HANSFORD ECONOMIC CONSULTING LLC

Grizzly Flats Community Services District

Amended Final Utility Rates and Fees Study

February 12, 2024

HEC No. 230408

The following report was prepared by Hansford Economic Consulting LLC.

The analyses and findings contained within this report are based on primary data provided by the Grizzly Flats Community Services District, as well as additional secondary sources of data available as of the date of this report. Updates to information used in this report could change or invalidate the findings contained herein. While it is believed that the primary and secondary sources of information are accurate, this is not guaranteed.

Every reasonable effort has been made in order that the data contained in this study reflect the most accurate and timely information possible. No responsibility is assumed for inaccuracies in reporting by the client, its consultants and representatives, or any other data source used in the preparation of this study. No warranty or representation is made that any of the projected values or results contained in this study will actually be achieved. There will usually be differences between forecasted or projected results and actual results due to changes in events and circumstances.

Changes in economic and social conditions due to events including, but not limited to, major recessions, droughts, major environmental problems or disasters that would negatively affect operations, expenses and revenues may affect the result of the findings in this study. In addition, other factors not considered in the study may influence actual revenues achieved. Any applications for financing, or bond sales analyses, should re-evaluate the financial health and projection of revenues and expenses at the time of the application or preparation for bond sale.

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Section 1: INTRODUCTION

1.1 STUDY BACKGROUND AND BEST PRACTICES

Background

The Grizzly Flats Community Services District (District or Grizzly Flats CSD) provides treated water services within its service territory of about 1,450 acres, encompassing the Grizzly Flats community. Grizzly Flats is located south of Interstate 50, approximately 22 miles by road from Placerville. The closest community is Somerset, approximately 11 miles by road. The District's service territory is typical of the Sierra Nevada, in mountainous terrain with pine trees. In August 2021, the Caldor Fire devastated the area, destroying 395 (about two-thirds) of all homes, the elementary school, post office, church, and fire protection district station.

The District contracted with Hansford Economic Consulting (HEC) to perform a Water Rates and Fee Study (Study) to determine the level of funding required over the next five years to sufficiently fund service provision, and to update the water capacity fee paid by new development to connect to the water system. The last rate study was conducted in 2016 and the District's finances and customer base has changed significantly since then due to the Caldor Fire.

The monthly property-related fees (also called "rates" in the Study) are subject to California Constitution Article XIII D (commonly referred to as Proposition 218) requirements for water, wastewater, and solid waste property-related fees. This Study provides an explanation of, and justification for, calculated monthly water rates through June 30, 2029 (a five-year period), and documents adherence to the law regarding the setting of property-related fees by a special district. Specifically, the California Constitution requires that the fees for water service shall not be extended, imposed, or increased by any agency unless they meet all the following requirements:

(1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.

(2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.

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

(4) No fee or charge may be imposed for a service unless that service is used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted.

(5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance, or library services, where the service is available to the public at large in substantially the same manner as it is to property owners.

The financial model projects revenues and expenses and calculates monthly property-related fees for the next five years continuing with its current combination of rates, assessments, and fees to support the operating and capital expenses of the water system.

In addition to calculating monthly rates, the water financial model calculates capacity fees, which are one-time, non-recurring fees. Capacity fees are adopted and collected pursuant to the Mitigation Fee Act (California Code 66013).

- To adopt the **calculated rates**, the District will proceed with public notification and a public hearing as required by Proposition 218.

- To adopt **capacity fees**, the District must provide notice in a newspaper of general circulation (or at 3 conspicuous locations) and hold a public hearing.

Best Practices

Fee studies are typically conducted every three to five years to ensure revenue sufficiency. A cost-of-service analysis, which not only determines rates to support revenue sufficiency, but also examines whether customers are paying for their share of system costs and adjusts rates and customer classifications to achieve equity to the maximum extent practicable, is advisable whenever there has been a shift in the economic base of the community, and whenever proportional cost of service is in question.

As part of the regular periodic reviews of the utility fee, best practices include maintaining financial self-sufficiency, setting policies on reserve levels for the utility fund (if not already in place), and conducting regular customer outreach/ communications to educate the community on their utility system and value of the service provided.

Table 1 shows utility best practices and the District's current practices. The District is very well run and cost-efficient; the need for the Study is the impact of the Caldor Fire on the District's financial health, and a need to evaluate the rate structure given the changed operating conditions since the fire.

Table 1
Water Utility Best Practices

Best Practice	Grizzly Flats CSD
Rate study every 3 to 5 years	The last rate study was conducted in 2016. There was a 2-year delay in the 5-year cycle due to the Caldor Fire.
Collect for system rehabilitation (for upkeep of existing infrastructure) in rates	Rehabilitation is included in the rates, but it needs to increase to keep pace with inflationary cost pressures.
Regular customer communications to educate on the utility systems and value of service	The District uses bill inserts and a quarterly newsletter to communicate with customers.
Meet bond covenants	The District has had a loan with USDA since 2011; it has maintained all requirements of its bond covenants.
Self-sufficient enterprise fund	Since the Caldor Fire, the District has struggled to fund operating costs (the fiscal year 2024 budget does not cover operating costs); in addition, many infrastructure repairs are still needed that will be grant-funded but on a reimbursement basis, requiring the District to have greater cash reserves than it currently has (or has as a target).
Meet target cash balance	The District met its target cash balances in fiscal year 2022 but will be short of its target cash balance in future years without rate increases.

1.2 RATE SETTING PRINCIPLES AND ORGANIZATION OF THE REPORT

This report was prepared using the principles established by the American Water Works Association. The American Water Works Association "Principles of Water Rates, Fees, and Charges: Manual of Water Supply Practices M1 (the "M1 Manual") establishes commonly accepted professional standards for cost-of-service studies. The M1 Manual general principles of rate structure design and the objectives of the study are described below.

According to the M1 Manual, the first step in the ratemaking analysis is to determine the adequate and appropriate funding of a utility. This is referred to as the "revenue requirements" analysis. The analysis considers the short-term and long-term service objectives of the utility over a given planning horizon, including capital facilities and system operations and maintenance, to determine the adequacy of a utility's existing rates to recover its costs.

After determining a utility's revenue requirements, a utility's next step is determining the cost-of-service. Utilizing a public agency's approved budget, financial reports, operating data, and capital improvement plans, a rate study generally categorizes (functionalizes) the costs, expenses, and assets of the water system among major operating functions to determine the cost-of-service.

After the assets and the costs of operating those assets are properly categorized by function, the rate study allocates those "functionalized costs" to the customer types. Rate design is the final part of the M1 Manual's rate-making procedure and generally uses the revenue requirement and cost-of-service analysis to determine appropriate rates for each customer class.

The study is presented in five sections:

Section 1: Introduction, summary of findings, and calculated fees.

Section 2: Information about the water system including the customer base, the water fund, and future infrastructure capital needs.

Section 3: Projection of the revenue requirement and estimated future cash balances assuming the calculated rates are adopted.

Section 4: Water rates calculations and a comparison of calculated water bills with water bills in neighboring and similar communities.

Section 5: Capacity fee calculations.

Appendix A includes support tables for the water rates analysis.

1.3 KEY FINDINGS AND CALCULATED FEES

This Study makes the following key findings:

Monthly Rates

- The District should continue to collect monthly base rates from all water connections with service at the property, or immediately available to it, whether the customer is actively taking water through their service pipe or not.

- Both the base monthly charges and the water use rate need to be increased. Operating revenues are projected to be insufficient to cover operating expenses in fiscal year 2024, which will draw on cash reserves, and the District is not currently in compliance with its debt covenants. The District needs to build its reserve funds to complete restoration of the water system and it needs to raise rates to pay for projected increasing operating expenses as well as to stay compliant with the USDA loan requirement for debt service coverage. The new rates are assumed to be effective July 1, 2024 in the Study.

- The 2015 San Juan Capistrano decision reaffirmed that rates must be proportional to the costs of service received. Customers with larger water meters have greater capacity to use the water system; therefore, the recommended rate structure charges the base monthly water rates by water meter size.

Calculated cost-of-service rates are shown in **Table 2**.

Table 2
Calculated Water Rates

Charge Implementation -->	**FY 2025** 1-Jul-24	**FY 2026** 1-Jul-25	**FY 2027** 1-Jul-26	**FY 2028** 1-Jul-27	**FY 2029** 1-Jul-28
Base Charge per Month					
1-inch or smaller	$87.53	$89.42	$91.52	$94.27	$97.11
1.5-inch	$175.06	$178.84	$183.03	$188.53	$194.23
2-inch	$280.09	$286.14	$292.85	$301.65	$310.76
3-inch	$560.18	$572.28	$585.71	$603.30	$621.52
4-inch	$875.28	$894.19	$915.17	$942.66	$971.13
6-inch	$1,750.56	$1,788.38	$1,830.33	$1,885.32	$1,942.25
8-inch	$2,800.89	$2,861.41	$2,928.53	$3,016.51	$3,107.60
Use Charge, per HCF [1]	$3.87	$3.97	$4.07	$4.21	$4.35

Source: HEC rate study, February 2024. calc

[1] Rate also applies to construction water. District staff assign a fire hydrant and install a hydrant flow meter (for a call-out fee) for temporary use.

Total Monthly Water Charges

Table 3 shows the total monthly charges payable by homes at different monthly usage levels. Water usage is expressed in hundred cubic feet (HCF or 'units').

1. Home using 12 HCF per month.
2. Home using 6 HCF per month.
3. Home not using water.

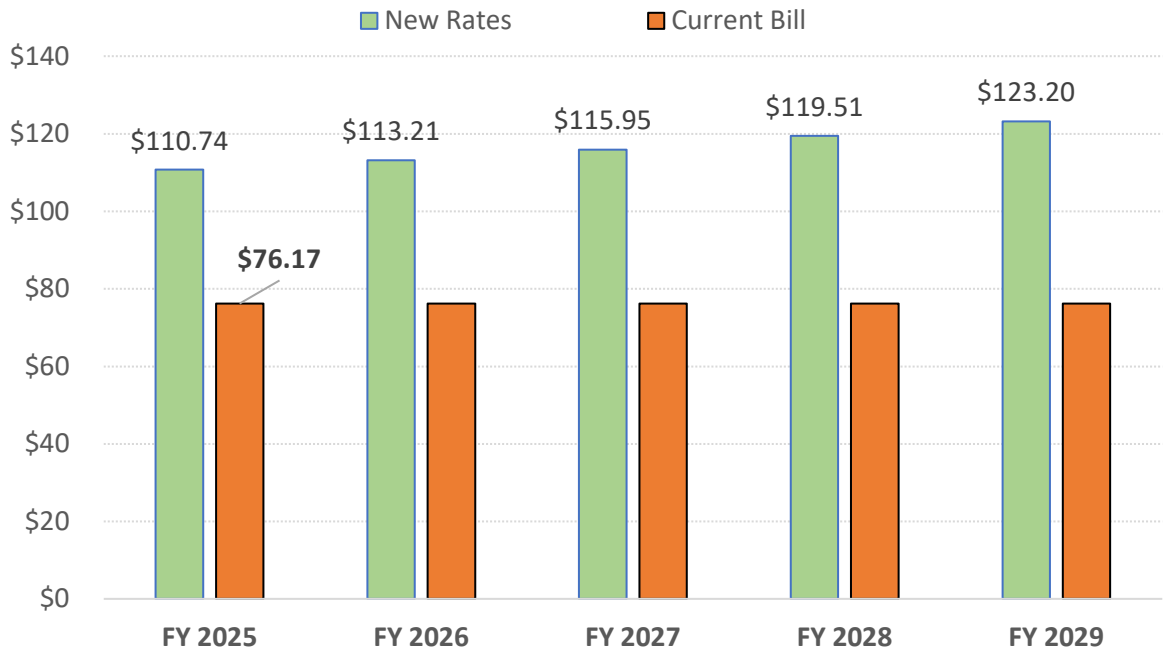
Figure 1 summarizes the monthly total cost for a home using 6 HCF under the current rate structure (base charge + use charge), and the new rate structure (increased base charge + increased use charge) for the next five years. Currently, a home using 6 HCF pays $76.17; starting July 2024 the bill would be $110.74. In the last year of the increases, year 5 (fiscal year ending 2029), the water bill would be $123.20.

Table 3
Monthly Bill Impact for a Home

Charge Type	Current Implementation ->	FY 2025 1-Jul-24	FY 2026 1-Jul-25	FY 2027 1-Jul-26	FY 2028 1-Jul-27	FY 2029 1-Jul-28
Rates						
Base Rate, per Month	$68.97	$87.53	$89.42	$91.52	$94.27	$97.11
Use Rate, per HCF	$1.20	$3.87	$3.97	$4.07	$4.21	$4.35
Example Bills						
Home using 12 HCF	$83.37	$133.96	$137.01	$140.37	$144.75	$149.29
Home using 6 HCF	$76.17	$110.74	$113.21	$115.95	$119.51	$123.20
Home not using water	$68.97	$87.53	$89.42	$91.52	$94.27	$97.11

Source: HEC February 2024. sum

Figure 1
Monthly Water Cost for a Home using 6 HCF



Capacity Fees

- The water capacity fee should be increased to pay for buy-in to the existing system, assuming all facilities are fully functional (not damaged by the Caldor Fire).

