Fort Collins-Loveland Water District

Water Financial Plan, Cost of Service, Rate and Tap Fee Study

Final Report / December 15, 2023

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December 15, 2023

Ms. Amanda Proctor
Finance Director
Fort Collins-Loveland Water District
5150 Snead Drive
Fort Collins, CO 80525

Subject: Updated Water Financial Plan, Cost of Service, Rate and Tap Fee Study

Dear Ms. Proctor,

Raftelis is pleased to provide this report highlighting the key findings of the water and financial plan, cost of service, rate, and tap fee study Raftelis has completed for the Fort Collins-Loveland Water District (District).

The primary purpose of this study was to ensure the financial sustainability of the water utility and ensure that rates and fees recovered costs proportionately across all customer classes. This study includes the following for the water utility:

- Completing a 10-year financial plan cash flow analysis to determine the level of revenues to meet annual expenditures
- Calculating the cost of service to allocate costs proportionately to customer classes
- Designing rates based on the preferred alternatives selected by the Board of Directors
- Reviewing and updating the water tap fees to capture the cost to reserve capacity in the system for new development

It has been a pleasure working with you, and we thank you and the District staff for the support provided during this study.

Sincerely,

Todd Cristiano

Todd Cristiano
Senior Manager

383 Corona Street, Suite 244
Denver, CO 80218
www.raftelis.com

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Introduction

Fort Collins-Loveland Water District (District) provides service to approximately 19,600 water customers. The District is financially self-sufficient, funding capital and operating requirements primarily from rate revenues and tap fees. The District authorized this study to ensure that an adequate level of income from water rates is maintained to finance daily operations, tap fees are sufficient to fund growth-related capital, and that rates are fair and aligned with the District's goals and community values. This study included the development of:

- A water financial plan for the 10-year study period, 2023 through 2032.
- A cost of service analysis to determine the cost to provide service to each customer class.
- Water rates meeting pricing objectives identified by the Board of Directors (Board).
- A review and update of water tap fees incorporating future infrastructure needed to serve new development in the service area.

Raftelis used industry standard methodologies supported by the American Water Works Association (AWWA) *Principles of Water Rates, Fees, and Charges* M1 manual.

Appendix A details the development of the water utility financial plan, cost of service analysis, and rate design analysis, respectively.

Assumptions

This study is based on numerous assumptions, which have been approved by the District. Changes in these assumptions could materially affect the study findings. Raftelis incorporated the following key assumptions into the study:

- The test year, or the year new rates will be in effect, 2024
- The study period forecast is for 2023 through 2032[1]
- Growth projections for the study period:
    - Residential Accounts: 2% per year
    - Commercial Accounts: 2% per year
    - Irrigation Accounts: 2% per year
- Usage per account will be constant based on historical data. Residential water usage per account is approximately 12,000 gallons per month. Residential customers represent a majority of the District's customers.
- Costs will change as follows:
    - Capital costs provided by the District include a contingency allowance and inflate at 3% per year from current dollar estimates.
    - Most operation and maintenance (O&M) expenses increase annually at the rates listed below:
        - General: 4%
        - Personnel: 3%
        - Chemicals: 3%

[1] The cash flow tables include 2023 as the base year, or the year in which the model was developed, and is based on a combination of budgetary information and estimated values. The study forecast is for 2024 through 2032.

        - Utilities: 3.5%
- Proposed minimum reserve levels are as follows[2]:
    - Operating fund: 90 days annual O&M
    - Capital reserve: 25% of the following year's CIP
- Debt service
    - Recommended coverage requirement is 1.5x debt service to allow for future bond issues
    - Bond terms: 5% interest rate, 20-year term, 2% issuance cost, and Jan 1 issue date
- Capital spending program
    - Reduced by 25%
    - Debt of $113 million is issued in 2024 and the remainder of the capital spending program is cash funded

Study Findings and Recommendations

WATER UTILITY

Capital Expansion Fund

The capital expansion fund[3] tracks financial activities associated with funding growth-related capital projects and payments on proposed debt service. Revenue from tap fees, carry-over reserves, projected loans, and as-needed transfers from the operating fund provide sufficient funding for the growth-related capital improvement program and payments on proposed debt service. The growth-related capital improvement program totals $454 million, $50 million in loans in 2023, $113 million in proposed loans in 2024, and the remainder financed by tap fees and capital reserves. The capital spending program was reduced by 25% at the direction of the District to reduce potential rate increases in this financial plan. Table 1 summarizes the 10-year CIP.

[2] See discussion on page 4.
[3] Capital repair and replacement projects are funded through rates in the operating fund.

Table 1: 10-Year CIP (2023 – 2032)[4]

Capital Projects	
Water Purchases - new	$274.00
PROJ-0025 Zone 5 Transmission	69.20
Cobb Lake Regional (CLRWTA): Plant Design & Construction	61.00
PROJ-0026 Western Backbone	54.66
Soldier Canyon Expansion	51.60
PROJ-0048 Cobb Lake Transmission to Timnath	51.38
Cobb Lake Regional (CLRWTA): Pipeline Design and Construction	40.00
Large Cap. Rehab / Replacement	27.00
PROJ-0081 Foothills Storage Expansion	26.50
PROJ-0071 Turman 14" AC Replacement	24.00
PROJ-0101 Trilby Southeast Transmission	22.50
PROJ-0077 Trilby Tank Expansion - New Tank	16.68
PROJ-0054 Building Remodel	12.00
PROJ-0074 Timnath to Airport Transmission	9.00
Oversize Reimbursements	9.00
PROJ-0027 Airport Pump Station to Crossroads Transmission	7.15
PROJ-0077 Trilby Transmission	7.00
Small Cap. Rehab / Replacement	4.50
PROJ-0075 Overland Pump Station	4.20
PROJ-0032 Airport Pump Station	2.77
Water Rights - water resources	2.74
PROJ -0031 Westridge Tank	2.54
PROJ-0053 College & Trilby Intersection Relocates	2.09
PROJ-0040 Skyview Waterline Replacement	2.00
Pleasant Valley Pipe Line - Maint.	1.80
PROJ-0039 Longview Pump Station	1.70
Tank Inspection/Maintenance/Coatings	1.51
Large Valve & PRV Rehab / Replacement	1.50
Water Modeling / Master Planning / Condition Assessments	1.15
All Other CIP Projects	7.36
Total Capital Improvement Program	**$798.53**

Operating Fund

The operating fund tracks activities associated with operating and maintaining the water utility on a daily basis. Operating revenues primarily consist of rate revenue, with a small portion from miscellaneous sources. Revenue from existing rates is projected to increase from $16.8 million in 2023 to $17.9 million in 2032 based on the growth in customer accounts.

Expenditures include operation and maintenance expenses (O&M) which consist of costs to collect, treat, and distribute water to customers. O&M is projected to increase from $15.1 million in 2023 to $20.9 million in 2032. Capital repair and replacement (R&R) projects are necessary for maintaining the current level of service in the system and are not associated with meeting growth-related requirements. Capital R&R costs average $13.3 million

[4] Amounts shown in Table 1 are without inflation.

annually, and total $133.0 million over the study period. Transfers to the capital expansion fund must meet any intermittent cash flow deficiencies. Annual transfers averaging $35.0 million per year are projected to begin in 2025 to assist in maintaining a positive cash flow balance in the capital expansion fund.

Reserves

The Official Statement for the District's Series 2010 Water Revenue Bonds requires a debt service coverage (DSC) ratio of 125% of the maximum annual debt service. The District has a DSC ratio target of 150% (or 1.5 x) of annual debt service to meet issuance requirements for new debt. Raftelis also proposes an operating reserve balance equal to 90 days of O&M. This reserve tracks and adjusts based on changes in O&M expenditures. The primary goal of the operating reserve is to absorb cash flow fluctuations due to the variability in monthly expenditures and the inflow of revenues. Raftelis proposes transitioning to a target operating reserve over ten years from $3.8 million in 2023 to $5.2 million in 2032.

In addition, Raftelis recommends the District maintain a capital reserve equal to 25% of the following year's CIP expense. Like the operating reserve, the capital reserve is to be used to offset fluctuations in the capital program due to unanticipated cost increases or emergencies. Raftelis proposes transitioning to a target capital reserve over ten years from $18.4 million in 2023 to $15.1 million in 2032. Combined, these reserves strengthen the utility's financial health and ability to weather unexpected operating costs or capital interruptions. Maintaining adequate funds also prevents the utility from reactively having to adjust rates in response to unforeseen events.

Indicated Revenue Adjustments

Projected water sales revenue under existing rates is insufficient to meet annual operation and maintenance expenses (O&M), payments on existing debt service, capital repair and replacement costs, and proposed target operating reserves. The District must maintain a DSC ratio of 1.5 x annual debt service to meet issuance requirements for new debt. The annual DSC ratio is met through the study.

Appendix A contains the detailed financial plan cash flow analysis. Table 2 below summarizes the consolidated fund results.

Table 2: Water Fund Summary

Metric	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
Annual Rate Revenue Increases	*50.0%*	*50.0%*	*40.0%*	*30.0%*	*20.0%*	*-%*	*-%*	*-%*	*-%*
Rate Revenues	$24.03	$35.79	$50.60	$66.81	$81.71	$84.50	$85.65	$86.86	$88.10
Misc. Revenue	3.78	3.50	3.43	3.54	3.68	3.72	3.95	4.17	4.36
Plant Investment Fees	16.52	16.85	17.19	17.53	17.88	18.24	18.61	18.98	19.36
Total Revenues	44.33	56.14	71.22	87.88	103.28	106.46	108.20	110.01	111.82
O&M Expenses	15.66	16.24	16.84	17.46	18.10	18.77	19.47	20.19	20.94
Debt Service	13.06	13.06	13.06	13.06	13.06	13.06	13.06	13.06	13.06
CIP Expenditures	73.71	107.13	84.68	82.03	67.97	62.13	32.27	33.24	43.05
Total Expenditures	102.42	136.42	114.57	112.54	99.13	93.96	64.80	66.49	77.04
Net Consolidated Cash Flow	(58.09)	(80.28)	(43.35)	(24.66)	4.15	12.50	43.41	43.52	34.78
Beginning Cash Balance	108.49	151.62	71.34	27.98	3.32	7.47	19.97	63.38	106.90
Add: Net Consolidated Cash Flow	(58.09)	(80.28)	(43.35)	(24.66)	4.15	12.50	43.41	43.52	34.78
Add: Net Bond Proceeds	101.22	-	-	-	-	-	-	-	-
Ending Cash Balance	151.62	71.34	27.98	3.32	7.47	19.97	63.38	106.90	141.68
Debt Service Coverage Ratio (Including PIFs)	*2.20*	*3.06*	*4.17*	*5.39*	*6.52*	*6.72*	*6.80*	*6.88*	*6.96*
Debt Service Coverage Ratio (Excluding PIFs)	*0.93*	*1.77*	*2.85*	*4.05*	*5.15*	*5.32*	*5.37*	*5.43*	*5.48*

Cost of Service Analysis

Raftelis completed this comprehensive cost of service analysis by standard methods supported by the American Water Works Association (AWWA) in its M1 manual, *Principles of Water Rates, Fees, and Charges*. This analysis determines the cost of providing water service to each customer class and guides the design of the proposed rates. The general steps of the cost of service analysis are:

1. ***Revenue requirement.*** Determine the level of revenue required from rates. The revenue requirement includes expenditures in the operating fund: O&M, capital repair and replacement costs, reserves, and changes in fund balance.

