Proposed 2026 Sewer Rate and Capacity Charge and 2026-2045 Financial Forecast

April 2025

King County

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The 2026 sewer rate process includes substantive changes from previous years. As recently as 2019, the sewer rate process was coordinated with the County's biennial budget period and included a limited-purpose financial forecast over the six-year Capital Improvement Program (CIP) period. Since 2020, the forecast was extended to 10 years, which required making forecast assumptions regarding completion of the Long-Term Control Plan (LTCP) for Combined Sewer Overflow (CSO) projects and in-progress negotiations over a proposed CSO Consent Decree (CD) modification with the state Department of Ecology (Ecology), U.S. Environmental Protection Agency (EPA), and the U.S. Department of Justice (DOJ). A key issue in that negotiation was whether the 2030 completion date would be extended. The CSO completion date assumed in the financial forecast has been 2040.

Since adoption of the 2025 sewer rate, the CD negotiations were completed with an extended 2037 end date, resulting in the University and Montlake CSO control project schedules being moved forward, and thus funding is required sooner in this year's forecast. Additionally, the largest project, the Mouth of the Duwamish CSO (MDCSO) program, has made progress toward a selected alternative and completed an updated cost estimate. The project cost estimate at completion has increased from $1.9 billion to $3.4 billion due to refined program definition and scope, market conditions and cost escalation, and improved cost validation and risk management.

In 2023, County Council Motion 16449 was adopted, requiring King County's Wastewater Treatment Division (WTD) to develop a long-term forecast methodology beyond the 10-year forecast period. The July 2025 final deliverable for the motion requirements aligns with timing of the 2026 sewer rate process since the 2026 sewer rate must be adopted by June 30, 2025. The 2026 sewer rate includes extension of the forecast to 20 years through 2045.

The proposed 2026 sewer rate reflects three substantive changes from the 2025 adopted rate: (1) extension of the forecast period to 20 years, (2) a finalized CD schedule reflecting 2037 completion, and (3) a large cost increase to the MDCSO project. A continued challenge for the County's WTD CIP includes the "stacking" problem of multiple concurrent and large capital needs. The three main drivers continue to be high-risk priority asset replacement and renewal investments, meeting contract obligations to serve new growth capacity, and substantial regulatory requirements.

There are also continued significant regulatory "known unknowns," including how nutrient regulations will affect CIP needs, especially since the Puget Sound General Nutrient Permit was recently invalidated by the state Pollution Control Hearings Board (PCHB No. 21-085). Given the uncertainty, WTD believes the CIP should continue to include comparably modest costs for initial optimization-level nutrient reduction. WTD and legal counsel will continue to monitor the status of nutrient litigation and regulation and endeavor to anticipate and respond to regulatory requirements and options.

This 2026 sewer rate proposal and forecast prioritizes necessary capital investments and investments to operate and maintain both the growing system and increasing regulatory requirements on the system.

Committee Engagement

Throughout 2024, WTD engaged the Metropolitan Water Pollution Abatement Advisory Committee's (MWPAAC) Rates and Finance Subcommittee on the sewer rate and related topics, including rate-setting methodology, cost estimation methodology, and capital program needs and forecasting. Beginning in January 2025, WTD engaged with MWPAAC and its Rates and Finance Subcommittee to share findings from early policy direction that informs the preliminary sewer rate forecast for 2026-2045. Details, rationale, and methodology were shared by WTD staff in these forums, including costs and timing of capital investments.

The process to develop the proposed 2026 sewer rate also included providing briefings to the Regional Water Quality Committee (RWQC) beyond the level of engagement provided to RWQC in past years. RWQC offered comment on the preliminary sewer rate forecast in February 2025 and on WTD's proposed sewer rate in March.

Feedback from MPWAAC and RWQC includes desire for more predictability in the rate forecasts and concern for the higher rate increases after 2026. WTD shares their concern for customer affordability and, as part of the RWSP update, is working to better characterize local affordability, develop metrics to measure it, and focus on actionable solutions.

Proposed Sewer Rate and Capacity Charge

The proposed 2026 sewer rate is $62.66, or a 7.5 percent increase over the 2025 rate of $58.28. The 2026-2045 sewer rate forecast shown in **Figure 1** includes smoothed annual increases rising from 7.5 percent in 2026, 12.75 percent in 2027 and 2028, and 13.5 percent in the 2029-31 forecast, followed by lower rate increases in 2032 and beyond.[1] A smoothed sewer rate forecast allows for the collection of revenues that exceed expenditures in a given year and are less than expenditures in subsequent years to fully fund the utility over the forecast period with less volatility. These proposed rate increases enable WTD to fund the projected CIP and sufficiently perform operations and maintenance.

Figure 1 Proposed 2026 Sewer Rate and 2027-2045 Forecast

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Rate Increase %	5.75%	**7.50%**	12.75%	12.75%	13.50%	13.50%	13.50%	7.25%	7.25%	2.00%	2.00%
Monthly Sewer Rate	$58.28	**$62.66**	$70.65	$79.66	$90.42	$102.63	$116.49	$124.94	$134.00	$136.68	$139.42
Rate Increase $	$3.17	**$4.38**	$7.99	$9.01	$10.76	$12.21	$13.86	$8.45	$9.06	$2.68	$2.74

	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Rate Increase %		2.00%	4.50%	4.50%	4.50%	1.75%	1.75%	1.75%	0.50%	0.50%	0.50%
Monthly Sewer Rate		$142.21	$148.61	$155.30	$162.29	$165.14	$168.03	$170.98	$171.84	$172.70	$173.57
Rate Increase $		$2.79	$6.40	$6.69	$6.99	$2.85	$2.89	$2.95	$0.86	$0.86	$0.87

For reference, the 2025 sewer rate forecast is shown in **Figure 2.**

Figure 2 Adopted 2025 Sewer Rate and 2026-2034 Forecast

2025-2034 Rate Forecast	Adopted									
2025 Adopted Sewer Rate	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Rate Increase %	**5.75%**	7.00%	7.00%	7.00%	8.25%	8.25%	8.25%	9.25%	9.25%	9.25%	
Monthly Sewer Rate	**$58.28**	$62.36	$66.73	$71.41	$77.31	$83.69	$90.60	$98.99	$108.15	$118.16	
Rate Increase $	**$3.17**	$4.08	$4.37	$4.68	$5.90	$6.38	$6.91	$8.39	$9.16	$10.01	

The proposed capacity charge is $77.99, or a 2.5 percent increase over the 2025 rate of $76.09. The financial forecast incorporates capacity charge revenue increases as shown in **Figure 3**.

[1] In this context "smoothed annual increases" refers to avoidance of year-to-year volatility in the sewer rate.

Figure 3 Proposed 2026 Capacity Charge and 2027-2030 Forecast

Capacity Charge	2025	2026	2027	2028	2029	2030
Monthly Charge	$76.09	$77.99	$79.94	$81.94	$83.99	$86.09
Increase %	2.5%	**2.5%**	2.5%	2.5%	2.5%	2.5%
Increase $	$1.86	$1.90	$1.95	$2.00	$2.05	$2.10
Annual Total	$913	$936	$959	$983	$1,008	$1,033
Total Payments (15 years)	$13,696	$14,038	$14,389	$14,749	$15,118	$15,496
Upfront Payment*	$9,684	$9,926	$10,174	$10,429	$10,690	$10,957

*Discount rate of 5.05%

Introduction

King County Wastewater Treatment Division

The Wastewater Treatment Division (WTD) of the Department of Natural Resources and Parks (DNRP) is a utility providing wholesale wastewater treatment and major conveyance for 34 local sewer agencies (18 cities, 15 sewer districts, and the Muckleshoot Indian Tribe) in the Puget Sound region. Distributed over a 424-square-mile service area, the King County (County) sewer system collects and treats an average of 182 million gallons of sewage a day from approximately 2 million residents. WTD's service area map can be found in **Figure 4**.

WTD is responsible for the construction, operation, and maintenance of the County's regional wastewater conveyance and treatment system. The system includes three regional secondary treatment plants (West Point in Seattle, South Plant in Renton, and Brightwater in southern Snohomish County); 397 miles of conveyance lines; 48 pump stations; and 26 regulator stations.[2] Other WTD facilities include five combined sewer overflow (CSO) treatment plants, four CSO storage facilities, 39 CSO outfall locations, two secondary community-scale treatment plants (Vashon Island and Carnation), and one community septic system on Vashon Island.[3]

Local Sewer Agencies

WTD's service area is comprised of Local Sewer Agencies (LSAs), which include 18 cities and 15 sewer districts in King County, southern Snohomish County, northern Pierce County, and the Muckleshoot Indian Tribe.

LSAs contract directly with WTD for wholesale wastewater treatment services. WTD does not have a direct relationship with individual sewer ratepayers, except for Capacity Charge, High-Strength Surcharge, and Industrial Waste customers.[4, 5] Engagement with the LSAs is accomplished through the MWPAAC and the Regional Water Quality Committee (RWQC). The sewage disposal contracts with the LSAs specify that the following year's sewer rate must be

[2] Secondary treatment includes aeration, settling, disinfection, and discharge through an outfall. Secondary treatment in conjunction with primary treatment removes about 85 to 90 percent of suspended solids in wastewater.

[3] Combined sewer overflows (CSOs) are relief points in sewer systems that carry sewage and stormwater in the same pipe. When heavy rains fill the pipes, CSOs release sewage and stormwater into rivers, lakes, or Puget Sound. They prevent sewage backups into homes and businesses but can harm people and animals living in the water because they carry chemicals and germs.

[4] "High strength" refers to more concentrated waste. The surcharge covers the additional operating cost of treating this waste at the treatment plant.

[5] The capacity charge is billed to new connections to the system. The charge is assessed monthly for a term of 15 years from the date the new service is established and is based on the cost of system capacity necessary to serve a new connection.

determined before July 1 of the current year. This provides time for the LSAs to include the WTD rate in preparing budgets and proposing local sewer collection rates for the following year.

The LSA contracts define two customer classes for billing the sewer rate: single-family residential (SFR) and flow-based residential customer equivalents (RCEs). Flow-based RCEs include all other customer classes (commercial, multifamily, and industrial), and one flow-based RCE is equivalent to one SFR. The service contracts specify that each flow-based RCE equals 750 cubic feet per month of water usage. In addition to sewer fees, LSAs are invoiced for their customers' high-strength surcharge and industrial waste compliance and monitoring fees.[6] To compensate for seasonal variation in water use, the service contracts provide for a quarterly rolling average to convert reported water use to billed RCEs. A list of the LSAs and their average 2024 reported RCEs is provided in **Figure 5**.

Financial Forecast

Utilities such as WTD are self-supporting enterprise funds and, therefore, must set fees to recover the cost of providing services.[7] Utility costs include operations, maintenance, debt service, and building new capital infrastructure. Utilities must also account for cash requirements from financial policies, such as funding reserves and how capital projects are funded. The total revenue that must be generated by a utility, in any given year, to cover costs and meet financial policies is referred to as a utility's revenue requirement.

WTD's sewer rate and capacity charge are adopted annually and include development of a longer-term financial forecast. Initiated in response to Council Motion 16449, the rate forecast now extends to 20 years, instead of the previous 10. The proposed 2026 sewer rate and capacity charge are prepared in the context of the utility's revenue requirements over the 20-year financial forecast. This document will cover each element of the financial forecast (Operating Expenditures, Capital Expenditures, Reserves Management, and Revenue).

[6] More information on compliance and monitoring fees can be found here.
[7] More information on enterprise funds can be found in the WA State Administrative and Accounting Manual.

Figure 4 System Map

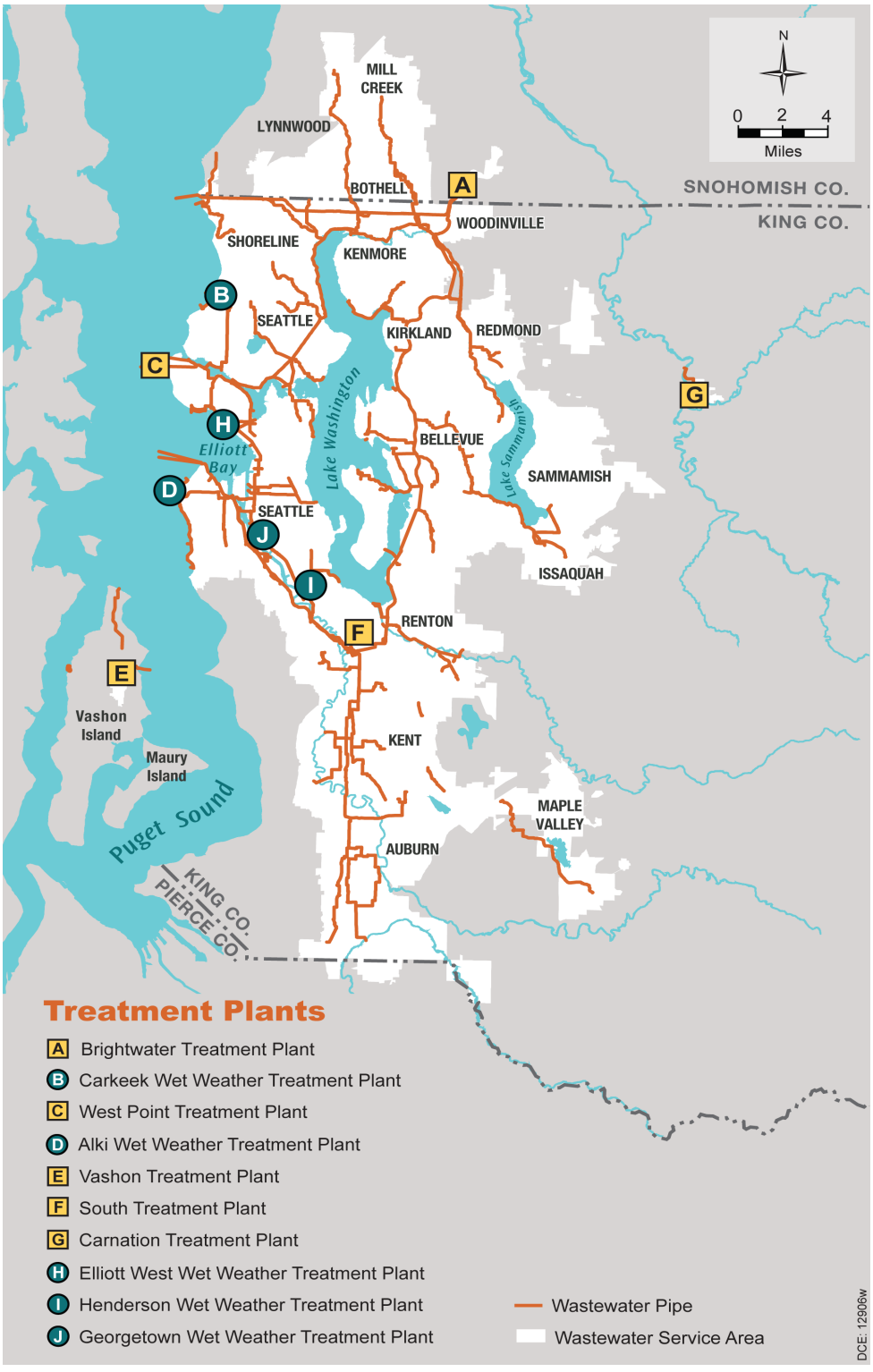


Figure 5 2024 Average Reported Residential Capacity Equivalents by Local Sewer Agency

