

Fund 69000: Sewer Revenue

Focus

All Availability Charges and Sewer Service Charges associated with the Wastewater Management Program are credited to this fund as system revenues. The total receipts from all revenue sources are used to finance the following: Operation and Maintenance (Fund 69010); Construction Improvement Projects (Fund 69300); Debt Service (Fund 69020); Subordinate Debt Service (Fund 69040); and Sewer Bond Construction (Fund 69310). Any remaining balance in Fund 69000, Sewer Revenue, is used for future year requirements and required reserves.



The Program's Availability Charge and Sewer Service Charge are based on staff analysis and consultant recommendations included in the January 2021 Wastewater Revenue Sufficiency and Rate Analysis.

Availability Charges

The Availability Charge is a one-time charge to new customers for initial connection to the system. The revenue from the Availability Charge is used to offset the costs of expanding conveyance and treatment plant upgrades and interjurisdictional payments that result from population growth, more stringent treatment requirements and inflation. In FY 2022, the Availability Charge will increase from \$8,340 to \$8,507 for single-family homes based on current projections of capital requirements. Rates are based on requirements associated with conveyance and treatment plant upgrades and interjurisdictional payments that result from population growth, more stringent treatment requirements and inflation.

The FY 2022 rate is consistent with the recommendations of DPWES and the analysis included in the January 2021 Wastewater Revenue Sufficiency and Rate Analysis report. The following table displays the rates by category:

Category	FY 2021 Availability Charge	FY 2022 Availability Charge
Single Family	\$8,340	\$8,507
Townhouses and Apartments	\$6,672	\$6,806
Hotels/Motels	\$2,085	\$2,127
Nonresidential	\$417/fixture unit	\$425/fixture unit

Sewer Service and Base Charges

Sewer Service and Base Charges are revenues received from existing customers and are used to fully recover program operation and maintenance costs, debt service payments and capital project requirements attributable to improving wastewater treatment effluent quality as mandated by state and federal agencies. The five-year sewer rate plan approved by the Board of Supervisors as part of the FY 2021 Adopted Budget Plan had proposed to increase the sewer charges by 11.0 percent in FY 2022. After a careful review, the Wastewater Management staff recommended to increase the sewer charges by 7.0 percent in FY 2022. The Sewer Service Charge will increase from \$7.28 to \$7.72 per 1,000 gallons of water consumed based on Fairfax County's winter quarter average consumption of 18,000 gallons.

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The Base Charge will increase from \$32.91 per quarter to \$36.54 per quarter. The Base Charge provides for a more equitable rate structure by recovering a portion of the program’s fixed costs. The industry practice for a fixed charge revenue rate is 25 percent of operating revenues. The expected fixed charge revenue percentage in FY 2022 is equal to 22.3 percent. The current system, including sewer lines, facilities, purchased capacity and equipment, is valued at approximately \$2.0 billion. Based on the age and required maintenance of the system, reinvestment must continue to be addressed. The implementation of the increases to the Base Charge will help ensure that all users of the system share in the fixed costs associated with reinvestment and operations.

The annual average customer bill will increase from \$655.80 in FY 2021 to \$702.00 in FY 2022, an annual cost increase of \$46.20 or 7.0 percent. The FY 2022 average bill in Fairfax County is one of the lowest compared to the average bill in other regional jurisdictions even with the proposed increases. The increases in the Sewer Service Charge and Base Charge from FY 2023 to FY 2026 will partially offset the increased costs associated with capital project construction, system operation and maintenance, debt service and upgrades to meet new, more stringent nitrogen discharge limitations from wastewater treatment plants.

Year	Sewer Service Charge Per 1,000 gallons of water	Base Charge Per Quarterly Bill	Sewer Charges Percentage Increase	Fixed Charge Revenue Percentage
2021	\$7.28	\$32.91	0.0%	21.9%
2022	\$7.72	\$36.54	7.0%	22.3%
2023	\$8.18	\$41.03	7.3%	22.9%
2024	\$8.47	\$45.05	4.9%	23.9%
2025	\$8.76	\$49.48	4.9%	25.0%
2026	\$9.20	\$51.95	5.0%	25.3%

Charges for Hauled Wastewater

As part of the FY 2020 Adopted Budget Plan, the Board of Supervisors approved the establishment of charges to recover a portion of the cost of disposal and treatment of hauled wastewater at the County’s septage receiving facility (SRF), which is located at the NCPCP.