2. ***Cost functionalization.*** Assign the detailed costs in the revenue requirements to functional areas in the system. Functional areas include water treatment, transmission and distribution, storage, source of supply, meters, services, and billing and administrative costs. Costs are functionalized based on the facility that has the most influence on that expense. For example, chemical costs are typically for treatment processes so those costs would be allocated to the water treatment category.

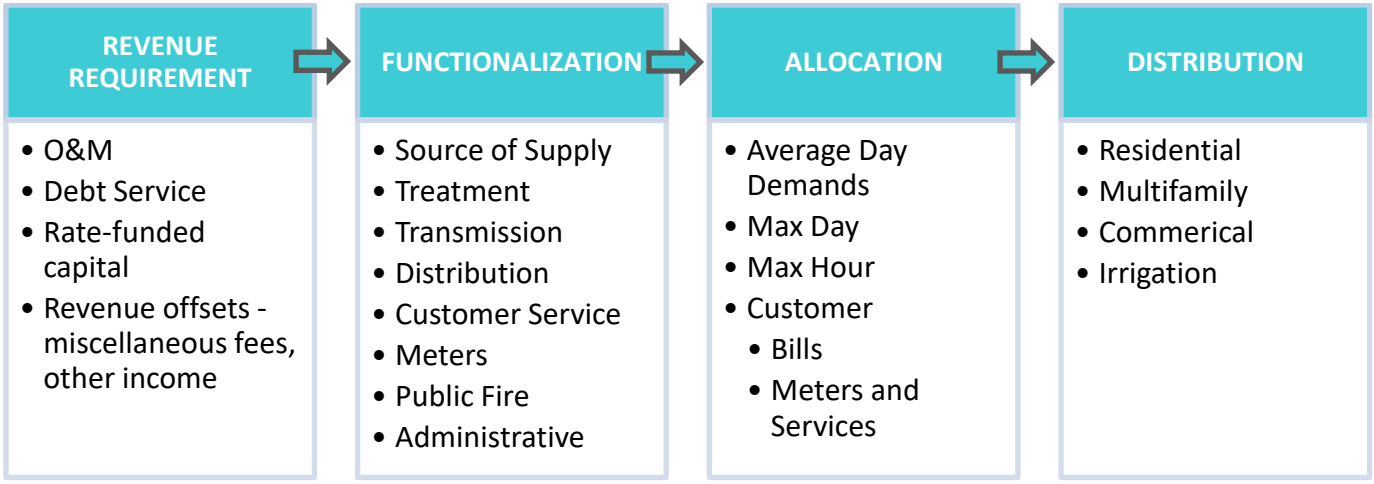
3. ***Demand parameters and customer characteristics.*** Functional costs can be allocated to demand parameters and customer characteristics. Demand parameters include average day demands and peak demands. Customer characteristics include the number of accounts by meter size and bills. Each facility is designed to meet specific design requirements in the system. Water treatment facilities are designed and operated to meet maximum day demands. As a result, a portion of water treatment costs would be allocated to the average day demand category and a portion to the peak demand category.

4. ***Units of service.*** The units of service capture the demand and customer characteristics for each customer class. These characteristics include average day demand, peak demand, number of accounts by meter size, and the number of bills.

5. ***Distribution of costs to customer classes.*** Because customer classes are defined by their demand parameters (average day and peak demands) and the account makeup (meters by meter sizes), the allocated costs can be proportionately distributed to each class based on their specific demand and customer characteristics. For example, if the residential customer class represents 50% of total peak day demands, they would be allocated 50% of the allocated peak day demand costs.

Figure 1 below illustrates the cost allocation process for the water utility.

Figure 1: Water Cost of Service Process



The cost of service tables are included in Appendix A. Table 3 compares the cost of service by customer class to revenue under existing rates.

Table 3: Comparison of Test Year Water Cost of Service to Revenue Under Existing Rates

Customer Class	Revenue Under Existing Rates	Cost of Service Revenue	Required Change in Revenue	
Customers at FCLWD Rates				
Residential	$9,354,164	$15,044,266	$5,690,102	60.8%
Commercial	$1,709,533	$2,466,272	$756,739	44.3%
Irrigation	$1,997,852	$2,807,585	$809,733	40.5%
Multi-Unit Residential	$919,158	$528,846	-$390,312	(42.5%)
Total at FCLWD Rates	$13,980,707	$20,846,969	$6,866,262	49.1%
Customers at City Rates				
Residential	$1,157,815	$1,943,497	$785,682	67.9%
Commercial	$115,013	$190,253	$75,240	65.4%
Irrigation	$531,022	$867,245	$336,223	63.3%
Multi-Unit Residential	$234,030	$179,915	-$54,115	(23.1%)
Total at City Rates	$2,037,879	$3,180,910	$1,143,031	56.1%
Total System	**$16,018,586**	**$24,027,879**	**$8,009,293**	**50.0%**

Rate Structure Development

Through collaboration with Staff and the Board, Raftelis developed several rate design alternatives incorporating the prioritized pricing objectives of revenue sufficiency and defensibility. Revenue sufficiency means financial health is maintained, and defensibility means that the rates are defensible in court. The alternative proposed in this report is as follows and is based on a proposed rate increase of 50% in 2024. The rate schedules and bill impacts will vary if the District implements a different rate increase.

- The base charge per month, which varies by meter size, received an across-the-board increase of 50%.
- The residential rate structure tiers were modified. Tier 1 is from 0 – 5,000 gallons, and tier 2 is from 5,001 – 15,000 gallons. Tier 3 was unchanged. Reducing the tier 1 threshold to 5,000 from 8,000 gallons per

month more closely matches essential water use, pushing additional discretionary usage into tier 2, which is charged at a higher rate, giving customers more control over their water bill.

- The residential conservation tap uses the same base charge per month and tier 1 rate as residential customers. The tier 2 rate received the proposed rate increase to the existing tier 2 rate.
- Multi-family residential customers received a per unit charge for the monthly fixed charge and a uniform rate for consumption. The proposed rate structure has a lower per unit service charge, reflecting the lower cost of service multi-unit dwellings impose on the water system.
- Commercial and irrigation customers received an across-the-board increase of 50%.

Recommended 2024 Rates Under the Proposed Rate Structure Alternative

The rate structure alternatives presented to the Board are based on the industry-accepted cost of service principles. This means that each rate structure developed below recovers the cost to provide service for each customer class, and there are no subsidies between classes. Each alternative is based on a monthly fixed charge and a volume rate. These two components are adjusted in each scenario to incorporate the pricing objectives identified by the Board. It is important to note that the selection of these rate structures involved quantitative analysis and qualitative review. In other words, there is no 'silver bullet' rate structure. The proposed structures include a monthly fixed fee (base charge) and a volumetric rate. The base charge per month is assessed by meter size for all classes except multi-family which is assessed on a per unit basis. The base charge per month consists of these components: billing, meters and services costs, and a capital charge. The billing, meter and services costs recovers the cost to read meters, prepare bills, fund customer service, and customer field service operations. The capital charge recovers a portion of annual repair and replacement capital improvement costs. For a ¾" meter, the billing, meters and service cost is $11.79 per bill and the capital charge is $11.05 for a total of $22.84. These components increase as the size of the meter increases. Table 4 summarizes the proposed 2024 rates for the selected alternative compared to existing rates. The rates include the necessary revenue adjustment required to meet the water enterprise financial goals.

Table 4: Comparison of Proposed 2024 Water Rates to Existing District Rates

Description	Existing	Proposed	
Residential			
Base Rate, $ per Bill		Base Rate, $ per Bill	
5/8" and 3/4"	$17.01	5/8" and 3/4"	$25.52
1"	$24.79	1"	$37.19
1.5"	$44.04	1.5"	$66.06
2"	$67.27	2"	$100.91
3"	$129.23	3"	$193.85
4"	$258.47	4"	$387.71
Volume Rates, $ per 1,000 gallons		Volume Rates, $ per 1,000 gallons	
Tier 1: 0 - 8 kgal	$3.47	Tier 1: 0 - 5 kgal	$3.35
Tier 2: 8 - 15 kgal	$4.54	Tier 2: 5 - 15 kgal	$4.75
Tier 3: > 15 kgal	$5.58	Tier 3: >15 kgal	$6.37
Multi-Unit			
Base Rate, $ per Unit	$17.01	Base Rate, $ per Unit	$8.67
Volume Rates, $ per 1,000 gallons		Volume Rates, $ per 1,000 gallons	
Tier 1: 0 - 8 kgal	$3.47	All Usage	$2.11
Tier 2: 8 - 15 kgal	$4.54		
Tier 3: > 15 kgal	$5.58		
Conservation Tap			
Base Rate, $ per Bill		Base Rate, $ per Bill	
5/8" and 3/4"	$17.01	5/8" and 3/4"	$25.52
Volume Rates, $ per 1,000 gallons		Volume Rates, $ per 1,000 gallons	
Tier 1: 0 - 5kgal	$3.47	Tier 1: 0 - 5kgal	$3.35
Tier 2: > 5 kgal	$10.67	Tier 2: > 5 kgal	$16.01
Commercial			
Base Rate, $ per Bill		Base Rate, $ per Bill	
5/8" and 3/4"	$17.01	5/8" and 3/4"	$25.52
1"	$24.79	1"	$37.19
1.5"	$44.04	1.5"	$66.06
2"	$67.27	2"	$100.91
3"	$129.23	3"	$193.85
4"	$258.47	4"	$387.71
Volume Rates, $ per 1,000 gallons		Volume Rates, $ per 1,000 gallons	
All Usage	$2.68	All Usage	$4.02
Water Resources Surcharge	$1.50		
Irrigation			
Base Rate, $ per Bill		Base Rate, $ per Bill	
5/8" and 3/4"	$17.01	5/8" and 3/4"	$25.52
1"	$24.79	1"	$37.19
1.5"	$44.04	1.5"	$66.06
2"	$67.27	2"	$100.91
3"	$129.23	3"	$193.85
4"	$258.47	4"	$387.71
Volume Rates, $ per 1,000 gallons		Volume Rates, $ per 1,000 gallons	
All Usage	$4.03	All Usage	$6.05
Water Resources Surcharge	$1.50		

Typical Monthly Bills

Figure 2 shows a monthly bill for a typical residential customer under existing rates without an increase, the existing rate structure with an across-the-board rate increase, and the selected rate structure alternative. The proposed rates used in this comparison are based on 2024 cost of service rates detailed in the table above. This chart compares a customer with essential water usage, average water usage, and high or summer water usage.