	Single Family RCEs	Flow-Based RCEs	Total RCEs	Percentage of Total (%)
Local Sewer Agencies - Cities				
Algona	1,018	359	1,377	0.18%
Auburn	13,424	18,025	31,449	4.03%
Bellevue	32,965	30,564	63,528	8.15%
Black Diamond	2,279	119	2,398	0.31%
Bothell	5,133	3,889	9,023	1.16%
Brier	1,572	225	1,797	0.23%
Carnation	927	249	1,176	0.15%
Issaquah	7,078	6,393	13,471	1.73%
Kent	13,581	24,299	37,880	4.86%
Kirkland	10,390	5,743	16,133	2.07%
Lake Forest Park	3,626	445	4,071	0.52%
Mercer Island	7,194	1,444	8,638	1.11%
Pacific	1,557	985	2,542	0.33%
Redmond	15,578	17,915	33,493	4.29%
Renton	16,468	15,776	32,244	4.13%
Seattle	156,605	145,516	302,121	38.74%
Shoreline	15,502	4,975	20,477	2.63%
Tukwila	1,065	6,507	7,572	0.97%
Subtotal	**305,960**	**283,426**	**589,386**	**75.58%**
Local Sewer Agencies - Districts and Tribes				
Alderwood Water & Wastewater District	36,963	17,072	54,035	6.93%
Cedar River Water & Sewer District	4,170	1,376	5,547	0.71%
Coal Creek Utility District	3,338	1,401	4,739	0.61%
Cross Valley Water District	-	395	395	0.05%
Highlands Sewer District	105	2	106	0.01%
Lakehaven Utility District	1,136	9	1,145	0.15%
Muckleshoot Indian Tribe	353	108	461	0.06%
NE Sammamish Sewer & Water District	4,742	122	4,864	0.62%
Northshore Utility District	20,841	10,540	31,381	4.02%
Olympic View Water & Sewer District	215	1	216	0.03%
Sammammish Plateau Water & Sewer District	12,031	4,632	16,663	2.14%
Skyway Water & Sewer District	3,992	1,321	5,313	0.68%
Soos Creek Water & Sewer District	33,262	5,922	39,183	5.02%
Valley View Sewer District	7,160	9,823	16,983	2.18%
Vashon Sewer District	435	485	919	0.12%
Woodinville Water District	2,908	2,542	5,450	0.70%
Subtotal	**131,650**	**55,749**	**187,398**	**24.03%**
Non-Municipal Participants and Other Customers	-	3,039	3,039	0.39%
Grand Total	**437,609**	**342,213**	**779,822**	**100.00%**

Operating Expenditures

The utility's 2025 operating budget is the basis for forecasting operating costs for future years. The 2025 sewer rate and financial forecast included budgeted operating expenditures at $224 million.

Figure 6 shows the 2024 preliminary actuals compared to the adopted budget, along with the 2024 budget with percent change, year over year. Of note, the County typically budgets on a biennial schedule, while the sewer rate is based on annual requirements. An annualized version of the biennial appropriation is used in rate-setting. Despite the appearance of over-budget expenditures in 2024, it was only an overspend estimate since appropriation remained from 2023, the first year of the biennium.

The 2025 operating expenses shown in **Figure 6** reflect the existing operating budget as originally adopted. However, WTD's spending forecast includes an assumption for a 2025 budget amendment, which is reflected in Attachment A and projected expenditures throughout the financial forecast.

Figure 6 2024-2025 WTD Operating Expenses ($ '000s)

Expenditure Category	2024 Revised Budget	2024 Unaudited Actuals	2024 Budget to Actuals Variance	2024 % Budget Spent	2025 Budget	% Change 2024 to 2025
Salaries & Benefits	$78,611	$77,570	-$1,041	98.7%	$87,260	12.5%
Supplies	$25,511	$30,112	$4,601	118.0%	$30,452	1.1%
Services	$42,332	$49,859	$7,527	117.8%	$49,627	-0.5%
Intra-governmental	$48,055	$44,404	-$3,651	92.4%	$52,593	18.4%
Other	$0	$0	$0	n/a	$0	n/a
Total	**$197,909**	**$205,478**	**$7,569**	**103.8%**	**$223,846**	**8.9%**

Operating Forecast

Before the inflation surge that began in 2022, annual growth in WTD operating expenditures averaged nearly four percent per year. Including the recent high inflation years results in an annual average of 6.6 percent. This growth represents a composite of inflation, supporting new facilities that come online, and maintaining an aging and growing system. **Figure 7** shows the annual growth in operating expenditures going back to 2013.

Figure 7 Historical Annual Increase in WTD Operating Expenditures

Year	Operating Expenses	Annual Growth
2013	117,183	2.0%
2014	124,201	6.0%
2015	128,926	3.8%
2016	136,321	5.7%
2017	148,199	8.7%
2018	152,589	3.0%
2019	155,785	2.1%
2020	158,660	1.8%
2021	158,628	0.0%
2022	173,870	9.6%
2023	187,593	18.3%
2024	205,478	18.2%
	Average	**6.6%**

WTD Operating Expenditures Forecast

In September 2024, a one-year extension of the Coalition Labor Agreement between the County and its labor partners through the Coalition of Unions went into effect. The agreement provided for a series of general wage increases for County staff, including a 5.5 percent increase for 2025.

Central service cost allocations to WTD are generated by internal service fund agencies and General Fund central agencies that provide those services.[8] The general wage increase impacted most, if not all, of these agencies. Agencies may also be susceptible to industry-specific cost pressures.

The operating costs for WTD's base year (2026) forecast include adjustments for significant known increases such as electricity and chemicals, in addition to updated prices where recent inflation exceeded previous forecast assumptions. The growth in the operating costs assumption reflects increased staffing levels to better meet industry standards and the growing needs of aging facilities, capital project participation, and higher costs of biosolids transportation.

Beyond 2026, incremental operating costs are forecast based on general cost and labor cost inflation at four percent. Growth in operating costs is forecast as shown in **Figure 31**. Operations staffing needs factor into the near-term increased rate of operating cost growth to address current staffing needs and anticipated growth in required staff over the forecast period.

WTD needs additional operations staff to meaningfully address current and emerging needs over the next five years:

- In the last decade, WTD brought new facilities online with a minimal increase in operations staffing.
- WTD facilities are aging, requiring attention to address hundreds of minor repairs and adjustments each month.
- With a large capital portfolio, operations staff are needed to participate in the systems planning, design, construction, startup, and commissioning processes.

[8] Central services are services received from other County agencies that are considered “central” agencies, such as King County Information Technology, Facilities Management, and County Human Resources

- Permit conditions are more complex, requiring more monitoring and adjustment to meet water and air quality requirements.
- Contracts and policy goals require that WTD reliably recover and put to beneficial use biosolids, biogas, recycled water, and sewer heat — all requiring operations staff.
- Jobs in operations are opportunities to recruit, hire, and train a next generation of WTD staff, to better reflect the communities WTD serves.

WTD is preparing the specific package of requested positions and related business cases for submittal in the 2026-2027 budget process. A portion of the identified staffing needs will be requested in 2026, and the remainder of requests are planned to be spread over following years.

Capital Improvement Program

Portfolio Management

Beginning in 2017, WTD focused on developing a more comprehensive and structured approach to managing its capital program. This work included the goal of aligning the mix of projects in WTD's Capital Improvement Plan (CIP) with its strategic initiatives and overall mission. A pilot of this prioritization approach informed the 2019 sewer rate development and, since then, has been used to inform rate and budget-setting processes.

Projects are organized and prioritized within the following categories:

Figure 8 Capital Portfolio Category Descriptions

Category	Description
Asset Management Plants and Conveyance	Maintain level of service through the rehabilitation or replacement of critical assets.
Capacity Improvement	Increase capacity in WTD facilities to accommodate future growth.
Operational Enhancements	Reduce/improve operating costs at treatment plants through the delivery of projects that create efficiencies.
Regulatory	Deliver projects and programs that respond to permit, regulation, and/or consent decree legal deadlines.
Resiliency	Improve the survivability and operability of core assets against natural disasters through the delivery of projects that address known deficiencies.
Resource Recovery	Support the King County Strategic Climate Action Plan (SCAP) initiative through the delivery of projects that reduce energy use or recover valuable resources from wastewater.
Planning and Administration	Incorporate programs and projects that facilitate execution of the overall capital portfolio through a series of planning- and administration-related efforts.

2024 Performance and Accomplishment Rate

The capital accomplishment rate is the amount of actual or forecasted capital spending that occurs in the year compared with the amount of capital spending planned. WTD's capital program accomplishment rate target of 85 percent for annual expenditures is evaluated against the actual spending in recent years to ensure it remains a valid performance indicator.

The 2024 aggregated projects forecast was $401 million. For the 2025 sewer rate proposal, this forecast was reviewed for risk and was adjusted to $316 million, or an effective accomplishment rate of 79 percent. The 2024 actual spend of $313 million resulted in an accomplishment rate of 78 percent.

Drivers for this lower accomplishment rate include two large projects with significant underspend in 2024:

- The West Point Power Quality Improvement carried significant allowances for construction change orders and risk events in the 2024 Capital Expenditure Forecast. The project achieved substantial completion in October 2024 with little utilization of these allowances. The project spent $24 million in 2024, or 57 percent of the forecasted $42 million.
- The West Point Raw Sewage Pump Replacement project issued notice to proceed for construction in July 2024, however construction spending was not as aggressive as anticipated by the project team in the 2024 Spend Plan. The project also had a forecasted contingency allowance in 2024 that was not utilized. The project finished 2024 spending $14 million, or 72 percent of the $20 million forecasted.
- The forecasts for these two projects comprised 16 percent of the total 2024 CIP forecast. The other projects and programs in the CIP spent $275 million out of the $339 million that they forecasted, for an 81 percent accomplishment rate.

Figure 9 presents the historical accomplishment rate performance from 2015 through 2024.

Figure 9 Historical Accomplishment Rates for the Capital Program ($ in millions)

Accomplishment Rate (AR)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Capital Improvement Program	$191	$207	$211	$246	$262	$247	$291	$360	$386	$401
Actual Annual CIP Spend	$160	$168	$188	$231	$211	$199	$201	$259	$351	$313
Actual Accomplishment Rate	84%	81%	89%	94%	81%	81%	69%	72%	91%	78%

Estimated CIP Spending for 2026-2045 Financial Forecast

To update the 10-year financial forecast, WTD estimates spending for active projects and develops conceptual forecasts for future projects and programs. Updates to project and program spending estimates consider changes in scope, risk, and schedule. While WTD prepares a 10-year capital forecast for sewer rate planning, the County budgets capital projects on a six-year CIP schedule. The capital component of the forecast's second decade is based on long-term forecast methodology developed by Raftelis consultants to support WTD in response to Motion #16449 as interim financial estimates until the Regional Wastewater Services Plan provides the long-term capital project plan.

The following five projects are the largest individual components of WTD's six-year CIP:

Mouth of Duwamish Combined Sewer Overflow

The Mouth of Duwamish Combined Sewer Overflow Program (MDCSO) is working to control five CSO outfalls in the area of the mouth of the Duwamish River.[9] The outfalls (called Chelan, Hanford #2, Lander, Kingdome, and King Street) are located in the east and west waterways of the Duwamish River on both sides of Harbor Island and along the Seattle

[9] A combined sewer system collects rainwater runoff and domestic wastewater into a single pipe and conveys it to a wastewater treatment plant. During heavy rain events, the amount of runoff can exceed the capacity of the system, resulting in a combined sewer overflow (CSO), where untreated wastewater and stormwater flows into nearby receiving waters. More information on WTD's CSO control program can be found here.

shoreline of Elliott Bay in the neighborhoods of SODO and West Seattle. This work fulfills consent decree requirements with the EPA and Ecology.[10] The program team expects to wrap up the planning phase by Q2 2025 and will then share the proposed solution to control the five MDCSO outfalls.

West Point Electrical Improvements

This program will replace approximately 300 electrical assets, relocate an additional nine electrical assets, and coordinate these efforts with other electrical and asset replacement projects at West Point Treatment Plant (WPTP) in Seattle. WPTP was originally constructed in the early 1960s and underwent a major expansion during the 1991 Secondary Treatment Facilities project. As such, WPTP electrical assets from the Secondary Treatment Facilities project are more than 25 years old and are reaching the end of their life cycle. Additionally, assets installed during earlier WPTP construction are beyond the end of their life cycle and need replacement as soon as possible. Failure to replace these critical assets may result in diminished reliability, interrupted facility operations, and potential National Pollutant Discharge Elimination System (NPDES) permit violations. The program team forecasts that the improvements will be completed by 2032.

Elliot West Wet Weather Treatment Station

The Elliott West Wet Weather Treatment Station (EWWTS) project consists of new and upgraded treatment facilities to treat CSOs prior to discharge through the existing outfall in Elliott Bay. The project will make improvements that will result in full NPDES permit compliance at the EWWTS. Construction is anticipated to begin in 2027 and extend through 2033.

West Point Treatment Plant Raw Sewage Pump Replacement

The existing raw sewage pump (RSP) system was built in 1966, with a capacity of 440 million gallons of wastewater and stormwater per day. While the capacity remained at 440 million gallons per day, pumping untreated combined sewage over a long time has resulted in significant wear on the pumps.[11] The purpose of this project is to replace the RSP system and make seismic upgrades to meet National Fire Protection Association (NFPA 820) standards.[12] In addition, the project will also replace the existing boiler system prior to completion of the RSP replacement to provide heat necessary to maintain a stable treatment process. Notice to proceed for construction was issued in 2024 and the project is forecasted to be complete by 2030.

West Point Treatment Plant Critical Gate Refurbishment

The objective of this program is to restore full functionality to critical treatment plant wastewater flow control gates and their support systems at the WPTP in Seattle. Support systems include operators, hydraulics, and controls. Gates and support systems will be renewed or replaced in kind. The first two major projects identified under this program address the WPTP primary effluent gate and the chlorine mix structure gate. These projects are currently forecasted to be completed by 2028 and 2030, respectively.

Other Capital Projects

New projects, along with updated spending forecasts and schedules for the existing capital program, form the basis for developing the 10-year CIP for the financial forecast. The updated forecast includes continued deferral of pipeline

[10] More information on CSO regulations and requirements can be found here.
[11] More information on the WPTP Raw Sewage Pump system can be found here.
[12] More information on the National Fire Protection Association is available on their website.

capacity projects that have neither a population growth driver nor overflows within the last five years, so that capital delivery capacity can be dedicated to higher-priority system investments.

Figure 10 summarizes the capital investment strategy used to develop the proposed sewer rate forecast.

Figure 10 WTD CIP Investment Strategy

CIP Policy Topic	Basis for Investment Strategy
CSO Consent Decree Cost & Schedule	Moves forward project costs related to the CSO Consent Decree to meet 2037 end date. Includes recent cost updates to the Mouth of the Duwamish CSO control program.
Nutrient Removal - Ecology Permit	Includes Nitrogen Reduction Planning, Nutrient Reduction Evaluation Study, and Near-Term Optimization Capital Investments. Includes proactive/multibenefit investment to optimize nitrogen removal at South Plant as comparably modest investments while nutrient regulations are uncertain.
Asset Management Tier 1 Critical Inventory Projects	First decade: High-risk asset replacement and renewal inventory (Tier 1) Second decade: Continues remaining current high-risk inventory, then transitions to replacing assets at end of useful life; cost projected to year of replacement
Capacity Category	Includes conceptual forecasts for projects identified by the Treatment Planning Program and Conveyance System Improvements Program to address plant and conveyance system capacity limitations.
Capital Program Staffing	Assumes that a ramp-up of capital delivery continues as WTD continues to budget, hire, onboard, and train additional staff.

