to fund ongoing capital projects over the next 5-years. As a result, annual increases are recommended.

5.1.1 Projected Revenues

The District's historic actuals for FY 19 through FY 23 were reviewed for this study. For this study, FY 24 was selected to be the starting point for revenue projections for nearly all revenue and expense items. Approximately \$259 thousand is projected to be collected in rate revenue and an additional \$28 thousand collected from non-rate revenue sources. Table 6 below shows the projected revenues from FY 24 through FY 28. Considering the customer growth and inflationary factors described in Section 3.2, total projected revenues will increase to approximately \$426 thousand by FY 28.

Table 6: Projected System Revenues (\$Thousand)

	2024	2025	2026	2027	2028
Rate Revenue	\$ 259.55	\$ 267.08	\$ 274.83	\$ 282.80	\$ 291.00
Additional Revenue After Adjustment	\$ 28.55	\$ 61.99	\$ 101.03	\$ 103.96	\$ 106.98
Miscellaneous Revenues	\$ 25.56	\$ 26.30	\$ 27.06	\$ 27.84	\$ 28.65
Total Revenue	\$ 313.66	\$ 355.37	\$ 402.92	\$ 414.60	\$ 426.63

5.1.2 Projected Costs

The District’s overall costs consist of sewer O&M, non-operating expenses, capital replacement projects funded by rates, and debt service. Similar to the revenue forecast, FY 24 was selected to be the starting point or basis for the projection of system costs. Table 7 shows the projected expenses from FY 24 through FY 28. The total projected costs for the utility are anticipated to reach \$404 thousand in FY 28.

Table 7: Projected System Costs

	2024	2025	2026	2027	2028
Operation & Maintenance	\$ 213.40	\$ 222.56	\$ 232.17	\$ 242.22	\$ 252.75
Capital Outlay Directly Funded by Rates	\$ 85.00	\$ 85.00	\$ 85.00	\$ 85.00	\$ 85.00
Existing Debt Service	\$ 66.72	\$ 66.72	\$ 66.72	\$ 66.72	\$ 66.72
Total Expenses	\$ 365.11	\$ 373.28	\$ 383.88	\$ 393.94	\$ 404.47

5.1.2.1 Operating Expenses and Forecast

The District’s O&M expenses consist of ongoing annual costs which can generally be classified as collection, distribution, treatment, and administrative. Over the 5-year study period, the total sewer O&M expenses are projected to increase from \$213 thousand in FY 24 to approximately \$252 thousand by FY 28.

5.1.2.2 Existing Debt Service

A wastewater treatment plant project occurred in 2019 that cost \$625,000. The annual payment amounts to \$66,716 per year for 12 years.

5.1.2.3 Capital Projects and Funding

The District developed a 5-year CIP to forecast and propose projects that address the needs of the system. The CIP includes the projects presented in Table 8 will be solely funded by user rates and Operating Fund reserves. Table 9 breaks down CIP costs by fiscal year.

Table 8: 5-year Sewer Repair and Replacement Capital Projects

Project	Year	Cost
Engineering Study 50water/50sewer	2023	\$ 36,500
Replacement of 45 sewer system grinders E1 - 5 each year	2024-2032	\$ 765,000
District Vehicle 50water/50sewer	2031	\$ 20,000
	Total	\$ 820,000

Table 9: CIP Costs Per Fiscal Year

FY 24	FY 25	FY 26	FY 27	FY 28
\$85,000	\$85,000	\$85,000	\$85,000	\$85,000

5.2 Projected Revenue Requirement

As seen in Figure 6, revenue under the existing rates is unable to cover expenses throughout the study period; therefore, proposed rate adjustments were considered as part of this study. The rate adjustments include both manual and automatic annual increases (CPI) to ensure that the District can afford annual expenses.

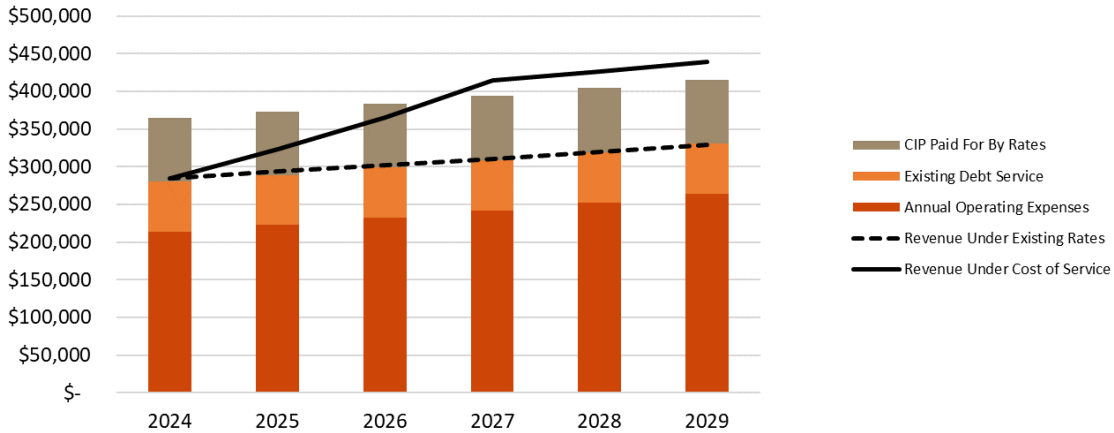


Figure 6: Revenue Requirement with Proposed Rates

5.3 Sewer Cost of Service

After rate revenue adjustments have been identified, the next step in the rate-setting process is the CoS analysis which assigns the costs of the sewer utility to the appropriate element of service. The elements of service presented in Table 10 through Table 12 are cost categories used to determine how capital costs were allocated. The elements of service used in this analysis are defined as follows:

Customer – Fixed costs that are directly proportional to the number of customers served by the utility. These costs are not impacted by sewer production and apply to all customers, equally.

Strength – Variable costs that are proportional to the user’s wastewater loading characteristics for treatment purposes.

Flow – Variable costs that are associated with collecting wastewater. These costs are directly proportional to the amount of wastewater produced.

5.3.1 Sewer Plant-in-Service Allocation

An analysis of the District’s existing assets (using design data and engineering judgment) suggests that a majority of the cost to construct the sewer utility was driven by the collection system flow capacity. The Plant-in-Service allocation is used to distribute future depreciation, capital outlay, and debt service costs. The Plant-in-Service allocation is identified in Table 10.

Table 10: Allocation of the Existing Sewer System

Customer	BOD	Flow	Total
17%	43%	40%	100%

5.3.2 O&M Cost Allocation

Budgeted FY 24 O&M Costs were allocated to the elements of service discussed previously to further allocate the cost to operate the sewer system. The results of the percent breakdown are summarized in Table 11.

Table 11: O&M Allocation Breakdown

Customer	BOD	Flow	Total
90%	5%	5%	100%
\$192,348	\$10,756	\$10,291	\$213,395

Fixed costs, which do not vary based on how much wastewater is produced, were allocated to the customer element of service. O&M services and supplies expenses, such as chemicals and gasoline, were split between BOD and flow elements of service since these costs directly correlate with wastewater strength and flow. Backup power generators were allocated according to the Plant-in-Service distribution shown in Table 10.

5.3.3 Revenue Requirement Allocation

The final step of the allocation process applied the Plant-in-Service and O&M allocation to develop the FY 24 revenue requirement. In addition to the fixed and variable costs that make up the revenue requirement, this portion of the analysis took into account budgeted non-rate revenues and net cash flow projections to offset budgeted expenses, bringing the revenue requirement to \$288 thousand. The result of the revenue requirement allocation is presented in Table 12.

Table 12: Revenue Requirement Allocation

Revenue Requirement	Customer	BOD	Flow	Total
Allocation	77%	12%	11%	100%
Distribution	\$221,261	\$34,430	\$32,413	\$288,104

5.3.4 Cost Distribution to Customer Classes

The next step in the CoS analysis is the customer distribution process. In this process, the revenue requirement allocation was further distributed to each customer class based on the number of customers and wastewater characteristics associated with each customer class. These demands were determined by customer characteristics shown in Table 13.

Table 13: Sewer Customer Characteristics

	Residential	Commercial	Standby
FY 24 Customers	53	10	239
Flow (kgal)	1,681	260	0

Based on the characteristics above, the revenue requirement allocation breakdown in Table 12 was distributed to customer classes as presented in Table 14.

Table 14: Distribution of Costs to Customer Classes

Customer Classes	Customer	Flow	BOD	% Share
Residential	\$38,830	\$28,069	\$29,816	34%
Commercial	\$7,327	\$4,344	\$4,614	6%
Standby	\$175,104	\$-	\$-	61%
Total	\$221,261	\$32,413	\$34,430	100%

General observations that facilitated the cost distribution process include the following:

Residential customers include single-family homes that are active users. These customers produce the most sewer flows.

Commercial customers include active customers who are not considered single-family residents. Commercial customers make up less than 10 percent of the customer base and consume the least amount of water.

Standby customers make up a majority of the customer base and therefore, take on a majority of the fixed costs. Standby customers are connected to the system but are not active users. Since they do not produce sewer flows, they do not pay for services related to flow and BOD treatment.

5.4 Rate Design and Proposed Sewer Rates

To develop a representative rate structure, this study assessed the financial impacts on the sewer fund when rates were set according to a standard CoS approach. Table 15 outlines the 5-year rate schedule. Rates in FY 24 are actual, and all future years include an estimated annual CPI increase of 2.9 percent. Actual rate adjustments in years FY 25 through 28 may differ slightly should CPI values exceed or trail a 2.9 percent increase.