- It is recommended that the water capacity fee be increased from $6,030 per Equivalent Residential Unit (ERU) to $8,326 per ERU, and that the residential fee be charged per building square foot. Non-residential developments would be charged by water meter size, as shown in **Table 4**.

- Under the authority of the Mitigation Fee Act, section 66013, the District will apply the updated capacity fee to Accessory Dwelling Units (ADUs). California law allows the building of ADUs on single-family and multi-family zoned property. A new detached ADU may be charged a capacity fee whenever it is built. A new attached ADU may be charged a capacity fee ONLY when it is constructed with a new single-family home.

- Updating the water capacity fees is a faster process that updating or adopting new rates and taxes. It is recommended that the District implement the water capacity fee as soon as possible.

Table 4
Recommended Capacity Fee Schedule

New Development Use Type	2024 Capacity Fee
Residential (per building sq. ft.)	**$5.32**
Non-Residential (by meter size)	
1-inch or smaller	$8,485
1.5-inch	$16,971
2-inch	$27,153
3-inch	$54,306
4-inch	$84,854
6-inch	$169,707
8-inch	$271,531

Source: HEC February 2024. conn fees

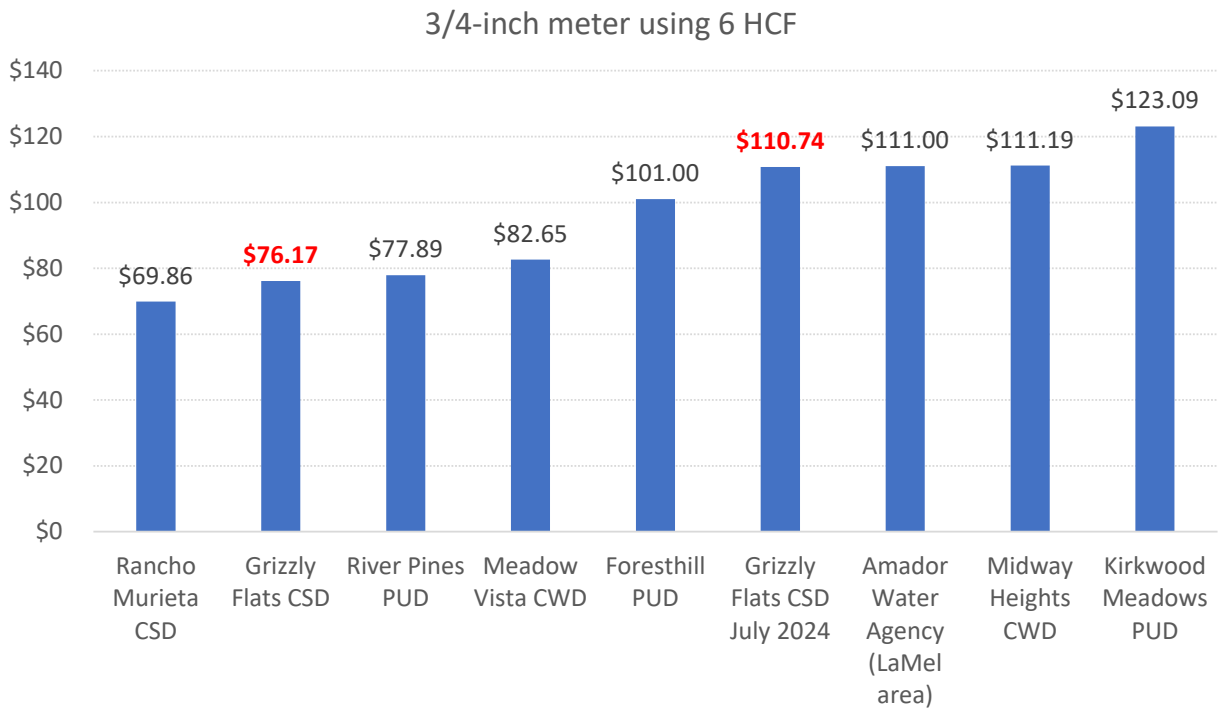
It is recommended that the District update the Water Capacity Fee every January 1 based on the change in the San Francisco Engineering News-Record Construction Cost Index for the previous 12 months November to November period.

1.4 COMPARISON OF WATER BILLS WITH OTHER WATER PROVIDERS

Figure 2 compares the District's current and calculated water bill for a home using 6 HCF with the bills of other regional water providers.

Currently, Grizzly Flats customers have very similar water bills as customers in Rancho Murieta and River Pines. With the calculated rate increase in July 2024, the water bill will be close to that of homes served by the Amador Water Agency and the Midway Heights County Water District, both of which are also in the foothills of the Sierra Nevada.

Figure 2
Comparison Monthly Water Bills for a Home using 6 HCF



Section 2: GRIZZLY FLATS CSD WATER SYSTEM

2.1 SYSTEM DESCRIPTION

Grizzly Flats is located south of Interstate 50, approximately 22 miles by road from Placerville. The closest community is Somerset, approximately 11 miles by road. The District's service territory is typical of the Sierra Nevada, in mountainous terrain with pine trees. Most of the water system was built in the 1960's and 1970's. The water system is fed by two diversions of snowmelt water (Big Canyon Springs and North Canyon Springs). Water is treated with chlorine at the treatment plant before being released into the distribution system.

In August 2021, the Caldor Fire devastated the area, destroying about two-thirds of homes, the elementary school, post office, church, and fire protection district station.

2.2 CUSTOMER BASE

The District's service territory encompasses 1,220 lots. The District was about 50% built-out before the Caldor Fire. As of summer 2023, the District has service available to 584 lots. These include the properties that have not had structures on them since the Caldor Fire. An additional 22 lots have paid capacity fees but are currently unbillable because their services have not yet been repaired for fire damage. The District will have all 622 services restored by the start of fiscal year 2025 (July 1, 2024).

Currently, there is one service that has paid the capacity fee for a water service larger than 1-inch. This property is currently billed at the base rate for a 1-inch or smaller service, pursuant to District Ordinance 88-1 and the current rate schedule adopted in 2016. The proposed rate schedule will have different base charges according to water meter size to ensure proportionality requirements are met pursuant to Proposition 218. To calculate the rates by water meter size, the Study calculates the number of equivalent meter units (EMUs). The total number of billable services and calculated number of EMUs is shown in **Table 5**.

Like most mountain towns in the western U.S., Grizzly Flats experiences greater water demand in the summer than the winter due greater visitation by seasonal property users and outside applications of water. **Figure 3** shows water use by month pre-Caldor Fire and post-Caldor Fire. The seasonal variation has been less pronounced since the fire because there are fewer residents and less visitation, but over time it is anticipated that the seasonal water use pattern will return to pre-fire use. **Appendix Table A-1** shows water use by month, by year. Water use by month was averaged for periods when water meter reads were not taken, such as August 2021 through January 2022 due to the Caldor Fire, and other occasional months during the winter when snow covered the meter boxes.

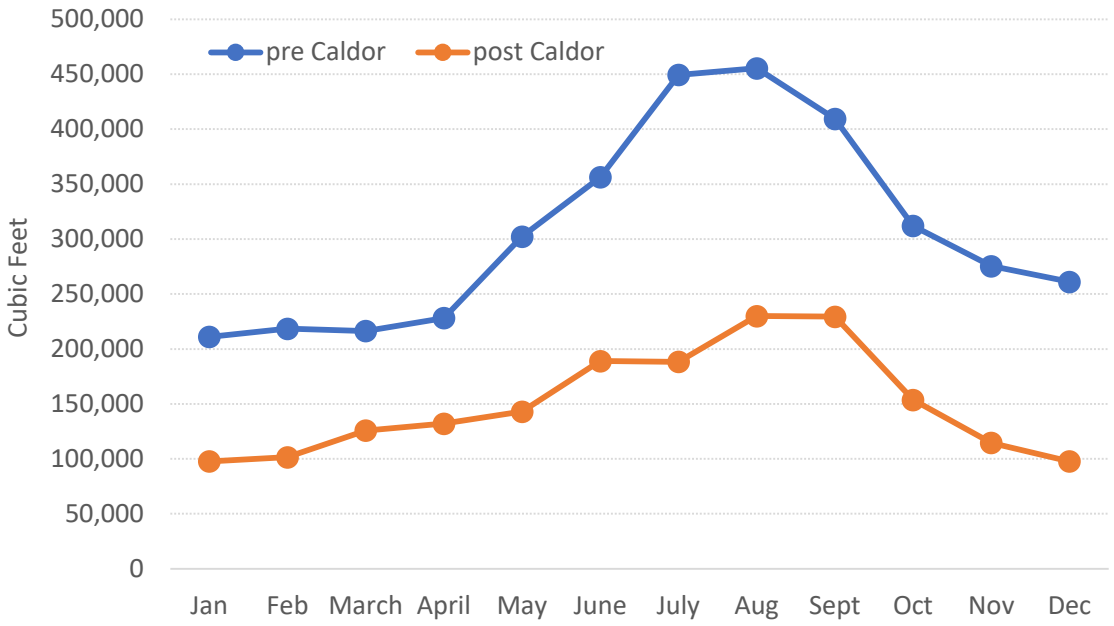
Table 5
Billable Meters and Equivalent Meter Units

Meter Size	Number of Billing Meters	AWWA Meter Ratios: Meter Flow (gpm) [1]	AWWA Meter Ratios: Ratio to 1-inch Meter	AWWA Meter Ratios: Equivalent Meter Units
1-inch or smaller	621	50	1.0	621
1.5-inch	0	100	2.0	0
2-inch	1	160	3.2	3
3-inch	0	320	6.4	0
4-inch	0	500	10.0	0
6-inch	0	1,000	20.0	0
8-inch	0	1,600	32.0	0
Total	**622**			**624**

Source: Grizzly Flats CSD and AWWA M1 Manual. ratios

[1] AWWA-tested meter flow for any type of meter smaller than 2-inches and Class I compound meters 2-inch and larger.

Figure 3
Seasonal Water Use



Growth in Customers and Water Demand

Over time, the District will see water use increase back to pre-fire levels as customers who paid their capacity fees and had improved properties before the fire but that are now vacant, unimproved properties, rebuild their properties. In addition, undeveloped properties are developing and adding to the rate-paying customer base. Last year, the County had 53 applications for property development within the service area. Of that activity, 4 applications were for lots not previously served by the District (before the Caldor Fire). Using this information, an estimate of units built or rebuilt was projected for the next five years to estimate total water use by year. The projection is shown in **Table 6**. Of the total 584 lots with water service (to be increased to 622 lots by the end of fiscal year 2024), 271 are improved and use water. At the end of the five-year period, it is projected that 440 lots will be using water.

Table 6
Projected Customer Growth and Water Use

Item	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Assumed Number of Units Built or Rebuilt [1]		*26*	*52*	*39*	*26*	*26*
Number of Residential Units using Water	271	297	349	388	414	440
Average Monthly Water Use (HCF) per Unit	5.6	5.6	5.6	5.6	5.6	5.6
Estimated Annual Water Demand (HCF)	**18,211**	**19,958**	**23,453**	**26,074**	**27,821**	**29,568**

Source: GFCSD meter reads and HEC, February 2024. proj

[1] In fiscal year 2022/23, 53 building permits were pulled. The schedule assumes completion of half that each year the first two years, and 26 permits each year thereafter, also half completed each year.

2.3 FINANCIAL HEALTH OF THE DISTRICT

Historical financial audited statements are summarized in **Table A-2** of Appendix A for fiscal years ending 2018 through 2022. Excluding depreciation, which is not a cash expense, the District maintained positive net income before the Caldor Fire. In fiscal year 2022, the first year to record the effects of the Caldor Fire, net income excluding depreciation was negative $224,000 (rounded). The primary cause of the negative net income in fiscal year 2022 was loss of water sales (rate revenues).

Table 7 shows the year-to-year change in cash and cash equivalents and the amount of cash reserves at the end of each fiscal year that is Restricted or Unrestricted. The District had to draw on its cash reserves after the Caldor Fire due to the decrease in water rates revenue. The District used most of its restricted cash reserve to pay the USDA debt service to maintain compliant with bond covenants.

Cash increased between fiscal year 2022 and fiscal year 2023 because the District resumed billing base rates to all customers with service available at their property.

Table 7
Historical District Cash and Cash Equivalents

Item	Fiscal Year Ending					
	2018	2019	2020	2021	2022	2023
					[1]	
Beginning of Year	$770,501	$752,350	$801,005	$909,402	$926,483	$574,795
End of Year	$752,350	$801,005	$909,402	$926,483	$574,795	$1,050,295
(Drawdown) or Addition to Cash	**($18,151)**	**$48,655**	**$108,397**	**$17,081**	**($351,688)**	**$475,500**
Restricted	$42,856	$42,941	$42,008	$41,980	$42,451	$41,186
Unrestricted	**$709,494**	**$758,064**	**$867,394**	**$884,503**	**$532,344**	**$1,009,109**

Sources: GFCSD audited financial statements. cash

[1] Caldor Fire started August 2021. Costs would start to show in fiscal year 2022.

