

Sewer Rate and General Facilities Charge Update

Final Report
October 2023



TABLE OF CONTENTS

1.0	Executive Summary	1
1.1	Sewer Rate Update	1
1.2	GFC Update.....	2
2.0	Introduction & Background	3
3.0	Historical Financial Performance	3
4.0	Current Financial Structure.....	8
4.1	Utility Reserves	8
4.2	Capital Funding.....	9
4.3	Financial Performance Standards	9
5.0	Capital Improvement Program	10
6.0	Financial Plan Evaluation	13
6.1	Revenues	13
6.2	Expenses	13
6.3	Sewer Rate Strategy.....	14
6.4	Sewer Rate Comparison	16
7.0	Utility Rate Affordability Analysis.....	16
8.0	General Facilities Charge (GFC) Analysis.....	18
8.1	Cost Basis	18
8.2	System Capacity	19
8.3	GFC Calculation.....	20
8.4	GFC Comparison	21

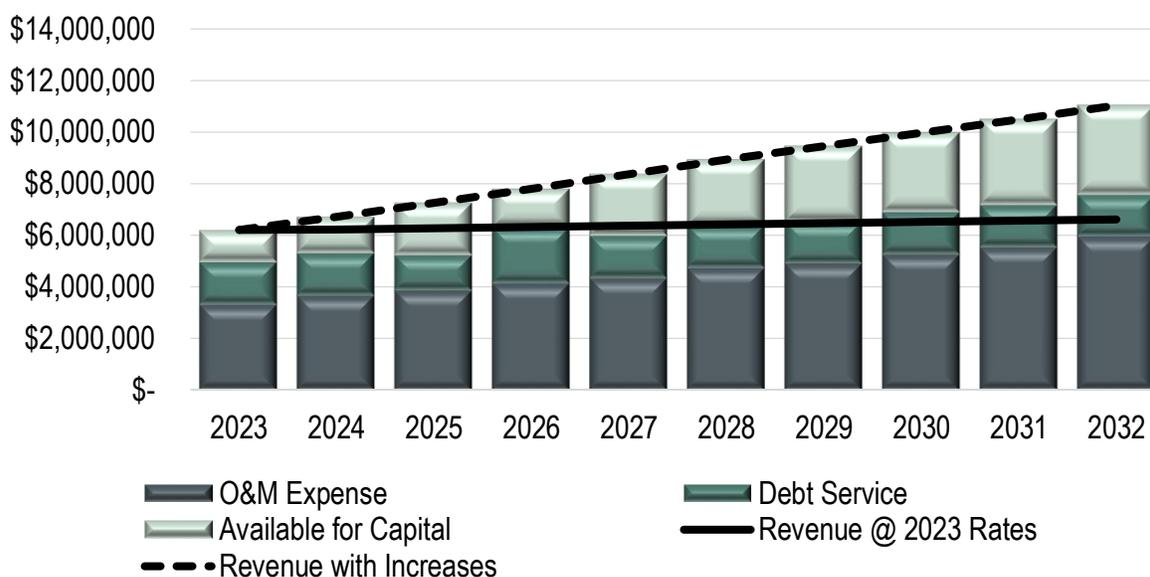
1.0 Executive Summary

Douglas County Sewer District engaged FCS GROUP in 2023 to update its rates and general facilities charges (GFCs). This report summarizes the key findings and recommendations of the update.

1.1 Sewer Rate Update

The financial plan, or revenue requirement analysis evaluated the District’s revenue needs based on projected cash-flow and coverage requirements. **Exhibit 1** presents the resulting near-term rate strategy:

Exhibit 1: Financial Plan & Sewer Rate Strategy

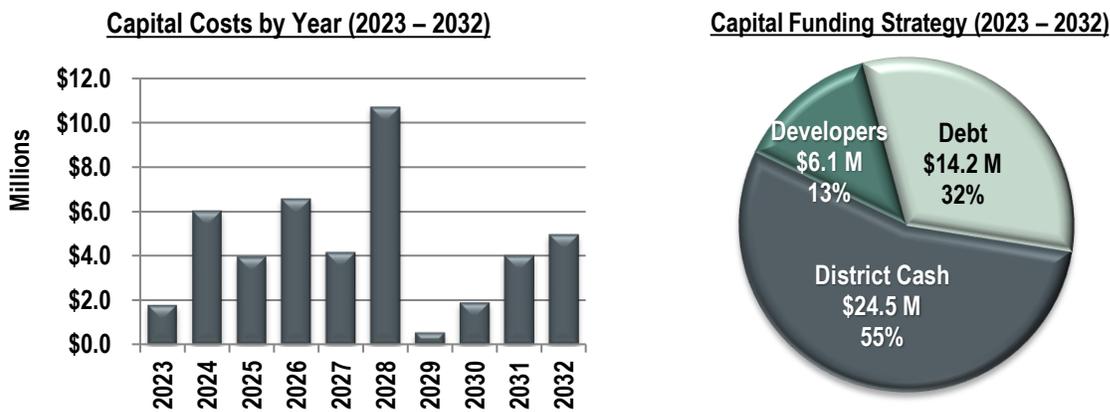


	Current	Proposed					Projected			
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Monthly Rate per ERU	\$48.50	\$52.50	\$56.50	\$60.50	\$64.50	\$68.50	\$72.00	\$75.50	\$79.00	\$82.50
Change from Prior Year		+\$4.00	+\$4.00	+\$4.00	+\$4.00	+\$4.00	+\$3.50	+\$3.50	+\$3.50	+\$3.50

Exhibit 1 suggests that the District will have to increase its rate per equivalent residential unit (ERU) by \$4.00 per year through 2028 to keep up with rising operating costs, generate cash funding for planned capital projects, and maintain reserves as outlined in the District’s financial policies. In addition to inflationary increases, the operating expense forecast summarized in **Exhibit 1** reflects adjustments for the District’s conversion to monthly billing (additional postage and printing costs), planned staffing additions (one full-time position and two seasonal part-time positions), and a new annual payment to Wenatchee Valley Fire Department for fire suppression services under the terms of an interlocal agreement between the District and the Fire Department. The revenue forecast also reflects the consolidation of the District’s tiered low-income discount program to a single 25% discount for qualifying customers that enroll in the program.

Exhibit 2 summarizes the District’s capital plan, which outlines the District’s capital needs on an annual basis as well as the funding sources used to pay for those needs in the planning period.

Exhibit 2: Capital Plan



The District’s 2023 – 2032 capital plan includes \$44.8 million in capital projects, including:

- \$24.0 million in lift station and forcemain improvements
- \$12.8 million in gravity main improvements
- \$6.4 million in wastewater treatment plant improvements
- \$1.5 million in vehicle replacements and purchases

The District expects to receive \$6.1 million (13%) in developer contributions to offset the cost of several lift station projects. The District’s cash resources including existing reserve balances, capital funding generated through rates, and GFC revenues are expected to cover \$24.5 million (55%) of the total cost. **Exhibit 6** shows the District issuing \$14.2 million in revenue bonds to cover the remaining 32% of the cost – this borrowing is estimated to increase the District’s annual debt service by roughly \$1.3 million.