Table 15: Sewer Fund Quarterly Cost of Service Rates in FY 24

Cost	Residential	Commercial	Standby
Customer	\$ 183.16	\$ 183.16	\$ 183.16
Flow	\$ 132.40	\$ 108.59	\$ -
BOD	\$ 140.64	\$ 115.35	\$ -
Total	\$ 456.21	\$ 407.11	\$ 183.16

User rates for three customer classes (residential, commercial, and standby) were developed using the key factors as follows:

Customer: The proportional share of expenses that were driven by the number of customers and the amount of flow produced by each customer class. This charge is the same for all customer classes.

Flow: This is driven by the amount of sewer flow produced by each customer class.

BOD: This is driven by the amount of sewer flow produced by each customer class.

5.4.1 Rate Design Criteria and Considerations

It is common for multiple criteria to influence the setting of user rates. The design criteria that were accounted for in this study include:

- Rates that are simple, certain, and feasible
- Minimizing unexpected changes to customer bills
- Financial policy considerations
- The utility's financial history or position
- Equitable and non-discriminatory

5.4.2 Proposed Sewer Rates

Table 16 outlines the proposed sewer rates for the study period. Rates in FY 24 are actual, and all future years are based on manual increases in addition to estimated CPI increases. The District distinguishes quarterly rates from the annual standby assessments. The annual standby assessment equates to the customer cost summarized in Table 15. This assessment applies to all customer classes.

Table 16: Proposed Sewer Rate Schedule

Customer Class	Current	FY 24	FY 25	FY 26	FY 27	FY 28
Annual Standby Assessment*	\$806.00	\$732.65	\$834.49	\$950.48	\$1,082.60	\$1,114.00
Quarterly Residential	\$97.25	\$273.04	\$311.87	\$356.21	\$406.86	\$418.66
Quarterly Commercial	\$97.25	\$223.94	\$255.79	\$292.16	\$333.70	\$343.38

*The standby rate represents the Customer cost summarized in Table 15. This rate is collected as an assessment and applies to all customer classes.

5.4.3 Reserve Account Analysis

The projected minimum Operating Fund cash reserves would be met as required by the District’s financial policies. These projections are based on historical operating costs and the District’s formally adopted 5-year Capital Improvement Plan (CIP). As summarized in Figure 7 and Appendix A, the District is unable to fully fund reserves from FY 24 to FY 27. The goal of the rate increases is to build back the sewer reserves after years of cash flow deficiencies. FY 28 is projected to have a cash balance of \$279 thousand which meets the required reserves.

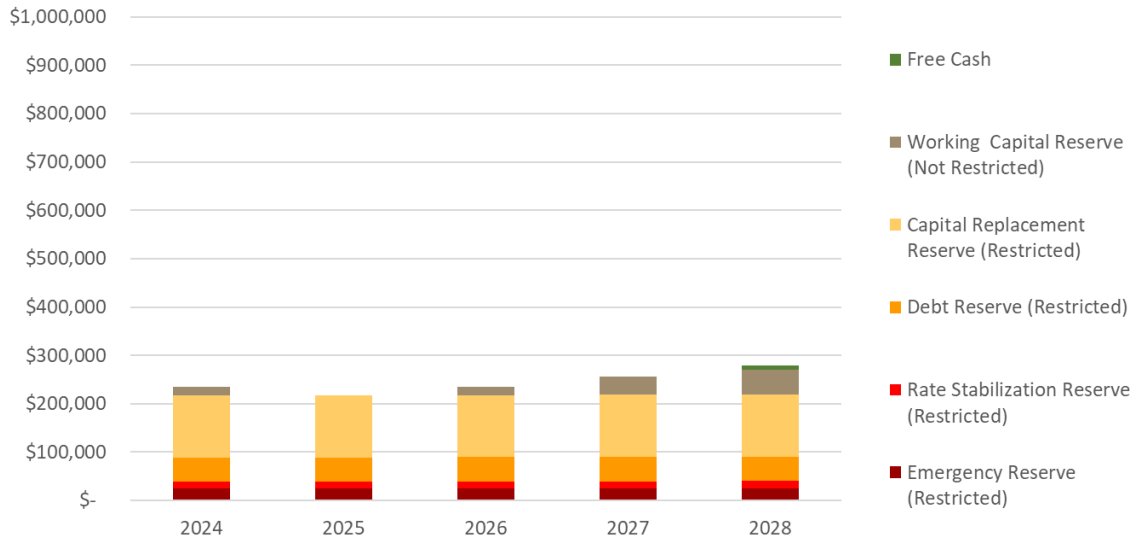


Figure 7: Sewer Operating Fund Reserves

6.0 DEVELOPMENT OF THE WATER RATE STUDY

6.1 Revenue Requirement

The water fund revenue requirement takes place over the 5-year study period and is used to determine the approximate revenue adjustments needed to support projected expenses and capital improvement projects. Based on the analysis, the revenues generated from the water fund are sufficient to fund annual operating expenses. Through the CoS process, as required by Proposition 218, it was found that the existing rates should be restructured to ensure that customers pay the rate in proportion to their impact on the system.

6.1.1 Projected Revenues

The District’s historic actuals for FY 19 through FY 23 were reviewed for this study. For this study, FY 24 was selected to be the starting point for revenue projections for nearly all revenue and expense items. Approximately \$339 thousand is projected to be collected in rate revenue and an additional \$23 thousand collected from non-rate revenue sources. Table 17 below shows the projected revenues from FY 24 through FY 28. Considering the customer growth and inflationary factors described in Section 3.2, total projected revenues will increase to approximately \$406 thousand by FY 28.

Table 17: Projected System Revenues (\$ Thousand)

	2024	2025	2026	2027	2028
Rate Revenue	\$339.14	\$348.98	\$359.10	\$369.51	\$380.23
Additional Revenue After Adjustment	\$-	\$-	\$-	\$-	\$-
Miscellaneous Revenues	\$23.32	\$23.98	\$24.66	\$25.36	\$26.08
Total Revenue	\$362.47	\$372.96	\$383.76	\$394.88	\$406.31

6.1.2 Projected Costs

The District’s overall costs consist of water O&M, non-operating expenses, capital replacement projects funded by rates, and debt service. Similar to the revenue forecast, FY 24 was selected to be the starting point or basis for the projection of system costs. Table 18 shows the projected expenses from FY 24 through FY 28. The total projected costs for the utility will reach \$248 thousand in FY 28.

Table 18: Projected System Costs (\$ Thousand)

	2024	2025	2026	2027	2028
Operation & Maintenance	\$211.38	\$220.16	\$229.32	\$238.89	\$248.88
Capital Outlay Directly Funded by Rates	\$47.00	\$ -	\$28.74	\$ -	\$ -
Total Expenses	\$258.38	\$220.16	\$258.06	\$238.89	\$248.88

6.1.2.1 Operating Expenses and Forecast

The District’s O&M expenses consist of ongoing annual costs which can generally be classified as collection, sewage treatment, and administrative. Over the 5-year study period, the total water O&M expenses are projected to increase from \$211 thousand in FY 24 to approximately \$249 thousand by FY 28.

6.1.2.2 Capital Projects and Funding

The District developed a 5-year CIP to forecast and propose projects that address the needs of the system. The CIP includes the projects presented in Table 19 will be solely funded by user rates and Operating Fund reserves. Table 20 breaks down CIP costs by fiscal year.

Table 19: 5-year Water Repair and Replacement Capital Projects

Project	Year	Cost
Engineering Study 50water/50sewer	2023	\$36,500
Rebuild Water Well	2024	\$35,000
Condition Assessment Phase 1	2024	\$12,000
Condition Assessment Phase 2	2026	\$28,740
District Vehicle 50water/50sewer	2031	\$20,000

Table 20: Repair and Replacement Capital Project Costs

FY 24	FY 25	FY 26	FY 27	FY 28
\$47,000	\$-	\$28,740	\$-	\$-

6.2 Projected Revenue Requirement

The current water rates are sufficient to maintain utility financial goals and principles through FY 26.

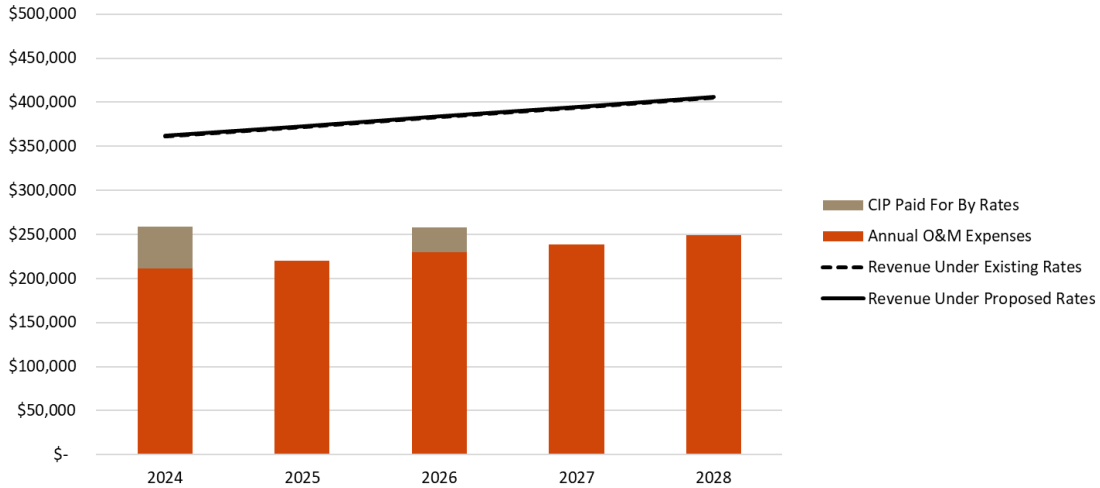


Figure 8: Alternative 3 Revenue Requirement with Proposed Rates

6.3 Water Cost of Service Analysis

After rate revenue adjustments have been identified, the next step in the rate-setting process is the CoS analysis, which recovers the cost of providing service to the various customer classes in an equitable manner. The CoS analysis begins with the allocation process which allocates the functional costs of the water utility to the appropriate cost component. The elements of service presented in Table 21 through Table 23, are cost categories used to determine how capital costs were allocated. The elements of service used in this analysis are as follows:

Customer - Fixed costs that are directly proportional to the number of customers served by the utility. These costs are not impacted by water usage and apply to all permanent customers, equally.