The District adopted unrestricted target cash reserves in Resolution 2016-01 as shown in **Table 8**. The District has a cash reserve target of $305,000 for operations and a cash reserve target of $550,000 for capital projects. In total, the District's target is $850,000 in cash reserves. The District has recovered financially from its deficit in fiscal year 2022; however, reserves are only about $150,000 over the target balances. The District has many financial uncertainties ahead in its endeavor to fully repair the water system as it waits for grant funding sources to be disbursed; in addition, the District will have to wait for reimbursement from some of the grant sources, requiring greater than typical needs cash reserves.

Table 8
Unrestricted Reserve Targets

Reserve Accounts	Fiscal Year	
	2022	2023
Unrestricted Reserves	**$532,344**	**$1,007,500**
Operations		
Asset Management	$75,000	$75,000
Emergencies	$150,000	$150,000
General O&M	$80,000	$80,000
Total Operations Reserve Target	**$305,000**	**$305,000**
Remaining after Operations	**$227,344**	**$702,500**
Capital		
CIP Dedicated	$275,000	$275,000
CIP Restricted	$250,000	$250,000
Hydrant Replacement	$25,000	$25,000
Total Capital Reserves Target	**$550,000**	**$550,000**
Remaining after Ops. And Capital	**($322,656)**	**$152,500**

Source: FY2022 audit and GFCSD Resolution 2016-01. targ

Section 3: PROJECTED COSTS AND REVENUES

3.1 OPERATING COSTS AND EXISTING DEBT

Table 9 shows operating expenses 2019 through 2022 as well as the unaudited estimates of operating expenses in fiscal year 2023 and budgeted operating expenses for fiscal year 2024. The budget for fiscal year 2024 includes a new part-time employee, which accounts for most of the budgeted increase over fiscal year 2023.

Table 9
Historical Operating and Capital Costs

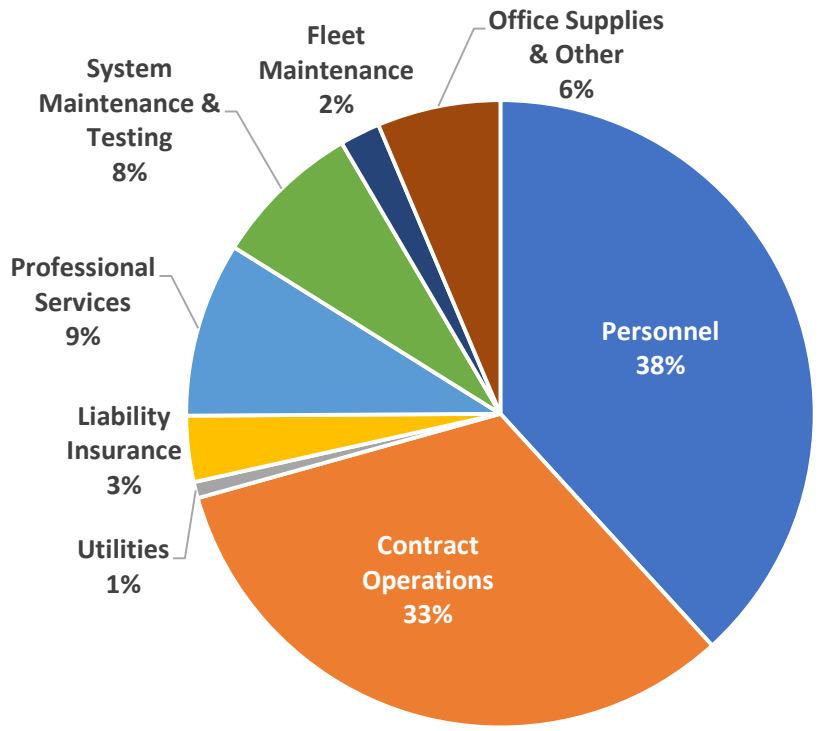
Cost Category	Fiscal Year Ending					
	2019	2020	2021	2022	2023	2024
Operating Expenses					Unaudited	Budget
Personnel	$260,064	$267,912	$274,274	$237,215	$177,199	$235,756
Contract Operations	$178,073	$173,991	$172,722	$168,735	$125,600	$200,000
Utilities	$9,435	$8,085	$9,958	$5,040	$5,101	$5,150
Liability Insurance	$15,756	$16,688	$22,481	$17,191	$17,232	$20,988
Professional Services	$7,430	$8,919	$7,413	$1,049	$31,309	$55,500
System Maintenance & Testing	$48,550	$27,983	$34,379	$11,784	$46,487	$47,300
Fleet Maintenance	$10,825	$11,505	$8,439	$6,555	$12,500	$12,800
Office Supplies & Other	$38,566	$62,549	$72,051	$27,325	$47,124	$39,150
Total Operating Expenses	**$568,698**	**$577,630**	**$601,716**	**$474,894**	**$462,551**	**$616,644**
Capital Projects						
Fire Hydrants	$0	$0	$3,820	$0	$0	$0
All Other Water System	$13,720	$4,836	$0	$0	$0	$0
Total Capital Projects	**$13,720**	**$4,836**	**$3,820**	**$0**	**$0**	**$0**

Source: GFCSD financial records. exps

Projected operating costs are based on the fiscal year 2024 budget, assuming the new part-time position, approved for fiscal year 2024, has been filled. The largest operating costs are for personnel (salaries and benefits) at 38% of total cost, and contract operations at 33% of total cost. **Figure 4** shows a breakdown of budgeted expenses for fiscal year 2024.

The District sold Certificates of Participation to the United States Department of Agriculture (USDA) in 2011 to pay for water system improvements. The loan carries annual debt service of about $41,186. The loan will be paid off in fiscal year 2051. The loan repayment schedule is provided in Appendix A, **Table A-3**.

Figure 4
Budgeted Fiscal Year 2024 Operating Expenses



3.2 System Rehabilitation and Rebuild Improvements Costs

Customers are responsible for the upkeep of existing system facilities, as well as capital costs (and associated soft costs) of new facilities. Depreciation of the water system assets is used as a proxy for the amount that should be collected each year to fund system rehabilitation. The calculated annual depreciation is $101,000 for fiscal year 2024; however, depreciation has not been included in the rate calculations because the District will be rebuilding most of its system with grants. The list of projects identified to restore the water system to full pre-Caldor condition to serve rebuilt and new services is summarized in **Table 10.**

It is anticipated that almost all the costs to rebuild the water system will be paid for with grants; however, the timing for receiving the funds from grant sources is unknown.

Table 10
Projected System Improvement Costs

Improvement	Funding	Estimated Cost
		2023 $'s
Completion of Fire Damage Repairs	FEMA/Cal OES	$300,000
Clearwell and Booster Pump Station Reliability	ARPA Grant	$2,530,000
Hazard Tree removal along Eagle Ditch	USDA Grant	$998,250
Intake Diversions Watershed Restoration [1]	FEMA/Cal OES	$209,850
System Rebuild & Improvements Cost Estimate		**$4,038,100**

Source: GFCSD staff and HEC, June 2023. cip

[1] Includes repairing Eagle Ditch pipeline, North Canyon diversion intake, and Big Canyon diversion intake. The cost estimate could increase if mitigation funds are approved.

3.3 PROJECTED REVENUE REQUIREMENT

The revenue requirement is the amount of money that must be raised through monthly fees each year to achieve revenue sufficiency. The projected revenue requirement over the next five years is provided in **Table 11**.

Currently the District raises about $503,000 annually from rates which falls shy of the projected revenue requirement of about $650,000 for fiscal year ending 2024. In the first year of the rate increase, rates need to increase to about $756,000.

Table 11
Projected Revenue Requirement

Expense Items	Annual Escalator	FY 2024	FY 2025 1	FY 2026 2	FY 2027 3	FY 2028 4	FY 2029 5
Operating Expenses							
Personnel	4.0%	$235,800	$245,300	$255,200	$265,500	$276,200	$287,300
Contract Operations [1]	3.0%	$200,000	$272,300	$280,500	$289,000	$297,700	$306,700
Utilities	7.0%	$5,200	$5,600	$12,100	$13,000	$14,000	$15,000
Liability Insurance	3.0%	$21,000	$21,700	$22,400	$23,100	$23,800	$24,600
Professional Services	3.0%	$55,500	$57,200	$59,000	$60,800	$62,700	$64,600
System Maintenance & Testing	3.0%	$47,300	$48,800	$50,300	$51,900	$53,500	$55,200
Fleet Maintenance	3.0%	$12,800	$13,200	$13,600	$14,100	$14,600	$15,100
Office Supplies & Other	3.0%	$39,200	$40,400	$41,700	$43,000	$44,300	$45,700
Subtotal Operating Expenses		**$616,800**	**$704,500**	**$734,800**	**$760,400**	**$786,800**	**$814,200**
Capital Expenses and Reserves							
Debt Service (rounded)		$41,200	$41,200	$41,200	$41,200	$41,200	$41,200
Compliance Fees	3.0%	$1,100	$1,200	$1,300	$1,400	$1,500	$1,600
Net Revenue Coverage			$16,600	$5,000	$0	$0	$0
Short-Lived Asset Reserve [2]		$4,500	$4,500	$4,500	$4,500	$4,500	$4,500
Subtotal Capital Expenses & Reserves		**$46,800**	**$63,500**	**$52,000**	**$47,100**	**$47,200**	**$47,300**
Total Expenses		**$663,600**	**$768,000**	**$786,800**	**$807,500**	**$834,000**	**$861,500**
Credits							
Water User Penalties		$6,000	$6,000	$6,000	$6,000	$6,000	$6,000
Interest		$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Service Installation		$2,000	$1,000	$1,000	$1,000	$1,000	$1,000
Miscellaneous		$4,000	$4,000	$4,000	$4,000	$4,000	$4,000
Total Credits		**$13,000**	**$12,000**	**$12,000**	**$12,000**	**$12,000**	**$12,000**
Revenue Requirement		**$650,600**	**$756,000**	**$774,800**	**$795,500**	**$822,000**	**$849,500**
FY 2024 Rates Revenue Estimate		$503,000	$503,000	$503,000	$503,000	$503,000	$503,000
Increase Needed from FY 2024			**$253,000**	**$271,800**	**$292,500**	**$319,000**	**$346,500**

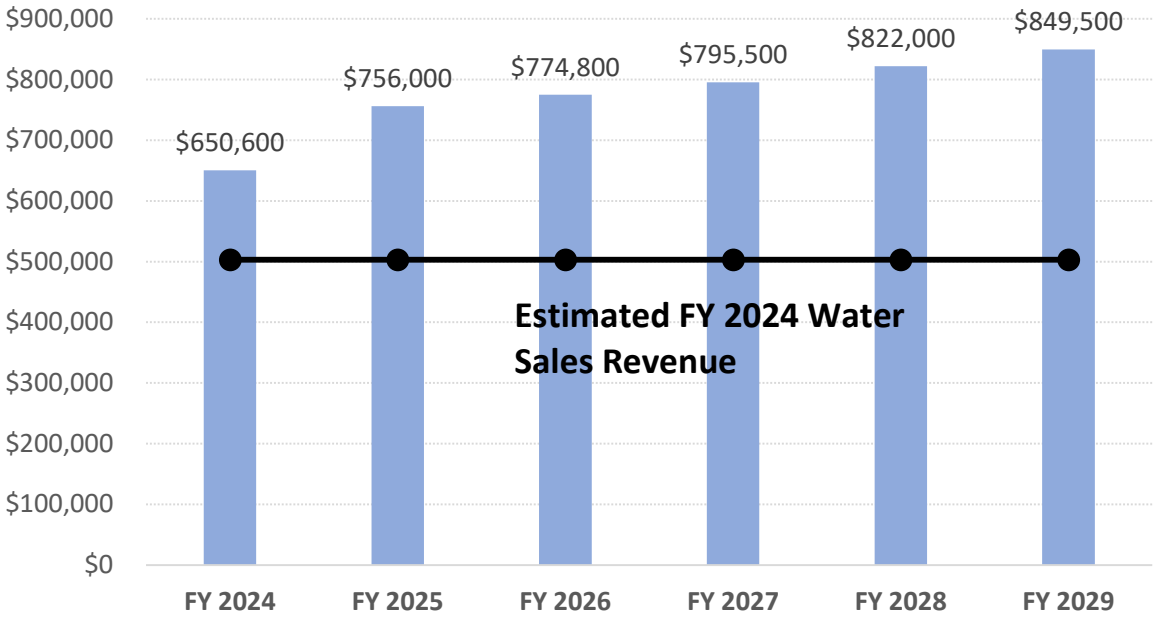
Source: GFCSD financial records, and HEC February 2024. rev req

[1] Quote for FY2025 from H2O Urban Solutions to extend their contract.

[2] USDA debt condition of $4,457 per year.

The water revenue requirement projection is illustrated in **Figure 5**.