We recommend that the District monitor its financial position regularly and take action as needed to address any unanticipated expenses or revenue losses. It would be prudent for the District to conduct a “refresh” of the financial plan around 2026 or 2027 to verify that the recommended rates remain adequate to meet its needs.

1.2 GFC Update

The District imposes GFCs on development to recover an equitable share of the cost of system infrastructure. RCW 57.08.005 (11) authorizes the District to impose these charges but stipulates that they “shall not include those portions of the system which have been donated or which have been paid for by grants.” The District requested an update to the GFC calculation to incorporate additional investments that it has made in infrastructure since the GFC was last calculated in the 2015 study, as well as the updated ten-year capital plan. **Exhibit 3** summarizes the updated GFC calculation.

Exhibit 3: GFC Calculation

	2023 Calculation	2015 Calculation ¹
Total Cost Basis (\$000s)	\$97,089	\$69,990
System Capacity in ERUs	14,143	12,848
GFC per ERU	\$6,865	\$5,448

¹The District increased the GFC from \$5,448 to \$5,748 per ERU effective January 1, 2023 (Resolution 2022-006).

Compared to the 2015 calculation underlying the current GFC, the updated calculation reflects an additional \$27.1 million in eligible system costs. \$16.6 million of this amount is due to the District’s net addition of assets from 2015 – 2022; the remaining \$10.5 million is attributable to an increase in the ten-year capital improvement plan.

Exhibit 3 also shows a higher number of ERUs under the updated calculation than the 2015 calculation. While the 2015 calculation used 20-year growth projections developed by the District’s engineer, the current analysis reflects a change in the methodology intended to better capture the capacity of the District’s system to accommodate ERU growth (independently of when it occurs).

Exhibit 3 indicates that the District can justify increasing its GFC from the current level of \$5,748 to \$6,865 per ERU. The District can choose to phase this increase in over time or adopt a charge that is less than or equal to the maximum justifiable charge. We recommend that the District periodically conduct a review of its GFC to ensure that it remains consistent with a proportionate share of the cost of the District’s infrastructure. In addition, given that RCW 57.08.005 (11) specifically authorizes the District to include costs of projects planned for construction within the next ten years and contained in an adopted comprehensive plan, we recommend that the District hold off on adopting the updated GFC until its General Sewer Plan update has been completed and adopted by the Board.

2.0 Introduction & Background

Douglas County Sewer District engaged FCS GROUP to review its sewer rates and general facilities charges (GFCs) with the following goals in mind:

- Developing a financial plan that supports the completion of the planned capital improvement projects while sustaining ongoing operations.
- Updating the District’s GFCs to recover an equitable share of costs from development and offset the impacts of the planned capital projects on existing ratepayers.
- Completing tasks in support of the District’s upcoming General Sewer Plan (GSP) update, including an analysis of the District’s historical financial performance and an evaluation of the affordability of utility rates for the District’s customers.

3.0 Historical Financial Performance

Exhibit 4 and **Exhibit 5** summarize the District’s historical financial performance in terms of its income statements and balance sheets, respectively. The key findings of the review of the District’s historical financial performance are summarized below.

- Operating revenues (excluding connection fees) grew by 39.5% from 2017 – 2022, primarily due to the District increasing its rates by 36.6% during that period. The District’s customer base has also grown over time.
- Excluding depreciation, the District’s operating expenses have increased at an average rate of 7.0% per year. Areas seeing the largest percentage increases include:
 - » Lift station operation and maintenance (averaging 53.1% per year)
 - » Bank card processing fees (averaging 38.5% per year)
 - » Taxes (averaging 15.0% per year, due to a revision in the District’s methodology for allocating revenues between collection and other activities following an audit)
 - » Insurance (averaging 10.9% per year).
- Depreciation has increased by an average of 4.1% per year, reflecting the addition of assets.
- The District has realized a positive change to net assets as its operating revenues have consistently exceeded its operating expenses. **Exhibit 4** consistently shows positive net operating income, ranging from a low of \$1.7 million in 2017 to a high of \$3.0 million in 2021.
- The current ratio is a measure of short-term liquidity or the District’s ability to pay its current bills. It is calculated by dividing unrestricted current assets (excluding inventories and prepaid items) by current liabilities – while a ratio of 1.0 indicates that the utility has exactly enough to pay its bills, higher values are desirable as they suggest an ability to pay large or unanticipated bills. The District has attained current ratios varying from 4.88 to 7.59 over the past six years, suggesting that the District has ample capacity to meet its short-term financial obligations.
- Days of cash on hand is a measure of financial security, quantifying how long the District would be able to fund daily operating costs if it received no additional revenue. It is calculated by dividing unrestricted cash by the average daily cost of operations (excluding depreciation). While there is no firm minimum standard for this metric, bond rating agencies have recently expressed a preference for a minimum of 180 days of cash on hand for utilities seeking the highest bond ratings. The District has been able to maintain 1,291 – 2,435 days of cash on hand over the past six years, which is indicative of a relatively robust reserve structure capable of protecting the District from financial disruption resulting from unanticipated expenses or revenue losses.
- The Debt-to-Asset Ratio is a measure of indebtedness and is often used to evaluate whether a utility is overleveraged, with values above 60% suggesting that a utility may have too much debt. Excessive indebtedness can be viewed negatively in the context of a fiscal health evaluation, as debt comes with incremental costs (e.g. interest) and requirements (e.g. coverage, reserves) that may reduce a utility’s financial flexibility. The District’s ratio has decreased steadily from 24.8% in 2017 to 11.6% in 2022 as it has made payments on its outstanding debt obligations.

Overall, the District’s financial performance over the past six years has been relatively strong with revenues being sufficient to cover operating expenses and payments on existing debt while generating some funding for capital investment.

Exhibit 4: Historical Financial Performance – Statement of Revenues, Expenses, & Changes in Fund Net Position (\$000s)

	2017	2018	2019	2020	2021	2022 Unaudited
Operating Revenues						
Utility Sales & Service Fees	\$4,107	\$4,445	\$4,793	\$5,101	\$5,239	\$5,745
Connection Fees	956	850	1,268	1,124	1,676	828
Other Charges for Services	17	10	8	12	9	7
Total Operating Revenues	\$5,080	\$5,305	\$6,069	\$6,237	\$6,924	\$6,580
Operating Expenses						
General Operations	\$1,025	\$1,118	\$1,150	\$1,210	\$1,381	\$1,525
Power	121	115	122	124	118	124
Maintenance	105	105	97	85	111	139
Administration	714	666	725	622	555	908
Taxes	94	145	116	135	200	190
Depreciation & Depletion	1,312	1,331	1,378	1,438	1,575	1,603
Total	\$3,371	\$3,480	\$3,588	\$3,612	\$3,940	\$4,489
Operating Income (Loss)	\$1,709	\$1,825	\$2,481	\$2,625	\$2,984	\$2,091
Non-Operating Revenues (Expenses)						
Interest Income	\$109	\$209	\$289	\$ 103	\$ 17	\$259
Interest Expense, Amortization, & Related Charges	(415)	(395)	(370)	(336)	(331)	(284)
Gains (Losses) on Investments Realized	3	3	31	7	-	-
Gains (Losses) on Capital Asset Disposition	(92)	-	0	26	(42)	-
Miscellaneous Income	13	5	8	4	3	21
Non-Operating Revenue (Grants)	-	-	-	3,608	352	56
Total	(\$382)	(\$178)	(\$42)	\$3,412	(\$1)	\$52
Income (Loss) Before Contributions	\$1,327	\$1,647	\$2,439	\$6,037	\$2,983	\$2,142
Capital Contributions	515	468	921	548	1,919	713
Change in Net Position	\$1,842	\$2,115	\$3,360	\$6,585	\$4,902	\$3,855
Total Net Assets (Beginning of Year)	\$32,742	\$34,585	\$36,700	\$40,060	\$46,644	\$51,547
Total Net Assets (End of Year)	\$34,585	\$36,700	\$40,060	\$46,644	\$51,547	\$54,402