Meter – Fixed costs that are associated with the size or capacity of the water system. These costs are allocated based on the maximum potential water use each customer could demand from the system.

Base - Variable costs that are associated with providing the volume of water and system capacity to meet base demands consistent with average annual water use. These costs are directly proportional to water use.

Peak – Variable costs that are associated with providing the volume of water and system capacity to meet peak demands. These costs are directly proportional to water use.

Fire Protection – Costs associated with providing fire flow in case of an emergency.

6.3.1 Water Plant-in-Service Allocation

The analysis of the District’s existing assets (using design data and engineering judgment) suggests that the majority of the costs required to construct the water utility were driven by meeting peak system demands and/or fire flow requirements. This analysis is referred to as the Plant-in-Service allocation and is typically used to distribute future depreciation and debt service costs. The Plant-in-Service used in the study is identified in Table 21.

Table 21: Allocation of Water System Assets

Customer	Meters	Base	Peak	Fire Protection	Total
34.0%	0.4%	21.1%	24.5%	20.0%	100%

6.3.2 O&M Cost Allocation

Budgeted FY 24 O&M costs were allocated to the elements of service discussed previously to further allocate the cost to operate the water system. The results of this allocation are summarized in Table 22.

Table 22: O&M Allocation Breakdown

Customer	Meters	Base	Peak	Fire Protection	Total
85%	1%	7%	7%	1%	100%
\$81,868	\$178,978	\$1,403	\$14,094	\$14,501	\$211,380

Fixed costs, which do not vary based on system capacity or how much water is consumed, were allocated to the customer element of service. The largest portion of annual costs is a function of system capacity and the level of service the utility provides on an annual basis and was allocated proportionally to the volume of water a customer can demand. This volume is based on meter size and accounted for on an equivalent meter ratio basis and is therefore distributed to the meter element of service. Services and supply expenses, such as chemicals and gasoline, were split between the base and peak elements of service since these costs directly correlate with water consumption.

6.3.3 Revenue Requirement Allocation

The final step of the allocation process applies the Plant-in-Service and O&M allocations to the FY 24 revenue requirement. In addition to the fixed and variable system costs that set the revenue requirement, this portion of the analysis takes into account budgeted non-rate revenues and net cash flow projections (e.g.; annual shortfall) to offset total system expenses, bringing the revenue requirement to \$339 thousand. The results of this allocation are presented in Table 23.

Table 23: Revenue Requirement Allocation

Revenue Requirement	Customer	Meters	Base	Peak	Fire Protection	Total
Allocation	85%	1%	7%	7%	1%	100%
Distribution	\$287,157	\$2,251	\$22,613	\$23,266	\$3,857	\$339,145

6.3.4 Cost Distribution to Customer Classes

The next step in the CoS analysis is the customer distribution process. In this process, the revenue requirement allocation was distributed to each customer class based on the number of customers, the number of equivalent meters, and the water use profile for each customer class. This distribution was determined by the customer characteristics shown in Table 24.

Table 24: Water Customer Characteristics

Meter Size	Residential	Commercial	Standby
Projected Number of Customers in FY 24	53	10	239
Total Base Flow (kgal)	934	145	0
Total Peak Flow (kgal)	1868	289	0
Fire Protection Demand (gpm)	1,500	1,500	1,500

Based on the characteristics above, the revenue requirement allocation breakdown in Table 23 was distributed to each customer class as presented in Table 25.

Table 25: Distribution of Costs to Customer Classes

Customer Classes	Customer Costs	Meter Costs	Base Costs	Peak Costs	Fire Costs	Total	% Share
Residential	\$50,395	\$395	\$20,893	\$20,148	\$677	\$92,508	27%
Commercial	\$9,509	\$75	\$1,720	\$3,118	\$128	\$14,549	4%
Standby	\$227,254	\$1,782	\$-	\$-	\$3,053	\$232,088	68%
Total	\$287,157	\$2,251	\$22,613	\$23,266	\$3,857	\$339,145	100%

General observations that facilitated the cost distribution process include the following:

Residential customers include single-family homes that are active users. These customers consume the most water.

Commercial customers include active customers who are not considered single-family residents. Commercial customers make up less than 10 percent of the total customer base and consume the least potable water.

Standby customers make up a majority of the customer base and therefore, take on a majority of the fixed costs. Standby customers do not consume any water and therefore do not pay for base and peak-related services.

6.4 Rate Design and Proposed Water Rates

To develop a representative rate structure, this study assessed the financial impacts on the sewer fund when rates were set according to a standard CoS approach. Table 27 outlines the proposed rates for FY 24. The 5-year rate schedule is available in Appendix A. Rates in FY 24 are actual, and all future years include an estimated annual CPI increase of 2.9 percent. Actual rate adjustments in years FY 25 through 28 may differ slightly should CPI values exceed or trail a 2.9 percent increase.

Table 26: Water Fund Cost of Service Rates in FY 24

Customer Class	Residential	Commercial	Standby
Customer	\$237.71	\$237.71	\$237.71
Meter	\$1.86	\$1.86	\$1.86
Fire	\$3.19	\$3.19	\$3.19
Base	\$98.55	\$43.00	\$-
Volume/Peak	\$9.30	\$9.94	\$-
Total	\$341.32 +\$9.30 per kgal	\$285.77 +\$9.94 per kgal	\$242.77

User rates for three customer classes (residential, commercial, and standby) were developed using the key factors as follows:

Customer: The proportional share of expenses that were driven by the number of customers and the amount of flow produced by each customer class. This charge is the same for all customer classes.

Meter: This is driven by the number of customers who have water meters. This charge is the same for all customer classes.

Fire: Costs related to fire protection. This charge is the same for all customer classes.

Base: This is driven by the amount of water consumed. This cost does not apply to Standby customers.

Volume/Peak: This is charged in proportion to the peak flow demand from customers. This cost does not apply to Standby customers.

6.4.1 Rate Design Criteria and Considerations

Similar to the sewer rate design, the design criteria that were accounted for the water study include:

- Rates that are simple, certain, and feasible
- Minimizing unexpected changes to customer bills
- Financial policy considerations
- The utility's financial history or position
- Equitable and non-discriminatory

6.4.2 Proposed Water Rates

Table 27 outlines current and estimated rates for the study period. Rates in FY 24 are actual, and all future years are based on estimated annual CPI increases. The District distinguishes quarterly rates from the annual standby assessment. The annual standby assessment equates to the customer, meter, and fire costs summarized in Table 26. This assessment applies to all customer classes.

Table 27: Proposed Water Rate Schedule

	Existing		FY 2024	
Annual Standby Assessment**	\$806.00		\$971.08	
Quarterly Rates	Base	Volume Rate per kgal	Base*	Volume Rate per kgal
Residential	\$97.25	\$22.80	\$98.55	\$9.30
Commercial	\$97.25	\$22.80	\$43.00	\$9.94
	FY 2025		FY 2026	
Annual Standby Assessment**	\$999.24		\$1,028.22	
Quarterly Rates	Base*	Volume Rate per kgal	Base*	Volume Rate per kgal
Residential	\$101.41	\$9.57	\$104.35	\$9.85
Commercial	\$44.24	\$10.23	\$45.53	\$10.53
	FY 2027		FY 2028	
Annual Standby Assessment**	\$1,058.04		\$1,088.72	
Quarterly Rates	Base*	Volume Rate per kgal	Base*	Volume Rate per kgal
Residential	\$107.38	\$10.14	\$110.49	\$10.43
Commercial	\$46.85	\$10.83	\$48.20	\$11.15
*Base includes Base costs summarized in Table 26.				
**The standby rate includes the Customer, Meter, and Fire costs summarized in Table 26. This rate is collected as an annual assessment and applies to all connected customers.				

6.4.3 Reserve Account Analysis

The projected minimum Operating Fund cash reserves would be met as required by the District’s financial policies. These projections are based on historical operating costs and the District’s formally adopted 5-year Capital Improvement Plan (CIP). As outlined in Figure 9 the District is projected to end FY 28 with a cash balance of \$971 thousand. Although projected total cash ending balances during the five-year study period are in excess of minimum reserve requirements, some of this excess will be needed to fund projects scheduled outside of the study period and funding will need to come from the unreserved operating cash balance for operating improvements.