Capital Expenditure Delivery Capacity Analysis

WTD will have to increase its throughput of capital projects to plan, design, and deliver the CIP. As it is growing that capacity, care is being taken to not overcommit and secure funding beyond what can be delivered. To understand what can be delivered as the capital program grows, WTD conducted an analysis of historical capital output in relation to the number of WTD full-time equivalent employees (FTEs) dedicated to the capital program. The resulting metric projects an estimated capital spending target that reflects historic delivery capacity. This metric provides a proximate basis for estimating the annual capital program delivery along with staffing included in the forecast.

The analysis relied on several assumptions, including:

- New FTEs take two years to fully onboard and carry a project load equivalent to existing staff.
- Project staffing maintains the historical in-house-to-consultant ratio that for every $1 spent on in-house direct labor; $1.30 is spent on consultant contracts.
- The FTE count grows at the same rate as outsourcing to the consultant community.

WTD uses the approach of growing in-house staff while also relying on consultants because it:

- Meets equitable workforce development goals by deliberately recruiting and hiring a diverse workforce.
- Builds internal expertise and experience with the wastewater system, including the ability to learn and adapt as the challenges and complexities grow, reduce the learning curve, and quickly respond to emergent issues.
- Improves staff recruitment and retention by providing a variety of project assignments and opportunities for professional growth.

The financial forecast includes recognition of approaching milestones, including CSO costs. For the analysis, WTD assumed that these expenditures would be delivered by project teams that have an FTE-to-consultant ratio comparable to the distribution used by WTD in delivering the Brightwater Treatment Plant and Conveyance Megaproject.[13]

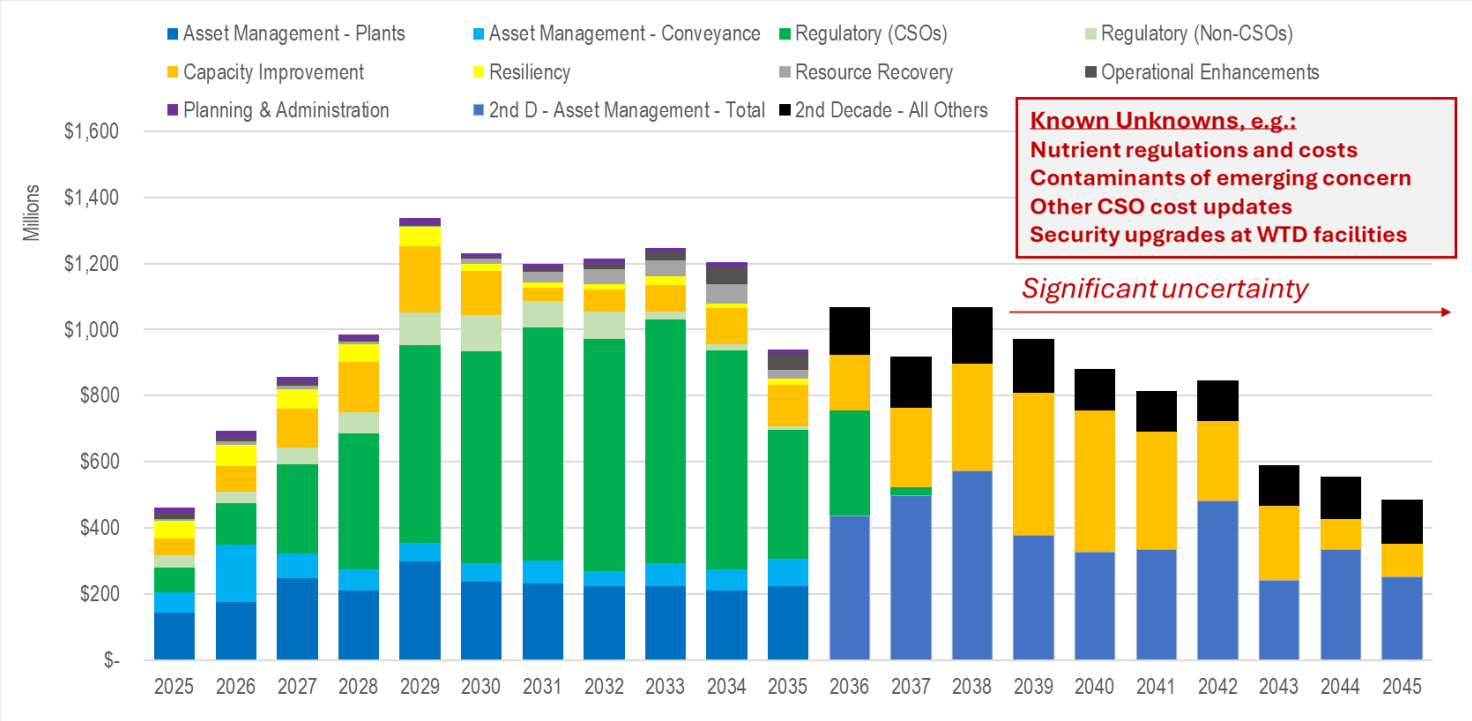
A delivery capacity adjusted forecast was developed for use in the sewer rate forecast so that WTD does not secure funding for more than what it is able to spend with its anticipated resources. It was developed by multiplying the historical average expenditure per FTE ($944,140 in 2023 dollars) by the projected total productive FTEs each year (350 in 2025). Annual FTE additions were capped at 50 per year as the basis for a reasonably realistic recruiting and hiring assumption.

For the 2026 sewer rate, WTD sequenced current and conceptual projects to balance under the expenditures projected using this model. WTD is also beginning to model and forecast staff labor resources needed to deliver the identified capital program. This analysis will incorporate historical data indicating WTD labor resources needed to deliver projects of various sizes. The current resource constraint analysis is intended to identify how much WTD can reasonably expect to deliver. The second analysis supports planning and budgeting staff resources to deliver projects. WTD will continue to review and update these analyses as more data and experience is gained in the coming years.

[13] The history of the construction of the Brightwater Treatment Plant and Conveyance Megaproject is here.

Figure 11 shows the annual capital investments included in the proposed sewer rate and financial forecast in their respective portfolio categories.

Figure 11 Proposed Capital Investments by Portfolio Category for 20-Year Forecast



Capital Improvement Program Funding

The capital improvement program is funded by two primary sources: 1) cash generated from the sewer rate and capacity charge revenues; and 2) debt financing from revenue bonds or low-interest state and federal loan programs.

Cash Funding

Since 2023, WTD has used an original cost depreciation method for setting cash funding targets for its capital program.[14] This method consists of targeting annual cash funding generated from sewer rate revenue, equivalent to WTD's annual depreciation (including estimated new depreciation resulting from completion of projects in the CIP that become depreciating assets). The total forecasted depreciation over the next 10 years translates into approximately 28 percent of the total CIP. Cash-funding requirements are averaged over the next 10 years of the forecast period, allowing WTD to smooth rate increases and produce a more stable rate path.

Since the target cash funding is accumulated over the course of the year, a single year-end transfer to the construction fund from the operating fund makes the cash available for funding capital projects in the following year.

[14] Depreciation is an accounting concept that divides an asset's cost by its estimated useful life, representing how much that asset is expected to wear out or lose value every year. Original cost refers to the actual cost of an asset, rather than the cost adjusted for inflation.

Debt Financing

Debt financing is used to provide the remaining funds needed after the use of cash. Debt financing represents 72 percent of total project funding over the next 10 years. The main sources of debt available to WTD include state loans, federal Water Infrastructure Finance and Innovation Act (WIFIA) loans, and revenue bonds.[15]

As interest rates began rising in 2022, WTD successfully reduced its reliance on issuing new high-interest revenue bonds in 2022 and 2023. This was possible due to a large bond issuance in 2020 at record-low interest rates, low-cost commercial paper for interim financing, and the availability of state and federal loans at below-market interest rates.

Figure 12 shows the capital funding forecast and the use of various debt instruments secured to fund the capital program. The higher cash funding shown in 2025 is the result of a debt defeasance transaction postponed from November 2024 to February 2025.

Since state and federal loans work on a reimbursement basis, WTD needs to issue interim debt prior to being reimbursed for the project costs. Once reimbursed, WTD can retire the interim debt, which is then available for future projects that require interim financing. By 2031, WTD plans to draw on its $284 million WIFIA loan to reimburse interim debt. This strategy is beneficial as WTD can use low-interest interim debt during the construction period while remaining eligible for an interest rate reduction, provided the loan remains undrawn, capital expenditures do not exceed 51 percent of total costs, and the 30-year U.S. Treasury rate is lower than when the loan agreement was first signed.

Figure 12 Capital Funding Sources

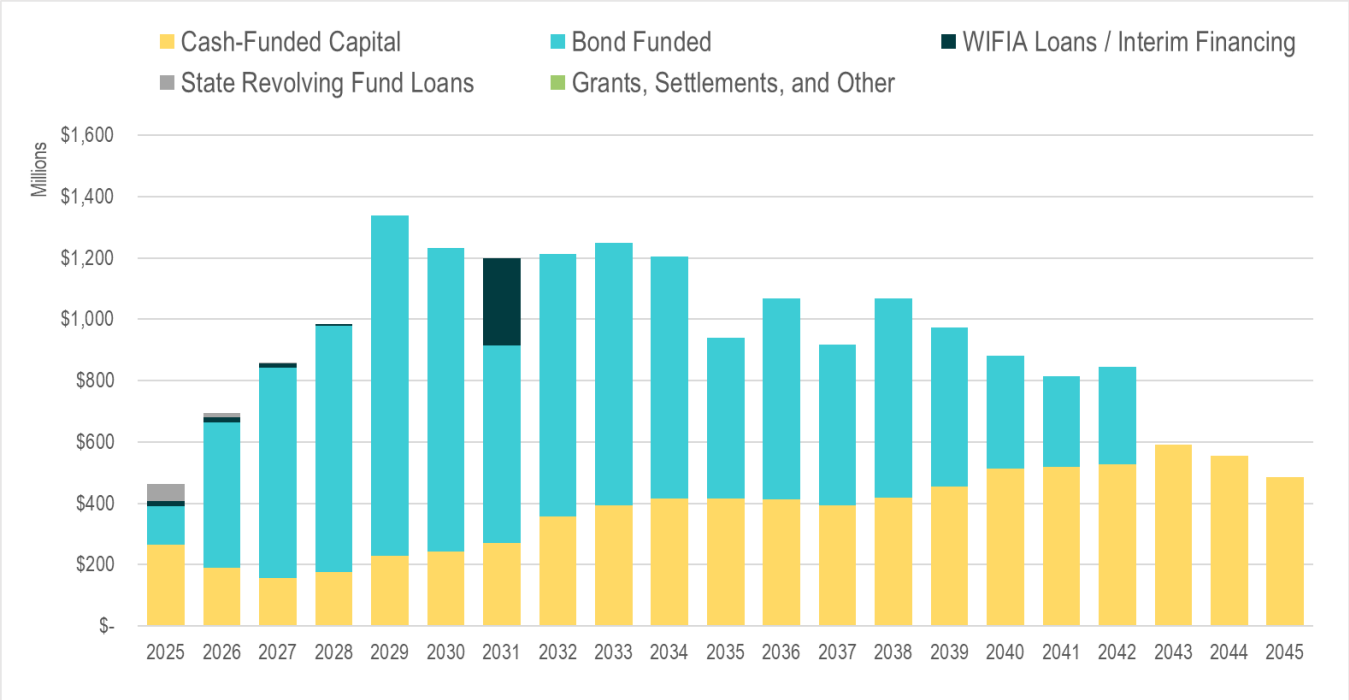


Figure 13 illustrates how, as existing debt is retired, repayment capacity is replaced by new debt issued to fund the capital program. **Figure 14** shows how WTD's debt-to-asset ratio declines over time, demonstrating the higher cash funding percentage over time.

[15] Debt financing occurs when WTD borrows from investors in the municipal bond capital markets or signs loan agreements with state and federal agencies.