Figure 2: Typical Monthly Residential Water Bills Under the Proposed Rates

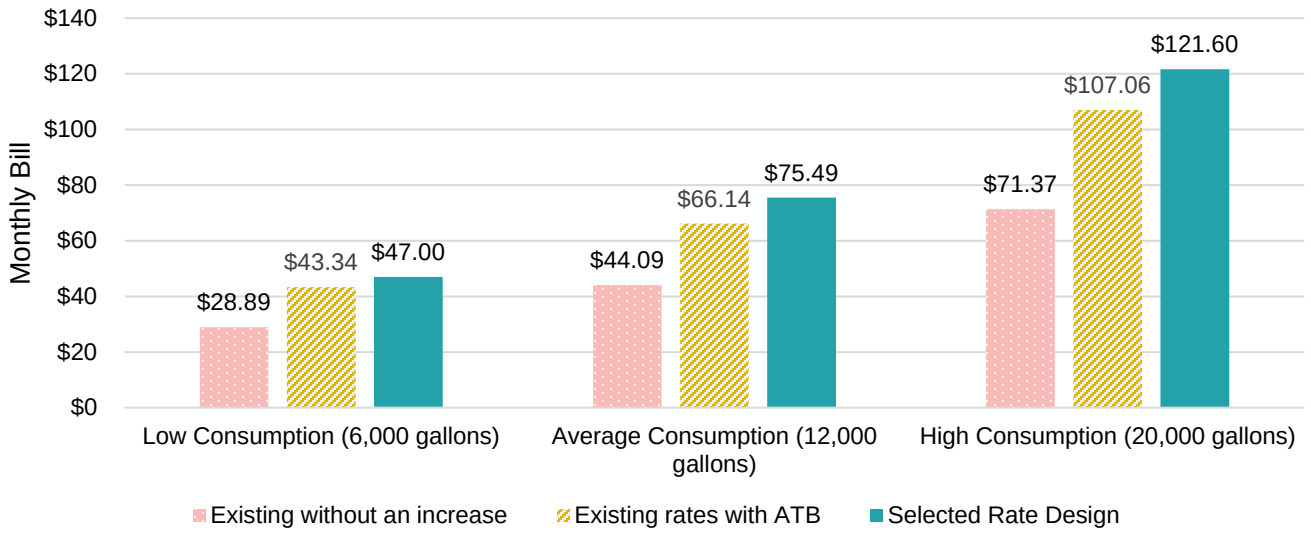
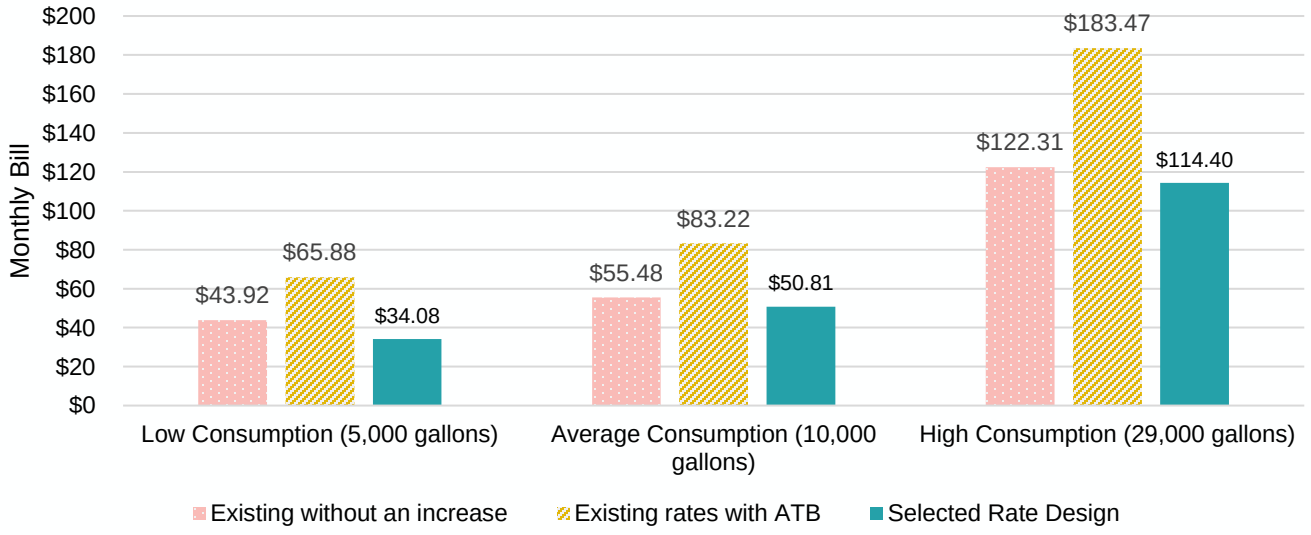


Figure 3 shows a monthly bill for a typical multi-family residential (duplex) customer under existing rates without an increase, the existing rate structure with an across-the-board rate increase, and the selected rate structure alternative.

Figure 3: Typical Monthly Residential Multi-family (Duplex) Water Bills Under the Proposed Rates



Tap Fees

The District charges water tap fees to all new connectors. The tap fee is intended to recover a new connector's proportionate share of the District's water backbone facility costs. Tap fees must comply with the State Statutes, which are summarized below. The Colorado Revised Statutes (CRS) §29-20-104.5 for Impact Fees (tap fees) outline the requirements for calculating and implementing an impact fee (tap fee). The basic tenets of the Statute are listed below.

- Fees must generally apply to a broad property class (for example, residential, commercial, etc.).
- Fees must be intended to defray the projected impacts on capital facilities caused by the proposed development.
- Fees are directly related to services that a local government can provide.
- The asset has an estimated useful life of five years or longer.
- The fee is required by a local government's charter or general policy pursuant to a resolution or ordinance.

OVERVIEW OF THE TAP FEE CALCULATION PROCESS

The general steps and equation used in calculating tap fees are as follows:

- Determine the value of backbone facilities (existing or future growth-related)
- Estimate current system capacity or level-of-service
- Calculate unit cost of capacity
- Determine customer service level demand characteristics
- Apply unit cost of capacity to customer's demand characteristics

$$\frac{Value\ of\ Backbone\ Facilities}{System\ Capacity\ (gpd)} \times New\ CustomerDemand\ (gpd) = Tap\ Fee$$

The table below summarizes the generally accepted methodologies for calculating tap fees. Each method is designed to recover the cost of capacity to serve new development. The selection of a methodology should consider a utility's goals and objectives for recovering capacity-related capital costs. The three methodologies include buy-in, incremental, and hybrid. Table 5 below lists the basic parameters a utility may consider when selecting a method that best meets its needs. The incremental method was used due to limited available existing capacity.

Table 5: Industry Standard Tap Fees Methodologies

Description	Buy-in	Incremental	Hybrid
Available existing capacity sufficient to accommodate new growth	X		
No existing capacity with significant future capacity requirements		X	
Some existing capacity available with future capacity requirements needed to accommodate new growth		X	X

Incremental Method

The water tap fees were calculated using the incremental methodology. The incremental method is typically used by utilities experiencing rapid growth with little to no available capacity in their current system. It is a forward-looking approach that considers a utility's growth-related projects in a long-term capital expansion program or master plan. Thus, the incremental method usually relies on a utility's long-term expansion capital improvement program to estimate the costs and capacity of new facilities. The incremental cost is defined as the cost to serve the next incremental amount of growth.

WATER TAP FEES

Water backbone facilities include major infrastructure such as treatment plants, transmission mains, raw and treated water storage, and pumping facilities that benefit all customers. The capacity of the water treatment plants is a standard method for defining the level of service. Level-of-service is the relationship between the service capacity and the service demand. In other words, the service capacity is the system's capacity, and the service demand is the requirement to serve new development.

Table 6 shows the current and calculated water tap fees. The tap fee for single family dwellings is scaled based on lot size and consists of a water resource fee calculated by multiplying the required CBT with the raw water cost of $60,000 plus a meter fee of $380, and a $13,021 water infrastructure fee. For lot sizes less than or equal to 3,000 square feet, this results in a total tap fee of $30,801. Raftelis recommends that the District increase the meter fee to $415 and the water infrastructure fee to $17,000 – for a total tap fee of $34,815.

Table 6: Comparison of Existing and Calculated Single Family Water Tap Fees

Lot Size - Sq ft	Required C-BT Units	Water Resource Fee	Infrastructure PIF	Meter	Total Tap Fee	Existing Tap Fee	Change - %
Conservation Tap	0.29	$17,400	17,000	$415	$34,815	$30,801	13%
<=3,000	0.29	$17,400	17,000	$415	$34,815	$30,801	13%
3,001-4,000	0.36	$21,600	17,000	$415	$39,015	$35,001	11%
4,001-5,000	0.5	$30,000	17,000	$415	$47,415	$43,401	9%
5,001-6,000	0.62	$37,200	17,000	$415	$54,615	$50,601	8%
6,001-7,000	0.72	$43,200	17,000	$415	$60,615	$56,601	7%
7,001-8,000	0.8	$48,000	17,000	$415	$65,415	$61,401	7%
8,001-9,000	0.86	$51,600	17,000	$415	$69,015	$65,001	6%
9,001-10,000	0.95	$57,000	17,000	$415	$74,415	$70,401	6%
10,001-11,000	1.01	$60,600	17,000	$415	$78,015	$74,001	5%
>11,000	1.15	$69,000	17,000	$415	$86,415	$82,401	5%

Tap fees for Multi-family dwellings (dwellings that share a common meter) are assessed by the number of dwelling units. Currently, the tap fee includes the infrastructure fee of $4,166.70 multiplied by the number of dwelling units, plus the required CBT of 0.32 multiplied by the number of dwelling units – this total CBT is then multiplied by the raw water cost of $60,000 to get the water resource fee, and a meter fee that increases per meter size. For a 1" two dwelling unit tap, the infrastructure fee would come out to $8,333.40, plus the water resource fee of $38,400, and a meter charge of $405 - for a total tap fee of $47,138.40. Raftelis recommends that the District increase the meter fee per meter size as well as increasing the infrastructure fee to $17,000. For a 1" two dwelling unit tap, this would include an infrastructure fee of $10,880, a water resource fee of $38,400, and a meter charge of $530 – for a total tap fee of $49,810. Table 7 shows the current and calculated multi-family water tap fees.