Exhibit 5: Historical Financial Performance – Statement of Net Position (\$000s)

	2017	2018	2019	2020	2021	2022 Unaudited
Assets						
Current Assets						
Cash and Cash Equivalents	\$ 128	\$ 154	\$ 204	\$ 667	\$ 248	\$ 270
Investments	7,153	8,437	9,525	10,272	12,321	13,468
Receivables (Net)						
Service and Grant Revenue	355	377	393	2,038	458	448
Restricted Assets						
Bond Debt Service	1,945	1,682	1,697	1,714	1,800	1,819
Construction II	352	358	302	304	126	128
Prepayments	86	96	91	98	128	147
Total Current Assets	\$10,019	\$11,104	\$12,212	\$15,093	\$15,081	\$16,280
Noncurrent Assets						
Restricted Assets						
Bond Debt Service Reserve	\$ 52	\$ 52	\$ 52	\$ 353	\$ 353	\$ 353
Bond Debt Service Reserve Long-Term Investments	301	301	301	-	-	-
Unrestricted Long-Term Investments	837	840	594	-	-	-
ULID Assessments	10	4	2	1	1	-
Loan Receivable – Port District PWTF	521	431	342	253	164	82
Capital Assets Not Being Depreciated						
Water Rights	-	-	-	-	6	6
Land	76	76	76	76	70	70
Construction in Progress	287	346	439	65	213	242
Capital Assets Being Depreciated						
Plant	28,642	28,499	29,809	30,007	30,281	31,101
Collection System	24,792	25,497	26,598	31,780	36,531	37,321
Machinery & Equipment	1,159	1,391	1,424	1,489	1,535	1,618
Less: Accumulated Depreciation	(16,363)	(17,412)	(18,683)	(20,076)	(21,544)	(23,040)
Total Capital Assets (Net)	38,593	38,397	39,663	43,341	47,092	47,318
Net Pension Asset	-	-	-	-	694	271
Total Noncurrent Assets	\$40,314	40,025	40,954	43,948	48,304	48,024
Total Assets	\$50,333	\$51,129	\$53,166	\$59,041	\$63,385	\$64,304
Deferred Assets	\$ 95	\$ 77	\$ 82	\$ 90	\$ 105	\$ 292

Exhibit 5 (Continued): Historical Financial Performance – Statement of Net Position (\$000s)

	2017	2018	2019	2020	2021	2022 Unaudited
Liabilities						
Current Liabilities						
Accounts/Vouchers Payable	\$ 85	\$ 129	\$ 159	\$ 893	\$ 227	\$ 256
Payable from Restricted Assets						
Bonds, Notes, and Loans Payable	1,227	1,234	1,274	1,309	1,372	1,420
Accrued Interest	197	188	172	155	170	143
Developer Extension Deposits	55	45	41	55	45	50
Total Current Liabilities	\$1,564	\$1,596	\$1,646	\$2,412	\$1,814	\$1,869
Noncurrent Liabilities						
Compensated Absences	\$ 214	\$ 230	\$ 251	\$ 286	\$ 296	\$ 329
CERB Loan Payable	-	-	-	-	990	946
PWTF Loan Payable – District	432	342	253	164	82	-
Payable from Restricted Assets						
Bonds, Notes, and Loans Payable	13,011	11,794	10,543	9,263	7,942	6,587
Pension Liability	514	380	306	242	66	157
Total Noncurrent Liabilities	\$14,171	\$12,746	\$11,353	\$ 9,955	\$ 9,376	\$8,019
Total Liabilities	\$15,735	\$14,342	\$12,999	\$12,367	\$11,190	\$9,888
Deferred Inflows	\$ 108	\$ 164	\$ 189	\$ 119	\$ 753	\$ 307
Net Position						
Net Investment in Capital Assets	\$15,735	\$14,342	\$12,999	\$12,367	\$11,190	\$ 9,888
Restricted – Pensions	-	-	-	-	695	271
Restricted – Bond	1,945	1,682	1,697	1,715	1,800	1,818
Restricted – Bond Reserve	353	353	353	353	353	353
Restricted – Construction II	352	358	302	304	126	128
Unrestricted	6,976	8,316	9,218	10,831	11,090	12,749
Total Net Position	\$34,585	\$36,700	\$40,060	\$46,645	\$51,547	\$54,401
Current Ratio Realized	4.88	5.62	6.15	5.38	7.18	7.59
Days of Cash on Hand	1,291	1,523	1,724	1,939	2,228	2,435
Debt-to-Asset Ratio	24.8%	22.2%	19.1%	15.6%	13.9%	11.6%

4.0 Current Financial Structure

As a self-supporting enterprise, the District operates under a set of policies that promote financial viability and fiscal responsibility. The policy framework used in the financial plan is discussed in further detail below.

4.1 Utility Reserves

Reserves are a key component of any utility financial strategy, as they provide the flexibility to manage variations in costs and revenues that could otherwise have an adverse impact on ratepayers. The District currently maintains the following structure of reserves:

- The Operation and Maintenance (O&M) Fund provides an unrestricted fund balance to accommodate short-term cash flow needs driven by differences in revenue and expense cycles as well as other needs not covered by other sources. District policy establishes a minimum fund balance of 360 days of operating expenses, which equates to \$3.2 million based on the District's 2023 Operating Budget.
- To provide some protection against capital project overruns and unanticipated capital expenditures, the District deposits resources designated for capital project funding into the Capital Funds. The District's current Capital Fund structure includes a Capital Systems Fund for wastewater treatment plant improvements, a Construction Fund for collection system improvements, and a Vehicle Fund for ongoing vehicle replacements. The District has been considering the possibility of consolidating these into a single Capital Fund to provide greater flexibility to use capital resources while reducing the administrative burden of tracking separate activity in each of the existing funds. District policy provides for a combined target minimum balance for the Capital Funds equal to 5% of the cost of system assets, which equates to \$3.7 million based on assets that were in service as of December 31, 2022.
- The District's bond covenants establish several reserve accounts, including:
 - » The Bond Fund accrues money (primarily rate-funded transfers from the O&M Fund) to make the annual principal and interest payments on outstanding revenue bonds.
 - » The Reserve Account holds money set aside to satisfy the reserve requirement specified in the bond covenants, which serves to protect bondholders from default risk. It is a restricted balance that is not available for other purposes while the related revenue bonds are still outstanding.
 - » The Rate Stabilization Fund (also known as the "Rainy Day Fund") provides extra security for the District, ensuring that it can meet its debt service coverage requirements in the event of unanticipated expenses or revenue losses. While debt service coverage calculations generally do not consider existing reserve balances in evaluating annual financial performance, the District's bond covenants allow this fund to be included in the assessment. For the purpose of coverage calculations, withdrawals from this fund count as revenues and deposits into it count as expenses.