Figure 13 Existing and New Debt Balances

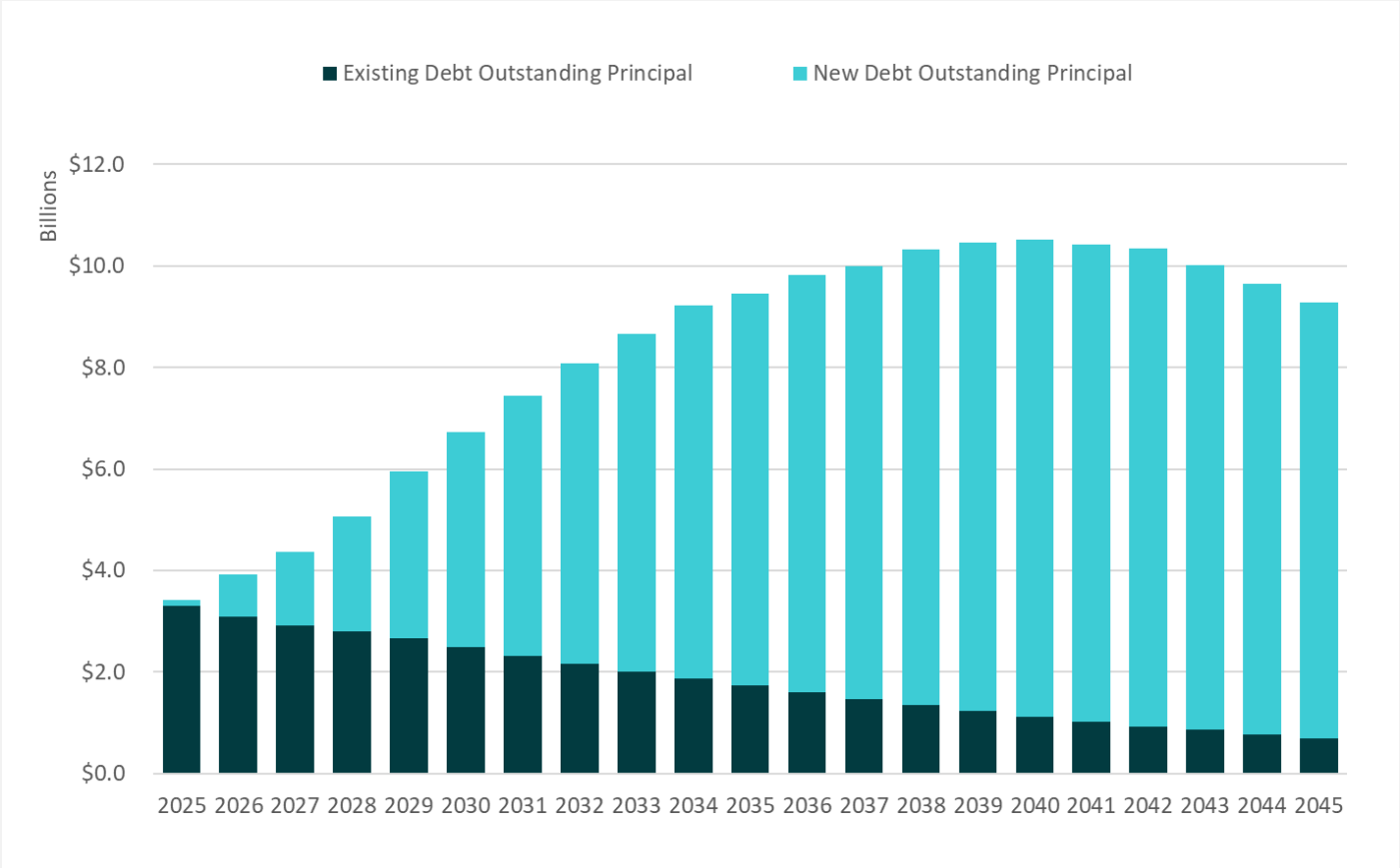
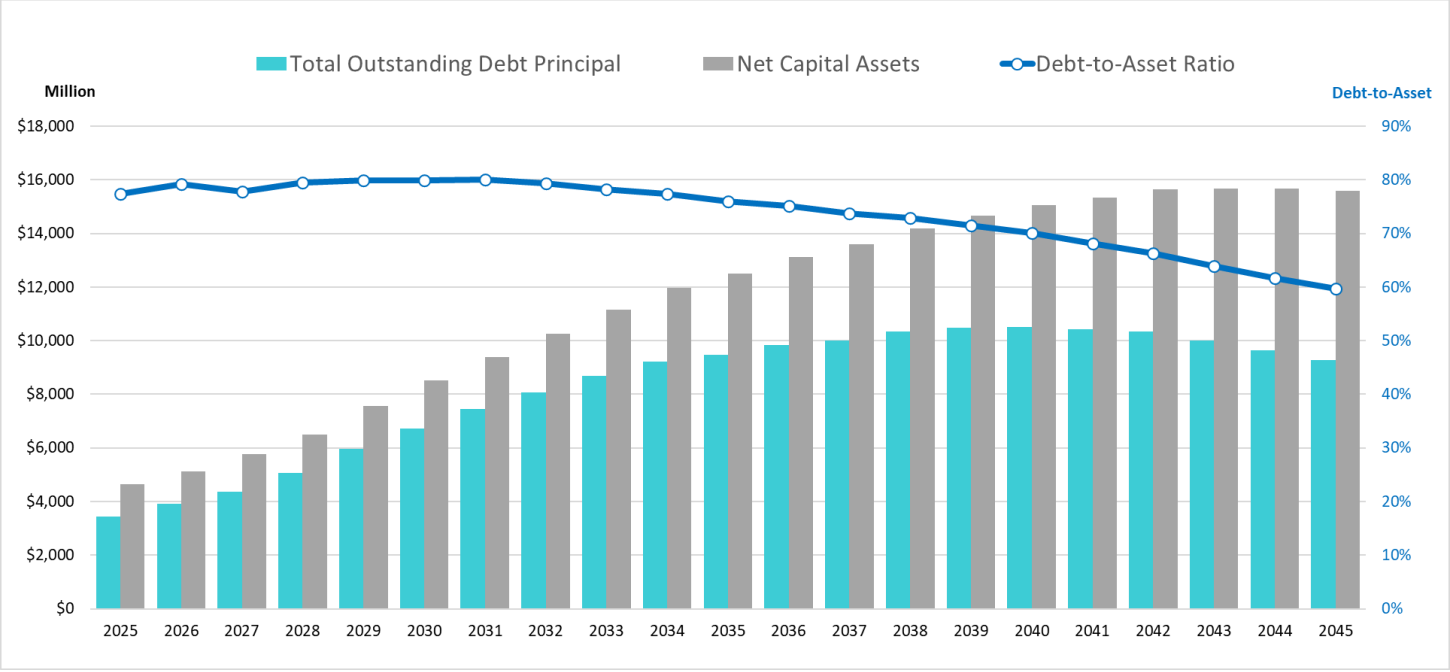


Figure 14 Debt to Asset Balance



State Revolving Fund Loans

Joint Ship Canal Water Quality Project. In 2022, the Joint Ship Canal project was awarded $3 million in addition to $23 million awarded in 2021, for a total of $26 million at a 1.4 percent interest rate. The $26 million state revolving fund (SRF) loan amendment was approved by Ordinance 19575 in February 2023. It will provide $12.6 million in total savings over a 30-year period due to a low interest rate.[16] WTD plans on drawing from this loan as construction progresses over the course of 2025 and 2026.

Multiple SRF Loan Agreements. In 2024, Council approved multiple SRF loan agreements with Ecology to support key wastewater projects. On February 27, Council approved a $9.4 million SRF loan at 1.4 percent interest over 30 years for the West Point Passive Weir Emergency Bypass project.[17] On September 24, Council approved two 20-year SRF loan agreements to fund $10.2 million for the West Duwamish CSO Control project and $14.9 million for the West Point Treatment Plant Raw Sewage Pump Replacement project at 1.2 percent interest.[18] On December 10, Council approved two additional 20-year SRF loans at 1.2 percent interest, including $1.1 million for the West Point Treatment Plant Grit Classifier Replacement project and $8.1 million for the Sammamish Plateau Diversion project.[19] The $43.7 million in SRF funding will provide an estimated $22.6 million in total savings over the life of the loans.

Water Infrastructure Finance and Innovation Act Loans

Joint Ship Canal Water Quality Project. In January 2021, WTD was awarded a $96.8 million WIFIA loan at 1.69 percent interest, which will provide an estimated $32.5 million in total savings over a 35-year period due to a low interest rate. In April 2024, WTD made its first $9.6 million draw, with the final draw to occur by March 2028. WTD plans on drawing from this loan as construction progresses over the course of 2025 and 2026.

WIFIA Master Agreement. In January 2024, the County was awarded its first WIFIA Master Agreement for the King County Wastewater 2024 Improvement Projects in the amount of $498.3 million. At the time of signing, the agreement was estimated to generate $73.9 million in total savings. The Master Agreement will finance 11 water quality projects across four separate loan tranches over the eight years of construction. The first loan tranche was signed in conjunction with the Master Agreement in the amount of $194.1 million at 4.4 percent interest for the group of West Point Treatment Plant projects. In December 2024, WTD signed its second loan tranche in the amount of $89.9 million at 4.44 percent interest for two projects at South Plant. WTD plans to fund the projects with low-cost interim commercial paper and draw upon the loans at a later date.[20] Although the interest rate is higher than prior WIFIA loan agreements, WTD can apply for an interest rate reduction over the next several years, which would reduce WTD's expected debt service. The subsequent two loan tranches (totaling $214.3 million) are slated to be signed in 2025 and 2026.

Proposed Legislation to Restore Tax-Exempt Advanced Refunding

Tax-exempt bonds are issued by state and local governments for public infrastructure projects. WTD uses tax-exempt bond financing as its primary source of long-term financing for the capital program. Investors who purchase these bonds are exempt from paying federal income tax on interest earnings, so they are willing to buy the bonds at a lower interest rate than those of conventional bonds, which translates as lower-cost debt to the borrower. Prior to the 2017 federal

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[16] Ordinance 19575 can be found here.
[17] Ordinance 19739 can be found here.
[18] Ordinance 19821 can be found here and Ordinance 19822 here.
[19] Ordinance 19876 can be found here and Ordinance 19874 here.

[20] Commercial paper is a commonly used type of unsecured, short-term debt typically used for interim financing purposes with maturities ranging between one and 270 days. WTD can issue up to $175 million in commercial paper for new money interim financing and $250 million in aggregate for both new money interim financing and refunding purposes per Ordinance 19114.

Tax Cuts and Jobs Act (TCJA), tax-exempt advance refunding bonds could be issued to refund outstanding tax-exempt debt with higher-than-current-market interest rates.[21] The TCJA eliminated tax-exempt advance refunding bonds.

In May 2024, proposed federal legislation, H.R. 8396–LIFT ACT, the Local Infrastructure Financing Tools Act, was introduced in the U.S. House of Representatives. This is the most recent piece of legislation that would restore the tax-exempt status of advance refunding bonds.[22] WTD is closely monitoring the viability of this effort as it moves through the legislative process and has prepared a list of potential refunding opportunities should the legislation be enacted.

The current restriction resulting from the TCJA on issuing tax-exempt advance refunding bonds does not limit the use of cash for advance refunding. In comparison with issuing tax-exempt advance refunding bonds, the ability to take high-interest-rate debt off the books through defeasance is limited by the utility's ability to generate cash from ongoing revenue sources.[23]

The Financial Data Transparency Act of 2022

President Biden signed the Financial Data Transparency Act of 2022 (FDTA) into law in December 2022.[24] The FDTA sets forth a sequence of regulatory steps to implement structured data requirements for the securities markets, including the municipal bond market, with the goal of providing machine-readable, searchable, comparable (e.g., standardized), structured financial data to investors and others. Along with other federal financial regulatory agencies, the federal Securities and Exchange Commission (SEC) is required to adopt data standards, including municipal market data standards for information submitted to the Municipal Securities Rulemaking Board (MSRB). In developing these standards, the SEC is required to consult with municipal market participants and may consider the burden on smaller issuers.

The sequence of regulatory steps is expected to take place over the next year, with municipal market data standards adopted by December 2026. As the proposed scope and content of these standards becomes clearer, including rulemaking through SEC and MSRB, state and municipal issuers will have an opportunity to comment directly and through industry groups, and to take steps to be ready to comply with the final standards. WTD is following this development closely with bond counsel and the County's financial advisor.

Tender Offer

In 2024, WTD conducted its first tender offer transaction to produce cost savings. In a traditional current refunding, the County issues new bonds to repay existing bonds as soon as they become callable, typically 10 years after issuance.[25] This allows the County to replace high-interest debt with low-interest debt, reducing overall borrowing costs. A tender offer, on the other hand, allows the County to buy back outstanding bonds from investors before they become callable, but participation by the investor is voluntary. This strategy leverages the interest-rate environment to produce cost savings that would not otherwise exist through a defeasance or current refunding, particularly for low-coupon, tax-exempt, and taxable bonds. The County works with its underwriters in a negotiated deal to determine the purchase price of the bonds that encourages investors to sell their bonds while generating cost savings for the County. In 2024, WTD generated $28.7 million in total savings and $20.6 million in present-value savings (6.4 percent), surpassing the County's minimum present value savings threshold of 5 percent.

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[21] The Tax Cuts and Jobs Act can be found here.

[22]The LIFT - Local Infrastructure Financing Tools Act - can be found here.

[23] Defeasance is the process of setting aside funds or assets to repay a debt or obligation, thereby releasing the debtor from further liability.

[24] The Financial Data Transparency Act can be found here.

[25] The terms "callable" or "call date" refers to the point in time when the bonds can be prepaid or refinanced.

Defeasance

Cash generated from the funding policy can be used to directly fund capital spending or to pay down higher-interest outstanding debt. This accomplishes the same debt-balance outcome as directly cash-funding the CIP, while replacing high-interest-rate debt with lower-interest-rate new debt in the current market. A defeasance transaction usually occurs when interest rates are favorable enough to achieve maximum savings and meet the County's minimum savings threshold of 5 percent of the par amount of the refunded bond.[26] In February 2025, WTD generated $8.6 million in total savings and $7.2 million in present-value savings through this mechanism.[27]

Figure 15 demonstrates how the use of the cash collected from sewer rate revenue for CIP funding can be used for defeasance and accomplish the same debt-balance management goal.

In the no-defeasance scenario, new bonds are issued and added to the debt balance at 60 percent of the annual CIP, while the remaining 40 percent is cash-funded. The sample ending debt balance in this scenario is $800.

In the defeasance scenario, additional debt is issued to cover the full CIP (rather than 60 percent), which frees the cash from rates to pay down outstanding higher-interest-rate debt. There is an effective exchange of higher-interest-rate debt on the books for lower-interest-rate debt available at current market conditions. The sample ending debt balance in this scenario is also $800.

Figure 15 Sample Defeasance

Capital Funding No Defeasance					
CIP	100	100	100	100	100
Cash from Sewer Rate Revenue	40	40	40	40	40
New Debt Proceeds	60	60	60	60	60
Total Funding	100	100	100	100	100
Beginning Debt Balance	500	560	620	680	740
Plus New Issuance	60	60	60	60	60
less: Defeasance	-	-	-	-	-
Outstanding Debt Balance Y-E	560	620	680	740	800
Capital Funding 100% Use of Cash for Defeasance					
CIP	100	100	100	100	100
Cash from Sewer Rate Revenue	40	40	40	40	40
New Debt Proceeds	100	100	100	100	100
Total Funding	140	140	140	140	140
Beginning Debt Balance	500	560	620	680	740
Plus New Issuance	100	100	100	100	100
less: Defeasance	(40)	(40)	(40)	(40)	(40)
Outstanding Debt Balance Y-E	560	620	680	740	800

[26] Par value is the amount that the issuer agrees to pay the bondholder upon maturity of the bond. It is also used to calculate the interest payments on the bond.

[27] "Present-value savings" assists in analyzing the current worth of future savings by taking the time value of money and interest rates into account. This can change based on interest rates and the year savings are realized.

Reserves Management

WTD maintains financial reserves that address minimums required by debt covenants (contracts), working capital targets, management of loan proceeds, and other capital resources, rate increase smoothing, and mitigation of revenue risk. This section describes those reserves and the reserve levels targeted in the financial forecast.

Figure 16 Summary of WTD Reserves[28]

Reserve Name	Policy Goal or Purpose	Establishment	American Water Works Assoc. Description
Liquidity Reserve	10% of operating expenses (equivalent to 36 "days" of cash) plus $5 million of ending cash balance in the capital fund	In 2012 by Motion 13798	Maintaining adequate operating reserves enhance a system's ability to manage potential risks, provides the ability to manage fluctuations in revenue, and the ability to meet working capital needs
Capital Emergency Reserve	$15 million for "unanticipated system repairs or equipment replacement in the event of a natural disaster or some unforeseen system failure"	In 2012 by Motion 13798	Even with the most diligent capital planning efforts, utilities must be prepared for unplanned or accelerated capital projects
Rate Stabilization Reserve	Allow WTD to "adopt a multiyear sewer rate to provide stable costs to sewer customers" and "ensure that adequate funds are available to sustain the rate through completion of the rate cycle"	In 1999 by the RWSP adopted by Ordinance 13680	When specifically included in a utility's bond indenture, rate stabilization reserves can be used to help meet debt service coverage requirements during times of revenue shortfalls
Parity Bonds Debt Service Reserve*	Amount equivalent to the maximum annual debt service on outstanding senior lien debt (revenue bonds and WIFIA loans)	Bond covenants adopted by Bond Ordinances (most recent 19785)	Most often, a debt service reserve fund (DSRF) is established as a legal covenant of a debt issuance and is used in whole or in part to pay debt service in the event of a revenue shortfall
SRF Loans Debt Service Reserve**	Amount equivalent to the average annual debt service of each loan	Loan agreements adopted by individual ordinances	

*Springing amendment from Ordinance 18588 (2017) established that when bonds issued post amendment represent 51% of the total the reserve can be reduced or eliminated

**Ecology eliminated this provision for loans awarded after 2018

Water Quality Operating Fund 4611

Liquidity Reserve

The Liquidity Reserve is targeted to provide sufficient cash balances for variance of revenue and expenditures cycles throughout the year. The working capital target is established as 10 percent of operating expenditures in any given year. As a result, a reserve increase must be funded each year as operating expenditures increase. The proposed 2026-2045

[28] The following legislation is available on the King County Council website: Motion 13798, Ordinance 13680, and Ordinance 19785

financial forecast includes $24.9 million in Operating Liquidity Reserve and $40 million in Capital Liquidity Reserve for 2026.