Table 7: Comparison of Existing and Calculated Multi-Family Water Tap Fees

Tap Description	DU	Infrastructure PIF	CBT per DU	Total CBT	Water Resource Fee	Meter	Total Tap Fee	Existing Tap Fee	Change - %
1" MF (2 DU)	2	$10,880	0.32	0.64	$38,400	$530	$49,810.00	$47,138	6%
1" MF (3 DU)	3	$16,320	0.32	0.96	$57,600	$530	$74,450.00	$70,505	6%
1 1/2" MF (4 DU)	4	$21,760	0.32	1.28	$76,800	$1,880	$100,440.00	$95,017	6%
1 1/2" MF (5 DU)	5	$27,200	0.32	1.6	$96,000	$1,880	$125,080.00	$118,384	6%
1 1/2" MF (6 DU)	6	$32,640	0.32	1.92	$115,200	$1,880	$149,720.00	$141,750	6%
1 1/2" MF (7 DU)	7	$38,080	0.32	2.24	$134,400	$1,880	$174,360.00	$165,117	6%
1 1/2" MF (8 DU)	8	$43,520	0.32	2.56	$153,600	$1,880	$199,000.00	$188,484	6%
1 1/2" MF (9 DU)	9	$48,960	0.32	2.88	$172,800	$1,880	$223,640.00	$211,850	6%
1 1/2" MF (10 DU)	10	$54,400	0.32	3.2	$192,000	$1,880	$248,280.00	$235,217	6%
2" MF (11 DU)	11	$59,840	0.32	3.52	$211,200	$2,165	$273,205.00	$258,954	6%
2" MF (12 DU)	12	$65,280	0.32	3.84	$230,400	$2,165	$297,845.00	$282,320	5%
2" MF (13 DU)	13	$70,720	0.32	4.16	$249,600	$2,165	$322,485.00	$305,687	5%
2" MF (14 DU)	14	$76,160	0.32	4.48	$268,800	$2,165	$347,125.00	$329,054	5%
2" MF (15 DU)	15	$81,600	0.32	4.8	$288,000	$2,165	$371,765.00	$352,421	5%
2" MF (16 DU)	16	$87,040	0.32	5.12	$307,200	$2,165	$396,405.00	$375,787	5%
2" MF (17 DU)	17	$92,480	0.32	5.44	$326,400	$2,165	$421,045.00	$399,154	5%
2" MF (18 DU)	18	$97,920	0.32	5.76	$345,600	$2,165	$445,685.00	$422,521	5%
2" MF (19 DU)	19	$103,360	0.32	6.08	$364,800	$2,165	$470,325.00	$445,887	5%
2" MF (20 DU)	20	$108,800	0.32	6.4	$384,000	$2,165	$494,965.00	$469,254	5%
2" MF (21 DU)	21	$114,240	0.32	6.72	$403,200	$2,165	$519,605.00	$492,621	5%
2" MF (22 DU)	22	$119,680	0.32	7.04	$422,400	$2,165	$544,245.00	$515,987	5%
2" MF (23 DU)	23	$125,120	0.32	7.36	$441,600	$2,165	$568,885.00	$539,354	5%
2" MF (24 DU)	24	$130,560	0.32	7.68	$460,800	$2,165	$593,525.00	$562,721	5%
2" MF (25 DU)	25	$136,000	0.32	8	$480,000	$2,165	$618,165.00	$586,088	5%
2" MF (26 DU)	26	$141,440	0.32	8.32	$499,200	$2,165	$642,805.00	$609,454	5%
2" MF (27 DU)	27	$146,880	0.32	8.64	$518,400	$2,165	$667,445.00	$632,821	5%
2" MF (28 DU)	28	$152,320	0.32	8.96	$537,600	$2,165	$692,085.00	$656,188	5%
2" MF (29 DU)	29	$157,760	0.32	9.28	$556,800	$2,165	$716,725.00	$679,554	5%
2" MF (30 DU)	30	$163,200	0.32	9.6	$576,000	$2,165	$741,365.00	$702,921	5%
2" MF (31 DU)	31	$168,640	0.32	9.92	$595,200	$2,165	$766,005.00	$726,288	5%
2" MF (32 DU)	32	$174,080	0.32	10.24	$614,400	$2,165	$790,645.00	$749,654	5%

Tap fees for commercial and irrigation development are assessed by multiplying the CBT (based on class and meter size) with the $60,000 raw water cost plus a $380 meter fee, and a water infrastructure fee of $13,021. For a ¾" commercial meter, this would result in a total current tap fee of $73,401. Irrigation meters have a higher capacity ratio and therefore, have a higher total tap fee. The total current tap fee for a ¾" irrigation meter is $95,001. Raftelis recommends that the District increase the meter fee to $415 and the water infrastructure to $17,000. This would result in a total commercial tap fee of $77,415 and a total irrigation tap fee of $99,015 for ¾" meters. Table 8 shows the current and calculated commercial and irrigation water tap fees.

Table 8: Comparison of Existing and Calculated Commercial and Irrigation Water Tap Fees

Class and Meter Size	Flow Capacity (gpm)	Capacity Ratio	Infrastructure PIF	Required C-BT Units	Water Resource Fee	Meter	Total Tap Fee	Existing Tap Fee	Change - %
Commercial									
3/4"	10	1	$17,000	1	$60,000	$415	$77,415	$73,401	5%
1"	25	2.5	$42,500	2.5	$150,000	$530	$193,030	$182,958	6%
1 1/2"	50	5	$85,000	5	$300,000	$1,880	$386,880	$366,655	6%
2"	80	8	$136,000	8	$480,000	$2,165	$618,165	$586,088	5%
3"	175	17.5	$297,500	17.5	$1,050,000	$2,645	$1,350,145	$1,279,947	5%
4"	300	30	$510,000	30	$1,800,000	$4,435	$2,314,435	$2,194,081	5%
6"	625	62.5	$1,062,500	62.5	$3,750,000	$6,323	$4,818,823	$4,569,562	5%
Irrigation									
3/4"	10	1	$17,000	1.36	$81,600	$415	$99,015	$95,001	4%
1"	25	2.5	$42,500	3.42	$205,200	$530	$248,230	$238,158	4%
1 1/2"	50	5	$85,000	6.81	$408,600	$1,880	$495,480	$475,255	4%
2"	80	8	$136,000	10.92	$655,200	$2,165	$793,365	$761,288	4%
3"	175	17.5	$297,500	23.93	$1,435,800	$2,645	$1,735,945	$1,665,747	4%
4"	300	30	$510,000	41.08	$2,464,800	$4,435	$2,979,235	$2,858,881	4%
6"	625	62.5	$1,062,500	85.51	$5,130,600	$6,323	$6,199,423	$5,950,162	4%

Reliance on District Provided Data

During this project, the District (and/or its representatives) provided Raftelis with a variety of technical information, including cost and revenue data. Raftelis did not independently assess or test for the accuracy of such data – historic or projected. Raftelis has relied on this data in the formulation of our findings and subsequent recommendations, as well as in the preparation of this report. Raftelis also relied on cost allocation data provided by the District needed to complete the cost-of-service analysis.

There are often differences between actual and projected data. Some of the assumptions used for projections in this report will not be realized, and unanticipated events and circumstances may occur. Therefore, there are likely to be differences between the data or results projected in this report and actual results achieved, and those differences may be material. As a result, Raftelis takes no responsibility for the accuracy of data or projections provided by or prepared on behalf of the District, nor do we have any responsibility for updating this report for events occurring after the date of this report.

Numbers shown in figures may not total exactly due to rounding.

APPENDIX A:

WATER UTILITY FINANCIAL PLAN

Fort Collins-Loveland Water District
2023 Rate Study
Forecast Consolidated Cash Flow