4.2 Capital Funding

Utilities typically fund capital projects from a variety of sources such as grants, developer extensions, GFCs, utility rates, and debt. Grant funding for utility capital projects is limited and most commonly used to meet needs driven by regulatory requirements; developer funding is often dedicated to improvements needed to serve growth rather than replacing aging infrastructure. While these sources would logically be applied to project costs first when available, the next choice in the funding “hierarchy” is not necessarily apparent.

Debt mitigates the financial impact of capital investment on ratepayers but comes with issuance costs, interest costs, and other requirements (e.g. debt service coverage, reserve requirements). Cash resources including existing balances, contributions from rates, and GFCs can be used to pay for project costs directly or make payments on debt issued to fund projects. While various factors can influence the decision to use cash funding or debt funding at any given point in time, it is important to consider the long-term balance of cash versus debt funding as disproportionate use of either option can result in less equitable outcomes. For example, an exclusively “pay-as-you-go” (cash-based) capital funding strategy arguably over-recovers costs from existing users for facilities that will serve future growth in addition to existing customers. At the same time, maximizing the use of debt could result in existing customers paying less than a proportionate share of costs and saddling future ratepayers with the burden of funding infrastructure.

This financial plan attempts to balance cash and debt funding by reserving the use of debt for relatively large capital projects, setting rates to generate enough cash to support ongoing needs such as infrastructure renewal and replacement.

4.3 Financial Performance Standards

This analysis uses a framework of sufficiency tests to evaluate the District’s annual revenue needs:

- The cash flow test determines whether annual revenues are sufficient to cover the known cash requirements for each year of the planning period including O&M, debt service payments, rate-funded capital outlays, and any additions to reserve balances.
- The coverage test evaluates the District’s ability to meet the debt service coverage requirements specified in its bond covenants and internal debt policies. The District’s bond covenants require that the District maintain “net revenue” (defined by the bond covenants, but in summary the gross revenues from rates, connection charges, investment earnings, and other operating revenues net of operating expenses) of at least 1.25 times the annual debt service payment on outstanding revenue bonds. Consistent with the 2015 rate study, the analysis incorporates the District’s internal policy goal of keeping debt service coverage at a minimum level of 1.90.

In determining the annual revenue requirement, the test with the greater deficiency generally drives the rate increase in any given year. The District can temporarily waive the requirements of the cash flow test as part of a conscious decision to phase in rate increases, as long as its reserve balances are sufficient to absorb the resulting cash flow deficit. The coverage test, however, must always be met as failure to do so may result in a downgrading of the District’s bond rating.

5.0 Capital Improvement Program

The capital forecast involves projecting annual capital project expenditures and developing a strategy to fund those expenditures. The District's capital improvement plan (CIP) serves as the primary source of information for these projections; the capital funding strategy considers available cash from grants, developers, rates, GFCs, reserves, and if necessary, debt.

Exhibit 6 shows the District's ten-year capital improvement plan (CIP), which includes \$37.8 million in projected capital expenditures (in 2023 dollars). This projected cost includes \$19.8 million (52%) in lift station and forcemain projects, \$10.9 million (29%) in gravity main projects, \$5.8 million (15%) in wastewater treatment plant improvements, and \$1.3 million (4%) in vehicle replacements and purchases. Based on an assumed construction cost inflation rate of 4% per year, the total projected capital cost for the ten-year planning period is \$44.8 million. This inflation assumption is consistent with long-term average inflation in the Engineering News Record (ENR) Construction Cost Index – though recent inflation has been significantly higher than long-term average levels, the Washington State Economic and Revenue Forecast Council has released projections showing inflation (as measured by the Seattle Consumer Price Index) returning to long-term average levels by 2024 or 2025. Combined with the contingencies that are built into the CIP project cost estimates, the District's robust reserves provide a means of absorbing short-term cost increases if recent inflationary trends continue longer than expected.

Exhibit 7 summarizes the anticipated capital funding strategy. The District expects to receive \$6.1 million (13%) in developer contributions to offset the cost of several lift station projects. The District's cash resources including existing reserve balances, capital funding generated through rates, and GFC revenues are expected to be able to cover \$24.5 million (55%) of the total cost. **Exhibit 7** shows the District issuing \$14.2 million in revenue bonds to cover the remaining 32% of the cost – assuming that the District issues 20-year bonds with an interest rate of 5.0%, issuance costs of 1.5%, and a reserve requirement equal to one year's principal and interest payment, this borrowing is estimated to increase the District's annual debt service by roughly \$1.3 million. These assumptions intend to be relatively conservative for planning purposes – as the District gets closer to borrowing in 2026, it will be able to refine the estimates of the amount needed as well as the applicable repayment terms.

Exhibit 6: Ten-Year Capital Plan (\$000s)

Project	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Gravity Main Projects											
Road Project Utility Adjustments	\$ 15	\$ 15	\$ 15	\$ 15	\$ 15	\$ 15	\$ 15	\$ 15	\$ 15	\$ 15	\$ 150
SR 28 Interceptor	-	416	1,205	2,692	-	-	-	-	-	-	4,313
19 th St. Interceptor No. 2	410	-	-	-	-	-	-	-	-	-	410
Kentucky Avenue Interceptor	-	-	34	250	-	-	-	-	-	-	284
6 th Street SE Interceptor Extension	-	-	-	131	1,005	-	-	-	-	-	1,136
Daniel's Drive Interceptor	-	-	-	-	1,481	-	-	-	-	-	1,481
Baker Avenue Extension	-	-	-	-	62	460	-	-	-	-	522
Grant Road Trunk Line Capacity	-	-	-	-	-	719	-	-	-	-	719
SR 28 Crossings	-	-	-	-	-	-	-	-	394	1,314	1,708
KVLS Phase II – Retainage	72	-	-	-	-	-	-	-	-	-	72
Miscellaneous Repairs & Improvements	100	-	-	-	-	-	-	-	-	-	100
Lift Station Projects											
Summerplace Lift Station Replacement	-	4,160	-	-	-	-	-	-	-	-	4,160
Lift Station Electrical, Safety, Odor Control Imp.	-	117	117	-	-	-	-	-	-	-	234
Kentucky View Lift Station Rock Sump Manhole	70	-	-	-	-	-	-	-	-	-	70
North Lift Station A & Forcemain	-	-	682	1,240	-	-	-	-	-	-	1,922
Wenatchi Landing Lift Station & Forcemain	-	-	-	212	-	213	-	1,356	2,463	-	4,244
Witte Lift Station	-	-	-	-	-	7,075	-	-	-	-	7,075
North Lift Station C & Forcemain	-	-	-	-	-	-	-	-	-	2,100	2,100
Wastewater Treatment Plant Projects											
Control System Upgrade Programming/Repl.	120	-	-	-	-	-	-	-	-	-	120
Administration Building Bathroom Remodel	249	-	-	-	-	-	-	-	-	-	249
SNDR #1, #2, & #3 Coating Rehabilitation	350	-	-	-	-	-	-	-	-	-	350
Primary Electrical Switchgear Replacement	-	208	624	-	-	-	-	-	-	-	832
Engineering Report	-	200	-	-	-	-	-	-	-	-	200
Secondary Site Access to Headworks	-	142	308	781	-	-	-	-	-	-	1,231
Offsite Storage Property Acquisition	-	-	575	-	-	-	-	-	-	-	575
Solids Handling Centrifuge Improvements	-	-	37	244	-	-	-	-	-	-	281
UV Disinfection	-	-	-	206	-	-	-	-	-	-	206
Secondary Clarifier Drive Replacement	-	-	-	-	163	-	-	-	-	-	163
Odor Control Upgrades	-	-	-	-	780	-	-	-	-	-	780
Primary Clarifier Drive Replacements	-	-	-	-	-	257	-	-	-	-	257
Aeration Basin System & Control Improvements	-	-	-	-	-	-	350	-	-	-	350