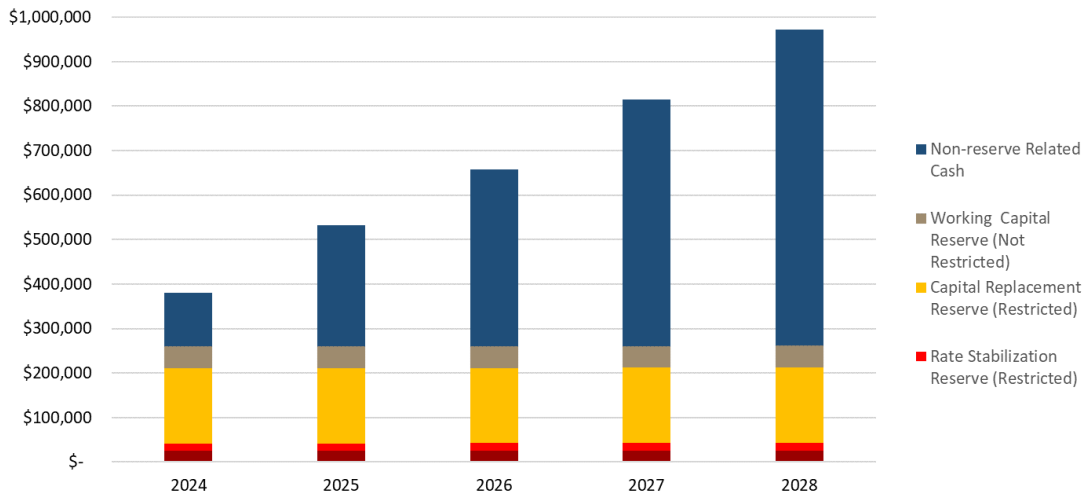


Figure 9: Water Operating Fund Reserves

7.0 COMBINED QUARTERLY RATES

The combined quarterly rates are summarized in Table 28. Due to the implementation of higher sewer rates and the reconfiguration of water rates, the base charge saw an increase, while the volumetric charge decreased.

Table 28: Combined Sewer and Water Rate Schedule

	Existing		FY 2024	
Annual Standby Assessment	\$1,612.00		\$1,703.73	
Quarterly Rates	Base	Volume Rate per kgal	Base	Volume Rate per kgal
Residential	\$194.50	\$22.80	\$371.60	\$9.30
Commercial	\$194.50	\$22.80	\$266.94	\$9.94
	FY 2025		FY 2026	
Annual Standby Assessment	\$1,833.73		\$1,978.70	
Quarterly Rates	Base	Volume Rate per kgal	Base	Volume Rate per kgal
Residential	\$412.41	\$9.57	\$458.58	\$9.85
Commercial	\$299.31	\$10.23	\$336.05	\$10.53
	FY 2027		FY 2028	
Annual Standby Assessment	\$2,140.64		\$2,202.72	
Quarterly Rates	Base	Volume Rate per kgal	Base	Volume Rate per kgal
Residential	\$510.84	\$10.14	\$525.66	\$10.43
Commercial	\$377.76	\$10.83	\$388.71	\$11.15

8.0 SAMPLE COMBINED QUARTERLY BILL

The sample bill presented in Table 29 was estimated based on average annual water consumption in each quarter. Standby rates are charged annually to all connected customers.

Table 29: Sample Combined Bill FY 24


Existing Water + Sewer	Annual Standby Assessments	Existing Quarter 1 Bill	Existing Quarter 2 Bill	Existing Quarter 3 Bill	Existing Quarter 4 Bill
Residential	-	\$786.28	\$209.03	\$194.50	\$536.27
Commercial	-	\$919.52	\$194.50	\$194.50	\$274.51
Standby	\$1,612.00	-	-	-	-
Proposed Water + Sewer	Annual Standby Assessments	Proposed Quarter 1 Bill	Proposed Quarter 2 Bill	Proposed Quarter 3 Bill	Proposed Quarter 4 Bill
Residential	-	\$613.06	\$377.18	\$371.60	\$511.05
Commercial	-	\$583.12	\$266.94	\$266.94	\$301.83
Standby	\$1,703.73	-	-	-	-

9.0 CONCLUSION

The rate analysis for the sewer and water systems has been completed with rate adjustments proposed for the sewer utility and restructuring of rates for the water utility. Per Proposition 218, any modification to user rates requires a 45-day period where property owners can submit a written protest of the proposed rate increases. This period will conclude with a required public hearing and a counting of any written protests the District may have received. If the number of unsubmitted protests carries a simple majority over the number of written protests, the rate adjustment proposed by the Board will move forward. The District has been scheduling multiple public meetings and hearings to educate its customers on the progress and findings of the rate study.

APPENDIX 1:

SEWER MODEL RESULTS



**Grizzly Ranch CSD
Sewer
Assumptions
Alternative 1-4**



General Assumptions

Study Details

Enter Current Fiscal Year **2023**
Duration of Study Period (Years) **5**

Connection Fee Assumptions

Separate Service Areas **1** Uniform or separate?

Financial Policies

			2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Working Capital Reserve (Not Restricted)													
Minimum Operating Account Balance	\$ 100,000.00		\$ 51,000	\$ 51,000	\$ 51,000	\$ 51,000	\$ 51,000	\$ 51,000	\$ 51,000	\$ 51,000	\$ 51,000	\$ 51,000	\$ 51,000
Target \$100,000 min, non restricted		49/51											
Emergency Reserve (Restricted)													
Minimum Amount	\$ 50,000.00	49/51	\$ 25,500	\$ 25,500	\$ 25,500	\$ 25,500	\$ 25,500	\$ 25,500	\$ 25,500	\$ 25,500	\$ 25,500	\$ 25,500	\$ 25,500
Target \$50,000, restricted													
Capital Replacement Reserve (Restricted)													
% of the CSD's total net assets	5%	Sewer Only	\$ 128,506.29	\$ 128,506.29	\$ 128,506.29	\$ 128,506.29	\$ 128,506.29	\$ 128,506.29	\$ 128,506.29	\$ 128,506.29	\$ 128,506.29	\$ 128,506.29	\$ 128,506.29
restricted													
Rate Stabilization Reserve (Restricted)													
% of the District's estimated annual revenue	5%	Sewer Only	\$ 12,611.90	\$ 12,977.65	\$ 13,354.00	\$ 13,741.26	\$ 14,139.76	\$ 14,549.81	\$ 14,971.76	\$ 15,405.94	\$ 15,852.71	\$ 16,312.44	\$ 16,785.50
Target \$20,000 min, restricted		49/51											
Debt Reserve (Restricted)													
% of the District's estimated annual revenue	\$ 50,000.00		\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00
Target \$50,000 restricted													

Economic Factors that Govern Cost Projections

	Notes	FYE:	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1 General Cost Inflation	Last 5-year average		2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%
2 Construction Cost Inflation	Last 10-year moving average		3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%
3 Labor Cost Inflation			5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
4 Benefits Cost Inflation			10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
5 Customer Growth			0.33%	0.33%	0.33%	0.33%	0.33%	0.33%	0.33%	0.33%	0.33%	0.33%	0.33%
6 Cumulative Growth			0.33%	0.66%	0.99%	1.32%	1.65%	1.98%	2.31%	2.64%	2.97%	3.30%	3.63%
7 General Inflation Plus Growth			3.23%	3.23%	3.23%	3.23%	3.23%	3.23%	3.23%	3.23%	3.23%	3.23%	3.23%
8 No Escalation			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9 Investment Rate of Return			1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%