Rate Stabilization Reserve

A Rate Stabilization Reserve (RSR) is unique in that bond covenants are written to allow that, in any given year, use of this reserve can be recognized as revenue eligible for inclusion in the bond coverage calculation. In years that WTD contributes to this reserve from Water Quality Fund revenues, that portion of revenue is deducted from the revenue basis for calculating bond coverage. This allows WTD to use reserves to manage rate levels without compromising the ability to meet annual bond coverage targets. Funds in the RSR also enhance the liquidity metrics used by the rating agencies when they evaluate WTD's credit quality.[29]

WTD considers the use of reserve balances in the context of Ordinance 19782, which states that the RSR is for the purpose of smoothing rates between years.[30] Use of reserves represents a one-time resource, and excess reserves should be applied to one-time expenditures. There is no planned use of the RSR ($46.25 million) in the proposed 2026-2035 sewer rate forecast.

Unrestricted Operating Balances

Funds exceeding minimum reserve levels in the Operating Fund at year-end are unrestricted and evaluated for optimal use. Some uses for unrestricted funds include potential transfer to the Construction Fund or contribution to defeasance transactions.

Water Quality Construction Fund 3611

Unrestricted Construction Fund Balances

WTD's Water Quality Construction Fund is where capital project costs are charged, loan proceeds are reserved and spent, transfers are received for cash-funded capital from the Operating Fund, and capital reserves, such as the Asset Management Reserve, are maintained. Accumulated reserves above the policy minimum are used to fund projects.

In 2024, WTD established a minimum $35 million ending balance in the capital fund to complement its $5 million capital liquidity reserve. This change reflects the increase in monthly capital spending since the inception of the policy. The Construction Fund balance is projected to end at the $40 million liquidity reserve target in each year of the financial forecast.

Asset Management Reserve

The Asset Management Reserve is maintained as an emergency reserve and, as such, is not forecast to deviate from the $15 million balance. This reserve could be an important resource if an asset failure should occur during a period of significant revenue constraint.

Debt Reserves 8921 and 8922

WTD's debt reserve minimums were originally established as a requirement in bond covenants or by the loan-granting agency. However, with 51 percent of bondholders consenting to the "Springing Amendment" through their purchase of parity bonds, WTD is no longer required to maintain an amount equal to the maximum annual debt service on

[29] Liquidity metrics refer to quantitative measures that evaluate an agency's ability to meet its financial obligations by assessing the availability of liquid assets (cash).

[30] Ordinance 19782 is available on the King County website.

outstanding parity bonds in the Debt Service Reserve Fund (DSRF).[31, 32, 33] In June 2024, Council approved Ordinance 19785, which not only authorizes the issuance of $1.2 billion in senior lien debt, but it also provides the framework for the finance director to change the definition of reserve requirement. This means the County can create different reserve requirements for different sets of parity bonds, including the bonds themselves. The County could also lower any reserve requirement, even down to zero, in any calendar year, as long as it is less than the maximum annual parity debt service. WTD will receive recommendations on how to best utilize the $145.3 million in the DSRF from the County's financial advisor, along with input from credit rating agencies. Currently, the DSRF meets this minimum requirement by maintaining a balance of $174.9 million in the reserve fund. The balance consists of $145.3 million in cash and investments and $29.6 million in surety bonds.

Ecology had a reserve requirement but eliminated this provision for loans awarded after 2018. Reserves for pre-2018 Ecology loans decreased from $13.5 million to just $219,400 after the refunding of a group of loans in 2021 and the repayment of the Denny Way Elliott West Pipeline SRF loan.

Figure 17 Surety Bond Summary

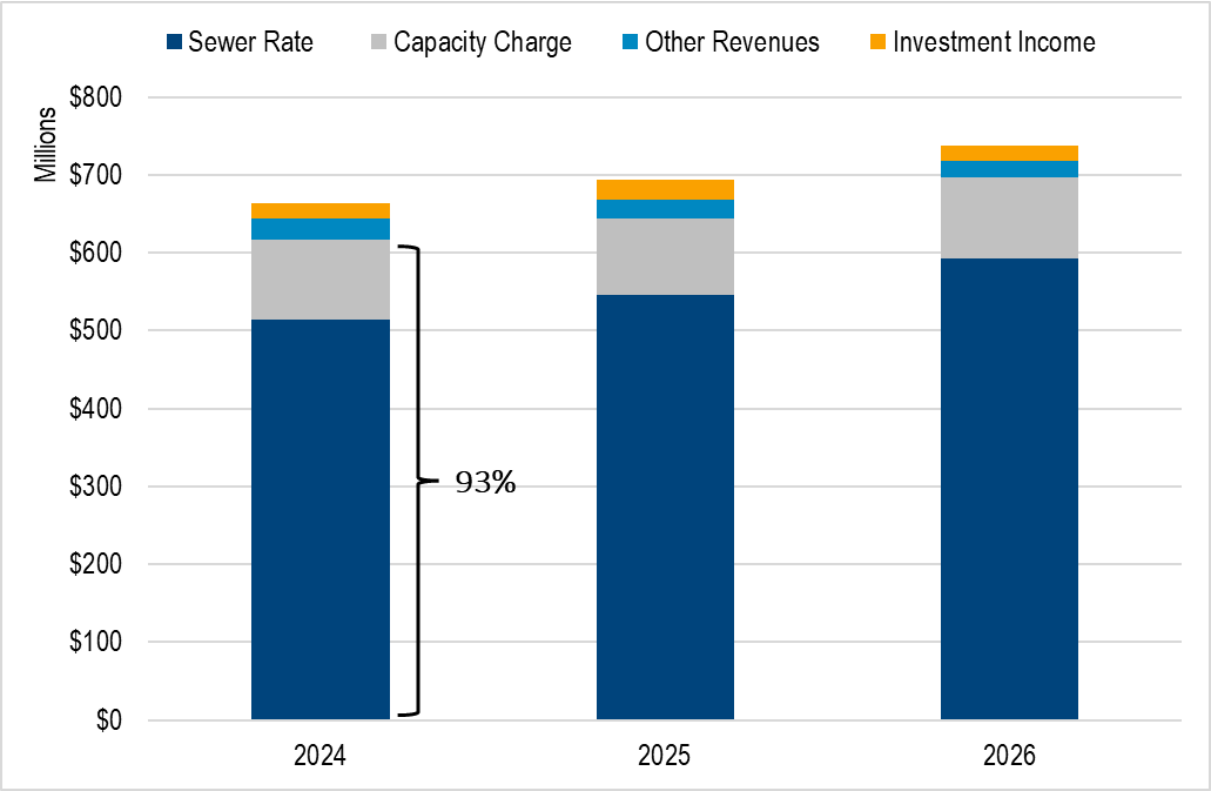
Source	Provider		Amount	Moody's/S&P Rating	Expiration
Surety Bonds	National Public Finance Guaranty Corp.	$	5,010,273	A3/A	2035
	Assured Guaranty Municipal Corp.	$	4,880,916	A3/AA	2036
	Assured Guaranty Municipal Corp.	$	7,189,850	A3/AA	2036
	Assured Guaranty Municipal Corp.	$	12,500,001	A3/AA	2047
	Subtotal	**$**	**29,581,040**		
Cash and Investments		**$**	**145,339,942**		
Total		**$**	**174,920,982**		

Revenue

The sewer rate and capacity charge, together, made up 93 percent of total operating revenues for 2024. **Figure 18** shows WTD's 2024 revenue and projected 2025 and 2026 revenue by source.

[31] Ordinance 19785 is available on the King County website.
[32] Parity Bonds are secured by a lien on sewer revenue and hold a priority in payment second only to operating and maintenance expenses.
[33] "Springing" refers to a provision within an Ordinance that activates certain conditions or changes to the current terms or requirements.

Figure 18 Operating Revenue Components Sorted by Size



Revenue Requirement

Two tests guide rate setting and determine a utility's annual revenue requirement: the cash test and the debt service coverage test.

Cash Test

The utility must first ensure that it can support its cash obligations, including operating expenditures, debt service repayment, and any financial policy targets, such as cash to fund the capital program.

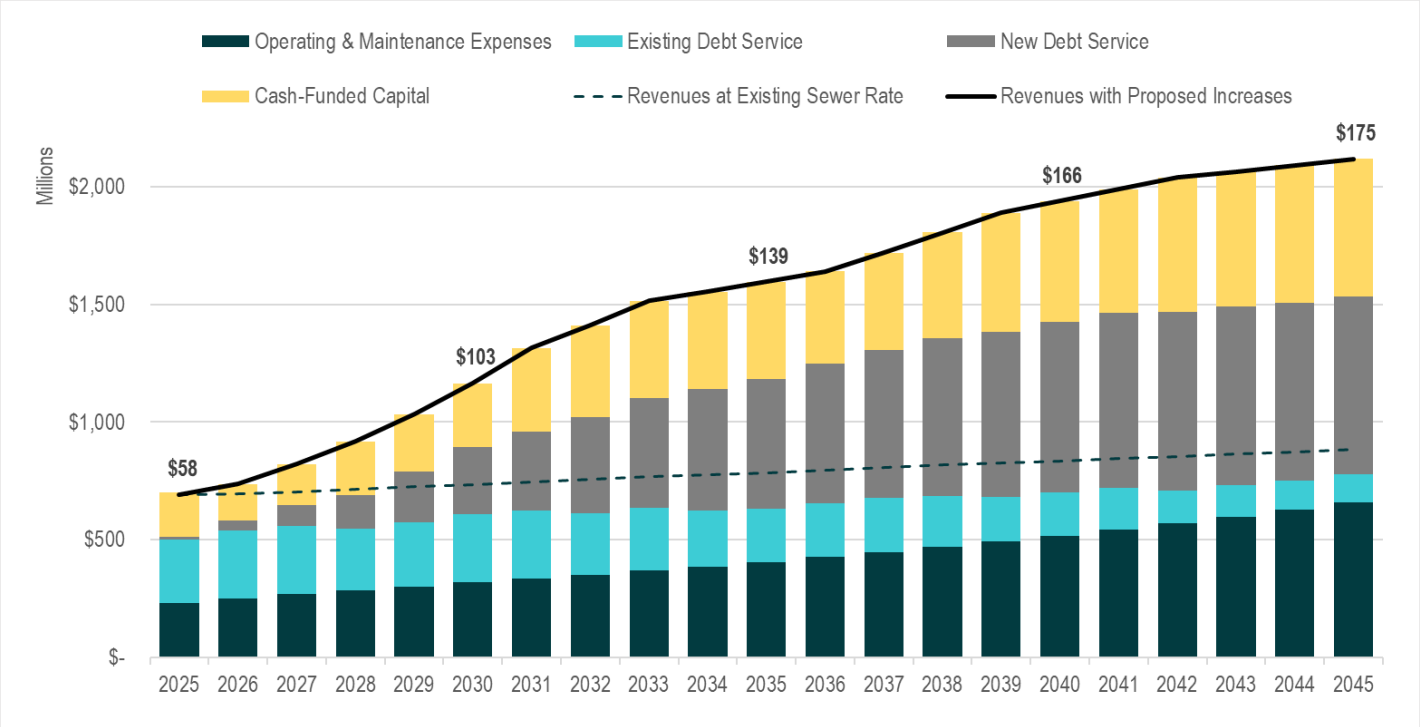
King County Code 28.86.160 Financial Policies state:

> King County shall charge its customers sewer rates and capacity charges sufficient to cover the costs of constructing and operating its wastewater system. Revenues shall be sufficient to maintain capital assets in sound working condition, providing for maintenance and rehabilitation of facilities so that total system costs are minimized while continuing to provide reliable, high-quality service and maintaining high water quality standards.[34]

Figure 19 shows the components that build to the total annual revenue requirement, compared with revenue under the existing sewer rate.

[34] The King County Code Title 28 can be found here.

Figure 19 2025 - 2045 Sewer Rate Forecast Revenue Requirement



Beginning from the bottom of **Figure 19**, the first stack (dark blue) in the bar represents the annual operating and maintenance (O&M) expenses with projected inflation and growth. The second stack (teal) shows the debt service obligations for existing outstanding WTD debt. The third stack (gray) represents new debt service repayments generated by funding the capital program in this forecast. The top stack (yellow) represents the policy to cash-fund the capital program from revenue, at an amount based on annual depreciation.

The dashed line shows the forecasted level of revenue generated if the sewer rate were to remain at the current 2025 rate of $58.28 for all years of the forecast, to demonstrate the utility's funding gap at the current rate. The solid line at the top of the bars shows the revenue meeting the annual requirement in each year based on the proposed rate forecast.

Figure 20 Proposed 2026 Sewer Rate and 2027-2045 Forecast [also available on page 4]

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Rate Increase %	5.75%	**7.50%**	12.75%	12.75%	13.50%	13.50%	13.50%	7.25%	7.25%	2.00%	2.00%
Monthly Sewer Rate	$58.28	**$62.66**	$70.65	$79.66	$90.42	$102.63	$116.49	$124.94	$134.00	$136.68	$139.42
Rate Increase $	$3.17	**$4.38**	$7.99	$9.01	$10.76	$12.21	$13.86	$8.45	$9.06	$2.68	$2.74

	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Rate Increase %		2.00%	4.50%	4.50%	4.50%	1.75%	1.75%	1.75%	0.50%	0.50%	0.50%
Monthly Sewer Rate		$142.21	$148.61	$155.30	$162.29	$165.14	$168.03	$170.98	$171.84	$172.70	$173.57
Rate Increase $		$2.79	$6.40	$6.69	$6.99	$2.85	$2.89	$2.95	$0.86	$0.86	$0.87

Debt Service Coverage Ratio Test

The second revenue requirement test is the debt service coverage ratio (DSC) test. DSC is a financial metric used to assess an entity's ability to generate enough cash to cover its debt service obligations. DSC is calculated by taking free cash flow, cash available after paying for operation and maintenance, and dividing it by current debt obligations. DSC is broadly used in the industry and is of particular interest to rating agencies. MWPAAC recommended WTD maintain a DSC ratio above 1.40 in 2017 and WTD must maintain a DSC above 1.15 per bond Ordinance. The sewer rate proposal and financial forecast produce a DSC ratio of free cash flow to current debt obligations ranging from 1.47 to 1.77. As shown in **Figure 21**, WTD's historical coverage performance has increased steadily since 2016 and achieved a record-high DSC in 2024.

Figure 21 History of WTD DSC and Ratings

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
WTD All-in DSC Ratio	1.24x	1.33x	1.30x	1.32x	1.28x	1.33x	1.33x	1.36x	1.41x	1.51x	1.49x	1.58x	1.56x	1.57x	1.72x	1.77x	1.91x
S&P Rating	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+
Moody's Rating	Aa3	Aa3	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa1	Aa1	Aa1	Aa1	Aa1	Aa1	Aa1	Aa1

Sewer Rate

Sewer rate revenue is the largest component of WTD operating revenues at 79 percent. SFR customers make up 56 percent of the sewer rate customer base and are billed at one unit per household, regardless of water use. The remaining 44 percent of residential customer equivalents (RCEs) are comprised of commercial and multifamily customers in a combined rate class. An RCE is a unit used for billing purposes that converts reported water use (as a proxy for sewage flows) to the approximate equivalent of one SFR. As defined in the LSA contracts and King County Code 28.86.160, Financial Policy 15, one RCE is equal to 750 cubic feet of water usage per month.