Exhibit 6 (Continued): Ten-Year Capital Plan (\$000s)

Project	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Entrance Storage Structure/Security Gate	62	-	-	-	-	-	-	-	-	-	62
Cartegraph Asset Management/GIS Implement.	32	-	-	-	-	-	-	-	-	-	32
Crawler Camera	90	-	-	-	-	-	-	-	-	-	90
GIS Trimble Unit	20	-	-	-	-	-	-	-	-	-	20
Vehicle Replacements											
Collections Pickup Truck	53	-	-	-	-	-	-	-	-	-	53
Operations Flatbed Truck w/Crane	140	-	-	-	-	-	-	-	-	-	140
New Vector Truck	-	500	-	-	-	-	-	-	-	-	500
New Trailer	-	18	-	-	-	-	-	-	-	-	18
GIS Mapping	-	35	-	-	-	-	-	-	-	-	35
Additional Vehicle Replacements	-	-	75	75	75	75	75	75	75	75	600
Total (2023 Dollars)	\$1,783	\$5,811	\$3,672	\$5,846	\$3,581	\$ 8,814	\$440	\$1,446	\$2,947	\$3,504	\$37,844
Plus: Adjustment for Inflation	-	232	300	730	608	1,910	117	457	1,086	1,483	6,923
Total Projected Expenditures	\$1,783	\$6,043	\$3,972	\$6,576	\$4,189	\$10,724	\$557	\$1,903	\$4,033	\$4,987	\$44,767

Exhibit 7: Ten-Year Capital Funding Strategy (\$000s)

Funding Source	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Developer Contributions	\$ -	\$ -	\$ 409	\$ 1,034	\$ 1,005	\$ 160	\$ -	\$1,017	\$1,847	\$ 630	\$ 6,102
Revenue Bond Proceeds	-	-	-	5,542	3,184	5,474	-	-	-	-	14,200
District Cash	1,783	6,043	3,563	-	-	5,090	557	886	2,186	4,357	24,465
Total Projected Funding	\$1,783	\$6,043	\$3,972	\$6,576	\$4,189	\$10,724	\$557	\$1,903	\$4,033	\$4,987	\$44,767

6.0 Financial Plan Evaluation

The near-term projections that drive the financial plan are discussed in further detail below.

6.1 Revenues

Given that most of the District's operating revenues are linked to customer growth in some way, the rate of customer growth is a key assumption of the financial forecast. Based on recent growth patterns in the District's service area and input from District staff, the analysis assumes an annual growth rate of 0.75% for the study period, corresponding to roughly 80 equivalent residential units (ERUs) per year. This growth assumption is slightly lower than (but comparable to) the 1.0% annual population growth projection that the Washington State Office of Financial Management released for Douglas County in its December 2022 forecast.

The revenue forecast is generally based on the District's 2023 Budget, with rate revenue and revenue from other customer-related fees (e.g. account setup fees, late fees) escalated annually with customer growth. Based on discussions with District staff, the forecast assumes that the District moves from its current tiered low-income discount program to a flat discount of 25% for all qualifying customers that are enrolled in the program. Assumed to begin in 2024, this change is estimated to reduce net annual rate revenues by approximately \$11,500.

6.2 Expenses

Operating expense projections are generally based on the District's 2023 Budget with adjustments for inflation as appropriate. The forecast reflects the following assumptions regarding inflation and other cost increases:

- **General Cost Inflation:** Based on the Consumer Price Index (CPI), this inflation rate applies to most expenses in the forecast. The forecast assumes 4.0% annual CPI inflation for 2024 and 2025 (in recognition of recent inflationary trends) and 3.0% annual inflation thereafter.
- **Labor Cost Inflation:** Based on historical increases in the District's costs for labor, the forecast assumes that salaries and wages increase by 7.0% per year as a combination of cost-of-living adjustments and merit-based increases.
- **Benefits Cost Inflation:** Based on historical increases in the District's benefits costs, the forecast assumes that benefits costs increase by 11.0% per year as an aggregation of medical, dental, vision, retirement, and other benefits that the District provides to its employees.
- **Construction Cost Inflation:** As previously noted, this analysis assumes a construction cost inflation rate of 4% per year. This rate applies to the CIP project cost estimates shown in **Exhibit 6** as well as infrastructure repair and maintenance costs included in the operating budget.
- **Variable Operating Costs:** Some operating costs such as electricity, chemicals, and sludge disposal increase with the amount of wastewater treated as well as with inflation.

- **Taxes:** Taxes are computed based on the District's projected revenues and the applicable tax rates. Given the District's current methodology for allocating revenues between collection and other activities (taxed at 3.852% and 1.75%, respectively), the District pays a weighted-average State excise tax of roughly 3.0% on its rate revenue. Most other operating revenues and GFC revenues are taxed at the State Business & Occupation (B&O) rate of 1.75%.
- **Staffing Additions:** The forecast of labor costs incorporates the planned 2024 addition of one full-time equivalent (FTE) at an estimated cost of \$127,000 per year and two part-time FTEs at a combined estimated cost of \$66,560 (2,080 hours at \$32 per hour). These annual costs are escalated by the assumed labor cost inflation rates for future-year projections.
- **Conversion to Monthly Billing:** Based on estimates provided by District staff, the operating expense forecast incorporates an increase of \$17,500 to annual postage costs and approximately \$11,000 to annual printing costs (beginning in 2024) as a result of the District's planned conversion to monthly billing.
- **Audit Costs:** Recognizing that the District only conducts financial audits every other year, audit costs are forecasted at \$28,000 every other year (in 2024 dollars).
- **Interlocal Agreement for Fire District Services:** Beginning in 2024, the forecast incorporates a payment of \$15,000 per year (in 2024 dollars) to Wenatchee Valley Fire Department for fire suppression services under the terms of an interlocal agreement between the District and the Fire Department.