Description	% Increase	Months Effective	Budget 2023	Projected Consolidated Cash Flows 2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total 2023 - 2033
Rate Revenues at Existing Rates			$16,821,387	$16,018,586	$15,905,653	$16,063,623	$16,313,925	$16,628,918	$17,194,857	$17,429,885	$17,675,444	$17,929,335	$18,190,447	$186,172,062
Year														
2024	50.00%	12		8,009,293	7,952,827	8,031,811	8,156,963	8,314,459	8,597,429	8,714,943	8,837,722	8,964,667	9,095,224	84,675,337
2025	50.00%	12			11,929,240	12,047,717	12,235,444	12,471,688	12,896,143	13,072,414	13,256,583	13,447,001	13,642,836	114,999,066
2026	40.00%	12				14,457,261	14,682,533	14,966,026	15,475,372	15,686,897	15,907,900	16,136,401	16,371,403	123,683,792
2027	30.00%	12					15,416,659	15,714,327	16,249,140	16,471,242	16,703,295	16,943,221	17,189,973	114,687,858
2028	20.00%	12						13,619,084	14,082,588	14,275,076	14,476,189	14,684,125	14,897,976	86,035,038
2029	0.00%	12							0	0	0	0	0	0
2030	0.00%	12								0	0	0	0	0
2031	0.00%	12									0	0	0	0
2032	0.00%	12										0	0	0
2033	0.00%	12											0	0
Total	190%													
Additional Revenue from Rate Increases			-	8,009,293	19,882,067	34,536,789	50,491,599	65,085,585	67,300,672	68,220,571	69,181,688	70,175,417	71,197,411	524,081,092
Total Rate Revenue from Metered Water Sales			$16,821,387	$24,027,879	$35,787,720	$50,600,412	$66,805,524	$81,714,503	$84,495,530	$85,650,456	$86,857,131	$88,104,752	$89,387,859	$710,253,154
Miscellaneous Operating Revenues														
Water Sales - Construction			$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$4,950,000
Town of Windsor			445,500	445,500	445,500	445,500	445,500	445,500	445,500	445,500	445,500	445,500	445,500	4,900,500
Water Rental			180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	1,980,000
Miscellaneous Income			150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	1,650,000
Management Fees - SFCSD			1,092,854	0	0	0	0	0	0	0	0	0	0	1,092,854
Property Taxes			1,501,064	1,501,064	1,501,064	1,501,064	1,501,064	1,501,064	1,501,064	1,501,064	1,501,064	1,501,064	1,501,064	16,511,701
Total Miscellaneous Operating Revenue			$3,819,418	$2,726,564	$2,726,564	$2,726,564	$2,726,564	$2,726,564	$2,726,564	$2,726,564	$2,726,564	$2,726,564	$2,726,564	$31,085,055
Miscellaneous Non-Operating Revenues														
Interest on Investments			$900,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$900,000
PIFs - Water Resource Component			12,000,000	13,005,171	13,265,275	13,530,580	13,801,192	14,077,216	14,358,760	14,645,935	14,938,854	15,237,631	15,542,384	154,402,998
PIFs - Infrastructure Component			3,255,250	3,515,670	3,585,983	3,657,703	3,730,857	3,805,474	3,881,584	3,959,215	4,038,400	4,119,168	4,201,551	41,750,856
Meter fees			95,000	95,000	95,000	95,000	95,000	95,000	95,000	95,000	95,000	95,000	95,000	1,045,000
Total Miscellaneous Non-Operating			$16,250,250	$16,615,841	$16,946,258	$17,283,283	$17,627,049	$17,977,690	$18,335,344	$18,700,151	$19,072,254	$19,451,799	$19,838,935	$198,098,854
Interest Income			$0	$962,719	$678,687	$608,825	$720,935	$859,836	$900,481	$1,125,314	$1,351,139	$1,533,791	$1,635,137	$10,376,863
Total Revenues			$36,891,055	$44,333,003	$56,139,229	$71,219,084	$87,880,072	$103,278,592	$106,457,919	$108,202,485	$110,007,088	$111,816,905	$113,588,494	$949,813,925
O&M Expenses														
Source and Treatment			$7,359,277	$7,653,048	$7,958,552	$8,276,258	$8,606,652	$8,950,243	$9,307,557	$9,679,143	$10,065,571	$10,467,434	$10,885,348	$99,209,082
Personnel			4,368,320	4,499,370	4,634,351	4,773,381	4,916,583	5,064,080	5,216,003	5,372,483	5,533,657	5,699,667	5,870,657	55,948,550
Engineering			180,000	185,950	192,101	198,458	205,031	211,825	218,849	226,110	233,618	241,379	249,403	2,342,724
Distribution (Operations)			1,160,000	1,204,993	1,251,736	1,300,300	1,350,755	1,403,174	1,457,635	1,514,218	1,573,004	1,634,081	1,697,537	15,547,434
Office			716,700	745,248	774,934	805,804	837,905	871,287	905,999	942,096	979,632	1,018,665	1,059,255	9,657,525
IT & Data			509,100	529,464	550,643	572,668	595,575	619,398	644,174	669,941	696,739	724,608	753,592	6,865,902
Human Resources			74,200	77,168	80,255	83,465	86,804	90,276	93,887	97,642	101,548	105,610	109,834	1,000,687
Administration			733,600	762,944	793,462	825,200	858,208	892,537	928,238	965,368	1,003,982	1,044,142	1,085,907	9,893,587
Operating Capital Replacement			0	0	0	0	0	0	0	0	0	0	0	0
Total O&M Expenses			$15,101,197	$15,658,184	$16,236,033	$16,835,535	$17,457,513	$18,102,819	$18,772,342	$19,467,000	$20,187,750	$20,935,584	$21,711,534	$200,465,492

Fort Collins-Loveland Water District
2023 Rate Study
Forecast Consolidated Cash Flow

Description	% Increase	Months Effective	Budget 2023	Projected Consolidated Cash Flows 2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total 2023 - 2033
Net Revenues Available for Debt Service			$21,789,858	$28,674,819	$39,903,196	$54,383,549	$70,422,559	$85,175,772	$87,685,577	$88,735,485	$89,819,338	$90,881,320	$91,876,960	$749,348,434
Debt Service														
Existing Debt Service			$1,093,835	$17,585	$17,585	$17,585	$17,585	$17,585	$17,585	$17,585	$17,585	$16,079	$0	$1,250,598
Proposed Debt Service			4,012,129	13,039,420	13,039,420	13,039,420	13,039,420	13,039,420	13,039,420	13,039,420	13,039,420	13,039,420	13,039,420	134,406,334
Total Debt Service			$5,105,965	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,055,499	$13,039,420	$135,656,932
CIP Expenditures														
Growth CIP			$105,490,000	$60,265,815	$69,859,867	$73,584,509	$63,845,472	$53,553,680	$43,880,526	$26,020,134	$26,800,738	$36,411,979	$52,421,810	$612,134,531
Non-Growth CIP			970,000	13,440,758	37,268,653	11,095,856	18,181,784	14,414,738	18,250,230	6,253,023	6,440,614	6,633,832	8,042,372	140,991,861
Total CIP			$106,460,000	$73,706,573	$107,128,520	$84,680,365	$82,027,257	$67,968,419	$62,130,756	$32,273,157	$33,241,352	$43,045,811	$60,464,182	$753,126,392
Total Expenditures			$126,667,162	$102,421,763	$136,421,559	$114,572,906	$112,541,775	$99,128,244	$93,960,104	$64,797,163	$66,486,108	$77,036,895	$95,215,137	$1,089,248,815
Net Consolidated Cash Flow			($89,776,107)	($58,088,760)	($80,282,330)	($43,353,822)	($24,661,703)	$4,150,348	$12,497,815	$43,405,322	$43,520,981	$34,780,010	$18,373,357	($139,434,890)
Cash Reserves														
Beginning Balance			$153,273,669	$108,485,433	$151,619,381	$71,337,051	$27,983,229	$3,321,525	$7,471,873	$19,969,688	$63,375,010	$106,895,991	$141,676,001	$855,408,853
Add: Net Consolidated Cash Flow			(89,776,107)	(58,088,760)	(80,282,330)	(43,353,822)	(24,661,703)	4,150,348	12,497,815	43,405,322	43,520,981	34,780,010	18,373,357	(139,434,890)
Add: Net Bond Proceeds			44,987,871	101,222,709	-	-	-	-	-	-	-	-	-	146,210,580
Ending Operating Cash Balance			$108,485,433	$151,619,381	$71,337,051	$27,983,229	$3,321,525	$7,471,873	$19,969,688	$63,375,010	$106,895,991	$141,676,001	$160,049,358	$862,184,542
Target Reserve			$18,841,753	$21,379,513	$22,455,136	$20,170,252	$17,752,798	$15,495,836	$11,198,119	$11,566,934	$14,149,932	$18,339,349	$18,926,500	$190,276,122
Variance from Target Reserve			$89,643,680	$130,239,869	$48,881,915	$7,812,977	($14,431,273)	($8,023,963)	$8,771,569	$51,808,076	$92,746,059	$123,336,652	$141,122,859	$671,908,420
Debt Service Coverage Calculation (Including Connection Fees)														
Total Revenues (Including PIFs)			$36,891,055	$44,333,003	$56,139,229	$71,219,084	$87,880,072	$103,278,592	$106,457,919	$108,202,485	$110,007,088	$111,816,905	$113,588,494	$949,813,925
Less: O&M Expenses			15,101,197	15,658,184	16,236,033	16,835,535	17,457,513	18,102,819	18,772,342	19,467,000	20,187,750	20,935,584	21,711,534	200,465,492
Net Revenue Available for Debt Service (Including PIFs)			$21,789,858	$28,674,819	$39,903,196	$54,383,549	$70,422,559	$85,175,772	$87,685,577	$88,735,485	$89,819,338	$90,881,320	$91,876,960	$749,348,434
Debt Service			$5,105,965	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,055,499	$13,039,420	$135,656,932
Debt Service Coverage Ratio (Including PIFs)			4.27	2.20	3.06	4.17	5.39	6.52	6.72	6.80	6.88	6.96	7.05	
Debt Service Coverage Calculation (Excluding PIFs)														
Total Revenues (Excluding PIFs)			$21,635,805	$27,812,162	$39,287,971	$54,030,801	$70,348,023	$85,395,902	$88,217,575	$89,597,334	$91,029,835	$92,460,106	$93,844,559	$753,660,072
Less: O&M Expenses			15,101,197	15,658,184	16,236,033	16,835,535	17,457,513	18,102,819	18,772,342	19,467,000	20,187,750	20,935,584	21,711,534	200,465,492
Net Revenue Available for Debt Service (Excluding PIFs)			$6,534,608	$12,153,978	$23,051,938	$37,195,265	$52,890,510	$67,293,083	$69,445,233	$70,130,334	$70,842,085	$71,524,522	$72,133,025	$553,194,580
Debt Service			$5,105,965	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,057,006	$13,055,499	$13,039,420	$135,656,932
Debt Service Coverage Ratio (Excluding PIFs)			1.28	0.93	1.77	2.85	4.05	5.15	5.32	5.37	5.43	5.48	5.53	
Mo. Bill Increase (Avg. Residential Customer, 3/4" Meter)			$0.00	$22.05	$33.07	$39.68	$41.67	$36.11	$0.00	$0.00	$0.00	$0.00	$0.00	

Fort Collins-Loveland Water District
2023 Rate Study
Revenue Requirement from Rates

Item	Test Year 2024
O&M Expenses	
Source and Treatment	7,653,048
Personnel	4,499,370
Engineering	185,950
Distribution (Operations)	1,204,993
Office	745,248
IT & Data	529,464
Human Resources	77,168
Administration	762,944
Operating Capital Replacement	0
Total O&M	15,658,184
Capital Improvement Program	
Growth CIP	60,265,815
Non-Growth CIP	13,440,758
Total CIP	73,706,573
Debt Service	
Existing Debt Service	17,585
Proposed Debt Service	13,039,420
Total Debt Service	13,057,006
Total Expenditures	102,421,763
Net Consolidated Cash Flow	(58,088,760)
Gross Revenue Requirement from Rates	44,333,003
Less: Miscellaneous Operating Revenues	
Water Sales - Construction	450,000
Town of Windsor	445,500
Water Rental	180,000
Miscellaneous Income	150,000
Management Fees - SFCSD	0
Property Taxes	1,501,064
Total Miscellaneous Operating Revenue	2,726,564
Less: Miscellaenous Non-Operating Revenues	
Soldier Canyon Income	-
Interest on Investments	-
PIFs - Water Resource Component	13,005,171
PIFs - Infrastructure Component	3,515,670
Meter fees	95,000
Impact fees	-
Sale of Assets	-
Inclusion Fees	-
Total Miscellaneous Non-Operating	16,615,841
Less: Interest Income	962,719
Total Miscellaneous Revenues	20,305,124
Net Revenue Requirement from Rates	24,027,879