Billing Structure

In contrast to the retail agencies that read meters and bill customers, either monthly or bimonthly, RCE reporting and billing are performed on a quarterly cycle. As shown in **Figure 22**, billings for the SFR class in a given quarter are based on RCEs reported in the quarter before the previous one (e.g., Q2 billing is based on Q4 reported).

The commercial and multifamily billing structure includes additional delays because these billings are based on a quarterly rolling average of RCEs, with the intent to minimize variability of billings to the agencies.

Figure 22 RCE Reporting to Sewer Rate Billing Lag

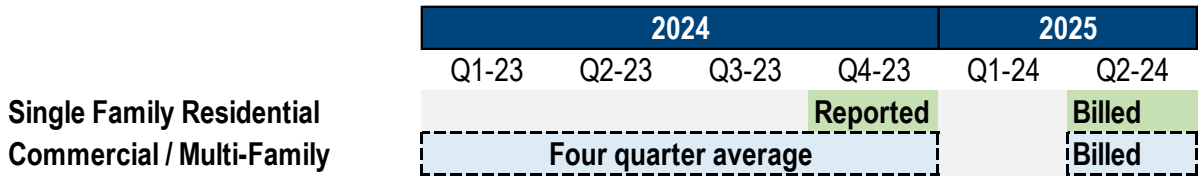
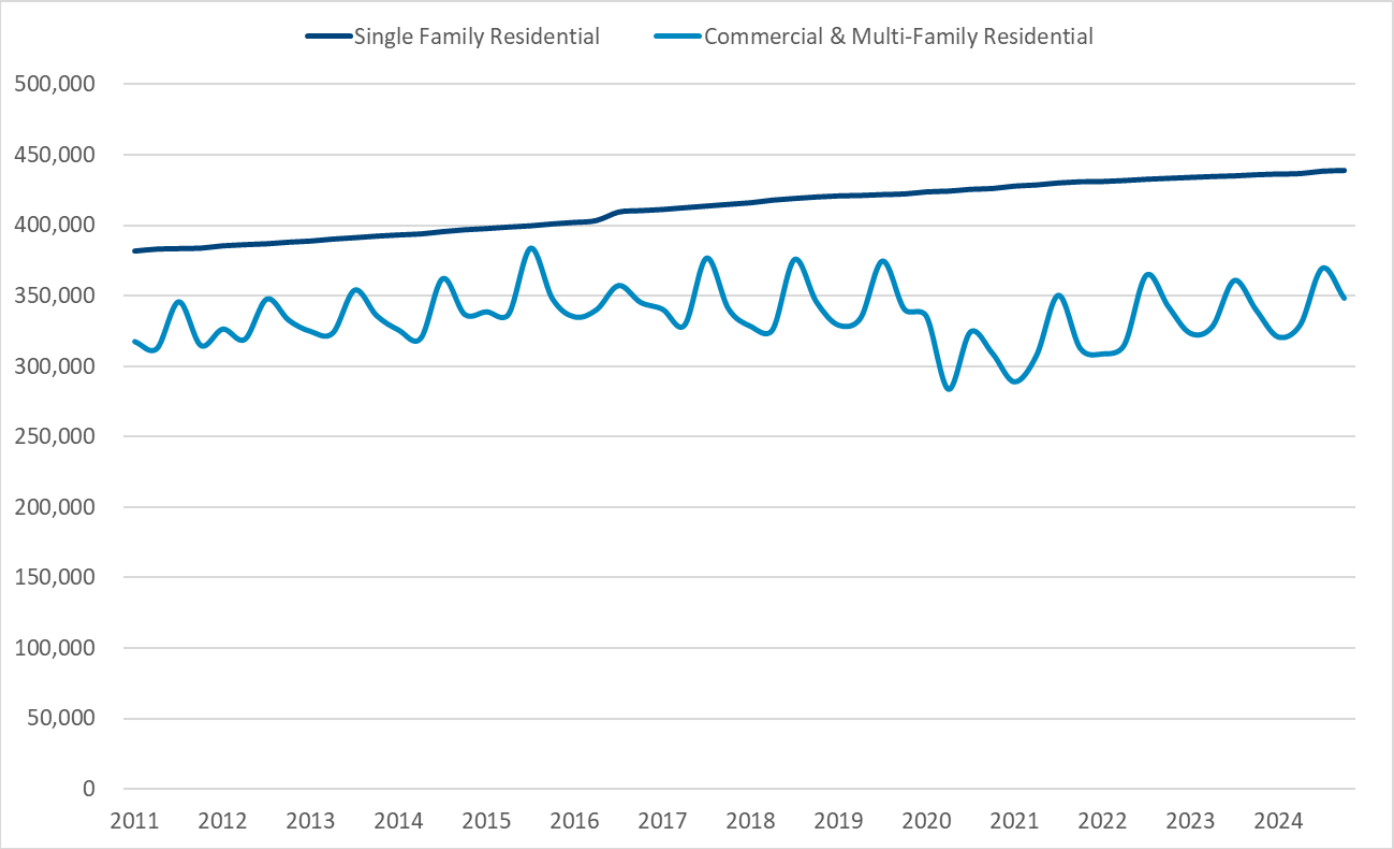


Figure 22 shows the historical trend in total customers billed since 2011.

Figure 23 Reported SFRs and Flow-Based RCEs by Quarter (2011-2024)



Historical Sewer Rate Increases

To provide context for the historical rate of growth to the revenue needs of the utility, rate increases since 1990 are provided in **Figure 24**. Since 1990, the average annual rate increase is 4.6 percent.

Figure 24 Historical Sewer Rate Increases (1990-2024)

Year	Sewer Rate	Percent Increase	Year	Sewer Rate	Percent Increase
1990	$11.90	-	2008	$27.95	0.0%
1991	$13.20	10.9%	2009	$31.90	14.1%
1992	$13.80	4.5%	2010	$31.90	0.0%
1993	$13.62	-1.3%	2011	$36.10	13.2%
1994	$15.90	16.7%	2012	$36.10	0.0%
1995	$17.95	12.9%	2013	$39.79	10.2%
1996	$19.10	6.4%	2014	$39.79	0.0%
1997	$19.10	0.0%	2015	$42.03	5.6%
1998	$19.10	0.0%	2016	$42.03	0.0%
1999	$19.10	0.0%	2017	$44.22	5.2%
2000	$19.50	2.1%	2018	$44.22	0.0%
2001	$19.75	1.3%	2019	$45.33	2.5%
2002	$23.40	18.5%	2020	$45.33	0.0%
2003	$23.40	0.0%	2021	$47.37	4.5%
2004	$23.40	0.0%	2022	$49.27	4.0%
2005	$25.60	9.4%	2023	$52.11	5.8%
2006	$25.60	0.0%	2024	$55.11	5.8%
2007	$27.95	9.2%	2025	$58.28	5.8%
				Annual Average Change:	**4.6%**
				Biennial Average Change:	**9.5%**

2026 Sewer Rate Proposal and 2026-2045 Forecast

After determining revenue requirements and revenue generated from other sources, the sewer rate proposal is developed to meet both the cash test and the DSC test. A monthly sewer rate of $62.66 in 2026, which is a 7.5 percent increase, is proposed in the Ordinance.

While an increase in the rate forecast is proposed, the 2026 proposed rate is only slightly higher than the 7 percent forecast in the 2025 rate process. The 2026 updated rate forecast beyond the 2026 proposed rate include higher rate increases as shown in **Figure 25** and **Figure 26** below. Highlighted changes between rate forecasts include:

1. **Extending forecast from 10 to 20 years**—Initiated in response to Council Motion 16449, the rate forecast now extends to 20 years, instead of the previous 10. The extended forecast involves *significant uncertainty* in later years. Per the consultant report developed by Raftelis in response to Motion 16410, "rates are typically only forecasted for five years due to the uncertainties associated with long-term capital forecasting and future costs." The report also found that peers develop greater certainty for projects' scopes and costs across the project categories for the five- to 10-year projected capital budgets. Other than asset renewal/replacement, capital cost estimates beyond 10 years "were noted to be order of magnitude and subject to large changes."
2. **CSO Consent Decree cost estimates and schedule**—WTD received updated cost estimates on the Mouth of the Duwamish Combined Sewer Overflow project mandated by the federal CSO consent decree. This estimated cost increased from $1.98 billion to $3.37 billion, as well as moving projected costs earlier in the project schedule. This resulted in steeper forecast rate increases than in the 2025 sewer rate process. Additionally, in 2024 WTD negotiated a modification to its CSO consent decree to a new completion date of 2037, three years sooner than it was assumed in previous rate forecasts.
3. **Revised approach to forecasting delivery constraints**—Formerly, WTD used an "Accomplishment Rate" that effectively deferred costs outside of forecast period. Beginning in 2026, project costs are now individually

sequenced within expected delivery capacity constraints, and early years in the forecast are adjusted for schedule risk, deferring a portion of the costs to later years. This means that $2.3 billion of project costs previously deferred outside the 10-year forecast period are fully represented in the 20-year forecast period.

4. **O&M increases to meaningfully address operational needs over the next five years—**WTD is prioritizing necessary investments to operate and maintain both the growing system and increasing regulatory requirements on the system.

Figure 25 Adopted 2025 Sewer Rate and 2026-2034 Forecast

2025-2034 Rate Forecast	Adopted										
2025 Adopted Sewer Rate	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Rate Increase %	**5.75%**	7.00%	7.00%	7.00%	8.25%	8.25%	8.25%	9.25%	9.25%	9.25%	
Monthly Sewer Rate	**$58.28**	$62.36	$66.73	$71.41	$77.31	$83.69	$90.60	$98.99	$108.15	$118.16	
Rate Increase $	**$3.17**	$4.08	$4.37	$4.68	$5.90	$6.38	$6.91	$8.39	$9.16	$10.01	

Figure 26 Proposed 2026 Sewer Rate and 2027-2045 Forecast [also available on page 4]

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Rate Increase %	5.75%	**7.50%**	12.75%	12.75%	13.50%	13.50%	13.50%	7.25%	7.25%	2.00%	2.00%
Monthly Sewer Rate	$58.28	**$62.66**	$70.65	$79.66	$90.42	$102.63	$116.49	$124.94	$134.00	$136.68	$139.42
Rate Increase $	$3.17	**$4.38**	$7.99	$9.01	$10.76	$12.21	$13.86	$8.45	$9.06	$2.68	$2.74

	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Rate Increase %		2.00%	4.50%	4.50%	4.50%	1.75%	1.75%	1.75%	0.50%	0.50%	0.50%
Monthly Sewer Rate		$142.21	$148.61	$155.30	$162.29	$165.14	$168.03	$170.98	$171.84	$172.70	$173.57
Rate Increase $		$2.79	$6.40	$6.69	$6.99	$2.85	$2.89	$2.95	$0.86	$0.86	$0.87

Capacity Charge

Since 1990, King County has levied a capacity charge on structures with new connections to the sanitary sewer system.[35, 36, 37] This charge is paid over 15 years and is in addition to the monthly sewer bill assessed by the LSA. Newly connecting customers are directly billed by King County for the capacity charge. The capacity charge rate is set annually by the County Council and is $76.09 per month over the 15-year payment period for properties connecting in 2025.

The Revised Code of Washington (RCW) 35.58.570 authorizing the capacity charge states:

> (1) A metropolitan municipal corporation that is engaged in the transmission, treatment, and disposal of sewage may impose a capacity charge on users of the metropolitan municipal corporation's sewage facilities when the user connects, reconnects, or establishes a new service to sewer facilities of a city, county, or special district that discharges into the metropolitan facilities. The capacity charge shall be based upon the

[35] More information on the King County Capacity Charge can be found here.
[36] In 1992, voters approved an amendment to the County's charter that authorized the merger of King County with the Municipality of Metropolitan Seattle (Metro), with the phased merger effective in 1994. More information on the merger is available here. As successor to Metro, the County assumed Metro's rights and obligations, including authority to impose the capacity charge.
[37] Revised Code of Washington 35.58.350

> cost of the sewage facilities' excess capacity that is necessary to provide sewerage treatment for new users to the system.
>
> (2) The capacity charge is a *monthly charge* reviewed and approved annually by the metropolitan council.[38]

Currently, state statute does not allow the County to require up-front payment of the capacity charge, which is the most common industry approach to new development charges, such as impact fees and utility connection charges.[39] The monthly charge reference is unique to the authorizing language for metropolitan municipal corporations and is not included in RCW authority for city and special-purpose district connection charges that share much of the same language.[40]

King County Code 28.86.160 Financial Policies state: "The capacity charge may be paid by new customers in a single payment or as a monthly charge at the rate established by the council…"

Customers may elect to pay the capacity charge in one lump sum or be billed quarterly based on the monthly rate for 15 years. The charge is linked to the property, meaning that the charge transfers between owners of the property until the capacity charge is paid off.

Capacity Charge Rate Structure

In 2020, the County approved updates to the rate structure of the capacity charge.[41] As of January 1, 2021, the County began using small, medium, and large classes for newly connecting single-family residential properties. The classification differential is based on data that links the home size to average persons per household, and average persons per household to capacity demands from the connecting property.

The RCEs assigned to single-family homes is based on size: small (<1,500 sq. ft. = 0.81 RCE), medium (1,500–2,999 sq. ft. = 1 RCE), and large (>3,000 sq. ft. = 1.16 RCE).

Using persons-per-household data also resulted in an update to RCEs assigned to multifamily units. King County Code provides a permanent classification for accessory dwelling units, such as backyard cottages and basement apartments, set at 0.59 RCE per unit.[42]

Multifamily structures are billed by unit at 0.81 RCEs for two to four units and 0.64 RCEs for five or more units.

Commercial structures are billed based on fixture counts and/or flows.

A list of historical capacity charge rates from 2003 is provided in **Figure 27** below**.**

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[38] Revised Code of Washington 35.58.570

[39] A 2015 internal WTD survey of utility connection charges for 18 comparable agencies nationwide included data on when the charge is assessed to new connections for 13 of the 18 agencies. Of the 13, 100 percent required payment at the time of permitting or service application. Only WTD did not require payment as a condition of development through the permitting/service application process.

[40] RCW 35.92.025 for Cities and Towns, and RCW 57.08.005 for Districts.

[41] More information on the capacity charge review study can be found here.

[42] King County Code 28.84.050 O.3.

Figure 27 Historical Capacity Charge Increases (2003-2025)

Year	Capacity Charge (Monthly)	Percent Increase
2003	$17.60	
2004	$18.00	2.3%
2005	$34.05	89.2%
2006	$34.05	0.0%
2007	$42.00	23.3%
2008	$46.25	10.1%
2009	$47.64	3.0%
2010	$49.07	3.0%
2011	$50.45	2.8%
2012	$51.95	3.0%
2013	$53.50	3.0%
2014	$55.35	3.5%
2015	$57.00	3.0%
2016	$58.70	3.0%
2017	$60.80	3.6%
2018	$62.60	3.0%
2019	$64.50	3.0%
2020	$66.35	2.9%
2021	$68.34	3.0%
2022	$70.39	3.0%
2023	$72.50	3.0%
2024	$74.23	2.4%
2025	$76.09	2.5%

Capacity Charge Updates

WTD's regular updates to the underlying assumptions are guided by the King County Code 28.86.160, Financial Policy 15, which states: "Customer growth and projected costs, including inflation, shall be updated every three years beginning in 2003. The county should periodically review the capacity charge to ensure that the actual costs of system expansion to serve new customers are reflected in the charge."[43]

The 2023 capacity charge update was planned to be a transition from the County's Regional Wastewater Service Plan (RWSP) to an updated comprehensive plan for the WTD system. The comprehensive plan for the utility serves as the basis for projecting the number of customers, capital projects needed for capacity, and financial assumptions.[44] The timing of this transition depended on progress of the regional plan update. The plan update was paused in 2021 to consider feedback and due to regulatory uncertainty for the Nutrients and Combined Sewer Overflow Consent Decree; the update resumed in 2024.