In addition to the operating costs outlined above, the District has two outstanding revenue bonds and one Community Economic Revitalization Board (CERB) loan. Based on the established repayment schedules, the total payment on these debt obligations is \$1.7 million per year through 2024, \$1.4 million per year for 2025 and 2026, and approximately \$350,000 per year thereafter.

6.3 Sewer Rate Strategy

Exhibit 8 summarizes the near-term financial plan, showing that the District's revenues at the existing rate of \$48.50 per ERU are expected to be adequate to cover projected operating expenses through 2028. The proposed rate strategy increases the monthly rate by \$4.00 each year through 2028 to generate cash funding for the capital plan and meet the ending balance targets specified by the District's financial policies. Beyond 2028, the forecast shows the District increasing the monthly rate by \$3.50 per year to generate funding for future capital needs expected to occur in the mid-2030s.

Exhibit 8: Financial Plan Summary (\$000s)

	Existing	Proposed					Projected			
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Revenues										
Rate Revenues at Existing Rates	\$6,096	\$6,131	\$6,177	\$6,223	\$6,270	\$6,317	\$6,364	\$6,412	\$6,460	\$6,508
Other Operating Revenues	105	79	82	83	89	91	91	94	96	98
Total	\$6,201	\$6,210	\$6,259	\$6,306	\$6,359	\$6,408	\$6,455	\$6,506	\$6,556	\$6,606
Expenses										
Operating Expenses	\$3,293	\$3,658	\$3,844	\$4,119	\$4,323	\$4,718	\$4,874	\$5,229	\$5,508	\$5,912
Debt Service	1,659	1,655	1,392	2,180	1,650	1,648	1,649	1,645	1,646	1,646
Total	\$4,952	\$5,313	\$5,236	\$6,299	\$5,973	\$6,366	\$6,523	\$6,874	\$7,154	\$7,559
Net Cash Flow at Existing Rates	\$1,249	\$897	\$1,023	\$7	\$386	\$42	(\$68)	(\$368)	(\$598)	(\$953)
Monthly Rate per ERU	\$48.50	\$52.50	\$56.50	\$60.50	\$64.50	\$68.50	\$72.00	\$75.50	\$79.00	\$82.50
Change from Prior Year	+\$4.00	+\$4.00	+\$4.00	+\$4.00	+\$4.00	+\$4.00	+\$3.50	+\$3.50	+\$3.50	+\$3.50
Net Cash Flow at Proposed/Projected Rates	\$1,249	\$1,388	\$2,011	\$1,500	\$2,392	\$2,568	\$2,923	\$3,094	\$3,342	\$3,472
Debt Service Coverage at Proposed/Projected Rates	2.04	2.19	2.89	1.94	2.84	2.96	3.17	3.28	3.45	3.54
Projected Ending Balance – O&M Fund	\$3,609	\$4,008	\$4,229	\$4,548	\$4,788	\$4,715	\$5,427	\$5,832	\$6,154	\$6,614
Days of Operating Expenses Realized	400	400	400	400	400	360	400	400	400	400
<i>Target Days of Operating Expenses</i>	360	360	360	360	360	360	360	360	360	360
Projected Ending Balance – Capital Funds	\$10,770	\$6,222	\$4,947	\$15,279	\$14,784	\$7,398	\$9,567	\$11,893	\$13,267	\$12,473
% of Plant-In-Service Realized	14.6%	7.3%	5.3%	14.3%	12.8%	5.4%	6.9%	8.4%	8.9%	7.8%
<i>Target % of Plant-In-Service</i>	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Combined Unrestricted Operating/Capital Balance	\$14,379	\$10,231	\$9,176	\$19,827	\$19,572	\$12,113	\$14,994	\$17,725	\$19,420	\$19,086
Days of Operating Expenses Realized	1,594	1,017	864	1,737	1,629	922	1,102	1,212	1,259	1,151

6.4 Sewer Rate Comparison

Exhibit 9 presents a comparison of the sewer bill under the District’s rates versus those of other area jurisdictions.

Exhibit 9: Sample Sewer Bill Comparison

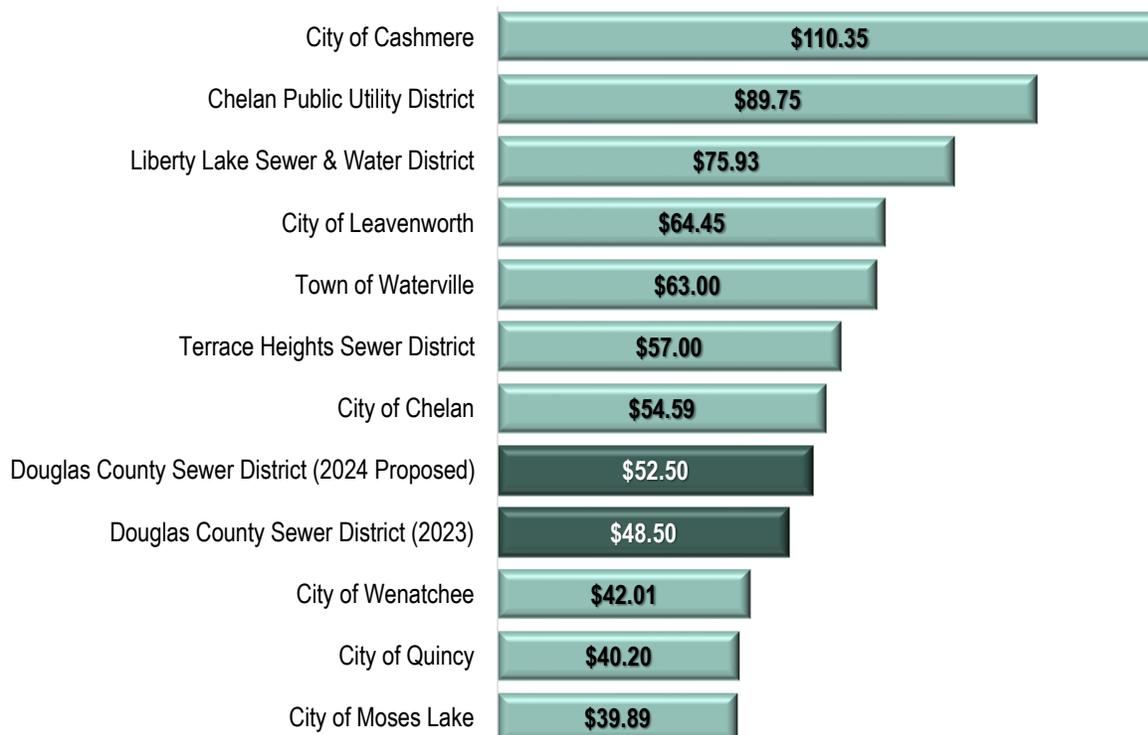


Exhibit 9 shows that the District’s sewer rate is toward the low end of the survey group. Even with the projected rate increases, the rate projected for 2028 (\$68.50 per month) is lower than the residential rates currently imposed by several of the jurisdictions in the survey. Recognizing that each jurisdiction’s rate reflects its unique customer demographics, policies, and operational conditions, the District’s rate is expected to remain within a reasonable range compared to other local sewer utilities.