Figure 5
Projected Revenue Requirement



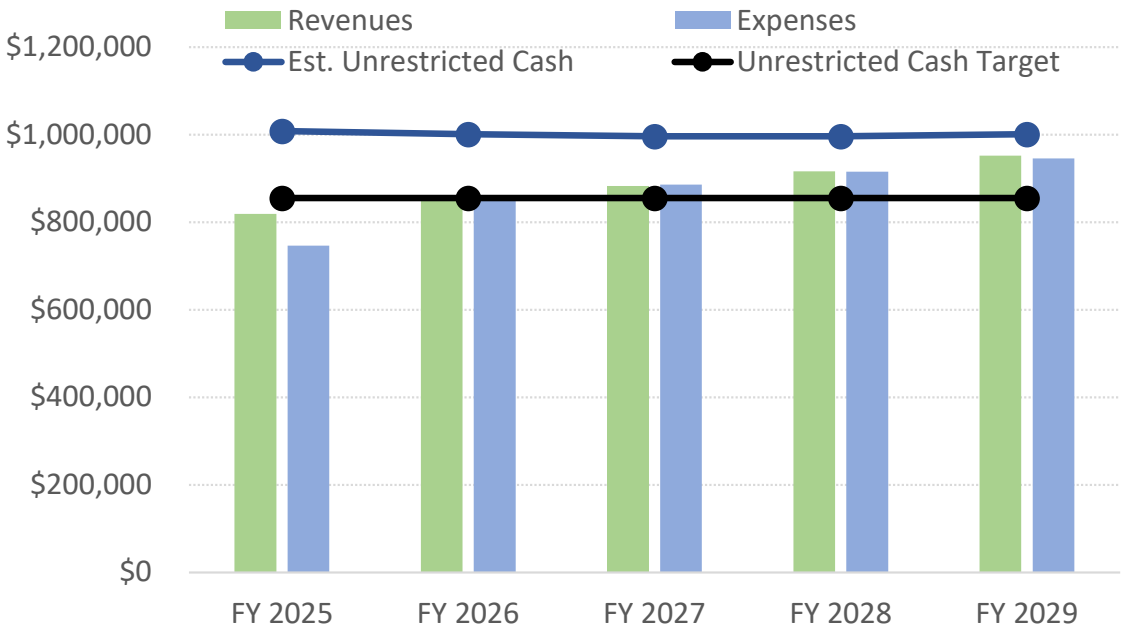
3.4 CASH FLOW PROJECTION

If the monthly fees are adjusted to generate the projected five-year revenue requirements, total unrestricted cash is projected to meet the unrestricted cash targets set by the Board of Directors (Board). **Figure 6** illustrates projected revenues, expenses, and total unrestricted cash. The District must maintain enough cash to allow for uncertainties associated with Caldor Fire repairs costs and timing of projects and regaining full functionality of the water system; because timing of repair costs and reimbursements from grant sources is unknown, the rates are designed to generate a little more than the target unrestricted cash reserves.

The detailed projected cash flow is provided in **Table 12.**

Table 13 shows the estimated cash balance by operations and capital uses of revenues. The USDA requires at least 1.0 debt service coverage ratio each year. The District is meeting its requirement; however, a rate increase is necessary to ensure the District stays in compliance. Also, under the terms of the USDA loan, the District must restrict one year of debt service (about $41,000) in reserves. All other cash is unrestricted; however, the District has designated which revenue sources are placed into the operations reserve funds and which are placed into the capital reserves funds.

Figure 6
Projected Cash Balances



Details of revenues and expenses by operations and capital functions are provided in **Table A-4** of Appendix A. The District must transfer cash from the operating fund each year to the capital fund because the standby fees produce insufficient revenue to fund the capital needs of the water system. The District anticipates resuming typical small repair costs of about $75,000 each year starting fiscal year 2026.

Table 12
Projected Cash Flow

Revenues and Expenses	Fiscal Year Ending				
	FY 2025	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**
	1	2	3	4	5
Operating Revenues					
Water Rates	$734,940	$767,076	$798,245	$832,180	$867,625
Water User Penalties	$6,000	$6,000	$6,000	$6,000	$6,000
Interest	$1,000	$1,000	$1,000	$1,000	$1,000
Service Installation	$1,000	$1,000	$1,000	$1,000	$1,000
Miscellaneous	$4,000	$4,000	$4,000	$4,000	$4,000
Total Op. Revenues	**$746,940**	**$779,076**	**$810,245**	**$844,180**	**$879,625**
Operating Expenses	**$704,500**	**$734,800**	**$760,400**	**$786,800**	**$814,200**
Net Operating Income	**$42,440**	**$44,276**	**$49,845**	**$57,380**	**$65,425**
Debt Service	$41,200	$41,200	$41,200	$41,200	$41,200
Debt Service Coverage [1]	*1.0*	*1.1*	*1.2*	*1.4*	*1.6*
Net Operating Revenues	**$1,240**	**$3,076**	**$8,645**	**$16,180**	**$24,225**
Beginning Cash Balance	**$978,200**	**$1,049,440**	**$1,042,116**	**$1,037,461**	**$1,037,341**
Net Operating Revenues	$1,240	$3,076	$8,645	$16,180	$24,225
Capital Fund Revenues	$71,200	$71,200	$71,200	$71,200	$71,200
Capital Project Costs	($1,200)	($81,600)	($84,500)	($87,500)	($90,600)
Grants	$0	$0	$0	$0	$0
FEMA Reimbursements	$0	$0	$0	$0	$0
Ending Cash Balance	**$1,049,440**	**$1,042,116**	**$1,037,461**	**$1,037,341**	**$1,042,166**
Restricted for USDA Reserve	$41,186	$41,186	$41,186	$41,186	$41,186
Unrestricted Cash Target	$855,000	$855,000	$855,000	$855,000	$855,000
Unrestricted Cash	**$1,008,254**	**$1,000,930**	**$996,275**	**$996,155**	**$1,000,980**

Source: GFCSD financials, and HEC February 2024. flow

[1] The USDA loan is secured by a pledge of revenues; therefore, debt service coverage must be at least 1.0.

Table 13
Estimated Cash Balances by Function

Cash Balances	Fiscal Year Ending FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Operations (includes cash in bank accounts and O&M LAIF)					
Starting Balance	$586,300	$487,540	$440,616	$424,261	$405,441
Net Operating Revenues	$1,240	$3,076	$8,645	$16,180	$24,225
Transfer to Capital	($100,000)	($50,000)	($25,000)	($35,000)	($50,000)
Ending Balance	**$487,540**	**$440,616**	**$424,261**	**$405,441**	**$379,666**
Operations Cash Target	*$305,000*	*$305,000*	*$305,000*	*$305,000*	*$305,000*
Capital (includes CIP LAIF and County Treasury Cash)					
Starting Balance	$391,900	$561,900	$601,500	$613,200	$631,900
Revenues	$71,200	$71,200	$71,200	$71,200	$71,200
Transfer from Operations	$100,000	$50,000	$25,000	$35,000	$50,000
Capital Projects	($1,200)	($81,600)	($84,500)	($87,500)	($90,600)
Ending Balance	**$561,900**	**$601,500**	**$613,200**	**$631,900**	**$662,500**
Capital Cash Target	*$550,000*	*$550,000*	*$550,000*	*$550,000*	*$550,000*
Ending District Cash	**$1,049,440**	**$1,042,116**	**$1,037,461**	**$1,037,341**	**$1,042,166**
Cash Target [1]	***$896,200***	***$896,200***	***$896,200***	***$896,200***	***$896,200***

Source: GFCSD financials, and HEC February 2024. func flow

[1] Includes total cash target of $855,000 plus the debt service reserve for the USDA loan.

SECTION 4: MONTHLY FEE CALCULATIONS

4.1 COST CLASSIFICATION AND ALLOCATION

After determining the revenue requirement, the next step is determining the cost-of-service. Utilizing the fiscal year 2024 approved budget, financial reports, operating data, and capital improvement plan, the rate study categorizes (functionalizes) the assets and costs of the water system among major operating functions to determine the cost-of-service.

Functional cost allocation for the water system is provided in Appendix A **Tables A-5** and **A-6.**

Budgeted fiscal year 2024 water fund expenditures were allocated to the different functions of water service based on one of five methodologies described below.

1. **Plant-in-Service.** Plant-in-service costs include the original cost of current water system assets. Total cost is allocated 6% to customers, 76% to capacity, and 18% to commodity costs.

2. **Average to Peak Month Costs.** Certain costs are allocated to reflect the cost of additional water production during the peak usage months. These costs are allocated 76% to capacity and 14% to commodity using pre-Caldor Fire use data (see **Table A-1)**.

3. **Utilities.** Utilities costs (electricity) are allocated 90% to use and 10% to capacity. Electricity costs are driven by water demand.

4. **Customers.** Costs such as most administrative staff costs, water membership/dues, printing and postage are allocated 100% to customer costs. These costs are not affected by the amount of capacity available, or the quantity of water delivered.

5. **Average of Classified Costs.** Some expenses are allocated to multiple functions of water service because they do not directly relate to customer functions, water system capacity, or water deliveries quantity. These expenses are allocated among the customer, capacity, and commodity functions based on the combined percentage allocation of all classified costs.

The cost classification provides a guideline for the District in determining the portion of revenue requirement to collect through base monthly charges versus usage charges. Base monthly charges are fixed at the same amount each month. Usage charges are variable because they depend on the quantity of water consumed.

Fixed Costs

As described in the AWWA M1 Manual, fixed costs generally consist of costs that a utility incurs to serve customers irrespective of the amount or rate of water used. These typically include (1) customer-related costs such as administrative and billing costs associated with meter reading, postage, and billing, and (2) the infrastructure (capacity-related facilities)

required to provide service to customers. Customer and capacity costs are allocated to customers based on the number of EMUs.

Variable Costs

Variable costs are those that change in total as the volume of water consumption changes, as measured in a specific time period. These include well pumping and distribution electricity costs, and costs related to plant-in-service, the largest of which is maintenance costs, as well as other costs determined in the functional allocation. Variable costs are recovered through use charges applied per hundred cubic feet (HCF) consumed.

The costs are functionalized and allocated to fixed charges and use charges as shown in **Table 14**. In total, the functional allocation assigns 87% of costs to service charges and 13% of costs to use charges.

Table 14
Cost Allocation of Revenue Requirement

Allocation		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Revenue Requirement		**$756,000**	**$774,800**	**$795,500**	**$822,000**	**$849,500**
Fixed Costs	**87%**	**$657,720**	**$674,076**	**$692,085**	**$715,140**	**$739,065**
Customer Charge	30%	$226,800	$232,440	$238,650	$246,600	$254,850
Readiness-to-Serve	57%	$430,920	$441,636	$453,435	$468,540	$484,215
Variable Costs	**13%**	**$98,280**	**$100,724**	**$103,415**	**$106,860**	**$110,435**

Source: HEC rate study, February 2024. alloc

4.2 RATE CALCULATIONS

Service Charges

The calculation of monthly service charges by meter size is shown in **Table 15**. The table labels the fiscal year and the date of implementation for rates that fiscal year.

Fixed costs are divided by the number of EMUs to determine the per month service charges. The most common method for levying fixed charges is by meter size because meter size is an indicator of potential capacity or demand requirement that each customer places on the water system. Typically, but not always, the ratio at which the meter charge increases is a function of the meter's safe operating capacity as established by the American Water Works Association. These meter ratios are used because a significant portion of a water system's design, and, in turn, the utility's operating and capital costs are related to meeting capacity needs. The 2015 San Juan Capistrano decision reaffirmed that rates must be proportional to the costs of service received. Customers with larger water meters have greater capacity to use the water system; therefore, base monthly water rates should be charged by water meter size.

Table 15
Monthly Base Charges Calculation

Item		FY 2025 1-Jul-24	FY 2026 1-Jul-25	FY 2027 1-Jul-26	FY 2028 1-Jul-27	FY 2029 1-Jul-28
Allocated Costs	**100%**	**$657,720**	**$674,076**	**$692,085**	**$715,140**	**$739,065**
Est. Billable EMUs	[1]	626	628	630	632	634
Meter Size	**Meter Ratio**					
1-inch or smaller	1.0	$87.53	$89.42	$91.52	$94.27	$97.11
1.5-inch	2.0	$175.06	$178.84	$183.03	$188.53	$194.23
2-inch	3.2	$280.09	$286.14	$292.85	$301.65	$310.76
3-inch	6.4	$560.18	$572.28	$585.71	$603.30	$621.52
4-inch	10.0	$875.28	$894.19	$915.17	$942.66	$971.13
6-inch	20.0	$1,750.56	$1,788.38	$1,830.33	$1,885.32	$1,942.25
8-inch	32.0	$2,800.89	$2,861.41	$2,928.53	$3,016.51	$3,107.60

Source: HEC rate study, February 2024. base

[1] Assumes 2 new (undeveloped) lots connect to the water system for the first time each year.

Use Charges

The calculation of use charges is based on allocated cost and projected water use. The projection of water demand is calculated in **Table 7**. The calculated use charge by fiscal year is shown in **Table 16**. The table labels the fiscal year and the date of implementation for rates that fiscal year.