Ordinance 19403 passed on March 8, 2022, and provided time to incorporate the updated regional planning inputs and develop the policy updates for the capacity charge methodology work that is in progress.[45] It deferred the update of customer growth and projected costs scheduled for transmittal to the Council with the proposed 2023 sewer rate in 2022. The update was deferred until the next annual sewer and capacity charge rate proposal following the Council's approval of an update to the RWSP or until 2024, whichever came first, and 2024 came first.

[43] The King County Code Title 28 can be found here.
[44] Information on the RWSP is available here.
[45] King County Ordinance 19403 can be found here.

The 2024 capacity charge update utilized the existing capacity charge methodology established in 2003 and calculated the proposed capacity charge rates for 2025 and 2026. This methodology work is resuming, and an updated methodology is anticipated to be in place ahead of the next three-year update cycle.

Figure 28 shows the 2026 proposed capacity charge of $77.99 and projects the charge and related lump-sum elective payment option for the forecast period.

Figure 28 Proposed 2026 Capacity Charge and 2027-2030 Forecast [also available on page 5]

Capacity Charge	2025	2026	2027	2028	2029	2030
Monthly Charge	$76.09	$77.99	$79.94	$81.94	$83.99	$86.09
Increase %	2.5%	**2.5%**	2.5%	2.5%	2.5%	2.5%
Increase $	$1.86	$1.90	$1.95	$2.00	$2.05	$2.10
Annual Total	$913	$936	$959	$983	$1,008	$1,033
Total Payments (15 years)	$13,696	$14,038	$14,389	$14,749	$15,118	$15,496
Upfront Payment*	$9,684	$9,926	$10,174	$10,429	$10,690	$10,957

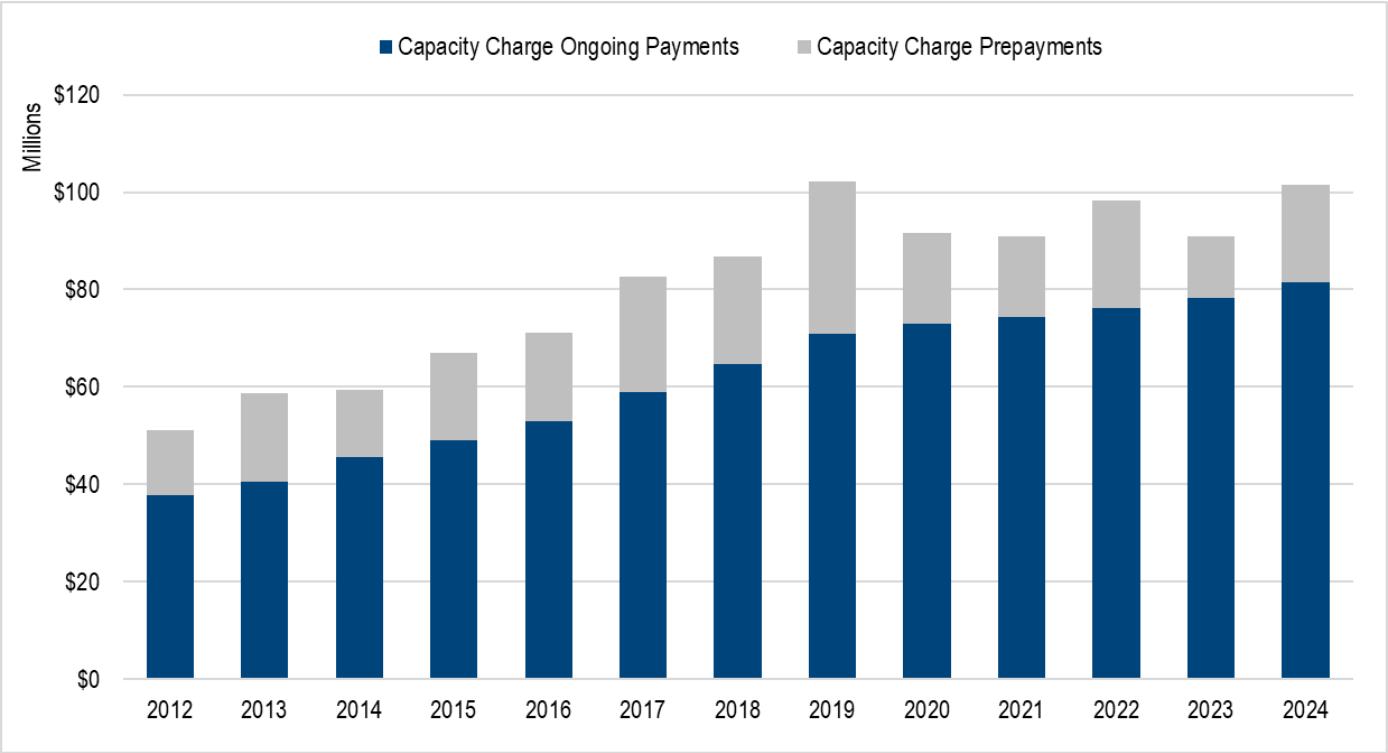
*Discount rate of 5.05%

Capacity Charge Revenue Forecast

The majority of capacity charge revenue comes from regular capacity charge customer billings, with the rest coming from elective pre-payments. Ongoing payments are stable, while pre-payments vary significantly from year to year and are difficult to forecast.

Figure 29 shows the historical split between ongoing payments and elective pre-payments for the last 13 years (2012-2024). Until 2019, ongoing capacity charge pre-payment revenues grew at an average annual rate of more than 9 percent, driven by a regional construction boom that added large numbers of new connections every year. The growth rate slowed significantly during 2020-23, before increasing again in 2024. Capacity charge pre-payments have ranged between 14 to 31 percent of total capacity charge revenues, without a clear, discernible pattern from one year to the next. Pre-payments in the global COVID-19 pandemic-impacted years of 2020 and 2021 decreased to levels close to the averages seen before the record-high years of 2017, 2018, and 2019. The full capacity charge revenue forecast can be found in the Appendix.

Figure 29 Historical Capacity Charge Ongoing Payments and Prepayments (2012-2024)[46]



Capacity charge revenues are forecasted based on an analysis of connection growth and the percentage of pre-payments in any given year. This results in an overall capacity charge revenue increase of 3 to 7 percent per year throughout the forecast period, as shown in **Figure 32**.

Other Revenues

Interest earnings

Interest earnings, also known as investment income, is revenue obtained by the County's Water Quality Fund through investments of its cash balances in the King County Investment Pool (Pool). The Pool pursues a low-risk investment strategy that prioritizes the availability of funds for its participating agencies to meet daily cash-flow requirements. In 2024, WTD cash balances averaged approximately $630 million throughout the year, which included cash balances for all WTD reserve accounts.

Interest-rate forecasts for the Pool come from King County's Office of Economic and Financial Analysis. The 2025 interest rate is estimated to be 3.9 percent.[47] Changes to interest rates have a limited impact on WTD revenues, representing less than 1 percent of total revenue. Any reduction of interest earnings is significantly offset by savings from a lower cost of debt.

High-Strength Surcharge, Septage, Resource Recovery

Other WTD income is generated from more than 25 separate revenue sources. The largest of these sources come from the high-strength surcharge, resource recovery activities (methane sales with renewable identification numbers, or

[46] Ongoing payments include penalty fees that have ranged between $0.4 million and $1.3 million a year.
[47] The August 2024 forecast is available here.

RINs), and septic hauler fees.[48] The high-strength surcharge recovers the additional operating costs imposed by treating high-strength wastewater and is defined by King County Code (KCC 28.84.060 (M) (3)). In 2025, the rate was $0.4419 per pound of biological oxygen demand, and $0.4715 per pound of total suspended solids. WTD conservatively assumes that RINs revenue will decrease from over $7 million in the last few years to $4 million after 2025, due to the risk of changes to existing regulatory framework under a new federal administration. Septic hauler fees have declined by about 25 percent since 2022, from $4 million to $3 million. Per conversations with septic haulers, this is related to the opening of a private facility in Sumner that opened at that time and diverted some of septage treated. Due to this, septage revenues are not forecast to increase. Most of the other revenue components are forecast at 3 percent annual growth.

Reference

Supplemental WTD Debt Information

Figure 30 2024 Year-End Outstanding Debt Balances[49]

Sewer System Obligations	Amount Outstanding	Final Maturity	Ratings
Parity Bonds (Senior Lien)	2,047,647,400	2055	Aa1/AA+
Parity Lien Obligations (LTGO)	697,935,000	2045	Aaa/AAA
Junior Lien Obligations	355,875,000	2042	Aa2/AA
Multi-Modal LTGO/Sewer Revenue Bonds	100,200,000	2050	Aaa/AAA
State SRF and PWB Loans	297,377,846	2056	
Total Sewer Obligations	3,499,035,246		

Types of WTD Financing

Bonds

Sewer revenue bonds are secured by a pledge of revenue of the sewer system, subject to payment of all operating and maintenance expenses of the sewer system. When revenue bonds are additionally backed by a pledge of the full faith and credit of the issuer (meaning the County's General Fund revenue and taxing power), the bonds are referred to as limited tax general obligation (LTGO) bonds. Sewer revenue bonds can also be issued at the junior lien, which is subordinate to both senior lien sewer revenue bonds and LTGO bonds.

State Loans

WTD receives loans from Ecology under the SRF Loan Program and from the Washington State Department of Commerce's Public Works Board.[50] The loans require either semi-annual or annual payments of principal and interest from 2025 through 2056, and bear interest at stated rates from 0.5 percent to 2.7 percent. As of December 31, 2024, the balance due on all state loans is $297.4 million. State loans are secured by a subordinate lien on the net revenues of the system.[51]

[48] A RIN is a is a serial number assigned to a batch of biofuel for the purpose of tracking its production, use, and trading.
[49] Excludes principal payments from January 1, 2025, that had already been transferred to the debt service fund in December 2024.
[50] More information on the Public Works Board can be found here.
[51] "Subordinate" liens are those that can only be paid after more senior liens are released.

WIFIA Loans

WIFIA is an established federal loan program administered by the EPA for eligible water and wastewater infrastructure projects. The WIFIA program accelerates investment in the nation's water infrastructure by providing long-term, low-cost supplemental loans for regionally and nationally significant projects at a maturity similar to the U.S. Treasury rates. The WIFIA loans, after draws are made, are secured by a pledge of revenue from the sewer system, subject to payment of all operating and maintenance expenses of the sewer system. As of December 31, 2024, WTD has successfully secured and received four federal WIFIA loan agreements, totaling $398.5 million.[52]

Commercial Paper

The Commercial Paper (CP) program provides low-cost, flexible, interim financing for WTD capital projects. Its main purpose is to provide interim financing to pay for WTD's capital projects pending permanent financing from state and federal loans. CP has also been utilized to refund high-interest outstanding debt and serve as a permanent element of WTD's variable-rate debt portfolio. As of December 31, 2024, WTD has $100.2 million in outstanding commercial paper debt.

Variable-Rate Debt

King County Code 28.86.160, Financial Policy 14, limits the utility's variable-rate debt exposure to a maximum amount equal to 20 percent of all outstanding debt and, currently, WTD uses a target of 15 percent in the financial forecast. WTD's initial variable-rate issuance was its $100 million CP program in 1996. As of December 31, 2024, WTD has expanded its variable-rate portfolio to $355.9 million.[53] Variable-rate debt allows WTD to achieve a borrowing cost that historically has been much lower than traditional fixed-rate debt. Typically, an investor can sell variable-rate bonds back with just a week's notice. This type of investment warrants the lowest borrowing cost in any given interest rate environment. Variable-rate debt is issued on the junior lien level, which is subordinate to parity bonds (senior lien sewer revenue bonds) and parity bond lien obligations (LTGO).

Forecast Assumptions

Figure 31 summarizes the assumptions used to forecast revenues and expenditures in the 20-year financial forecast (2026-2045).

[52] Includes the following loan agreements: $17.7 million for Georgetown Wet Weather Treatment Station, $96.8 million for Joint Ship Canal, $194.1 million for Tranche 1 Projects, and $89.9 million for Tranche 2 Projects.
[53] Excludes commercial paper used for interim financing and the refunding of the 2013B Sewer Revenue Bonds.

Figure 31 Forecast Assumptions Used in Financial Forecast[54]

Forecast Assumptions:	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Single-Family Residences RCE Growth	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
Multi-Family & Commercial RCE Growth	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Capacity Charge Ongoing Payments	7.3%	6.8%	5.2%	4.3%	4.1%	4.1%	3.2%	2.3%	1.9%	3.0%
Capacity Charge Prepayments	4.8%	3.8%	3.0%	2.4%	2.0%	1.5%	1.2%	0.9%	0.8%	0.7%
General Cost Inflation		4.0%	4.0%	4.0%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Labor Cost Inflation		4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Expenditure Growth*		2.0%	2.0%	2.0%	2.0%	1.5%	1.5%	1.5%	1.5%	1.5%
Capital Cost Escalation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Revenue Bond Rate (30 Year Term)	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Blended Variable Rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Investment Pool Earnings Rate	3.5%	3.1%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%

*Excludes Joint Ship Canal Close-Out Costs in 2027

2024 Wastewater Treatment Division Financial Performance

Revenue

Figure 32 shows that total RCEs were 0.2 percent lower than projected and related sewer rate revenues were 0.3 percent higher in 2024.

Capacity charge revenues were $5.4 million higher than previously forecast, due to higher-than-expected elective early payoff activity.

Other operating revenues presented better-than-forecast results, mostly due to increased RINs revenue and methane gas sales, although high-strength surcharge revenue decreased.

Investment income exceeded the forecast, with interest rates from the King County Investment Pool averaging 4.15 percent in 2024.

Overall, revenues exceeded the 2024 forecast by 2.5 percent, 83 percent of which was driven by investment returns and early payoffs of the capacity charge.

[54] The operating costs forecast for the base year (2025) includes adjustments for significant known increases such as electricity and chemicals, in addition to re-baselining where recent inflation has exceeded previous forecast assumptions.