7.0 Utility Rate Affordability Analysis

A key objective of the financial plan is to develop a funding strategy that enables the District to complete the planned capital improvements and sustain ongoing operations while maintaining affordable sewer rates. While the term “affordable” is relatively subjective in its definition, agencies that offer low-cost loans to utilities often use an “affordability index” based on median household income to define a threshold beyond which utility rates impose financial hardship on ratepayers. The benchmark most often used in this evaluation is 4.5% of the median household income in the relevant demographic area for the combined water/sewer bill (2.5% is for the water bill and 2.0% is for the sewer bill). The American Community Survey indicates a median income level (in 2021 dollars) of \$67,739 for households in East Wenatchee and \$68,979 for Douglas County. Adjusting for CPI

inflation from mid-2021 to mid-2023, the 2023 estimates for median household income are \$78,054 for East Wenatchee and \$79,483 for Douglas County – because the East Wenatchee income level is slightly lower, the affordability analysis uses it rather than the comparable value for Douglas County.

There has been a growing consensus in the industry that median household income is of limited value in assessing the impacts of utility rates on customers with income levels far below the area median. As discussions about rate affordability continue to evolve, two alternative metrics have been gaining traction as providing a more meaningful basis for evaluating affordability:

- **Hours at Minimum Wage (HM):** This metric quantifies the amount of time that someone earning minimum wage would need to work in order to pay their combined water/sewer bill, assuming that they use a “lifeline” volume of 50 gallons per day per capita (gpcd). Because the most recent Census data indicates that the average household size in East Wenatchee is 2.80 persons, this volume equates to roughly 6 ccf per month per household. The literature discussing HM recommends 8.0 hours as a threshold for defining “affordable” rates.
- **Affordability Ratio at the 20th Income Percentile (AR₂₀):** This metric expresses the combined bill (at 50 gpcd) as a percentage of the net disposable income of a home in the 20th income percentile after accounting for the cost of food, housing, power, healthcare, and taxes. Based on 2021 data from the American Community Survey and the Bureau of Labor Statistics’ Consumer Expenditure Survey, we estimate that a household at the 20th income percentile in East Wenatchee has approximately \$1,209 in disposable monthly income. The literature discussing AR₂₀ recommends 10.0% of net disposable income as a threshold for “affordable” rates.

Exhibit 10 summarizes the affordability analysis in terms of these metrics, incorporating East Wenatchee Water District’s adopted water rates through 2026 and assumed rate increases of 3.0% thereafter:

Exhibit 10: Rate Affordability Analysis

Year	Median Household Income (1)	Monthly SFR Sewer Bill	% of MHI (Target: ≤ 2.0%)	Monthly SFR W/S Bill @ 8 ccf	% of MHI (Target: ≤ 4.5%)
2023	\$78,054	\$48.50	0.7%	\$107.10	1.6%
2024	\$80,396	\$52.50	0.8%	\$112.90	1.7%
2025	\$82,808	\$56.50	0.8%	\$118.70	1.7%
2026	\$85,292	\$60.50	0.9%	\$124.50	1.8%
2027	\$87,851	\$64.50	0.9%	\$130.30	1.8%
2028	\$90,486	\$68.50	0.9%	\$136.10	1.8%
2029	\$93,201	\$72.00	0.9%	\$141.40	1.8%
2030	\$95,997	\$75.50	0.9%	\$146.70	1.8%
2031	\$98,877	\$79.00	1.0%	\$152.00	1.8%
2032	\$101,843	\$82.50	1.0%	\$157.30	1.9%

¹Assumes escalation at 3.0% per year.

Exhibit 10 (Continued): Rate Affordability Analysis

Year	Monthly SFR W/S Bill @ 6 ccf	HM (Target: ≤ 8.0)	AR ₂₀ (Target: ≤ 10%)
2023	\$101.90	6.5	8.4%
2024	\$107.50	6.6	8.9%
2025	\$113.10	6.7	9.4%
2026	\$118.70	6.9	9.8%
2027	\$124.30	7.0	10.3%
2028	\$129.90	7.1	10.7%
2029	\$135.00	7.2	11.2%
2030	\$140.10	7.2	11.6%
2031	\$145.20	7.3	12.0%
2032	\$150.30	7.3	12.4%

Exhibit 10 indicates that based on the benchmarks that consider median household income, the District’s sewer rates are well within the threshold of “affordable.” The combined water/sewer bill at 6 ccf per month is also expected to remain within the threshold of affordability suggested for HM. Considering AR₂₀, the combined water/sewer bill at 6 ccf is currently within the suggested threshold for affordability but appears to cross that threshold by 2027 under the proposed rate increases.

It is worth noting that the District offers a rate discount for qualifying low-income senior/disabled customers. As previously noted, the financial plan assumes that the existing tiered discount program will be consolidated into a single 25% discount beginning in 2024. For customers qualifying for the District’s 25% discount and East Wenatchee Water District’s discount, the HM and AR₂₀ values would be considerably lower than those listed above (5.6 hours and 9.5% of net disposable income by 2032, respectively).

8.0 General Facilities Charge (GFC) Analysis

GFCs are a form of connection charge authorized by Section 57.08.005 of the Revised Code of Washington (RCW). Additive to charges that recover the costs of physically connecting a customer to the system, the GFC is based on the cost of system infrastructure. By paying the GFC, development reimburses the District and its existing ratepayers for an equitable share of the costs that have been (and will continue to be) incurred to provide capacity to serve new customers.

While the RCW does not explicitly define a methodology for calculating GFCs, the GFC is generally calculated by dividing an allocable “cost of the system” by the applicable system capacity (typically expressed in ERUs or meter equivalents) to arrive at a cost per unit of capacity. The ensuing sections discuss the various aspects of the GFC calculation in further detail.

8.1 Cost Basis

The GFC cost basis includes the following elements:

- **Existing Assets:** The GFC cost basis includes costs associated with existing assets to recognize that they will benefit new customers. As of December 31, 2022, the total cost of the existing system was approximately \$70.1 million.
- **Ten-Year CIP:** RCW 57.08.005 (11) allows the District to include costs associated with capital projects planned for completion within the next ten years and contained in an adopted comprehensive plan. The District's ten-year CIP includes about \$37.8 million in capital project costs in 2023 dollars.
- **Grant/Developer Funding:** Consistent with RCW 57.08.005, the cost basis excludes costs that were (or will be) funded by grants or developer contributions. District records indicate that developers have contributed \$20.9 million of the \$70.1 million in existing assets, and as noted in **Exhibit 7** the District expects to receive \$6.1 million in developer funding for the CIP.
- **Provision for Asset Retirements:** Some of the District's future capital projects involve replacing infrastructure. Because the GFC calculation can include both existing asset costs and future project costs, it is important to adjust the cost basis to avoid charging customers for an asset and its future replacement concurrently. The methodology used in the current analysis (and the 2015 analysis) includes future replacement project costs and deducts the estimated cost of the assets being replaced (estimated to be \$2.2 million) from the cost basis.
- **Interest:** RCW 57.08.005 (11) allows the District to recover up to ten years of interest accrued on assets included in the cost basis. Conceptually, this interest provision attempts to account for opportunity costs that the District's customers incurred by supporting investments in infrastructure rather than having it available for investment or other uses. Based on the existing assets that are included in the cost basis, the GFC cost basis includes \$18.4 million in interest.