Table 16
Calculated Use Charges per Hundred Cubic Feet (HCF)

Use Charge		FY 2025 1-Jul-24	FY 2026 1-Jul-25	FY 2027 1-Jul-26	FY 2028 1-Jul-27	FY 2029 1-Jul-28
Allocated Cost		$98,280	$100,724	$103,415	$106,860	$110,435
Calculated Rates						
Projected Water Use (HCF) [1]	Table 6	25,400	25,400	25,400	25,400	25,400
Water Cost per HCF		**$3.87**	**$3.97**	**$4.07**	**$4.21**	**$4.35**

Source: HEC rate study, February 2024. use

[1] Average annual demand over the 5-year period is used in the rate calculation.

Total calculated rates include the fixed monthly service charges and variable use charges per HCF. The calculated water rates schedule for the next five years is provided in **Table 17**.

Table 17
Calculated Water Rates

Charge Implementation -->	**FY 2025** 1-Jul-24	**FY 2026** 1-Jul-25	**FY 2027** 1-Jul-26	**FY 2028** 1-Jul-27	**FY 2029** 1-Jul-28
Base Charge per Month					
1-inch or smaller	$87.53	$89.42	$91.52	$94.27	$97.11
1.5-inch	$175.06	$178.84	$183.03	$188.53	$194.23
2-inch	$280.09	$286.14	$292.85	$301.65	$310.76
3-inch	$560.18	$572.28	$585.71	$603.30	$621.52
4-inch	$875.28	$894.19	$915.17	$942.66	$971.13
6-inch	$1,750.56	$1,788.38	$1,830.33	$1,885.32	$1,942.25
8-inch	$2,800.89	$2,861.41	$2,928.53	$3,016.51	$3,107.60
Use Charge, per HCF [1]	$3.87	$3.97	$4.07	$4.21	$4.35

Source: HEC rate study, February 2024. calc

[1] Rate also applies to construction water. District staff assign a fire hydrant and install a hydrant flow meter (for a call-out fee) for temporary use.

Table 18 shows the total monthly charges payable by homes at different monthly usage levels.

1. Home using 12 HCF per month.
2. Home using 6 HCF per month.
3. Home not using water.

Table 18
Monthly Bill Impact for a Home

Charge Type Implementation ->	**Current** 1-Jul-24	**FY 2025** 1-Jul-25	**FY 2026** 1-Jul-26	**FY 2027** 1-Jul-27	**FY 2028** 1-Jul-28	**FY 2029** 1-Jul-28
Rates						
Base Rate, per Month	$68.97	$87.53	$89.42	$91.52	$94.27	$97.11
Use Rate, per HCF	$1.20	$3.87	$3.97	$4.07	$4.21	$4.35
Example Bills						
Home using 12 HCF	$83.37	$133.96	$137.01	$140.37	$144.75	$149.29
Home using 6 HCF	$76.17	$110.74	$113.21	$115.95	$119.51	$123.20
Home not using water	$68.97	$87.53	$89.42	$91.52	$94.27	$97.11

Source: HEC February 2024. sum

4.3 FUTURE CONSIDERATIONS

Capital costs are currently partially supported by standby assessments levied with property tax bills. The current assessment of $4 per parcel per month is permanent (unless repealed by the GFCSD Board of Directors). While it did not appeal at this time, the District could repeal the $4 per month assessment paid by every property and impose a special tax on every property because there is no cost-of-service rationale behind the standby assessment amount. The special tax could provide a dedicated revenue source for capital projects, which the assessment currently does, but at an insufficient amount. Special taxes must be approved by at least two-thirds of the registered voters within the District's service area[1].

Per the California Constitution, assessments cannot be increased without triggering a Proposition 218 process with a landowner ballot procedure. Assessments require a demonstration of special benefit to every parcel in the District and preparation of an Engineer's Report. The Board can impose a special tax, which can be increased over time, at any amount that is less than or equal to the maximum amount approved. Maximum special taxes can be increased using a defined formula (such as a price index) to allow for inflationary adjustments, or it can be increased by a set percentage each year. Unlike the special benefit demonstration for assessments, special taxes must only be based on a reasonable nexus between the fee amount and purpose of the fee, allowing the community to determine what is a reasonable cost share among the different types of properties in the District's jurisdiction for capital facility costs.

A suggested methodology for calculating a reasonable special tax, and steps to implement a special tax, are provided in **Appendix B**.

4.4 BILL IMPACTS

Monthly water bill impacts only as of July 1, 2024 are shown in **Table 19** for a home or other water user with a one-inch or smaller water meter.

Bill Impact: Figure 7 illustrates the projected bill impact for a residential customer using 6 HCF of treated water. Currently, at this level of use, the water bill is $76.17. With the July 1, 2024 rate increase, the water bill would increase to $110.74 for FY 2025.

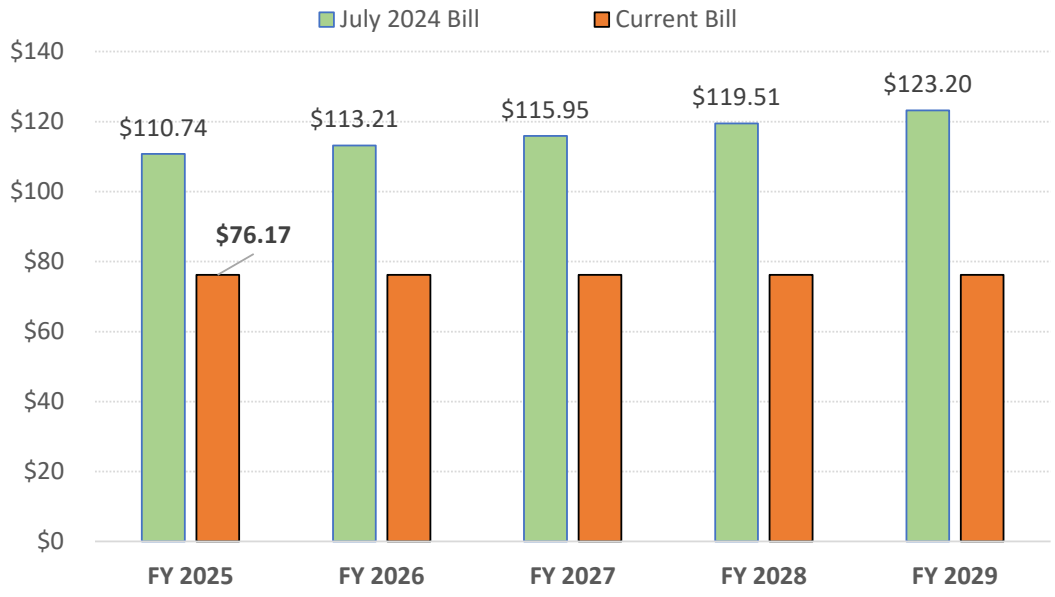
[1] As of June 2023, the District has 397 registered voters.

Table 19
Water Customer Bill Impact

Monthly	Current Bill			July 2025 Scenario A Bill		
Use (HCF)	Base	Use	Total	Base	Use	Total
	$68.97	**$1.20**		$87.53	$3.87	
0	$68.97	$0.00	$68.97	$87.53	$0.00	$87.53
2	$68.97	$2.40	$71.37	$87.53	$7.74	$95.27
4	$68.97	$4.80	$73.77	$87.53	$15.48	$103.01
6	$68.97	$7.20	$76.17	$87.53	$23.22	$110.74
8	$68.97	$9.60	$78.57	$87.53	$30.95	$118.48
10	$68.97	$12.00	$80.97	$87.53	$38.69	$126.22
12	$68.97	$14.40	$83.37	$87.53	$46.43	$133.96
14	$68.97	$16.80	$85.77	$87.53	$54.17	$141.70
16	$68.97	$19.20	$88.17	$87.53	$61.91	$149.44
18	$68.97	$21.60	$90.57	$87.53	$69.65	$157.18
20	$68.97	$24.00	$92.97	$87.53	$77.39	$164.91
22	$68.97	$26.40	$95.37	$87.53	$85.12	$172.65
24	$68.97	$28.80	$97.77	$87.53	$92.86	$180.39
26	$68.97	$31.20	$100.17	$87.53	$100.60	$188.13
28	$68.97	$33.60	$102.57	$87.53	$108.34	$195.87
30	$68.97	$36.00	$104.97	$87.53	$116.08	$203.61

Source: GFCSD rate schedule and HEC 2023 rate study. impact

Figure 7
Monthly Water Cost for a Home using 6 HCF



SECTION 5: CAPACITY FEES CALCULATIONS

5.1 AUTHORITY TO CHARGE CAPACITY FEES

Under the authority of the Mitigation Fee Act (1987), contained in California Government Code Section 66000 et. seq., the Agency is authorized to collect water capacity and connection fees. When a municipality adopts or updates a capacity or connection fee, it must demonstrate that the fee shall not exceed the estimated reasonable cost of providing the service for which the fee is imposed. Maximum justifiable fees are calculated in this report pursuant to demonstration of the nexus between the total amount of development at buildout of GFCSD's service area, and infrastructure capacity required to serve buildout development.

The District may impose a capacity fee pursuant to Government Code Section 66013(b)(3) for:

(a) public facilities in existence at the time a charge is imposed (a "buy-in" fee) and/or

(b) charges for new public facilities to be acquired or constructed in the future that are of proportional benefit to the person or property being charged (a "new facilities" fee).

The fee may include supply or capacity contracts for rights or entitlements, real property interest, and entitlements and other rights of the local agency involving capital expense relating to use of its existing and/or new public facilities. The capacity fee should be evaluated at least every five years; over time, inflationary adjustments to fees alone may be insufficient as development plans change, anticipated pace of development changes, and infrastructure solutions to service provision are revised.

The District may also impose a connection fee pursuant to Government Code Section 66013 (b)(5) for the physical facilities necessary to make a water connection, including, but not limited to, meters, meter boxes, and pipelines from the structure or project to a water distribution line, that does not exceed the estimated reasonable cost of labor and materials for installation of those facilities. Currently, the District has fees for new service installation but in practicality does not charge it because the District requires a contractor to install the facilities for the owner with inspection of the facilities by District staff upon completion. The District may supply materials, in which case, the actual costs of the materials are charged to the new customer.

It is recommended that the District update its hook-up and new service installation fees to describe the current system as one of reimbursement for actual costs and inspection time. This Study only updates the water capacity fee, which is currently charged at $6,030 per ERU.

5.2 METHODOLOGY

The water capacity fee is calculated using the buy-in approach so that customers pay a fee that reflects the value of the existing water capacity. The methodology for calculating the water capacity fee is summarized below:

1. Identify existing and future capacity, expressed in Equivalent Residential Units (ERUs).

2. Determine the total cost of facilities and equipment to be included in the fee calculation using District asset records. The existing assets are estimated to be sufficient to serve the buildout of GFCSD's service territory[2] ; however, there are many assets that must be replaced because they were destroyed, or partially destroyed, by the Caldor Fire.

3. Add the cost of infrastructure improvements to be completed in the current fiscal year (before the new fees are implemented) and add the cost of land. Deduct other revenue sources (developer contributions, grants, and property taxes for example) as credits to the total cost of facilities. Deduct outstanding principal on debt still to be repaid. Add the costs developed in steps 2 and 3 to determine the total cost basis.

4. Adjust the total cost basis by adding unrestricted cash reserves in the water fund as of June 30, 2023. Add a 3% administration charge for studies to update the capacity fee, and District staff time spent on the capacity fee program. This step determines the **total buy-in cost basis**.

5. Divide the **total buy-in cost basis** by the number of ERUs that can be served by the water system infrastructure to calculate the update water capacity fee per ERU.

Capacity fees are charged to pay for current and future District facilities that new customers benefit from and will use. Capacity fees pay for major infrastructure such as distribution pipes, tanks, and the water treatment plant, equipment used to service the water system(s), and land.

Water System Capacity
The first step in determining capacity fees is establishing capacity of the water system expressed in ERUs. Prior to the Caldor Fire, the water system could serve the District's entire service territory. While certain facilities were aging and needed replacement, there was no need to increase capacity of the system. Capacity fees had been paid for properties with structures on their property; some of which had structures that were destroyed by the Caldor Fire. The total number of ERUs that had paid capacity fees prior to the Caldor Fire, plus properties that will have paid capacity fees by the end of fiscal year 2024, is estimated

[2] Per GFCSD staff, August 2023.

to be 597 ERUs. It is estimated that at buildout of the service territory, GFCSD will serve 1,235 ERUs, as shown in **Table 20**.

Table 20
Total Projected Buildout ERUs

Item	Number of ERUs	
Total Lots in Service Area	1,218	
Estimated ERUs at Buildout	**1,233**	
Estimated ERUs Paid Connection Fee	669	[1]
Remaining Unpaid ERUs	**564**	
Meter Size	**Paid at EOY 2024**	**Buildout Estimate**
1-inch or smaller (One ERU)	666	1,213
1.5-inch	0	4
2-inch	3	6
3-inch	0	0
4-inch	0	10
6-inch	0	0
Total	**669**	**1,233**

Source: Grizzly Flats CSD and AWWA M1 Manual. erus

[1] Existing capacity of properties that have paid capacity fees, not the capacity currently being used.