Figure 32 Wastewater Treatment 2024 Forecast vs. Preliminary 2024 Actuals[55]

Wastewater Treatment Division 2024 Financial Performance ('000s)	Forecast 2024	Preliminary 2024	Variance ($)	Variance (%)
Monthly Sewer Rate	$55.11	$55.11	$0.00	0.0%
Rate Increase	5.75%	5.75%	0.00%	0.0%
Residential Customer Equivalents (RCEs)	775,653	774,178	(1,475)	-0.2%
Revenue				
Sewer Rate*	$ 512,955	$ 514,634	$ 1,679	0.3%
Capacity Charge	96,060	101,469	5,408	5.6%
Industrial Waste Program	10,825	10,206	(618)	-5.7%
Resource Recovery	9,274	10,680	1,407	15.2%
Other Income	3,392	3,714	322	9.5%
Investment Income	19,041	26,990	7,949	41.7%
Use (Transfer to) Rate Stabilization Reserve	-	-	-	n.a.
Total - Revenue	**$ 651,546**	**$ 667,693**	**$ 16,147**	**2.5%**
Expenditures & Transfers				
O&M Expenses	$ (198,208)	$ (205,478)	$ (7,270)	3.7%
Debt Service on Parity Bonds	(145,514)	(143,680)	1,834	-1.3%
Debt Service on Parity Lien Obligations	(66,007)	(65,496)	512	-0.8%
Debt Service on Subordinate Lien	(33,597)	(35,080)	(1,483)	4.4%
Debt Retirement/ Defeasance Use of Cash**	(15,974)	(32,497)	(16,522)	103.4%
Minimum Operating Reserve Contribution	(2,520)	(3,247)	(727)	28.8%
Total - Expenditures & Transfers	**$ (461,821)**	**$ (485,478)**	**$ (23,657)**	**5.1%**
Net Cash Flow	**$ 189,725**	**$ 182,215**	**$ (7,510)**	**-4.0%**
Beginning Balance	$ 2,520	$ 2,520	$ -	0.0%
Net Cash Flow	189,725	182,215	(7,510)	-4.0%
Policy Cash-Funded Capital (Transfer to Capital Fund)	(192,245)	(110,000)	82,245	-42.8%
Ending Balance	**$ -**	**$ 74,735**	**$ 74,735**	**n.a.**
Ending Reserve Balances				
Water Quality Operating Liquidity Reserve	$ 19,821	$ 20,548	$ 727	3.7%
Rate Stabilization Reserve Account	$ 46,250	$ 46,250	$ -	0.0%
Debt Service Coverage on Parity Bonds	3.12x	3.22x	0.10x	3.3%
Debt Service Coverage on Parity Bonds and Parity Lien Obligations	2.14x	2.21x	0.07x	3.1%
Debt Service Coverage on Total Debt Payments	1.85x	1.89x	0.04x	2.3%

*Sewer rate revenue includes a billing adjustment of $2.6m

**Includes $15.9m used for 2025 defeasance

Expenditures

In the 2023-2024 biennium, WTD realized operating expenditure savings of $4 million below budget. As noted above, savings were realized primarily in 2023, with actuals exceeding the annualized estimate in 2024. The largest contributors

[55] Audited 2024 financial information will be available in May 2025. Preliminary (unaudited) year-end financial data is presented for comparison to the 2024 forecast from the 2025-2034 Financial Forecast.

to underspend were staffing vacancies, delays in vehicle procurements, lower use of central services, and delays in the WaterWorks Grant Program. Offsetting those savings were unexpectedly higher costs for settlements, electricity and chemical costs, and repair and maintenance needs.

Debt

On June 6, 2024, WTD issued $115 million of Junior Lien Variable Rate Demand Bonds (VRDBs), with liquidity support provided by a standby bond purchase agreement (SBPA) with Bank of America. The proceeds refunded an equivalent amount of outstanding CP in August 2024. Together with certain optional redemptions planned prior to year-end, this transaction will expand capacity within the CP program to provide interim financing for the WIFIA projects.

On July 24, 2024, WTD completed the negotiated sale of $392.6 million in 2024A Sewer Revenue and Refunding Bonds. The new money portion of the $171 million par issuance was used to fund the capital program, with net proceeds of $192.1 million deposited into the construction account on August 8, 2024. The $221.6 million par issuance for the cost-savings portion of the transaction refunded $253.1 million of Sewer Revenue and Refunding Bonds, producing $19.3 million in total savings and $16.6 million in present value savings.

On December 10, 2024, WTD completed the negotiated sale of $399.9 million in 2024A LTGO and 2024B Sewer Revenue Refunding Bonds. The cost-savings portion of the transaction refunded $319.2 million in LTGO and Sewer Revenue and Refunding Bonds, generating $25.6 million in total savings and $18.5 million in present value savings (5.8 percent). Additionally, WTD refunded $148.1 million of the multimodal 2019AB Variable Rate Demand Bonds, concluding its SBPA with TD Bank, following a reassessment of risk management considerations.

Due to the decreased levels of debt service and slightly higher net revenue, WTD projects that it will comfortably exceed each of its key coverage targets in 2024, namely 1.25 times senior lien debt service and 1.15 times total debt service.

Cash Funding and Defeasance

A new money par issuance of $85.9 million of senior lien 2024A Sewer Revenue Bonds was sold in August 2024. The net proceeds, in the amount of $98.1 million, were deposited into the capital project fund, freeing up the same amount of operating cash that was subsequently used in February 2025 to defease outstanding high-coupon bonds. This transaction produced $8.6 million in total savings and $7.2 million in present value savings.

Net Cash Flow

WTD transferred $110 million of operating revenue to the capital fund at year-end, in addition to a $16 million contribution to its debt service reserve and an ending cash balance of $76 million. Most of the cash balance was used in February 2025 to defease higher interest-rate debt, along with funds released from the debt service reserve. These total $202 million of available cash, translating into a positive variance of $10 million when compared to the $192 million in cash-funded capital (and zero ending balance) originally projected.

Contaminants of Emerging Concern (e.g., PFAS) – Cost Tracking

Per Motion 16434: “Beginning with the 2025 sewer rate forecast, the wastewater treatment division shall include in its technical memorandum submitted with the annual sewer rate Ordinance a section identifying the cost of activities it has undertaken and plans to undertake to address contaminants of emerging concern, including PFAS.”[56]

[56] Per- and Polyfluoroalkyl Substances. PFAS are a group of chemicals used to make fluoropolymer coatings and products that are widely used in consumer products. PFAS are a concern because they do not break down in the environment, are able to move through soils and water sources, and build up in fish and wildlife. More information about PFAS can be found here.

PFAS Costs to Date

Between 2019 and 2021, King County evaluated the use of reclaimed water from the Brightwater Treatment Plant and its effects on soil, groundwater, and plant tissue. Samples were analyzed for PFAS and other chemicals of emerging concern. PFAS compounds were detected in river water, reclaimed (reuse) water, soils, and in plants that were grown in this soil and irrigated with either river water or reuse water. These actions total an estimated $93,750 in costs, to date, for the PFAS-portion of this work.

Between 2021-2022, King County conducted an investigation and published a report on Toxics in King County Wastewater Effluent, Evaluating the Presence of Toxic Elements in the Effluent of Treatment Plants.[57] This investigation included the sampling of wastewater effluent for PFAS compounds at three County wastewater treatment plants. Estimated out-of-pocket costs connected to this project totaled $24,990, related specifically to PFAS.

In 2023, King County allocated approximately $421,000 for a further investigation of PFAS in King County wastewater facilities and landfill leachate, anticipated to be completed by mid-2025. In mid-2024, King County began tracking staff hours associated with PFAS on a regular basis; 2024 data estimates that 300 hours and $27,300 in costs were spent.

Costs associated with the Nutrient Reduction Evaluation (total estimate of approximately $8 million) include hiring an external consultant to conduct analyses of nitrogen removal but also with potential compounds of emerging concern and toxics removal, including PFAS chemicals. To date, an estimated $63,500 has been spent on work attributable to PFAS chemicals.

Costs also include 2,090 documented staff hours spent on PFAS through the end of 2023, in addition to the 300 estimated hours in 2024.

Future Costs

WTD will incur costs to comply with Ecology's draft NPDES permit for the West Point Treatment Plant, which requires the County to update its industrial user survey by April 30, 2025, and begin to include requirements for industries to complete PFAS pollution prevention/source reduction evaluations starting in July 2025. The draft permit also requires the County to include best management practices and pollution prevention strategies in its permits to industries beginning in July 2025. The cost estimate for this work is $1 million over five years.

Other future unknown costs include monitoring for PFAS in stormwater, wastewater treatment plant influent and effluent, biosolids, and industrial waste.

[57] Report submitted as part of Motion 16384 can be found here

Appendix. Attachment A

Wastewater Treatment Division Attachment A - Financial Forecast	Actual 2024	Budget 2025	Rate Proposal 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034	Projected 2035
Operating Financial Forecast - 4611 ($ '000)												
Monthly Sewer Rate	$55.11	$58.28	$62.66	$70.65	$79.66	$90.42	$102.63	$116.49	$124.94	$134.00	$136.68	$139.42
Rate Increase	5.75%	5.75%	7.50%	12.75%	12.75%	13.50%	13.50%	13.50%	7.25%	7.25%	2.00%	2.00%
Residential Customer Equivalents (RCEs)	774,178	780,874	787,568	792,492	797,424	802,365	807,315	812,274	817,241	822,217	827,202	832,196
Revenue												
Sewer Rate[1]	$ 514,634	$ 546,112	$ 592,188	$ 671,875	$ 762,274	$ 870,598	$ 994,257	$ 1,135,461	$ 1,225,273	$ 1,322,125	$ 1,356,744	$ 1,392,297
Capacity Charge	101,469	98,149	104,960	111,668	117,122	121,924	126,634	131,421	135,314	138,247	140,689	144,577
Industrial Waste	10,206	10,258	10,310	10,362	10,415	10,468	10,522	10,575	10,629	10,684	10,738	10,793
Resource Recovery	10,680	9,509	6,584	6,782	6,985	7,195	7,410	7,633	7,862	8,098	8,341	8,591
Other Income	3,714	3,578	3,597	3,616	3,635	3,655	3,676	3,697	3,719	3,742	3,765	3,789
Investment Income	26,990	25,484	19,639	17,335	17,421	20,476	22,891	25,369	29,178	31,989	34,120	35,384
Use (Transfer to) Rate Stabilization Reserve	-	-	-	-	-	-	-	-	-	-	-	-
Total - Revenue	**$ 667,693**	**$ 693,090**	**$ 737,277**	**$ 821,637**	**$ 917,852**	**$ 1,034,317**	**$ 1,165,390**	**$ 1,314,156**	**$ 1,411,975**	**$ 1,514,885**	**$ 1,554,398**	**$ 1,595,431**
Expenditures & Transfers												
O&M Expenses	$ (205,478)	$ (227,606)	$ (249,295)	$ (267,664)	$ (283,528)	$ (299,973)	$ (317,417)	$ (333,056)	$ (349,475)	$ (366,713)	$ (384,811)	$ (403,813)
Existing Debt Service	(260,856)	(271,001)	(287,706)	(288,253)	(260,877)	(271,362)	(290,154)	(289,525)	(260,530)	(265,544)	(235,871)	(225,992)
New Debt Service	-	(11,363)	(43,105)	(88,669)	(142,627)	(217,321)	(284,979)	(334,152)	(408,414)	(465,354)	(516,976)	(550,610)
Debt Retirement/ Defeasance Use of Cash	(15,897)	(81,174)	-	-	-	-	-	-	-	-	-	-
Minimum Operating Reserve Contribution	(3,247)	(2,940)	(2,169)	(1,837)	(1,586)	(1,644)	(1,744)	(1,564)	(1,642)	(1,724)	(1,810)	(1,900)
Total - Expenditures & Transfers	**$ (485,478)**	**$ (594,082)**	**$ (582,275)**	**$ (646,422)**	**$ (688,619)**	**$ (790,300)**	**$ (894,295)**	**$ (958,297)**	**$ (1,020,061)**	**$ (1,099,335)**	**$ (1,139,468)**	**$ (1,182,316)**
Net Cash Flow	**$ 182,215**	**$ 99,008**	**$ 155,002**	**$ 175,215**	**$ 229,233**	**$ 244,017**	**$ 271,095**	**$ 355,859**	**$ 391,914**	**$ 415,550**	**$ 414,930**	**$ 413,116**
Beginning Balance	$ 2,520	$ 90,004	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Cash Flow	182,215	99,008	155,002	175,215	229,233	244,017	271,095	355,859	391,914	415,550	414,930	413,116
Policy Cash-Funded Capital (Transfer to Capital Fund)	(110,000)	(189,012)	(155,002)	(175,215)	(229,233)	(244,017)	(271,095)	(355,859)	(391,914)	(415,550)	(414,930)	(413,116)
Ending Balance[2]	$ 74,735	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Ending Reserve Balances												
Water Quality Operating Liquidity Reserve	$ 20,548	$ 22,761	$ 24,929	$ 26,766	$ 28,353	$ 29,997	$ 31,742	$ 33,306	$ 34,947	$ 36,671	$ 38,481	$ 40,381
Rate Stabilization Reserve Account	$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250
Debt Service Coverage - Parity Bonds (Senior Lien)	3.22x	3.34x	2.81x	2.43x	2.49x	2.37x	2.15x	2.18x	2.18x	2.05x	1.93x	1.95x
Debt Service Coverage - All-In Debt Service	1.77x	1.65x	1.48x	1.47x	1.57x	1.50x	1.47x	1.57x	1.59x	1.57x	1.55x	1.53x

[1]Sewer rate revenue in 2024 includes a billing adjustment of $2.6m
[2]Difference between 2024 ending balance and 2025 beginning balance driven by reconciliation of cash and accrual, timing of transfers between funds

Capital Funding Forecast - 3611 & 3612 ($ '000)												
Beginning Balance	$ 119,476	$ 182,707	$ 189,012	$ 155,002	$ 175,215	$ 229,233	$ 244,017	$ 271,095	$ 355,859	$ 391,914	$ 415,550	$ 414,930
WIFIA Proceeds	9,616	16,927	15,907	15,588	5,617	-	-	284,000	-	-	-	-
State Loan Proceeds	35,355	54,267	15,651	878	-	-	-	-	-	-	-	-
Variable Rate Debt Proceeds	-	154,157	17,445	106,670	82,713	134,317	171,043	157,514	155,110	163,190	145,345	146,539
Commercial Paper / Interim Financing	66,000	49,725	108,632	22,982	5,472	-	-	-	-	-	-	-
Retirement of Interim Financing	-	(35,620)	(18,172)	(18,548)	(5,472)	-	-	(175,000)	-	-	-	-
Net Bond Proceeds	192,081	40,085	366,884	574,698	720,610	975,346	817,037	660,849	702,699	692,807	642,895	378,788
Reserve Contribution/(Requirement)[3]	(34,239)	-	-	-	-	-	-	-	-	-	-	-
Grants, Settlements, and Other	3,665	-	-	-	-	-	-	-	-	-	-	-
Capital Expenditures	**(312,597)**	**(462,248)**	**(695,360)**	**(857,271)**	**(984,155)**	**(1,338,896)**	**(1,232,097)**	**(1,198,458)**	**(1,213,668)**	**(1,247,910)**	**(1,203,790)**	**(940,257)**
Ending Balance Before Transfers	$ 79,357	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Year-end Transfers from Operating Fund	110,000	189,012	155,002	175,215	229,233	244,017	271,095	355,859	391,914	415,550	414,930	413,116
Ending Balance	$ 189,357	$ 189,012	$ 155,002	$ 175,215	$ 229,233	$ 244,017	$ 271,095	$ 355,859	$ 391,914	$ 415,550	$ 414,930	$ 413,116
Ending Reserve Balances												
Capital Liquidity Reserve	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Emergency Capital Reserve	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Revenue Bonds Reserve Account	145,167	133,590	159,105	198,541	248,091	315,435	373,546	420,784	482,142	531,697	574,926	589,373
State Revolving Fund Reserve Account	219	219	176	133	133	133	68	-	-	-	-	-

[3]Capital Liquidity Reserve increased from $5m to $40m in 2024