Alternative 1-4

Manual Increase; NoDepreciation; No Short Lived Assets

		Project Cost 2023 Dollars										
		5 - Year CIP Projects						10 - Year CIP Projects				
Project Type	Project Name	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0	Replacement of 45 sewer system grinders E1 - 5 each year	\$ -	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ -
0	Engineering Study 50water/50sewer	\$ 36,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
0	District Vehicle 50water/50sewer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000	\$ -	\$ -
0	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
0	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Expenditures	Projection Method	FYE	Historical	Actual		Select Projection	User Override	Projection Value	Projection						
			2021	2022	2023			2024	2025	2026	2027	2028			
O&M Expenses															
9000 General & Administrative Series															
General Cost Inflation			\$ 60,053			Budget 2023 Value	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9000-24 Merchant Fees					\$ 260	Budget 2023 Value	-	\$ 260	\$ 267	\$ 275	\$ 283	\$ 291	\$ 299	\$ 300	\$ 300
9000-23 - Utility/Operator Worker Mileage					\$ 259	Budget 2023 Value	-	\$ 259	\$ 266	\$ 274	\$ 282	\$ 290	\$ 298	\$ 298	\$ 298
9000-22 Operator in Training Mileage					\$ 874	Budget 2023 Value	-	\$ 874	\$ 899	\$ 925	\$ 952	\$ 979	\$ 1,008	\$ 1,008	\$ 1,008
9000-21 Administrative Mileage					\$ 14	Budget 2023 Value	-	\$ 14	\$ 14	\$ 15	\$ 15	\$ 16	\$ 16	\$ 16	\$ 16
9000-20 Chief Operator Mileage					\$ 632	Budget 2023 Value	-	\$ 632	\$ 650	\$ 669	\$ 688	\$ 708	\$ 729	\$ 729	\$ 729
9000-19 GM Mileage					\$ 2,404	Budget 2023 Value	-	\$ 2,404	\$ 2,474	\$ 2,546	\$ 2,620	\$ 2,696	\$ 2,774	\$ 2,774	\$ 2,774
9000-18 Contingency					\$ 2,097	Budget 2023 Value	-	\$ 2,097	\$ 2,158	\$ 2,221	\$ 2,285	\$ 2,351	\$ 2,420	\$ 2,420	\$ 2,420
9000-17 Personnel-training/travel					\$ 901	Budget 2023 Value	-	\$ 901	\$ 928	\$ 955	\$ 982	\$ 1,011	\$ 1,040	\$ 1,040	\$ 1,040
9000-16 General Equipment/tools					\$ 1,429	Budget 2023 Value	-	\$ 1,429	\$ 1,471	\$ 1,513	\$ 1,557	\$ 1,603	\$ 1,649	\$ 1,649	\$ 1,649
9000-15 SCADA Operating System					\$ -	Budget 2023 Value	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9000-14 GRCSO Vehicle					\$ -	Budget 2023 Value	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9000-13 Safety					\$ 88	Budget 2023 Value	-	\$ 88	\$ 90	\$ 93	\$ 96	\$ 98	\$ 101	\$ 101	\$ 101
9000-12 Office Furniture and Equipment					\$ 436	Budget 2023 Value	-	\$ 436	\$ 448	\$ 461	\$ 475	\$ 488	\$ 502	\$ 502	\$ 502
9000-11 Subscriptions					\$ 546	Budget 2023 Value	-	\$ 546	\$ 562	\$ 578	\$ 595	\$ 612	\$ 630	\$ 630	\$ 630
9000-10 Office Supplies					\$ 772	Budget 2023 Value	-	\$ 772	\$ 794	\$ 817	\$ 841	\$ 866	\$ 891	\$ 891	\$ 891
9000-09 Technical Services					\$ -	Budget 2023 Value	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9000-08 Engineering					\$ 15,697	Budget 2023 Value	-	\$ 15,697	\$ 16,152	\$ 16,620	\$ 17,102	\$ 17,598	\$ 18,108	\$ 18,108	\$ 18,108
9000-07 - Consultants					\$ 408	Budget 2023 Value	-	\$ 408	\$ 420	\$ 432	\$ 445	\$ 457	\$ 471	\$ 471	\$ 471
9000-06 Legal Services					\$ 732	Budget 2023 Value	-	\$ 732	\$ 753	\$ 775	\$ 797	\$ 820	\$ 844	\$ 844	\$ 844
9000-05 Audit					\$ 4,794	Budget 2023 Value	-	\$ 4,794	\$ 4,933	\$ 5,076	\$ 5,223	\$ 5,375	\$ 5,531	\$ 5,531	\$ 5,531
9000-04 Memberships/Annual Dues					\$ 1,241	Budget 2023 Value	-	\$ 1,241	\$ 1,277	\$ 1,314	\$ 1,352	\$ 1,392	\$ 1,432	\$ 1,432	\$ 1,432
9000-03 Communications					\$ 1,152	Budget 2023 Value	-	\$ 1,152	\$ 1,186	\$ 1,220	\$ 1,255	\$ 1,292	\$ 1,329	\$ 1,329	\$ 1,329
9000-02 GRCSO Office Rent/Lease					\$ 3,213	Budget 2023 Value	-	\$ 3,213	\$ 3,306	\$ 3,402	\$ 3,501	\$ 3,602	\$ 3,707	\$ 3,707	\$ 3,707
9000-01 liability insurance					\$ 8,881	Budget 2023 Value	-	\$ 8,881	\$ 9,138	\$ 9,403	\$ 9,676	\$ 9,956	\$ 10,245	\$ 10,245	\$ 10,245
6000-0 Salaries															
6000-0tl Administrative Assistant					\$ 1,483	Budget 2023 Value	-	\$ 1,483	\$ 1,557	\$ 1,635	\$ 1,716	\$ 1,802	\$ 1,892	\$ 1,892	\$ 1,892
6000-07 Business Manager					\$ 20,259	Budget 2023 Value	-	\$ 20,259	\$ 21,272	\$ 22,336	\$ 23,452	\$ 24,625	\$ 25,856	\$ 25,856	\$ 25,856
6000-09 - Utility Systems Operator					\$ 4,365	Budget 2023 Value	-	\$ 4,365	\$ 4,583	\$ 4,812	\$ 5,053	\$ 5,305	\$ 5,570	\$ 5,570	\$ 5,570
6000-10 - General Manager					\$ 48,562	Budget 2023 Value	-	\$ 48,562	\$ 50,990	\$ 53,539	\$ 56,216	\$ 59,027	\$ 61,978	\$ 61,978	\$ 61,978
6000-11 - Office Administrator					\$ -	Budget 2023 Value	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6000-12 - Chief Operator					\$ 19,309	Budget 2023 Value	-	\$ 19,309	\$ 20,274	\$ 21,288	\$ 22,352	\$ 23,470	\$ 24,643	\$ 24,643	\$ 24,643
6000-14 Operator in Training					\$ 17,464	Budget 2023 Value	-	\$ 17,464	\$ 18,337	\$ 19,254	\$ 20,217	\$ 21,228	\$ 22,289	\$ 22,289	\$ 22,289
6000-16 Electrician					\$ 344	Budget 2023 Value	-	\$ 344	\$ 361	\$ 380	\$ 399	\$ 418	\$ 439	\$ 439	\$ 439
6000-03 Payroll taxes					\$ 9,081	Budget 2023 Value	-	\$ 9,081	\$ 9,535	\$ 10,012	\$ 10,513	\$ 11,038	\$ 11,590	\$ 11,590	\$ 11,590
6000-04 Workers Compensation Insurance					\$ 4,048	Budget 2023 Value	-	\$ 4,048	\$ 4,452	\$ 4,898	\$ 5,387	\$ 5,926	\$ 6,519	\$ 6,519	\$ 6,519
8000 - Sewer - Collection Series					\$ 11,142										
8000-01 - S. Grinders Pump systems					\$ 4,215	Budget 2023 Value	-	\$ 4,215	\$ 4,337	\$ 4,463	\$ 4,592	\$ 4,725	\$ 4,862	\$ 4,862	\$ 4,862
8000-05 Sewer Collections Infrastructure					\$ 250	Budget 2023 Value	-	\$ 250	\$ 257	\$ 265	\$ 272	\$ 280	\$ 288	\$ 288	\$ 288
8000-02 STEP Septic Systems - Other					\$ 61,036	User Defined >>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8000-04 Sewer Collections Annual Permit					\$ -	Budget 2023 Value	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8000-03 - S. Septic Tank Pumping					\$ 830	Budget 2023 Value	-	\$ 830	\$ 854	\$ 879	\$ 904	\$ 931	\$ 958	\$ 958	\$ 958
8000-04 - Sewer Collections Annual Per...					\$ 3,453	Budget 2023 Value	-	\$ 3,453	\$ 3,553	\$ 3,656	\$ 3,762	\$ 3,871	\$ 3,984	\$ 3,984	\$ 3,984
8100 - Sewer Treatment Series					\$ 78,686										
8100-13 WRF Electric Utility Facility					\$ 1,996	Budget 2023 Value	-	\$ 1,996	\$ 2,054	\$ 2,113	\$ 2,174	\$ 2,238	\$ 2,302	\$ 2,302	\$ 2,302
8100-11 S. Discharge Permit					\$ 3,889	Budget 2023 Value	-	\$ 3,889	\$ 4,002	\$ 4,118	\$ 4,237	\$ 4,360	\$ 4,487	\$ 4,487	\$ 4,487
8100-12 - WRF Standby Generator Permit					\$ 308	Budget 2023 Value	-	\$ 308	\$ 317	\$ 326	\$ 336	\$ 346	\$ 356	\$ 356	\$ 356
8100-01 WRF Vault and Haul					\$ 2,565	Budget 2023 Value	-	\$ 2,565	\$ 2,639	\$ 2,716	\$ 2,795	\$ 2,876	\$ 2,959	\$ 2,959	\$ 2,959
8100-02 WRF Treatment					\$ 820	Budget 2023 Value	-	\$ 820	\$ 844	\$ 868	\$ 893	\$ 919	\$ 946	\$ 946	\$ 946
8100-03 S. Treatment Field Testing					\$ 215	Budget 2023 Value	-	\$ 215	\$ 221	\$ 227	\$ 234	\$ 241	\$ 248	\$ 248	\$ 248
8100-04 S. Lab Testing					\$ 2,031	Budget 2023 Value	-	\$ 2,031	\$ 2,090	\$ 2,151	\$ 2,213	\$ 2,277	\$ 2,343	\$ 2,343	\$ 2,343
8100-05 WRF Electric Utilities					\$ 6,224	Budget 2023 Value	-	\$ 6,224	\$ 6,404	\$ 6,590	\$ 6,781	\$ 6,978	\$ 7,180	\$ 7,180	\$ 7,180
8100-06 WRF Maintenance					\$ 4,196	Budget 2023 Value	-	\$ 4,196	\$ 4,318	\$ 4,443	\$ 4,572	\$ 4,705	\$ 4,841	\$ 4,841	\$ 4,841
8100-07 WRF Electrical Maintenance					\$ 86	Budget 2023 Value	-	\$ 86	\$ 88	\$ 91	\$ 94	\$ 96	\$ 99	\$ 99	\$ 99
8100-08 WRF Structure & Grounds					\$ 896	Budget 2023 Value	-	\$ 896	\$ 922	\$ 949	\$ 976	\$ 1,004	\$ 1,034	\$ 1,034	\$ 1,034
8100-09 WRF Standby Generator					\$ 450	Budget 2023 Value	-	\$ 450	\$ 463	\$ 476	\$ 490	\$ 505	\$ 519	\$ 519	\$ 519
8200-01 - S. GRCSO Property tax					\$ 469	Budget 2023 Value	-	\$ 469	\$ 483	\$ 497	\$ 511	\$ 526	\$ 541	\$ 541	\$ 541
General Cost Inflation						Budget 2023 Value	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
General Cost Inflation						Budget 2023 Value	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
General Cost Inflation						Budget 2023 Value	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
General Cost Inflation						Budget 2023 Value	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenditures					\$ 149,881	\$ -	\$ 265,671	\$ 204,635	\$ 213,395	\$ 222,565	\$ 232,165	\$ 242,219	\$ 252,749	\$ 252,749	\$ 252,749