5.3 TOTAL BUY-IN COST BASIS

Value of Current Assets
There are five different options (methodologies) that could be used in the valuation of existing assets to establish the buy-in cost basis. Supporting **Table A-8** in Appendix A provides the list of water system assets upon which the valuation calculation under each of the options is based.

The five valuation options are generated by the treatment of the value of the assets. Options 1 and 2 use the original cost approach where the buy-in fee reflects the original investment in existing capacity, paying an amount similar to what the existing customers paid for the capacity (or the remaining value of the original investments). A concern with this approach is that it is impractical because insufficient capital is raised to ensure longevity of the asset. This approach is rarely used.

- Option 1 bases the buy-in fee on the original cost of the assets (when it was purchased or constructed).

- Option 2 bases the buy-in fee on the net book value of the District's assets. This methodology is based on an accounting perspective that depreciates the original cost of the assets and assumes that anything beyond its theoretical useful life no longer has any value to new customers.

Most water capacity fee studies calculate the buy-in fee using a replacement cost methodology (Option 3). Under this approach, all the agency's current assets are valued at the current cost to replace them. *This methodology is very appropriate for GFCSD because the water system was partially destroyed in the Caldor Fire, but it had sufficient capacity prior to the fire to serve the entire service territory at buildout*.

The replacement cost approach can also be modified to deduct depreciation from the value of the assets using a straight-line depreciation methodology on either the replacement cost or the original cost of the assets[3].

- Option 4 only accounts for the value of assets that still have a useful life (in theory) by deducting the replacement cost depreciation.

- Option 5 recognizes the actual depreciation that has been accounted for on the District's books (based on original cost), and that existing customers have paid for to date. Under this option, assets that have in theory exceeded their useful life may still have a value associated with them that new development would pay for a portion of.

While all five approaches to setting the buy-in fee are legitimate approaches described in both the American Water Works Association M1 Manual, **Option 5 is recommended as the most appropriate given the current state of the District's water system.** This approach recognizes the cost of providing capacity to customers as if the capacity were added at the time it was needed for new growth and it compensates the existing customers for carrying costs of excess capacity to date. In addition, while many of the District's assets have theoretically exceeded their useful life, they are in fact perfectly capable of performing as required.

The recommended buy-in cost basis is $9.4 million.

Additions and Deduction to Value of Assets

The estimated cost of assets that will be rehabilitated or replaced in fiscal year 2024, prior to the updated fee implementation, is added. The cost of land is also added. Grant-funded portions of assets are removed, as are contributed capital (assets that were built by a private party and dedicated to the District). Outstanding principal on the USDA loan is also deducted because when new customers become rate-paying customers, they will pay for debt in their rates.

[3] American Water Works Association M1 Manual page 332 describes the valuation approaches and states, "A combination of the approaches may also be used."

The subtotal cost basis is $9.1 million.

Adjustments
Adjustments to the cost basis include addition of unrestricted cash reserves and administration costs.

- Unrestricted cash reserves were $1.0 million as of June 30, 2023.

- An administrative fee of three percent of the cost basis is added for collection and handling of the fees, public hearing costs[4], and periodic updates of the fee program.

The capacity fee total buy-in cost basis with adjustments is $10.5 million.

5.4 CAPACITY FEES CALCULATION

The total buy-in cost basis is divided by the estimated total number of ERUs that the District can serve with its infrastructure (once the portion of the system that was destroyed by the Caldor Fire has been restored). The fee calculation is shown in **Table 21.**

The recommended fee increases the District's current capacity fee from $6,030 to $8,485 per ERU.

In accordance with changes to California law in recent years, it is recommended that all residential units pay the capacity fee on a per building square foot basis. Creation of ADUs is permitted by California law on all residential and mixed-use zoned properties. Per Government Code 65852.2, capacity fees for ADUs must be charged on a per building square foot or fixture unit basis. Capacity fees for attached ADUs (and Junior ADUs) may only be charged if the unit is constructed with a new single-family home. A new detached ADU may be charged a capacity fee whenever it is built.

To establish the water capacity fee on a building square foot basis, the fee per ERU is divided by the typical size of a home in the District's service territory. The typical size of a home is calculated as the median of permanent single-family homes in the District's service territory as of June 2023. It is 1,596 building square feet.

The calculated updated water capacity fee by new development land use type is shown in **Table 22.**

[4] Government Code 66016 (c).

Table 21
Capacity Fee Calculation

Item	Replacement Cost less Depreciation
Buy-In Cost Basis	
Value of 2023/24 Assets	$9,356,111
+ Fiscal Year 2023/24 Improvements	$300,000
+ Land	$237,405
- Grant-funded Projects	$0
- Outstanding Principal on Debt	($754,813)
Subtotal Cost Basis	**$9,138,702**
Adjustments	
+ Unrestricted Cash Reserves	$1,049,576
+ Administration (3%)	$274,161
Subtotal Adjustments	**$1,323,737**
Total Buy-In Cost Basis	**$10,462,439**
Number of ERUs Served	**1,233**
Total Fee per ERU	**$8,485**
Typical Size of Home (building sq. ft.)	1,596
Residential Fee per building sq. ft.	**$5.32**

Source: GFCSD supporting data and HEC February 2024. exp costs

Table 22
Calculated Updated Water Capacity Fees

New Development Use Type	2024 Capacity Fee
Residential (per building sq. ft.)	**$5.32**
Non-Residential (by meter size)	
1-inch or smaller	$8,485
1.5-inch	$16,971
2-inch	$27,153
3-inch	$54,306
4-inch	$84,854
6-inch	$169,707
8-inch	$271,531

Source: HEC February 2024. conn fees

5.5 CAPACITY FEE ADOPTION AND FUTURE ADJUSTMENTS

Pursuant to California Government Code 66016, prior to increasing an existing fee or adopting a new fee, an agency must hold at least one open and public meeting. Notice of the time and place of the meeting, including a general explanation of the matter to be considered, and a statement that all supporting studies and information are available to the public, shall be noticed at least 10 days prior to the meeting. Increases to an existing fee or adoption of a new fee may be made by ordinance or resolution.

It is recommended that the District update the Water Capacity Fee every January 1 based on the change in the San Francisco Engineering News-Record Construction Cost Index for the previous 12 months November to November period. Periodic review of the Water Capacity Fee is also recommended whenever estimated costs are revised pursuant to an update of the District's Water Master Plan, or whenever there are land use changes made by El Dorado County that would affect projected growth in the District's service territory.

5.6 MITIGATION FEE ACT COMPLIANCE

The District must deposit capacity fee revenues in a separate Capacity Fees Fund to avoid any comingling with other monies of the District. Any interest income earned must also be deposited into the Capacity Fees Fund. In addition, the District must comply with annual and five-year reporting requirements for the Capacity Fees Fund.

Within 180 days of the end of a fiscal year, the following is to be furnished for the prior fiscal year:

1. A description of the charges deposited in the fund,
2. The beginning and ending balance of the fund,
3. The amount of the fees collected, and interest earned,
4. An identification of each public improvement for which fees were expended and the amount of expenditure for each improvement, including the percentage of the total cost of the improvement that was funded with capacity fees if more than one source of funding was used,
5. An identification of each public improvement on which charges were expended that were completed during the fiscal year, and each improvement anticipated to be undertaken in the following fiscal year, and
6. A description of any interfund transfer or loan made from the Capacity Fee Fund, identification of any public improvements on which any transferred monies are, or will be, expended, and a description of repayment terms.

All the above information may be included in the District's annual financial report.

APPENDIX A

WATER FEES

SUPPORT TABLES

Table A-1
Grizzly Flats CSD Water Rate Study
Historical Water Use

Month	2018	2019	2020	2021	2022	2023	pre Caldor	post Caldor
				All Units in Cubic Feet				
Jan	204,412	169,852	232,603	237,196	419,353	97,768	211,016	97,768
Feb	214,517	236,920	187,521	234,612	105,289	97,768	218,393	101,528
March	197,097	236,920	227,968	203,545	105,289	146,176	216,382	125,732
April	197,097	208,893	227,968	278,529	118,036	146,176	228,122	132,106
May	247,564	296,713	299,171	365,825	131,239	154,749	302,318	142,994
June	331,376	274,156	369,026	450,462	185,043	192,896	356,255	188,970
July	430,831	387,912	469,803	509,139	173,802	202,809	449,421	188,306
Aug	485,426	428,438	452,277	419,353	229,925	0	455,380	229,925
Sept	381,798	380,812	465,698	419,353	229,432	0	409,436	229,432
Oct	288,374	268,569	378,998	419,353	153,736	0	311,980	153,736
Nov	274,071	259,460	292,792	419,353	114,607	0	275,441	114,607
Dec	196,793	238,318	348,011	419,353	97,768	0	261,041	97,768
Total	**3,449,356**	**3,386,963**	**3,951,835**	**4,376,071**	**2,063,518**	**1,038,342**	**3,695,185**	**1,802,872**
Fiscal Yr (HCF)		**34,807**	**35,078**	**41,777**		**18,348**		
Monthly Use (HCF)		2,901	2,923	3,481		1,529		
Base Monthly Flow (Nov-Apr)							235,066	111,585
Base Annual Flow							**2,820,788**	**1,339,020**
Base Flow as % of Total							*76%*	*74%*
Additional Flow							**874,397**	**463,852**
Additional Flow as % of Total							*24%*	*26%*

Source: GFCSD meter read data. use

Table A-2
Grizzly Flats CSD Water Rate Study
Audited Financials

Revenues and Expenses	Fiscal Year Ending 2018	2019	2020	2021	2022
Operating Revenue					
Water Sales	$482,917	$506,354	$530,047	$558,114	$280,191
Water User Penalties	$12,594	$15,190	$12,279	$14,063	$6,413
Other	$32,178	$3,438	$7,815	$3,928	$5,101
Subtotal Operating Revenue	**$527,689**	**$524,982**	**$550,141**	**$576,105**	**$291,705**
Operating Expenses					
Water Treatment	$8,732	$13,830	$9,448	$8,966	$7,114
Transmission and Distribution	$307,358	$349,958	$330,354	$348,579	$249,082
Administration and General	$229,250	$218,631	$242,666	$247,989	$219,016
Subtotal Operating Expense	**$545,340**	**$582,419**	**$582,468**	**$605,534**	**$475,212**
Nonoperating Revenue (Expenses)					
Interest Income	$7,306	$14,770	$17,943	$4,424	$1,586
Standby Fees	$58,848	$57,918	$56,906	$57,792	$51,000
Penalties on Standby Fees	$1,461	$1,110	$513	$1,199	$426
Insurance Recovery	$0	$0	$0	$0	$135,000
Grant Revenue	$46,129	$200,152	$64,751	$2,609	$310,148
Connection Fees	$16,416	$83,825	$7,576	$21,310	$0
Grant Expenditures	$0	($118,188)	$0	$0	$0
Interest Expense	($26,288)	($25,815)	($25,328)	($24,833)	($24,330)
Subtotal Nonoperating Revene	**$103,872**	**$213,772**	**$122,361**	**$62,501**	**$473,830**
Caldor Fire Expenses	**$0**	**$0**	**$0**	**$0**	**($514,055)**
Net Income excl. Depreciation	$86,221	$156,335	$90,034	$33,072	($223,732)
Change in Net Position with Depreciation	**($8,097)**	**$64,155**	**$74**	**($76,896)**	**($324,675)**

Source: GFCSD audited financials and GFCSD staff. hist

Table A-3
Grizzly Flats CSD Water Rate Study
USDA Certificates of Participation for Water Improvements