With these adjustments, the net GFC cost basis is \$97.1 million.

8.2 System Capacity

The denominator of the GFC calculation is defined as the number of ERUs that the existing system (with any capacity added by the planned capital projects) can serve. A 2018 capacity analysis prepared by RH2 estimates the capacity of the District's wastewater treatment plant in terms of the following parameters:

- Maximum-Month Flow: 3.0 million gallons per day (mgd)
- Maximum-Month Biochemical Oxygen Demand (BOD): 7,500 pounds per day (ppd)
- Maximum-Month Total Suspended Solids (TSS): 7,500 ppd

When flows at the District's treatment plant reach 85% of these design capacities, the District must begin planning a capacity expansion – because the costs associated with such an expansion are not included in the ten-year CIP, the GFC analysis considers 85% of the design capacities (maximum-month flow capacity of 2.55 mgd, maximum-month BOD/TSS loadings of 6,375 ppd) to be the “effective” capacity of the system.

Current billing records indicate that the District serves about 10,532 ERUs. The current utilization of capacity by the existing customer base is estimated based on a three-year average of maximum-month flows and loadings received at the plant. Based on 2020 – 2022 data, the current utilization is summarized below:

- Maximum-Month Flow: 1.50 mgd (142 gpd per ERU)
- Maximum-Month BOD: 4,509 ppd (0.43 ppd per ERU)
- Maximum-Month TSS: 4,747 ppd (0.45 ppd per ERU)

Based on the effective capacities outlined above, the District’s treatment plant can serve an estimated 17,950 ERUs based on maximum-month flow, 14,890 ERUs based on maximum-month BOD loadings, and 14,143 ERUs based on maximum-month TSS loadings. The lowest of these three estimates (14,143 ERUs based on TSS capacity) limits the number of ERUs that the District can serve.

8.3 GFC Calculation

Exhibit 11 summarizes the GFC calculation.

Exhibit 11: GFC Calculation

Existing Assets as of 12/31/22	\$70,116
Less: Grant/Developer Funding for Existing Assets	(20,941)
Future Projects in Ten-Year CIP	37,844
Less: Grant/Developer Funding for CIP	(6,102)
Less: Provision for Asset Retirements	(2,200)
Plus: Interest Accrued on Existing Assets	18,372
Net Cost Basis (\$000s)	\$97,089
System Capacity in ERUs	14,143
GFC per ERU	\$6,865

Exhibit 11 shows that based on the methodology outlined above, the District can justify increasing its GFC from the existing level of \$5,748 to a maximum of \$6,865 per ERU. The key drivers behind this increase include a net addition of \$16.6 million in assets since the GFC was calculated in 2015, as well as a \$10.5 million increase in the ten-year CIP. The updated GFC of \$6,865 per ERU represents an increase of 19% over the existing GFC of \$5,748 per ERU and an increase of 26% over the GFC calculated in the 2015 study (\$5,448 per ERU). It is worth noting that either of these increases are lower than the cumulative inflation that has occurred since the GFC was last calculated in 2015 (cumulative inflation in the ENR Construction Cost Index from October 2015 – October 2023 was 33%).

8.4 GFC Comparison

Exhibit 12 presents a comparison of the District’s GFC versus the charges implemented by other area sewer utilities.

Exhibit 12: Sewer GFC Comparison

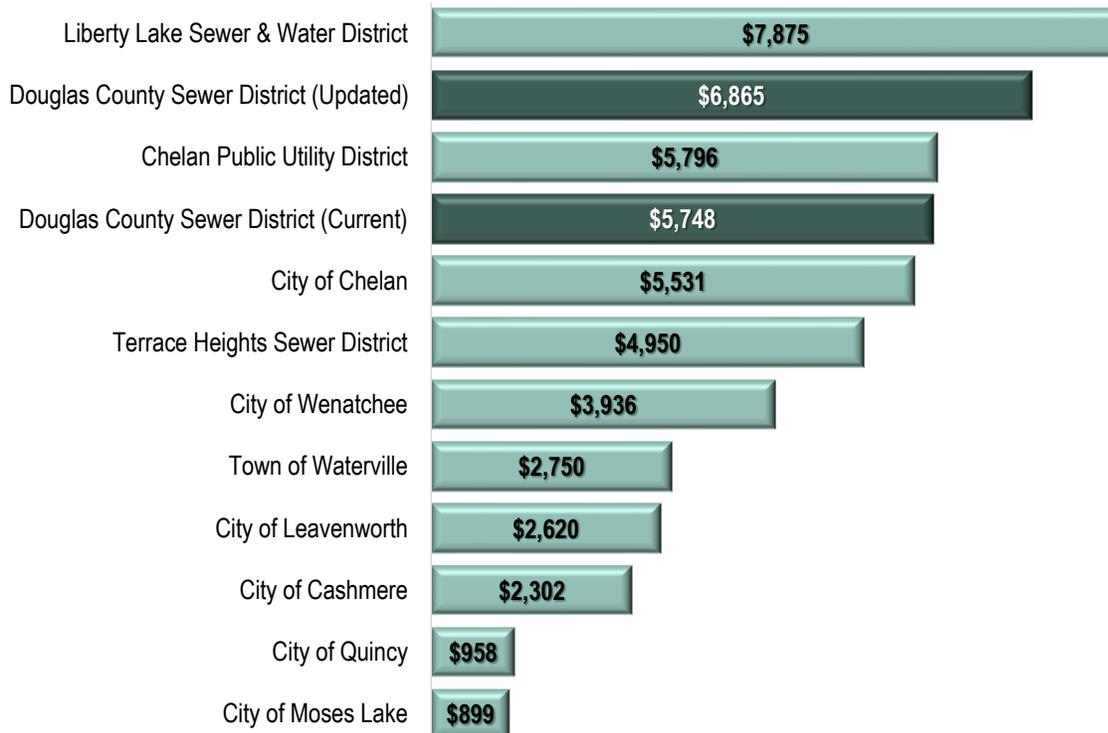


Exhibit 12 suggests that the District’s GFC is toward the upper end of the survey group, but still within a reasonable range. It is worth noting that GFCs can vary widely by jurisdiction due to differences in methodology, infrastructure requirements, historical and anticipated funding sources, and frequency of updates. Each jurisdiction’s GFC represents a policy decision that it has made regarding the level of cost recovery from development versus existing ratepayers.