Depreciation Expenses	Projection Method	FYE	Historical	Budget		Select Projection	User Override	Projection Value	Projection						
			2021	2022	2023	Value Methodology	Input	2024	2025	2026	2027	2028			
520-50-60000 DEPRECIATION	No Escalation		\$ 95,305	\$ -	\$ 77,139	Budget 2023 Value	-	\$ 77,139	\$ 77,139	\$ 77,139	\$ 77,139	\$ 77,139	\$ 77,139	\$ 77,139	\$ 77,139

**Grizzly Ranch CSD
Sewer
Operating Reserve Funds
Alternative 1-4**



\$ 562,791.00

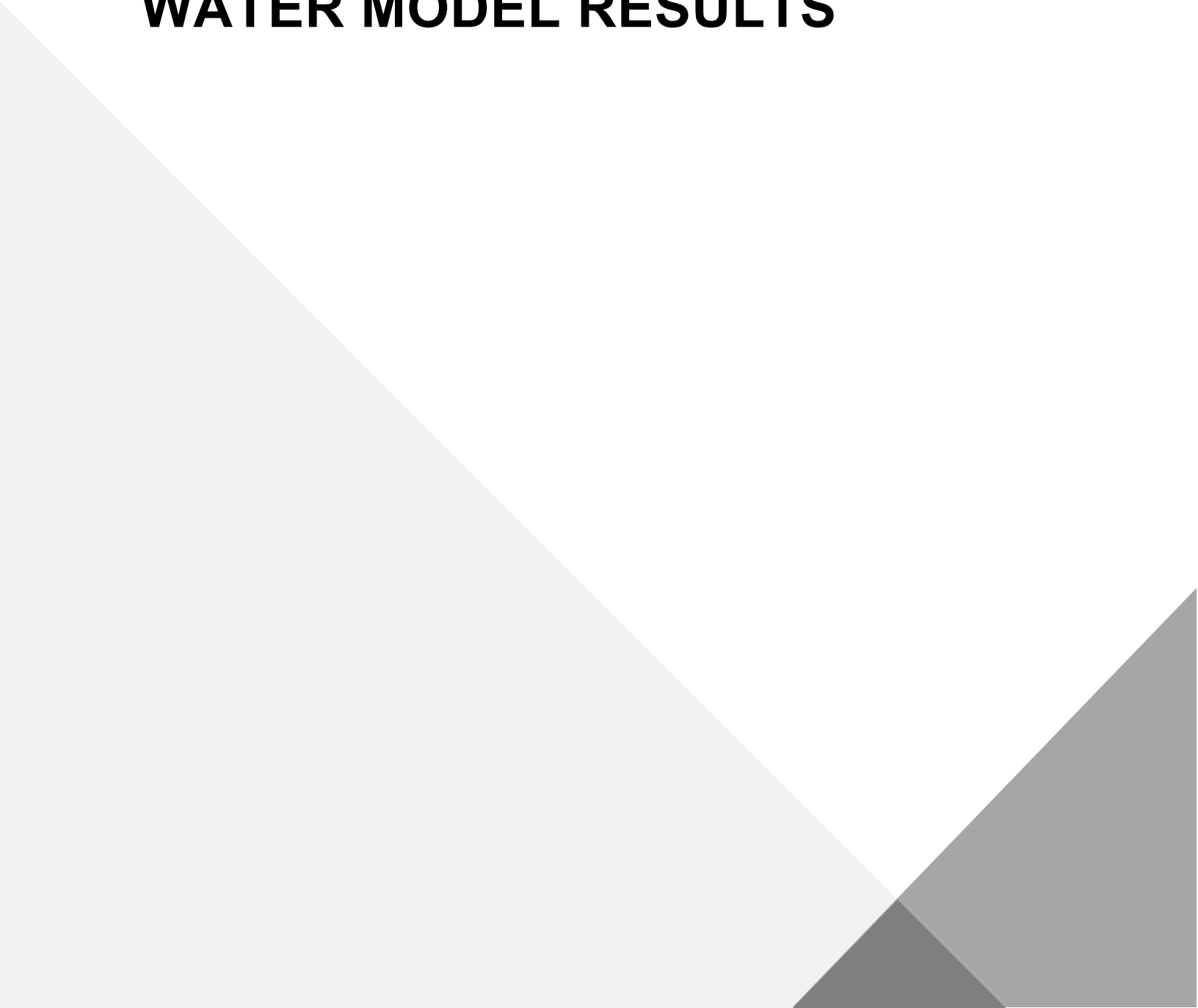
	FYE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Beginning Cash Balance	\$	287,023	\$ 235,571	\$ 216,656	\$ 235,693	\$ 256,361	\$ 278,521	\$ 302,023	\$ 326,695	\$ 332,350	\$ 364,342
Reserve Funded from Rates	\$	-	\$ -	\$ 19,037	\$ 20,668	\$ 22,161	\$ 23,501	\$ 24,672	\$ 5,656	\$ 31,992	\$ 178,701
Reserve Used as Revenue Source	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Used to Fund Shortfalls/Capital Projects	\$	(51,452)	\$ (18,915)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Short Lived Assets	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Working Capital Reserve (Not Restricted)	\$	(18,587)	\$ -	\$ (17,945)	\$ (38,214)	\$ (51,000)	\$ (51,000)	\$ (51,000)	\$ (51,000)	\$ (51,000)	\$ (51,000)
Capital Replacement	\$	(128,506)	\$ (127,802)	\$ (128,506)	\$ (128,506)	\$ (128,506)	\$ (128,506)	\$ (128,506)	\$ (128,506)	\$ (128,506)	\$ (128,506)
Emergency Reserve	\$	(25,500)	\$ (25,500)	\$ (25,500)	\$ (25,500)	\$ (25,500)	\$ (25,500)	\$ (25,500)	\$ (25,500)	\$ (25,500)	\$ (25,500)
Rate Stabilization Reserve (Restricted)	\$	(12,978)	\$ (13,354)	\$ (13,741)	\$ (14,140)	\$ (14,550)	\$ (14,972)	\$ (15,406)	\$ (15,853)	\$ (16,312)	\$ (16,785)
Debt Reserve (Restricted)	\$	(50,000)	\$ (50,000)	\$ (50,000)	\$ (50,000)	\$ (50,000)	\$ (50,000)	\$ (50,000)	\$ (50,000)	\$ (50,000)	\$ (50,000)
Free Cash	\$	-	\$ -	\$ -	\$ -	\$ 8,965	\$ 32,045	\$ 56,282	\$ 61,491	\$ 93,023	\$ 271,251
Ending Cash Balance	\$	235,571	\$ 216,656	\$ 235,693	\$ 256,361	\$ 278,521	\$ 302,023	\$ 326,695	\$ 332,350	\$ 364,342	\$ 543,043
	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Grizzly Ranch CSD
Sewer
Revenue Requirement
Alternative 1-4



	FYE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Revenue Sources			14.21900%	14.21900%	14.21900%	2.90000%	2.90000%	2.90000%	2.90000%	2.90000%	2.90000%
Rate Revenue	\$	259,553	\$ 267,080	\$ 274,825	\$ 282,795	\$ 290,996	\$ 299,435	\$ 308,119	\$ 317,054	\$ 326,249	\$ 335,710
Additional Rate Revenue After Prior Year Adjustment	\$	-	\$ 29,379	\$ 63,787	\$ 103,964	\$ 106,979	\$ 110,082	\$ 113,274	\$ 116,559	\$ 119,939	\$ 123,417
Miscellaneous Revenues	\$	25,555	\$ 26,296	\$ 27,059	\$ 27,843	\$ 28,651	\$ 29,482	\$ 30,337	\$ 31,216	\$ 32,122	\$ 33,053
Reserves [Not Used]											
Total Revenue Sources	\$	285,108	\$ 322,755	\$ 365,671	\$ 414,603	\$ 426,626	\$ 438,999	\$ 451,729	\$ 464,830	\$ 478,310	\$ 492,181
Expenses											
Operation & Maintenance	\$	213,395	\$ 222,565	\$ 232,165	\$ 242,219	\$ 252,749	\$ 263,781	\$ 275,341	\$ 287,458	\$ 300,160	\$ 313,480
Depreciation	\$	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Outlay Directly Funded by Rates	\$	85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ 105,000	\$ 85,000	\$ -
Existing Debt Service	\$	66,716	\$ 66,716	\$ 66,716	\$ 66,716	\$ 66,716	\$ 66,716	\$ 66,716	\$ 66,716	\$ 61,158	\$ -
Future Debt Service	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenue Requirement	\$	365,111	\$ 374,281	\$ 383,881	\$ 393,935	\$ 404,465	\$ 415,497	\$ 427,058	\$ 459,174	\$ 446,318	\$ 313,480
Net Cash Flow (Deficiency)	\$	(80,003)	\$ (51,526)	\$ (18,210)	\$ 20,668	\$ 22,161	\$ 23,501	\$ 24,672	\$ 5,656	\$ 31,992	\$ 178,701
Rate Adjustments	FYE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Rate Revenues with Prior Year Adjustment	\$	259,553	\$ 296,459	\$ 338,612	\$ 386,759	\$ 397,975	\$ 409,517	\$ 421,393	\$ 433,613	\$ 446,188	\$ 459,127
Proposed Rate Adjustment		11.00%	11.00%	11.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Rate Adjustment to Include CPI		13.90%	13.90%	13.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%
Estimated Ending Cash Balance	FYE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Projected Rate Revenue	\$	288,104	\$ 329,069	\$ 375,860	\$ 386,759	\$ 397,975	\$ 409,517	\$ 421,393	\$ 433,613	\$ 446,188	\$ 459,127
Net Cash Flow	\$	(51,452)	\$ (18,915)	\$ 19,037	\$ 20,668	\$ 22,161	\$ 23,501	\$ 24,672	\$ 5,656	\$ 31,992	\$ 178,701
Ending Cash Balance	\$	235,571	\$ 216,656	\$ 235,693	\$ 256,361	\$ 278,521	\$ 302,023	\$ 326,695	\$ 332,350	\$ 364,342	\$ 543,043