Pymt #	Beginning Balance	Principal	Interest	Payment [1]	Ending Balance	Fiscal Year Ending
1	$952,000.00	$12,625.78	$28,560.00	$41,185.78	$939,374.22	2012
2	$939,374.22	$13,004.56	$28,181.23	$41,185.78	$926,369.66	2013
3	$926,369.66	$13,394.69	$27,791.09	$41,185.78	$912,974.97	2014
4	$912,974.97	$13,796.53	$27,389.25	$41,185.78	$899,178.43	2015
5	$899,178.43	$14,210.43	$26,975.35	$41,185.78	$884,968.00	2016
6	$884,968.00	$14,636.74	$26,549.04	$41,185.78	$870,331.26	2017
7	$870,331.26	$15,075.85	$26,109.94	$41,185.78	$855,255.41	2018
8	$855,255.41	$15,528.12	$25,657.66	$41,185.78	$839,727.29	2019
9	$839,727.29	$15,993.97	$25,191.82	$41,185.78	$823,733.32	2020
10	$823,733.32	$16,473.78	$24,712.00	$41,185.78	$807,259.54	2021
11	$807,259.54	$16,968.00	$24,217.79	$41,185.78	$790,291.54	2022
12	$790,291.54	$17,477.04	$23,708.75	$41,185.78	**$772,814.50**	2023
13	$772,814.50	$18,001.35	$23,184.44	$41,185.78	$754,813.16	2024
14	$754,813.16	$18,541.39	$22,644.39	$41,185.78	$736,271.77	2025
15	$736,271.77	$19,097.63	$22,088.15	$41,185.78	$717,174.14	2026
16	$717,174.14	$19,670.56	$21,515.22	$41,185.78	$697,503.58	2027
17	$697,503.58	$20,260.68	$20,925.11	$41,185.78	$677,242.90	2028
18	$677,242.90	$20,868.50	$20,317.29	$41,185.78	$656,374.40	2029
19	$656,374.40	$21,494.55	$19,691.23	$41,185.78	$634,879.85	2030
20	$634,879.85	$22,139.39	$19,046.40	$41,185.78	$612,740.46	2031
21	$612,740.46	$22,803.57	$18,382.21	$41,185.78	$589,936.89	2032
22	$589,936.89	$23,487.68	$17,698.11	$41,185.78	$566,449.22	2033
23	$566,449.22	$24,192.31	$16,993.48	$41,185.78	$542,256.91	2034
24	$542,256.91	$24,918.08	$16,267.71	$41,185.78	$517,338.83	2035
25	$517,338.83	$25,665.62	$15,520.16	$41,185.78	$491,673.21	2036
26	$491,673.21	$26,435.59	$14,750.20	$41,185.78	$465,237.63	2037
27	$465,237.63	$27,228.65	$13,957.13	$41,185.78	$438,008.97	2038
28	$438,008.97	$28,045.51	$13,140.27	$41,185.78	$409,963.46	2039
29	$409,963.46	$28,886.88	$12,298.90	$41,185.78	$381,076.58	2040
30	$381,076.58	$29,753.49	$11,432.30	$41,185.78	$351,323.09	2041
31	$351,323.09	$30,646.09	$10,539.69	$41,185.78	$320,677.00	2042
32	$320,677.00	$31,565.47	$9,620.31	$41,185.78	$289,111.52	2043
33	$289,111.52	$32,512.44	$8,673.35	$41,185.78	$256,599.09	2044
34	$256,599.09	$33,487.81	$7,697.97	$41,185.78	$223,111.28	2045
35	$223,111.28	$34,492.45	$6,693.34	$41,185.78	$188,618.83	2046
36	$188,618.83	$35,527.22	$5,658.56	$41,185.78	$153,091.61	2047
37	$153,091.61	$36,593.04	$4,592.75	$41,185.78	$116,498.58	2048
38	$116,498.58	$37,690.83	$3,494.96	$41,185.78	$78,807.75	2049
39	$78,807.75	$38,821.55	$2,364.23	$41,185.78	$39,986.20	2050
40	$39,986.20	$39,986.20	$1,199.59	$41,185.78	($0.00)	2051

Source: USDA final closing documents, August and September 2011. debt

[1] Payments due every 6 months, April 1 (interest only) and October 1 (principal and interest).

Table A-4
Grizzly Flats CSD Water Rate Study
Operations and Capital Funds Projected Net Income

Revenues and Expenses	Fiscal Year Ending					
	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
		1	2	3	4	5
REVENUES BY FUND						
Operations						
Base Rate Revenues	$484,000	$657,720	$674,076	$692,085	$715,140	$739,065
Use Rate Revenues	$19,000	$77,220	$93,000	$106,160	$117,040	$128,560
Penalties, Other Fees	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000
Interest	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Service Installation Charges	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000
Miscellaneous	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000
Operations Revenue	**$516,000**	**$747,940**	**$780,076**	**$811,245**	**$845,180**	**$880,625**
Capital						
Standby Fees & Penalties	$59,900	$59,900	$59,900	$59,900	$59,900	$59,900
Connection Fees	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000
Pooled Interest	$5,300	$5,300	$5,300	$5,300	$5,300	$5,300
Capital Revenue	**$71,200**	**$71,200**	**$71,200**	**$71,200**	**$71,200**	**$71,200**
Total Revenues	**$587,200**	**$819,140**	**$851,276**	**$882,445**	**$916,380**	**$951,825**
EXPENSES BY FUND						
Operations						
Personnel	$235,800	$245,300	$255,200	$265,500	$276,200	$287,300
Contract Operations	$200,000	$272,300	$280,500	$289,000	$297,700	$306,700
Utilities	$5,200	$5,600	$12,100	$13,000	$14,000	$15,000
Liability Insurance	$21,000	$21,700	$22,400	$23,100	$23,800	$24,600
Professional Services	$55,500	$57,200	$59,000	$60,800	$62,700	$64,600
System Maintenance & Testing	$47,300	$48,800	$50,300	$51,900	$53,500	$55,200
Fleet Maintenance	$12,800	$13,200	$13,600	$14,100	$14,600	$15,100
Office Supplies & Other	$39,200	$40,400	$41,700	$43,000	$44,300	$45,700
Operating Expenses	**$616,800**	**$704,500**	**$734,800**	**$760,400**	**$786,800**	**$814,200**
Capital						
Debt Service	$41,200	$41,200	$41,200	$41,200	$41,200	$41,200
Compliance Fees	$1,100	$1,200	$1,300	$1,400	$1,500	$1,600
Repair & Rehabilitation [1]	$0	$0	$80,300	$83,100	$86,000	$89,000
Fire Recovery Improvements [2]	$0	$0	$0	$0	$0	$0
Capital Expenses	**$42,300**	**$42,400**	**$122,800**	**$125,700**	**$128,700**	**$131,800**
Total Expenses	**$659,100**	**$746,900**	**$857,600**	**$886,100**	**$915,500**	**$946,000**
Operations Net Income	**($100,800)**	**$43,440**	**$45,276**	**$50,845**	**$58,380**	**$66,425**
Capital Net Income	**$28,900**	**$28,800**	**($51,600)**	**($54,500)**	**($57,500)**	**($60,600)**

Source: GFCSD audited financials 2022, and HEC August 2023. fund flow

[1] $75,000 per year in 2023 dollars. [2] Funded by FEMA and CalOES.

Table A-5
Grizzly Flats CSD Water Rate Study
Allocation of Plant In Service

Water System Infrastructure	Assets Cost	Customer	Capacity	Commodity
Water Plant	$3,546,528	5%	80%	15%
Equipment	$269,188		100%	
Vehicles	$68,275	70%	30%	
Total Assets	**$3,883,991**	**$225,119**	**$3,126,893**	**$531,979**
Percentage of Total	100.00%	5.80%	80.51%	13.70%

Source: Grizzly Flats CSD FY2024 budget and HEC July 2023. plant

Table A-6
Grizzly Flats CSD Water Rate Study
Functional Allocation of Expenses

Cost Category	BUDGET FY 2024	Allocation Basis	Customer	Capacity	Commodity	Unclassified
51100 · Field Staff [1]	$68,016	50 / 50	0%	50%	50%	0%
51200 · Admin Staff	$101,194	Customers	100%	0%	0%	0%
51300 - Overtime	$0	Avg. of Classified	0%	0%	0%	100%
51400 - Standby Pay	$0	Avg. of Classified	0%	0%	0%	100%
51600 · Holiday Pay	$8,030	Avg. of Classified	0%	0%	0%	100%
52100 · Payroll Tax	$16,500	Avg. of Classified	0%	0%	0%	100%
52300 · Workers' Comp	$3,607	Avg. of Classified	0%	0%	0%	100%
53100 · Deferred Comp	$2,509	Avg. of Classified	0%	0%	0%	100%
53200 · HRA Medical	$35,400	Avg. of Classified	0%	0%	0%	100%
53300 - Life Insurance	$500	Avg. of Classified	0%	0%	0%	100%
54000 · Contract Operations	$200,000	Plant in Service	6%	81%	14%	0%
60100 · Alarm Service	$1,200	Plant in Service	6%	81%	14%	0%
60200 - Communication	$6,000	Customers	100%	0%	0%	0%
60400 - Fire & Safety Supplies	$1,000	Customers	100%	0%	0%	0%
60600 - P G & E	$500	Utilities	0%	10%	90%	0%
60700 · Propane	$4,000	Utilities	0%	10%	90%	0%
60800 · Trash Disposal	$650	Avg. of Classified	0%	0%	0%	100%
60900 - Website	$250	Customers	100%	0%	0%	0%
61100 · Chemicals	$3,100	Utilities	0%	10%	90%	0%
61200 - Water Equip & Supplies	$2,000	Plant in Service	6%	81%	14%	0%
61300 - Testing & Lab Reports	$6,000	Customers	100%	0%	0%	0%
62100 - Building	$500	Customers	100%	0%	0%	0%
62200 - Customer Meters	$6,000	Customers	100%	0%	0%	0%
62300 - Distribution System	$10,000	Plant in Service	6%	81%	14%	0%
62400 - Grounds	$1,500	Customers	100%	0%	0%	0%
62440 - Grizzly Pond Expenses	$700	Plant in Service	6%	81%	14%	0%
62450 - Eagle Ditch	$2,000	Avg. to Peak Month	0%	76%	24%	0%
62500 - Office Equipment	$500	Avg. of Classified	0%	0%	0%	100%
62600 - Maintenance Parts & Equip	$1,500	Avg. to Peak Month	0%	76%	24%	0%
62700 - Road Repairs	$10,000	Customers	100%	0%	0%	0%
62800 - Service Contracts	$3,000	Plant in Service	6%	81%	14%	0%
62900 - Treatment Plant I & II	$1,500	Plant in Service	6%	81%	14%	0%
63100 - Vehicle Oil/Grease	$500	Avg. to Peak Month	0%	76%	24%	0%
63200 - Vehicle Parts & Repairs	$2,000	Avg. to Peak Month	0%	76%	24%	0%
63300 - Tires & Snow Chains	$2,000	Customers	100%	0%	0%	0%
63400 - Tractor Maint & Repairs	$2,800	Avg. to Peak Month	0%	76%	24%	0%
63500 - Fuel Purchases	$5,500	Avg. to Peak Month	0%	76%	24%	0%
64100 - Clothing	$500	Avg. of Classified	0%	0%	0%	100%
64200 - Education & Certification	$500	Avg. of Classified	0%	0%	0%	100%
64300 - Employee Auto Mileage	$200	Avg. of Classified	0%	0%	0%	100%
64400 - Transportation & Travel	$500	Avg. of Classified	0%	0%	0%	100%
65100 · Agency Admin. Fee	$5,350	Avg. of Classified	0%	0%	0%	100%
65150 · Bank Fees & Supplies	$2,500	Customers	100%	0%	0%	0%
65200 - Election Costs	$50	Customers	100%	0%	0%	0%
65250 - Janitorial & Supplies	$650	Avg. of Classified	0%	0%	0%	100%
65300 · Meeting Expenses	$500	Customers	100%	0%	0%	0%
65350 · Membership & Dues	$8,650	Avg. of Classified	0%	0%	0%	100%
65400 - Office Supplies	$3,000	Avg. of Classified	0%	0%	0%	100%
65450 - Postage	$4,800	Customers	100%	0%	0%	0%
65500 - Public & Legal Notices	$0	Customers	100%	0%	0%	0%
65550 · Software	$2,500	Avg. of Classified	0%	0%	0%	100%
66100 - Audit & Accounting	$16,500	Avg. of Classified	0%	0%	0%	100%
66200 - Legal	$8,000	Avg. of Classified	0%	0%	0%	100%
66400 · Liability Insurance	$20,988	Customers	100%	0%	0%	0%
66900 - Professional Services	$31,000	Avg. of Classified	0%	0%	0%	100%
67100 · Asset Management Program	$0	Avg. of Classified	0%	0%	0%	100%
TOTAL	**$616,644**		**$175,941**	**$221,512**	**$74,145**	**$145,046**
Reallocate As All Others	$145,046		$54,113	$68,129	$22,804	
Allocation of Operating Expenses	**$616,644**		**$230,053**	**$289,641**	**$96,950**	
Share of Operating Expenses	100%		37%	47%	16%	
Debt Service	$41,200	Capacity	$0	$41,200	$0	
Depreciation	$100,900	Capacity	$0	$100,900	$0	
TOTAL	**$758,744**		**$230,053**	**$431,741**	**$96,950**	
Share of Total Expenses	**100%**		**30%**	**57%**	**13%**	

Source: Grizzly Flats CSD FY2024 budget and HEC July 2023.

func alloc

[1] Field staff time is currently split between capacity and commodity to account for efforts needed to monitor the water treatment process and deep the diversion screens clean so that water flow is not impeded.