Fort Collins-Loveland Water District
2023 Rate Study
System Production Metrics

Actual Total FCLWD Annual Flow (Thousands of Gallons)			Actual Total System	Estimated Water Loss (Thousands of Gallons)	
Year	Annual	Annual Average Day	Annual Treated Consumption	Estimated Water Loss	Estimated Water Loss %
2022	3,970,170	10,877	3,696,625	273,545	6.89%
2021	3,780,682	10,358	3,520,193	260,489	6.89%
2020	3,767,720	10,323	3,508,124	259,596	6.89%
Average	3,839,524	10,519	3,574,981	264,543	6.89%

Source: RateStudy Customer Water Use by premiseID and Month Data.xlsx, Model Classes tab; DistrictUnmeteredWater.xlsx

Actual Total System Coincident Max Month Production (Thousands of Gallons)			
Year	Actual Month of Occurence	Actual Max Month Production	Average Day in Max Month
2022	August	621,782	20,057
2021	August	636,602	20,536
2020	August	647,595	20,890
Average		635,326	20,494

Actual Total System Coincident Max Day Production (Thousands of Gallons)				
Year	Actual Day of Occurence	Actual Max Day Production	Ratio of Max Day Production to Annual Avg. Day	Ratio of Max Day Production to Avg. Day in Max Month
2022	July	25,396	2.33	1.27
2021	July	24,952	2.41	1.22
2020	July	24,691	2.39	1.18
Average		25,013	2.38	1.22

Source: FCLWD Coincident Max - 2022 2021 2020.xlsx

Estimated Total System Coincident Max Hour Production (Thousands of Gallons)					
		3.20			
Year	Actual Date and Time of Max Hour	Estimated Max Hour Production	Ratio of Max Hour Production to Annual Avg. Day	Ratio of Max Hour Production to Avg. Day in Max Month	Ratio of Max Hour to Max Day
2022	Unknown	34,807	3.20	1.74	1.37
2021	Unknown	33,146	3.20	1.61	1.33
2020	Unknown	33,032	3.20	1.58	1.34
Average		33,662	3.20	1.64	1.35

Fort Collins-Loveland Water District
2023 Rate Study
System Demand Ratios Used in Cost Allocations

Calculated Base / Max Day Allocations	
System Max Day / Average Day Ratio	2.38
Base Allocation %	42.1%
Max Day Allocation %	57.9%
Total Allocation %	100.0%
Base / Max Hour Allocations	
System Max Hour to Average Day Ratio	3.20
Base Allocation %	31.3%
Max Hour Allocation %	68.8%
Total Allocation %	100.0%
Base / Max Day / Max Hour Allocation	
System Max Hour X System Max Day	7.61
Base Allocation %	31.3%
Max Day Allocation %	43.1%
Max Hour Allocation %	25.7%
Total Allocation %	100.0%

Fort Collins-Loveland Water District
2023 Rate Study
Combined Customer Class Peaking Factor Summary - Consolidated Customer Types

Summary of Customer Class Peaking Factors								
	Maximum Day Peaking Factors				Maximum Hour Peaking Factors			
Customer Class	2020	2021	2022	Average	2020	2021	2022	Average
Residential, FCLWD Rates	2.51	2.58	2.49	2.52	3.36	3.42	3.41	3.40
Residential, City Rates	2.32	2.35	2.28	2.32	3.11	3.12	3.12	3.12
Residential, Conservation Tap, FCLWD Rates	1.51	1.52	1.61	1.55	2.01	2.02	2.21	2.08
Commercial, FCLWD Rates	2.27	2.41	2.21	2.30	3.03	3.20	3.03	3.09
Commercial, Billed as City Use	2.27	2.41	2.21	2.30	3.03	3.20	3.03	3.09
Irrigation, FCLWD Rates	3.64	3.38	3.44	3.49	4.86	4.48	4.72	4.69
Irrigation, City Rates	3.64	3.38	3.44	3.49	4.86	4.48	4.72	4.69
Residential, Multi-Unit, FCLWD Rates	1.42	1.49	1.57	1.50	1.90	1.98	2.15	2.01
Residential, Multi-Unit, City Rates	1.42	1.49	1.57	1.50	1.90	1.98	2.15	2.01

Sort of Customer Class Peaking Factors from Highest to Lowest								
	Maximum Day Peaking Factors				Maximum Hour Peaking Factors			
Customer Class	2020	2021	2022	Average	2020	2021	2022	Average
Irrigation, FCLWD Rates	3.08	2.78	2.72	2.86	4.86	4.48	4.72	4.69
Irrigation, City Rates	3.08	2.78	2.72	2.86	4.86	4.48	4.72	4.69
Residential, FCLWD Rates	2.12	2.12	1.96	2.07	3.36	3.42	3.41	3.40
Residential, City Rates	1.97	1.93	1.80	1.90	3.11	3.12	3.12	3.12
Commercial, FCLWD Rates	1.92	1.98	1.75	1.88	3.03	3.20	3.03	3.09
Commercial, Billed as City Use	1.92	1.98	1.75	1.88	3.03	3.20	3.03	3.09
Residential, Conservation Tap, FCLWD Rates	1.27	1.25	1.27	1.27	2.01	2.02	2.21	2.08
Residential, Multi-Unit, FCLWD Rates	1.20	1.23	1.24	1.22	1.90	1.98	2.15	2.01
Residential, Multi-Unit, City Rates	1.20	1.23	1.24	1.22	1.90	1.98	2.15	2.01

Fort Collins-Loveland Water District
2023 Rate Study
Test Year 2024 Cost Allocation to Demand Parameters

Capital Cost

Capital Cost Revenue Requirement Allocation Percentages										
			Volumetric			Customer Service		Private Fire		
Functional Category	Functionalized Revenue Requirement	Total %	Base	Max Day	Max Hour	Equivalent Meters	Bills	Equivalent Connections	Bills	Public Fire
Raw Water	$8,518,046	100.00%	100.00%							
Source of Supply	895,724	100.00%	100.00%							
Treatment	1,861,786	100.00%	42.1%	57.9%						
Transmission Mains	4,138,155	100.00%	42.1%	57.9%						
Distribution Mains	9,095,093	100.00%	31.3%	43.1%	25.7%					
Treated Water Storage	1,909,748	100.00%	31.3%	43.1%	25.7%					
Pumps	351,551	100.00%	31.3%	43.1%	25.7%					
Meters	1,117,297	100.00%				100.00%				
Customer Service	0	100.00%				0.00%	100.00%			
Administration	787,418	100.00%	66.5%	31.6%	0.3%	1.54%	0.00%	0.00%	0.00%	0.00%
Total Capital Cost Revenue Requirement	$28,674,819	100.00%	55.83%	30.04%	10.18%	3.94%	0.00%	0.00%	0.00%	0.00%

Capital Cost Revenue Requirement Dollar Percentages										
			Volumetric			Customer Service		Private Fire		
Functional Category	Functionalized Revenue Requirement	Total %	Base	Max Day	Max Hour	Equivalent Meters	Bills	Equivalent Connections	Bills	Public Fire
Raw Water	29.71%	$8,518,046	$8,518,046	$0	$0	$0	$0	$0	$0	$0
Source of Supply	3.12%	895,724	895,724	-	-	-	-	-	-	-
Treatment	6.49%	1,861,786	782,976	1,078,810	-	-	-	-	-	-
Transmission Mains	14.43%	4,138,155	1,740,306	2,397,850	-	-	-	-	-	-
Distribution Mains	31.72%	9,095,093	2,842,217	3,916,099	2,336,778	-	-	-	-	-
Treated Water Storage	6.66%	1,909,748	596,796	822,285	490,666	-	-	-	-	-
Pumps	1.23%	351,551	109,860	151,368	90,323	-	-	-	-	-
Meters	3.90%	1,117,297	-	-	-	1,117,297	-	-	-	-
Customer Service	0.00%	-	-	-	-	-	-	-	-	-
Administration	2.75%	787,418	523,845	248,935	2,472	12,165	-	-	-	-
Total Capital Cost Revenue Requirement	100.00%	$28,674,819	$16,009,770	$8,615,347	$2,920,240	$1,129,462	$0	$0	$0	$0

Allocation Factor for Customer Service and Billing		100.00%	55.53%	30.00%	10.46%	4.01%	0.00%	0.00%	0.00%	0.00%

O&M Expense

O&M Expense Revenue Requirement Allocation Percentages										
			Volumetric			Customer Service		Private Fire		
Functional Category	Functionalized Revenue Requirement	Total %	Base	Max Day	Max Hour	Equivalent Meters	Bills	Equivalent Connections	Bills	Public Fire
Raw Water	$2,737,330	100.00%	100.0%	-%	-%	-%	-%	-%	-%	-%
Source of Supply	2,737,330	100.00%	100.0%	-%	-%	-%	-%	-%	-%	-%
Treatment	2,737,330	100.00%	42.1%	57.9%	-%	-%	-%	-%	-%	-%
Transmission Mains	1,275,586	100.00%	42.1%	57.9%	-%	-%	-%	-%	-%	-%
Distribution Mains	1,248,495	100.00%	31.3%	43.1%	25.7%	-%	-%	-%	-%	-%
Treated Water Storage	1,248,495	100.00%	31.3%	43.1%	25.7%	-%	-%	-%	-%	-%
Pumps	1,248,495	100.00%	31.3%	43.1%	25.7%	-%	-%	-%	-%	-%
Meters	1,065,627	100.00%	-%	-%	-%	100.0%	-%	-%	-%	-%
Customer Service	1,359,497	100.00%	-%	-%	-%	-%	100.0%	-%	-%	-%
Administration	0	100.00%	66.5%	31.6%	0.3%	1.5%	-%	-%	-%	-%
Total O&M Revenue Requirement	$15,658,184	100.00%	53.22%	25.15%	6.15%	6.81%	8.68%	0.00%	0.00%	0.00%

Fort Collins-Loveland Water District
2023 Rate Study
Test Year 2024 Cost Allocation to Demand Parameters