APPENDIX 2: WATER MODEL RESULTS





General Assumptions

Study Details

Enter Current Fiscal Year	2023	Assumed Customer Consumption					
Duration of Study Period (Years)	5	Alternative 1-1	Alternative 1-2	Alternative 1-3	Alternative 1-4	Alternative 2-1	Alternative 2-2

Financial Policies

			2023	2024	2025	2026	2027	2028
Working Capital Reserve (Not Restricted)								
Minimum Operating Account Balance	\$ 100,000 49/51		\$ 49,000	\$ 49,000	\$ 49,000	\$ 49,000	\$ 49,000	\$ 49,000
<i>Target \$100,000, non restricted</i>								
Emergency Reserve (Restricted)								
Minimum Amount	\$ 50,000.00 49/51		\$ 24,500	\$ 24,500	\$ 24,500	\$ 24,500	\$ 24,500	\$ 24,500
<i>Target \$50,000, restricted</i>								
Capital Replacement Reserve (Restricted)								
% of the CSD's total net assets	5% Water Only		\$ 169,176.10	\$ 169,176.10	\$ 169,176.10	\$ 169,176.10	\$ 169,176.10	\$ 169,176.10
<i>restricted</i>								
Rate Stabilization Reserve (Restricted)								
% of the District's estimated annual revenue	5% Water Only		\$ 16,479.33	\$ 16,957.23	\$ 17,448.99	\$ 17,955.01	\$ 18,475.71	\$ 19,011.50
<i>Target \$20,000, restricted</i>								
49/51								
Debt reserve (Restricted)								
% of the District's estimated annual revenue	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Target \$50,000 restricted</i>								

Economic Factors that Govern Cost Projections

	Notes	FYE:	2023	2024	2025	2026	2027	2028
1 General Cost Inflation	Last 5-year average		2.90%	2.90%	2.90%	2.90%	2.90%	2.90%
2 Construction Cost Inflation	ENR-CC 10-year moving average		3.20%	3.20%	3.20%	3.20%	3.20%	3.20%
3 Labor Cost Inflation	includes inflation		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
4 Benefits Cost Inflation			10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
5 Customer Growth	Based on Kickoff meeting 1-2 builds per year		0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
6 Cumulative Growth								
7 General Inflation Plus Growth								
8 No Escalation			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9 Investment Rate of Return			1.00%	1.00%	1.00%	1.00%	1.00%	1.00%

Alternative 1-4		Project Cost 2022 Dollars									
Manual Increase; No Depreciation; No Short Lived Assets		5 - Year CIP Projects					10 - Year CIP Projects				
Project Type	Project Name	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
0	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
0	Engineering Study 50water/50sewer	\$ 36,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
0	District Vehicle 50water/50sewer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000	\$ -
0	Rebuild water well	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Condition Assessment	Condition Assessment Phase 1	\$ -	\$ 12,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Condition Assessment	Condition Assessment Phase 2	\$ -	\$ -	\$ -	\$ 28,740	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
0	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Expenditures	Projection Method	Historical Actuals		Budget	Select Projection	User Override	Projection Value	2024	2025	2026	2027	2028
		2021	2022	2023								
O&M Expenses												
Series 9000 General and administrative	General Cost Inflation	\$ 56,733			Budget 2023 Value -	\$ -	\$ -	\$ -	3%	3%	3%	3%
9000-24 Merchant Fees	General Cost Inflation		\$ 250	\$ 250	Budget 2023 Value -	\$ 250	\$ 257	\$ 264		\$ 272	\$ 280	\$ 288
9000-23 · Utility/Operator Worker Mileage	General Cost Inflation		\$ 248	\$ 248	Budget 2023 Value -							
9000-22 Operator in Training Mileage	General Cost Inflation		\$ 839	\$ 839	Budget 2023 Value -	\$ 839	\$ 864	\$ 889		\$ 915	\$ 941	\$ 968
9000-21 Administrative Mileage	General Cost Inflation		\$ 13	\$ 13	Budget 2023 Value -	\$ 13	\$ 14	\$ 14		\$ 15	\$ 15	\$ 16
9000-20 Chief Operator Mileage	General Cost Inflation		\$ 607	\$ 607	Budget 2023 Value -	\$ 607	\$ 624	\$ 643		\$ 661	\$ 680	\$ 700
9000-19 GM Mileage	General Cost Inflation		\$ 2,310	\$ 2,310	Budget 2023 Value -	\$ 2,310	\$ 2,377	\$ 2,446		\$ 2,517	\$ 2,590	\$ 2,665
9000- 18 Contingency	General Cost Inflation		\$ 2,015	\$ 2,015	Budget 2023 Value -	\$ 2,015	\$ 2,074	\$ 2,134		\$ 2,196	\$ 2,259	\$ 2,325
9000-17 Personnel training/travel	General Cost Inflation		\$ 866	\$ 866	Budget 2023 Value -	\$ 866	\$ 891	\$ 917		\$ 944	\$ 971	\$ 999
9000- 16 General Equipment/tools	General Cost Inflation		\$ 1,373	\$ 1,373	Budget 2023 Value -	\$ 1,373	\$ 1,413	\$ 1,454		\$ 1,496	\$ 1,540	\$ 1,584
9000-15 SCADA Operating System	General Cost Inflation		\$ -	\$ -	Budget 2023 Value -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
9000-14 GRCSO Vehicle	General Cost Inflation		\$ -	\$ -	Budget 2023 Value -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
9000-13 Safety	General Cost Inflation		\$ 84	\$ 84	Budget 2023 Value -	\$ 84	\$ 87	\$ 89		\$ 92	\$ 95	\$ 97
9000-12 Office Furniture/Equipment	General Cost Inflation		\$ 418	\$ 418	Budget 2023 Value -	\$ 418	\$ 431	\$ 443		\$ 456	\$ 469	\$ 483
9000-11 Subscriptions	General Cost Inflation		\$ 525	\$ 525	Budget 2023 Value -	\$ 525	\$ 540	\$ 556		\$ 572	\$ 588	\$ 605
9000-10 Office Supplies	General Cost Inflation		\$ 742	\$ 742	Budget 2023 Value -	\$ 742	\$ 763	\$ 785		\$ 808	\$ 832	\$ 856
9000-09 Technical Services	General Cost Inflation		\$ -	\$ -	Budget 2023 Value -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
9000-08 Engineering	General Cost Inflation		\$ 15,081	\$ 15,081	Budget 2023 Value -	\$ 15,081	\$ 15,518	\$ 15,968		\$ 16,431	\$ 16,908	\$ 17,398
			\$ 392	\$ 392								
9000-06 Legal Services	General Cost Inflation		\$ 703	\$ 703	Budget 2023 Value -	\$ 703	\$ 723	\$ 744		\$ 766	\$ 788	\$ 811
9000-05 Audit	General Cost Inflation		\$ 4,606	\$ 4,606	Budget 2023 Value -	\$ 4,606	\$ 4,740	\$ 4,877		\$ 5,018	\$ 5,164	\$ 5,314
9000-04 Memberships/annual Dues	General Cost Inflation		\$ 1,193	\$ 1,193	Budget 2023 Value -	\$ 1,193	\$ 1,227	\$ 1,263		\$ 1,299	\$ 1,337	\$ 1,376
9000-03 Communications	General Cost Inflation		\$ 1,107	\$ 1,107	Budget 2023 Value -	\$ 1,107	\$ 1,139	\$ 1,172		\$ 1,206	\$ 1,241	\$ 1,277
9000-02 GRCSO Office Rent/Lease	General Cost Inflation		\$ 3,087	\$ 3,087	Budget 2023 Value -	\$ 3,087	\$ 3,177	\$ 3,269		\$ 3,363	\$ 3,461	\$ 3,561
9000-01 Liability Insurance	General Cost Inflation		\$ 8,532	\$ 8,532	Budget 2023 Value -	\$ 8,532	\$ 8,780	\$ 9,034		\$ 9,296	\$ 9,566	\$ 9,843
Personnel												
6000-01 Administrative Assistant	Labor Cost Inflation		\$ 1,424	\$ 1,424	Budget 2023 Value -	\$ 1,424	\$ 1,496	\$ 1,570		\$ 1,649	\$ 1,731	\$ 1,818
6000-07 Business Manager	Labor Cost Inflation		\$ 19,465	\$ 19,465	Budget 2023 Value -	\$ 19,465	\$ 20,438	\$ 21,460		\$ 22,533	\$ 23,659	\$ 24,842
6000-10 General Manager	Labor Cost Inflation		\$ 4,193	\$ 4,193	Budget 2023 Value -	\$ 4,193	\$ 4,403	\$ 4,623		\$ 4,854	\$ 5,097	\$ 5,352
6000-11 General Administrator	Labor Cost Inflation		\$ 46,657	\$ 46,657	Budget 2023 Value -	\$ 46,657	\$ 48,990	\$ 51,440		\$ 54,012	\$ 56,712	\$ 59,548
6000-11 · Office Administrator	Labor Cost Inflation		\$ -	\$ -	Budget 2023 Value -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
6000-12 Chief Operator	Labor Cost Inflation		\$ 18,551	\$ 18,551	Budget 2023 Value -	\$ 18,551	\$ 19,479	\$ 20,453		\$ 21,475	\$ 22,549	\$ 23,677
6000-14 Operator in Training	Labor Cost Inflation		\$ 16,779	\$ 16,779	Budget 2023 Value -	\$ 16,779	\$ 17,618	\$ 18,499		\$ 19,424	\$ 20,395	\$ 21,415
6000-16 electrician	Labor Cost Inflation		\$ 331	\$ 331	Budget 2023 Value -	\$ 331	\$ 347	\$ 365		\$ 383	\$ 402	\$ 422
Salaries												
6000-03 Payroll Taxes	Labor Cost Inflation		\$ 8,725	\$ 8,725	Budget 2023 Value -	\$ 8,725	\$ 9,161	\$ 9,619		\$ 10,100	\$ 10,605	\$ 11,136
6000-04 Workers Compensation Insurance	Labor Cost Inflation		\$ 3,889	\$ 3,889	Budget 2023 Value -	\$ 3,889	\$ 4,083	\$ 4,287		\$ 4,502	\$ 4,727	\$ 4,963
water sources and supply	General Cost Inflation	\$ 34,052			Budget 2023 Value -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
7000-06 Wells Electric Utility Facility	General Cost Inflation		\$ 4,917	\$ 4,917	Budget 2023 Value -	\$ 4,917	\$ 5,060	\$ 5,207		\$ 5,358	\$ 5,513	\$ 5,673
7000-01 Wells Electric Utility	General Cost Inflation		\$ 4,515	\$ 4,515	Budget 2023 Value -	\$ 4,515	\$ 4,646	\$ 4,781		\$ 4,920	\$ 5,062	\$ 5,209
7000-02 Wells-Maintenance	General Cost Inflation		\$ 4,112	\$ 4,112	Budget 2023 Value -	\$ 4,112	\$ 4,231	\$ 4,353		\$ 4,480	\$ 4,610	\$ 4,743
7000-03 Wells-structures/grounds maint.	General Cost Inflation		\$ 115	\$ 115	Budget 2023 Value -	\$ 115	\$ 119	\$ 122		\$ 126	\$ 129	\$ 133
7000-04 Wells- Electrical Maintenance	General Cost Inflation		\$ -	\$ -	Budget 2023 Value -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
7000-05 Wells- laboratory testing	General Cost Inflation		\$ 1,930	\$ 1,930	Budget 2023 Value -	\$ 1,930	\$ 1,986	\$ 2,044		\$ 2,103	\$ 2,164	\$ 2,227