Table A-7
Grizzly Flats CSD Water Rate Study
Valuation of District Water Assets

Asset Description	Year Acquired	Life (years)	Years Deprec.	Useful Years	ORIGINAL COST METHODOLOGY Original Cost	Annual Depr.	Accum. Deprec.	Remaining Value	REPLACEMENT COST METHODOLOGY Inflation Adj.	Replacement Cost Est.	Annual Depr.	Accum. Deprec.	HYBRID Remaining Value	Remaining Value
			2024						3.8% per year					
	a	*b*	*c = 2024-a*	*d = b-c*	*e*	*f = e/b*	*g = c*f*	*h = e-g*	*i*	*j = e*i*	*k = j/b*	*l = k*c*	*m = j-l*	*n = j-g*
					OPTION 1			**OPTION 2**	**[1]**	**OPTION 3**			**OPTION 4**	**OPTION 5**
Equipment														
Equipment Acqat TRF	1989	5	35	0	$7,020	$1,404	$7,020	$0	3.69	$25,897	$5,179	$25,897	$0	$18,877
Splitter Box	1991	15	33	0	$6,631	$442	$6,631	$0	3.42	$22,703	$1,514	$22,703	$0	$16,072
Sacin Photo Copier	2005	5	19	0	$5,408	$1,082	$5,408	$0	2.03	$10,985	$2,197	$10,985	$0	$5,577
Used Backhoe	2006	10	18	0	$34,000	$3,400	$34,000	$0	1.96	$66,532	$6,653	$66,532	$0	$32,532
Propane Generators	2008	10	16	0	$2,914	$291	$2,914	$0	1.82	$5,292	$529	$5,292	$0	$2,378
Driveway Paving	2007	15	17	0	$13,300	$887	$13,300	$0	1.89	$25,073	$1,672	$25,073	$0	$11,773
Push Rod Camera	2014	10	10	0	$9,456	$946	$9,456	$0	1.45	$13,730	$1,373	$13,730	$0	$4,274
Valve Excerciser w/6.5 HP power pack	2016	10	8	2	$9,875	$988	$7,900	$1,975	1.35	$13,309	$1,331	$10,647	$2,662	$5,408
Reservoir stairs	2016	10	8	2	$7,940	$794	$6,352	$1,588	1.35	$10,700	$1,070	$8,560	$2,140	$4,348
Automatic transfer switch	2018	10	6	4	$6,034	$603	$3,621	$2,414	1.25	$7,548	$755	$4,529	$3,019	$3,927
Streaming Current Controller	2018	10	6	4	$13,064	$1,306	$7,838	$5,226	1.25	$16,340	$1,634	$9,804	$6,536	$8,502
Leak detection equipment	2020	10	4	6	$89,863	$8,986	$35,945	$53,918	1.16	$104,320	$10,432	$41,728	$62,592	$68,375
Meter Replacement	2020	10	4	6	$34,673	$3,467	$13,869	$20,804	1.16	$40,251	$4,025	$16,100	$24,150	$26,382
Cathodic protection system for 3 steel tanks	2020	10	4	6	$29,012	$2,901	$11,605	$17,407	1.16	$33,680	$3,368	$13,472	$20,208	$22,075
Total Equipment					**$269,190**	**$27,497**	**$165,859**	**$103,331**		**$396,360**	**$41,732**	**$275,053**	**$121,307**	**$230,501**
Vehicles														
Ford Ranger 4*4 w Rack	2004	5	20	0	$19,020	$3,804	$19,020	$0	2.11	$40,101	$8,020	$40,101	$0	$21,081
2005 Toyota Tacoma Truck	2012	5	12	0	$21,599	$4,320	$21,599	$0	1.56	$33,791	$6,758	$33,791	$0	$12,192
2009 Ford F350	2017	5	7	0	$27,565	$5,513	$27,565	$0	1.30	$35,788	$7,158	$35,788	$0	$8,223
Total Vehicles					**$68,184**	**$13,637**	**$68,184**	**$0**		**$109,680**	**$21,936**	**$109,680**	**$0**	**$41,496**
Water Plant														
Reservoirs & Tanks	1974	50	50	0	$152,413	$3,048	$152,413	$0	6.45	$983,761	$19,675	$983,761	$0	$831,348
Reservoirs & Tanks	1974	50	50	0	$54,786	$1,096	$54,786	$0	6.45	$353,620	$7,072	$353,620	$0	$298,834
Services	1969	35	55	0	$66,718	$1,906	$66,718	$0	7.78	$518,916	$14,826	$518,916	$0	$452,198
Main	1969	58	55	3	$16,255	$280	$15,414	$841	7.78	$126,427	$2,180	$119,888	$6,539	$111,013
Water Main	1969	58	55	3	$425,254	$7,332	$403,258	$21,996	7.78	$3,307,523	$57,026	$3,136,444	$171,079	$2,904,265
Hydrants (estimated 45% destroyed 21/22 caldor fire)	1979	40	45	0	$28,844	$721	$28,844	$0	5.36	$154,504	$3,863	$154,504	$0	$125,660
Treatment Plant	1989	50	35	15	$93,261	$1,865	$65,283	$27,978	3.69	$344,039	$6,881	$240,827	$103,212	$278,756
Treatment Plant	1991	50	33	17	$35,960	$719	$23,734	$12,226	3.42	$123,121	$2,462	$81,260	$41,861	$99,387
Treatment Plant	1991	50	33	17	$132,787	$2,656	$87,639	$45,148	3.42	$454,641	$9,093	$300,063	$154,578	$367,001
Treatment Equipment	1990	20	34	0	$23,104	$1,155	$23,104	$0	3.55	$82,110	$4,106	$82,110	$0	$59,006
Treatment Equipment	1991	52	33	19	$7,892	$152	$5,008	$2,884	3.42	$27,021	$520	$17,148	$9,873	$22,013
Fixed Bldg Improvement	1990	31	34	0	$7,618	$246	$7,618	$0	3.55	$27,074	$873	$27,074	$0	$19,456
Fixed Ditch Improvement	1992	50	32	18	$32,816	$656	$21,002	$11,814	3.30	$108,243	$2,165	$69,276	$38,968	$87,241
Building and Systems	1993	50	31	19	$25,133	$503	$15,582	$9,551	3.18	$79,866	$1,597	$49,517	$30,349	$64,284
Building and Systems	1994	50	30	20	$13,608	$272	$8,165	$5,443	3.06	$41,660	$833	$24,996	$16,664	$33,495
Treatment Plant Extension	2001	40	23	17	$24,472	$612	$14,071	$10,401	2.36	$57,704	$1,443	$33,180	$24,524	$43,633
Treatment Plant	2002	40	22	18	$6,861	$172	$3,774	$3,087	2.27	$15,586	$390	$8,572	$7,014	$11,812
2nd Treatment Plant	2003	40	21	19	$127,418	$3,185	$66,894	$60,524	2.19	$278,853	$6,971	$146,398	$132,455	$211,958
03-04 2nd Treatment Plant	2004	40	20	20	$19,989	$500	$9,995	$9,995	2.11	$42,144	$1,054	$21,072	$21,072	$32,150
Systems Upgrades	1995	30	29	1	$31,062	$1,035	$30,027	$1,035	2.95	$91,612	$3,054	$88,558	$3,054	$61,585
System Upgrade	1995	30	29	1	$10,333	$344	$9,989	$344	2.95	$30,475	$1,016	$29,460	$1,016	$20,487
Reservoir	1994	25	30	0	$6,200	$248	$6,200	$0	3.06	$18,981	$759	$18,981	$0	$12,781
Reservoir	1995	25	29	0	$17,027	$681	$17,027	$0	2.95	$50,218	$2,009	$50,218	$0	$33,191
Reservoir CCF	1997	25	27	0	$23,358	$934	$23,358	$0	2.74	$63,939	$2,558	$63,939	$0	$40,581
Cost Sharing Funding	1997	25	27	0	$17,800	$712	$17,800	$0	2.74	$48,725	$1,949	$48,725	$0	$30,925
System Upgrades CCF	1998	30	26	4	$5,562	$185	$4,820	$742	2.64	$14,668	$489	$12,712	$1,956	$9,847
Off Stream Storage CCF	1998	30	26	4	$11,072	$369	$9,596	$1,476	2.64	$29,198	$973	$25,305	$3,893	$19,603
Retrofit Project #13	1999	30	25	5	$15,847	$528	$13,206	$2,641	2.54	$40,261	$1,342	$33,551	$6,710	$27,055
Off Stream Storage Eng.	1999	30	25	5	$8,247	$275	$6,873	$1,375	2.54	$20,952	$698	$17,460	$3,492	$14,080
North & Big Canyon	1999	30	25	5	$42,143	$1,405	$35,119	$7,024	2.54	$107,068	$3,569	$89,223	$17,845	$71,949
Cost Sharing 2001	2001	25	23	2	$17,977	$719	$16,539	$1,438	2.36	$42,389	$1,696	$38,998	$3,391	$25,850
Scaroni Road Improvement	2002	40	22	18	$5,000	$125	$2,750	$2,250	2.27	$11,358	$284	$6,247	$5,111	$8,608
115 Add'l Storage Tank	2003	40	21	19	$96,020	$2,401	$50,411	$45,610	2.19	$210,139	$5,253	$110,323	$99,816	$159,728
Cost Sharing 2002	2002	25	22	3	$8,100	$324	$7,128	$972	2.27	$18,400	$736	$16,192	$2,208	$11,272
Grizzly Pond Spillway Repairs	2011	50	13	37	$7,752	$155	$2,016	$5,736	1.62	$12,589	$252	$3,273	$9,316	$10,573
Water System Improvement Project	2012	50	12	38	$1,609,073	$32,181	$386,178	$1,222,895	1.56	$2,517,352	$50,347	$604,165	$1,913,188	$2,131,175
ADA Office Restroom Impvts.	2013	15	11	4	$12,021	$801	$8,815	$3,206	1.51	$18,118	$1,208	$13,287	$4,831	$9,303
ADA Parking Lot / Paving	2013	25	11	14	$12,123	$485	$5,334	$6,789	1.51	$18,272	$731	$8,040	$10,232	$12,938
Forest View Bypass Pipe	2014	30	10	20	$12,500	$417	$4,167	$8,333	1.45	$18,150	$605	$6,050	$12,100	$13,984
Backwash tank replacement	2016	30	8	22	$276,259	$9,209	$73,669	$202,590	1.35	$372,302	$12,410	$99,281	$273,021	$298,633
Hydrants 82 and 83 (Removed 45% of hydrants from 21/22 fire)	2018	40	6	34	$5,864	$147	$880	$4,984	1.25	$7,335	$183	$1,100	$6,234	$6,455
Total Water Plant					**$3,546,529**			**$1,741,327**		**$10,889,315**			**$3,135,602**	**$9,084,113**
TOTAL					**$3,883,903**			**$1,844,658**		**$11,395,356**			**$3,256,909**	**$9,356,111**

Source: GFCSD asset records, August 2023.

assets

[1] Adjusted by the average annual rate of inflation in California since 1955.

APPENDIX B

FUTURE CONSIDERATIONS: SPECIAL TAXES TO REPLACE STANDBY ASSESSMENTS

Special Tax Methodology

First, the amount to be funded by special taxes would be determined. Included in this calculation are capital expenses and debt service identified in the revenue requirement, plus the total amount of revenues currently produced by the assessment. All properties would pay the special tax; however, pursuant to Government Code 61121, the special tax for an Improved Lot can be greater than for an Unimproved Lot. The calculation could weight Unimproved Lots at 75% of an Improved Lot as Unimproved lots have a benefit (increase in property value) from the existence of the District's facilities, including its 150 fire hydrants (albeit not from a catastrophic event like the Caldor Fire).

The total amount to be funded by special taxes could be divided by the number of Improved and weighted Unimproved Lots.

Improved Lot – A lot that has a permanent structure on the property. It does not include the lots that currently have temporary living units on them.

Unimproved Lot - A lot that is vacant or has a temporary living unit on it. This type of lot includes lots with water facilities and lots without water facilities.

Implementation of a Special Tax

Per Government Code 50077, the District may, following notice and public hearing, propose by ordinance or resolution the adoption of a special tax. The ordinance or resolution shall include the type of tax and rate of tax to be levied, the method of collection, and the date upon which an election shall be held to approve the levy of the tax. The proposition shall be submitted to the voters of the district, and, upon the approval of two-thirds of the votes cast by voters voting upon the proposition, the District may levy the tax. The tax is the maximum that may be imposed, notwithstanding an adjustment allowance provided annually for inflation using the San Francisco Engineering News Record Construction Cost Index change in the previous 12 months from May to May. The maximum special tax would be calculated each year, and each year the Board would determine the amount to be levied.

Each year, the District would use Assessor records to determine if a lot is Improved or Unimproved. The District can choose whether to collect the special tax with utility bills each month or to place the special tax on the tax roll for all the lots except Unimproved Lots without water service. Special taxes for Unimproved Lots without water service would have to be placed on the tax roll as they do not receive a water bill from the District. The special tax is subject to the same penalty as, or with, other charges and taxes fixed and collected by the District, or, by agreement with the county, by the county on behalf of the District. If the special taxes are collected by the county on behalf of the District, the county may deduct its reasonable costs incurred for the service before remittal of the balance to the District.

Accountability Measures

There are accountability measures that the District would have to follow with a special tax, including:

(a) A statement indicating the specific purposes of the special tax.

(b) A requirement that the proceeds be applied only to the specific purposes identified pursuant to subdivision (a).

(c) The creation of an account into which the proceeds shall be deposited.

(d) An annual report that contains the amount of funds collected and expended as well as the status of any project required or authorized to be funded.