O&M Expense Revenue Requirement Dollar Percentages										
			Volumetric			Customer Service		Private Fire		
Functional Category	Revenue Requirement Percentage	Revenue Requirement	Base	Max Day	Max Hour	Equivalent Meters	Bills	Equivalent Connections	Bills	Public Fire
Raw Water	17.48%	$2,737,330	$2,737,330	$0	$0	$0	$0	$0	$0	$0
Source of Supply	17.5%	2,737,330	2,737,330	-	-	-	-	-	-	-
Treatment	17.5%	2,737,330	1,151,187	1,586,143	-	-	-	-	-	-
Transmission Mains	8.1%	1,275,586	536,449	739,137	-	-	-	-	-	-
Distribution Mains	8.0%	1,248,495	390,155	537,568	320,772	-	-	-	-	-
Treated Water Storage	8.0%	1,248,495	390,155	537,568	320,772	-	-	-	-	-
Pumps	8.0%	1,248,495	390,155	537,568	320,772	-	-	-	-	-
Meters	6.8%	1,065,627	-	-	-	1,065,627	-	-	-	-
Customer Service	8.7%	1,359,497	-	-	-	-	1,359,497	-	-	-
Administration	-%	-	-	-	-	-	-	-	-	-
Total O&M Revenue Requirement	100.00%	$15,658,184	$8,332,760	$3,937,983	$962,317	$1,065,627	$1,359,497	$0	$0	$0
Allocation Factor for Buildings/Office/Equip		100.00%	58.28%	27.54%	6.73%	7.45%	0.00%	0.00%	0.00%	0.00%

Non-Rate Revenue

Non-Rate Revenue Requirement Allocation Percentages										
			Volumetric			Customer Service		Private Fire		
Functional Category	Functionalized Revenue Requirement	Total %	Base	Max Day	Max Hour	Equivalent Meters	Bills	Equivalent Connections	Bills	Public Fire
Raw Water	$13,673,550	100.00%	100.0%	-%	-%	-%	-%	-%	-%	-%
Source of Supply	837,188	100.00%	100.0%	-%	-%	-%	-%	-%	-%	-%
Treatment	1,923,555	100.00%	42.1%	57.9%	-%	-%	-%	-%	-%	-%
Transmission Mains	1,145,002	100.00%	42.1%	57.9%	-%	-%	-%	-%	-%	-%
Distribution Mains	713,657	100.00%	31.3%	43.1%	25.7%	-%	-%	-%	-%	-%
Treated Water Storage	149,851	100.00%	31.3%	43.1%	25.7%	-%	-%	-%	-%	-%
Pumps	178,587	100.00%	31.3%	43.1%	25.7%	-%	-%	-%	-%	-%
Meters	933,202	100.00%	-%	-%	-%	100.0%	-%	-%	-%	-%
Customer Service	750,532	100.00%	-%	-%	-%	-%	100.0%	-%	-%	-%
Administration	0	100.00%	66.5%	31.6%	0.3%	1.5%	-%	-%	-%	-%
Total Non-Rate Revenue	$20,305,124	100.00%	79.4%	11.0%	1.3%	4.6%	3.7%	-%	-%	-%

Non-Rate Revenue Requirement Dollar Percentages										
			Volumetric			Customer Service		Private Fire		
Functional Category	Functionalized Revenue Requirement	Total %	Base	Max Day	Max Hour	Equivalent Meters	Bills	Equivalent Connections	Bills	Public Fire
Raw Water	67.34%	$13,673,550	13,673,550	-	-	-	-	-	-	-
Source of Supply	4.12%	837,188	837,188	-	-	-	-	-	-	-
Treatment	9.47%	1,923,555	808,953	1,114,602	-	-	-	-	-	-
Transmission Mains	5.64%	1,145,002	481,532	663,470	-	-	-	-	-	-
Distribution Mains	3.51%	713,657	223,018	307,281	183,358	-	-	-	-	-
Treated Water Storage	0.74%	149,851	46,828	64,522	38,501	-	-	-	-	-
Pumps	0.88%	178,587	55,808	76,895	45,884	-	-	-	-	-
Meters	4.60%	933,202	-	-	-	933,202	-	-	-	-
Customer Service	3.70%	750,532	-	-	-	-	750,532	-	-	-
Administration	0.00%	0	-	-	-	-	-	-	-	-
Total Non-Rate Revenue	100.00%	$20,305,124	16,126,877	2,226,770	267,743	933,202	750,532	-	-	-

Fort Collins-Loveland Water District
2023 Rate Study
Test Year 2024 Units of Service

Customer Class	Forecast 2024 Billed	Estimated Lost Water	Base Demand	Base Avg. Day Demand	Max Day			Max Hour			Customer		Private Fire		Public Fire Hydrants	Allocation of Public Fire Hydrants Based on Equivalent Meters	
					Max Day Peak	Total Capacity	Extra Capacity	Max Hour Peak	Total Capacity	Extra Capacity	Equivalent Meters	Bills	Equiv. Conne ctions	Bills			
Residential, FCLWD Rates	2,139,401	147,405	2,286,806	6,265	2.52	15,815	9,549	3.40	21,276	5,462	16,316	195,475				1,967	75.6%
Residential, City Rates	188,647	12,998	201,645	552	2.32	1,279	727	3.12	1,721	442	1,950	23,397				235	9.0%
Residential, Conservation Tap, FCLWD Rates	1,534	106	1,639	4	1.55	7	2	2.08	9	2	487	5,843				59	2.3%
Commercial, FCLWD Rates	423,946	29,210	453,156	1,242	2.30	2,850	1,608	3.09	3,833	983	1,288	8,639				155	6.0%
Commercial, Billed as City Use	20,710	1,427	22,136	61	2.30	139	79	3.09	187	48	69	387				8	0.3%
Irrigation, FCLWD Rates	343,539	23,670	367,209	1,006	3.49	3,506	2,500	4.69	4,718	1,212	527	3,059				0	0.0%
Irrigation, City Rates	66,496	4,582	71,078	195	3.49	679	484	4.69	913	235	77	574				0	0.0%
Residential, Multi-Unit, FCLWD Rates	102,376	7,054	109,430	300	1.50	448	148	2.01	603	155	1,203	5,768				145	5.6%
Residential, Multi-Unit, City Rates	23,994	1,653	25,647	70	1.50	105	35	2.01	141	36	280	1,910				34	1.3%
Private Fire						0	0		0	0			0	0			
Public Hydrants						450	450		3,600	3,150					2,603		
Total After Price Elasticity Adjustment	3,310,644	228,103	3,538,747	9,695		25,278	15,583		37,003	11,725	22,197	245,052	0	0	2,603	2,603	100.0%

Fort Collins-Loveland Water District
2023 Rate Study
Test Year 2024 Unit Cost of Service - Existing Disaggregated Rate Structrure

Item	Revenue Requirement	Volumetric Revenue Requirement	Fixed Revenue Requirement	Volumetric			Customer Service		Private Fire		Public Fire
				Base	Max Day Extra Capacity	Max Hour Extra Capacity	Equivalent Meters	Bills	Equivalent Connections	Bills	
Customer Class Units of Service											
Residential, FCLWD Rates				2,286,806	9,549	5,462	16,316	195,475	-	-	1,967
Residential, City Rates				201,645	727	442	1,950	23,397	-	-	235
Residential, Conservation Tap, FCLWD Rates				1,639	2	2	487	5,843	-	-	59
Commercial, FCLWD Rates				453,156	1,608	983	1,288	8,639	-	-	155
Commercial, Billed as City Use				22,136	79	48	69	387	-	-	8
Irrigation, FCLWD Rates				367,209	2,500	1,212	527	3,059	-	-	-
Irrigation, City Rates				71,078	484	235	77	574	-	-	-
Residential, Multi-Unit, FCLWD Rates				109,430	148	155	1,203	5,768	-	-	145
Residential, Multi-Unit, City Rates				25,647	35	36	280	1,910	-	-	34
Subtotal				3,538,747	15,133	8,575	22,197	245,052	-	-	2,603
Private Fire				-	-	-	-	-	-	-	-
Public Hydrants				-	450	3,150	-	-	-	-	-
Total System Units of Service Before Adjustment for Outside City Multiplier				3,538,747	15,583	11,725	22,197	245,052	0	0	2,603
Capital Cost Revenue Requirement	$28,674,819	$27,545,357	$1,129,462	$16,009,770	$8,615,347	$2,920,240	$1,129,462	$0	$0	$0	$0
Unit Cost of Service				$4.5241	$552.8596	$249.0600	$50.8847	$0.0000	$0.0000	$0.0000	$0.0000
O&M Revenue Requirement	$15,658,184	$13,233,061	$2,425,124	$8,332,760	$3,937,983	$962,317	$1,065,627	$1,359,497	$0	$0	$0
Unit Cost of Service				$2.3547	$252.7062	$82.0736	$48.0088	$5.5478	$0.0000	$0.0000	$0.0000
Non-Rate Revenue Offset	$20,305,124	$18,621,390	$1,683,734	$16,126,877	$2,226,770	$267,743	$933,202	$750,532	$0	$0	$0
Unit Cost of Service				$4.5572	$142.8951	$22.8351	$42.0427	$3.0627	$0.0000	$0.0000	$0.0000
Net Revenue Requirement from Rates	$24,027,879	$22,157,027	$1,870,852	$8,215,653	$10,326,561	$3,614,814	$1,261,887	$608,965	$0	$0	$0
Unit Cost of Service Before Adjustment for Outside City Multiplier				$2.3216	$662.6707	$308.2985	$56.8507	$2.4850	$0.0000	$0.0000	$0.0000
Customer Class Units of Service FCLWD Rates											
Residential, FCLWD Rates				2,286,806	9,549	5,462	16,316	195,475	-	-	1,967
Residential, Conservation Tap, FCLWD Rates				1,639	2	2	487	5,843	-	-	59
Commercial, FCLWD Rates				453,156	1,608	983	1,288	8,639	-	-	155
Irrigation, FCLWD Rates				367,209	2,500	1,212	527	3,059	-	-	-
Residential, Multi-Unit, FCLWD Rates				109,430	148	155	1,203	5,768	-	-	145
Subtotal				3,218,241	13,809	7,814	19,821	218,784	-	-	2,326
Private Fire				-	-	-	-	-	-	-	-
Public Hydrants				-	450	3,150	-	-	-	-	-
Total Units of Service at FCLWD Rates Before Adjustment for Outside City Multiplier				3,218,241	14,259	10,964	19,821	218,784	-	-	2,326
Customer Class Units of Service City Rates											
Residential, City Rates				201,645	727	442	1,950	23,397	-	-	235
Commercial, Billed as City Use				22,136	79	48	69	387	-	-	8
Irrigation, City Rates				71,078	484	235	77	574	-	-	-
Residential, Multi-Unit, City Rates				25,647	35	36	280	1,910	-	-	34
Subtotal				320,506	1,324	761	2,375	26,268	-	-	277
Private Fire				-	-	-	-	-	-	-	-
Public Hydrants				-			-	-	-	-	-
Total Units of Service, City Rates Before Adjustment for Outside City Multiplier				320,506	1,324	761	2,375	26,268	-	-	277

Fort Collins-Loveland Water District
2023 Rate Study
Test Year 2024 Unit Cost of Service - Existing Disaggregated Rate Structrure