**Grizzly Ranch CSD
Water Rate Model
Operating Reserve Funds
Alternative 1-4**



\$ 562,791.00

	FYE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Beginning Cash Balance		\$ 275,768	\$ 379,854	\$ 532,661	\$ 658,365	\$ 814,355	\$ 971,789	\$ 1,130,556	\$ 1,290,534	\$ 1,431,589	\$ 1,593,574
Reserve Funded from Rates		\$ 104,087	\$ 152,807	\$ 125,704	\$ 155,990	\$ 157,434	\$ 158,767	\$ 159,978	\$ 141,055	\$ 161,985	\$ 162,756
Reserve Used as Revenue Source		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Used to Fund Shortfalls/Capital Projects Not Used		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Short lived Assets	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Working Capital Reserve (Not Restricted)		\$ (49,000)	\$ (49,000)	\$ (49,000)	\$ (49,000)	\$ (49,000)	\$ (49,000)	\$ (49,000)	\$ (49,000)	\$ (49,000)	\$ (49,000)
Capital Replacement Reserve		\$ (169,176)	\$ (169,176)	\$ (169,176)	\$ (169,176)	\$ (169,176)	\$ (169,176)	\$ (169,176)	\$ (169,176)	\$ (169,176)	\$ (169,176)
Emergency Reserve (Restricted)		\$ (24,500)	\$ (24,500)	\$ (24,500)	\$ (24,500)	\$ (24,500)	\$ (24,500)	\$ (24,500)	\$ (24,500)	\$ (24,500)	\$ (24,500)
Rate Stabilization Reserve (Restricted)		\$ (16,957)	\$ (17,449)	\$ (17,955)	\$ (18,476)	\$ (19,012)	\$ (19,563)	\$ (20,130)	\$ (20,714)	\$ (21,315)	\$ (21,933)
Debt reserve (Restricted)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-reserve Related Cash		\$ 120,221	\$ 272,536	\$ 397,734	\$ 553,203	\$ 710,101	\$ 868,317	\$ 1,027,728	\$ 1,168,198	\$ 1,329,583	\$ 1,491,721
Ending Cash Balance		\$ 379,854	\$ 532,661	\$ 658,365	\$ 814,355	\$ 971,789	\$ 1,130,556	\$ 1,290,534	\$ 1,431,589	\$ 1,593,574	\$ 1,756,330
<i>Check</i>		\$ 170,708	\$ 170,708	\$ 170,708	\$ 170,708	\$ 170,708	\$ 170,708	\$ 170,708	\$ 170,708	\$ 170,708	\$ 170,708

**Grizzly Ranch CSD
Water Rate Model
Revenue Requirement
Alternative 1-4**



FYE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Revenue Sources										
Rate Revenue	\$ 339,145	\$ 348,980	\$ 359,100	\$ 369,514	\$ 380,230	\$ 391,257	\$ 402,603	\$ 414,279	\$ 426,293	\$ 438,655
Additional Rate Revenue After Prior Year Adjustment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Miscellaneous Revenues	\$ 23,322	\$ 23,983	\$ 24,663	\$ 25,363	\$ 26,083	\$ 26,823	\$ 27,585	\$ 28,369	\$ 29,175	\$ 30,004
Reserves [Not Used]										
Total Revenue Sources	\$ 362,467	\$ 372,963	\$ 383,764	\$ 394,877	\$ 406,313	\$ 418,080	\$ 430,188	\$ 442,647	\$ 455,468	\$ 468,660
Expenses										
Operation & Maintenance	\$ 211,380	\$ 220,156	\$ 229,320	\$ 238,888	\$ 248,879	\$ 259,313	\$ 270,210	\$ 281,593	\$ 293,483	\$ 305,903
Depreciation	0	-	-	-	-	-	-	-	-	-
Capital Outlay Directly Funded by Rates	\$ 47,000	\$ -	\$ 28,740	\$ -	\$ -	\$ -	\$ -	\$ 20,000	\$ -	\$ -
Existing Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Future Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenue Requirement	\$ 258,380	\$ 220,156	\$ 258,060	\$ 238,888	\$ 248,879	\$ 259,313	\$ 270,210	\$ 301,593	\$ 293,483	\$ 305,903
Net Cash Flow (Deficiency)	\$ 104,087	\$ 152,807	\$ 125,704	\$ 155,990	\$ 157,434	\$ 158,767	\$ 159,978	\$ 141,055	\$ 161,985	\$ 162,756
Rate Adjustments										
FYE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Rate Revenues with Prior Year Adjustment	\$ 339,145	\$ 348,980	\$ 359,100	\$ 369,514	\$ 380,230	\$ 391,257	\$ 402,603	\$ 414,279	\$ 426,293	\$ 438,655
Number of Months Rate Adjustment will be in Effect	12	12	12	12	12	12	12	12	12	12
Proposed Rate Adjustment	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
CPI Adjustment	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%
Estimated Ending Cash Balance										
FYE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Projected Rate Revenue	\$ 339,145	\$ 348,980	\$ 359,100	\$ 369,514	\$ 380,230	\$ 391,257	\$ 402,603	\$ 414,279	\$ 426,293	\$ 438,655
Net Cash Flow	\$ 104,087	\$ 152,807	\$ 125,704	\$ 155,990	\$ 157,434	\$ 158,767	\$ 159,978	\$ 141,055	\$ 161,985	\$ 162,756
Ending Cash Balance	\$ 550,563	\$ 703,369	\$ 829,073	\$ 985,063	\$ 1,142,497	\$ 1,301,264	\$ 1,461,242	\$ 1,602,297	\$ 1,764,282	\$ 1,927,038