Item	Revenue Requirement	Volumetric Revenue Requirement	Fixed Revenue Requirement	Volumetric			Customer Service		Private Fire		Public Fire
				Base	Max Day Extra Capacity	Max Hour Extra Capacity	Equivalent Meters	Bills	Equivalent Connections	Bills	
City Volumetric Rate Multiplier	**161.57%**										
Unit Cost of Service, FCLWD Rates After Adjustment for OC Multiplier				$2.1990	$629.7257	$296.4563	$56.8507	$2.4850	$0.0000	$0.0000	$0.0000
Unit Cost of Service, City Rates After Adjustment for OC Multiplier				$3.5528	$1,017.4215	$478.9721	$56.8507	$2.4850	$0.0000	$0.0000	$0.0000
Customer Class Revenue Requirement, FCLWD Rates											
Residential, FCLWD Rates	$14,074,745	$12,661,384	$1,413,361	$5,028,708	$6,013,509	$1,619,167	$927,598	$485,763	$0	$0	$0
Residential, Conservation Tap, FCLWD Rates	48,061	5,861	42,201	3,605	1,543	712	27,681	14,520	-	-	-
Commercial, FCLWD Rates	2,395,629	2,300,923	94,706	996,494	1,012,904	291,524	73,236	21,470	-	-	-
Irrigation, FCLWD Rates	2,778,705	2,741,163	37,542	807,497	1,574,471	359,196	29,940	7,601	-	-	-
Residential, Multi-Unit, FCLWD Rates	462,858	380,114	82,744	240,638	93,478	45,998	68,410	14,334	-	-	-
Private Fire	-	-	-	-	-	-	-	-	-	-	-
Public Hydrants	1,217,214	1,217,214	-	-	283,377	933,837	-	-	-	-	-
Total Revenue Requirement, FCLWD Rates	20,977,211	19,306,658	1,670,553	7,076,942	8,979,282	3,250,434	1,126,866	543,687	0	0	0
Customer Class Revenue Requirement, City Rates											
Residential, City Rates	$1,836,579	$1,667,595	$168,984	$716,415	$739,556	$211,624	$110,842	$58,141	$0	$0	$0
Commercial, Billed as City Use	186,476	181,599	4,877	78,648	79,943	23,008	3,916	962	-	-	-
Irrigation, City Rates	863,035	857,242	5,792	252,528	492,383	112,331	4,365	1,427	-	-	-
Residential, Multi-Unit, City Rates	164,579	143,933	20,646	91,120	35,396	17,417	15,899	4,747	-	-	-
Private Fire	-	-	-	-	-	-	-	-	-	-	-
Public Hydrants	-	-	-	-	-	-	-	-	-	-	-
Total Revenue Requirement, City Rates	3,050,669	2,850,370	200,299	1,138,710	1,347,279	364,381	135,022	65,277	-	-	-
Total	$24,027,879	$22,157,027	$1,870,852	$8,215,653	$10,326,561	$3,614,814	$1,261,887	$608,965	$0	$0	$0

Fort Collins-Loveland Water District
2023 Rate Study
Test Year 2024 Unit Cost of Service - Existing Disaggregated Rate Structure

Revenue Requirement by Customer Class Before Reallocation of Public Fire Protection Costs

Customer Class	Total Revenue Requirement	Volumetric						Customer Service					Private Fire		Public Fire
		Base	Max Day Extra Capacity	Max Hour Extra Capacity	Total Before RTS Adj.	RTS Adj. to Base	Total Ater RTS Adj.	Equivalent Meters	Bills	Total Before RTS Adj.	RTS Adjustment	Total Ater RTS Adj.	Equivalent Connections	Bills	
Customer Classes at FCLWD Rates															
Residential, FCLWD Rates	$14,074,745	$5,028,708	$6,013,509	$1,619,167	$12,661,384	$0	$12,661,384	$927,598	$485,763	$1,413,361	$0	$1,413,361	$0	$0	$0
Residential, Conservation Tap, FCLWD Rates	48,061	3,605	1,543	712	5,861	-	5,861	27,681	14,520	42,201	-	42,201	-	-	-
Commercial, FCLWD Rates	2,395,629	996,494	1,012,904	291,524	2,300,923	-	2,300,923	73,236	21,470	94,706	-	94,706	-	-	-
Irrigation, FCLWD Rates	2,778,705	807,497	1,574,471	359,196	2,741,163	-	2,741,163	29,940	7,601	37,542	-	37,542	-	-	-
Residential, Multi-Unit, FCLWD Rates	462,858	240,638	93,478	45,998	380,114	-	380,114	68,410	14,334	82,744	-	82,744	-	-	-
Private Fire	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Public Hydrants	1,217,214	-	283,377	933,837	1,217,214		1,217,214	-	-	-	-	-	-	-	-
Total Customer Classes at FCLWD Rates	20,977,211	7,076,942	8,979,282	3,250,434	19,306,658	-	19,306,658	1,126,866	543,687	1,670,553	-	19,306,658	-	-	-
Customer Classes at City Rates															
Residential, City Rates	1,836,579	716,415	739,556	211,624	1,667,595	-	1,667,595	110,842	58,141	168,984	-	168,984	-	-	-
Commercial, Billed as City Use	186,476	78,648	79,943	23,008	181,599	-	181,599	3,916	962	4,877	-	4,877	-	-	-
Irrigation, City Rates	863,035	252,528	492,383	112,331	857,242	-	857,242	4,365	1,427	5,792	-	5,792	-	-	-
Residential, Multi-Unit, City Rates	164,579	91,120	35,396	17,417	143,933	-	143,933	15,899	4,747	20,646	-	20,646	-	-	-
Private Fire	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Public Hydrants	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Total Customer Classes at City Rates	3,050,669	1,138,710	1,347,279	364,381	2,850,370	-	2,850,370	135,022	65,277	200,299	-	2,850,370	-	-	-
Total System Revenue Requirement	$24,027,879	$8,215,653	$10,326,561	$3,614,814	$22,157,027	$0	$22,157,027	$1,261,887	$608,965	$1,870,852	$0	$1,870,852	$0	$0	$0

Revenue Requirement by Customer Class After Reallocation of Public Fire Protection Costs

Customer Class	Total Revenue Requirement	Volumetric			Customer Service			Private Fire		Public Fire
		Base After RTS Adj.	Max Day Extra Capacity	Max Hour Extra Capacity	Equivalent Meters	Bills	RTS Adjustment	Equivalent Connections	Bills	
Customer Classes at FCLWD Rates										
Residential, FCLWD Rates	$14,969,504	$5,028,708	$6,013,509	$1,619,167	$1,822,357	$485,763	$0	$0	$0	$0
Residential, Conservation Tap, FCLWD Rates	74,762	3,605	1,543	712	54,382	14,520	-	-	-	-
Commercial, FCLWD Rates	2,466,272	996,494	1,012,904	291,524	143,880	21,470	-	-	-	-
Irrigation, FCLWD Rates	2,807,585	807,497	1,574,471	359,196	58,821	7,601	-	-	-	-
Residential, Multi-Unit, FCLWD Rates	528,846	240,638	93,478	45,998	134,398	14,334	-	-	-	-
Total Customer Classes at FCLWD Rates	20,846,969	7,076,942	8,695,905	2,316,596	2,213,838	543,687	-	-	-	-
Customer Classes at City Rates										
Residential, City Rates	1,943,497	716,415	739,556	211,624	217,761	58,141	-	-	-	-
Commercial, Billed as City Use	190,253	78,648	79,943	23,008	7,693	962	-	-	-	-
Irrigation, City Rates	867,245	252,528	492,383	112,331	8,576	1,427	-	-	-	-
Residential, Multi-Unit, City Rates	179,915	91,120	35,396	17,417	31,235	4,747	-	-	-	-
Total Customer Classes at City Rates	3,180,910	1,138,710	1,347,279	364,381	265,264	65,277	0	0	0	0
Total System Revenue Requirement	$24,027,879	$8,215,653	$10,043,184	$2,680,977	$2,479,101	$608,965	$0	$0	$0	$0

Public Fire Allocation Factors

Extra Capacity	Extra Capacity	% of Equivalent
69.2%	69.9%	82.3%
0.0%	0.0%	2.5%
11.6%	12.6%	6.5%
18.1%	15.5%	2.7%
1.1%	2.0%	6.1%
100.0%	100.0%	100.0%
54.9%	58.1%	82.1%
5.9%	6.3%	2.9%
36.5%	30.8%	3.2%
2.6%	4.8%	11.8%
100.0%	100.0%	100.0%

Fort Collins-Loveland Water District
2023 Rate Study
Test Year 2024 Unit Cost of Service - Existing Disaggregated Rate Structure

Comparison of Test Year Revenue at Existing Rates vs. COS								
Customer Class	Test Year 2024 Revenue at Existing Rates	Test Year 2024 Cost of Service Service	$ Change	% Change	Average per Kgal Revenue	Average per Kgal COS	% Change	% Change
Customer Classes at FCLWD Rates								
Residential, FCLWD Rates	$9,251,715	$14,969,504	$5,717,788	61.8%	$4.32	$7.00	$2.67	61.8%
Residential, Conservation Tap, FCLWD Rate	102,448	74,762	(27,686)	-27.0%	$66.80	$48.75	($18.05)	-27.0%
Commercial, FCLWD Rates	1,709,533	2,466,272	756,740	44.3%	$4.03	$5.82	$1.78	44.3%
Irrigation, FCLWD Rates	1,997,852	2,807,585	809,733	40.5%	$5.82	$8.17	$2.36	40.5%
Residential, Multi-Unit, FCLWD Rates	919,158	528,846	(390,312)	-42.5%	$8.98	$5.17	($3.81)	-42.5%
Total Customer Classes at FCLWD Rates	13,980,707	20,846,969	6,866,262	49.1%	$4.64	$6.92	$2.28	49.1%
Customer Classes at City Rates								
Residential, City Rates	1,157,815	1,943,497	785,682	67.9%	$6.14	$10.30	$4.16	67.9%
Commercial, Billed as City Use	115,013	190,253	75,240	65.4%	$5.55	$9.19	$3.63	65.4%
Irrigation, City Rates	531,022	867,245	336,223	63.3%	$7.99	$13.04	$5.06	63.3%
Residential, Multi-Unit, City Rates	234,030	179,915	(54,115)	-23.1%	$9.75	$7.50	($2.26)	-23.1%
Total Customer Classes at City Rates	2,037,879	3,180,910	1,143,031	56.1%	$6.80	$10.61	$3.81	56.1%
Total System Revenue Requirement	$16,018,586	$24,027,879	$8,009,293	50.0%	$4.84	$7.26	$2.42	50.0%