The County’s SRF was constructed to receive and treat septage from local onsite sewage disposal systems in accordance with Code of Virginia Ann. Section 15.2-2123. In addition, the SRF receives landfill leachate, portable toilet waste, restaurant grease, and recycled carwash water. Hauled septage and wastewater used to be received and treated at no cost to pump and haul contractors to encourage proper disposal. This cost used to be covered by the sewer charges paid by the customers of the County’s public sewer system. The charges for hauled wastewater improve equity among customers served by the sewer system and those served by the pump and haul contractors. Also, the charges recover a portion of the costs of operation, maintenance, and upcoming necessary improvements to the SRF.

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DPWES initially set the charges at a level comparable to the fees charged by the Upper Occoquan Service Authority (UOSA), the only other facility in the County that receives hauled wastewater. Since septic tank and restaurant grease waste has higher strength than portable toilet and landfill leachate waste, the charge for high strength waste will remain the same at \$27 per 1,000 gallons of the hauler’s truck capacity in FY 2022. The fee for low strength waste will increase from \$7.28 to \$7.72 per 1,000 gallons of hauler truck capacity in FY 2022. This fee is based on the prevailing sewer service charge and will be modified as the sewer service charge is adjusted in the future. The projected FY 2022 revenue from charges for hauled wastewater is equal to \$275,000.

This level of revenue in FY 2022 will allow the system to meet permit conditions, meet and maintain all of the required financial targets through FY 2026, maintain competitive rates with neighboring utilities, continue to preserve its AAA bond rating, and require less debt to support capital projects.

The table below reflects the Wastewater Management Program’s projected fiscal health in FY 2022 and FY 2023. The financial planning process incorporates the following indicators that are interrelated and structured to identify the adequacy of rates from a cash flow, business, and compliance standpoint. These indicators are used by the rating agencies to determine the Program’s credit rating.

Calculated Financial Indicators			
Financial Indicator	Target	FY 2022	FY 2023
Net Revenue Margin	37.0% to 65.0%	49%	53%
Days Working Capital ¹	150 to 200 days	182	181
Debt Coverage Senior	Min. 3.00x	3.06x	2.60x
Debt Coverage All-in ²	1.80x to 2.20x	1.92x	1.85x
Affordability (% of median income spent on sewer bill)	Less than 1.2%	0.6%	0.6%
Debt to Net Plant in Service	Below 40.0% Never above 50.0%	35%	39%
Outstanding Debt per Connection	Max \$3,000	\$1,865	\$2,126
Next Sewer Bond Sale Expected in FY 2021 - \$200 million			

¹ The Days Working Capital financial indicator is exclusive of Availability Charges in Fund 69000, Sewer Revenue, debt expenses in the Wastewater debt related funds, Fund 69300, Sewer Construction Improvements and Fund 69310, Sewer Bond Construction. It is calculated based on Operating Expenses and 360 days per year.

² The Debt Coverage All-in financial indicator is exclusive of Availability Charges.

It is anticipated that the rates in FY 2022 will support the County’s ability to maintain high bond ratings (AAA by Fitch Investor Service and Standard and Poor’s Corporation and Aaa by Moody’s Investors Service, Inc.) from the rating agencies. These high credit ratings have enabled the County to sell bonds on behalf of the Program at interest rates lower than those obtained by most sewer authorities, thereby achieving savings throughout the life of the bonds.

Pandemic Response and Impact

The Wastewater Management Program of DPWES has continued to work at full capacity during the COVID-19 pandemic to fulfill the System's responsibilities to its customers. Accomplishing this task has required considerable innovation, hard work, and adaptation (e.g., additional personal protective equipment, facility cleaning, distancing measures, equipment, and new tools) that have increased the System's resource requirements.

The Wastewater Management staff worked with the System's financial advisors to project estimated impacts to revenues and developed financial management strategies. The System's 10-year financial plan has been updated to include adjustments for revenues during the pandemic and staff is closely monitoring unfolding trends throughout the year.

Changes to FY 2021 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2021 Revised Budget Plan since passage of the FY 2021 Adopted Budget Plan. Included are all adjustments made as part of the FY 2020 Carryover Review, FY 2021 Mid-Year Review, and all other approved changes through December 31, 2020:

Adjustment to Transfer Out

There have been no expenditure adjustments to this fund since approval of the FY 2020 Adopted Budget Plan. However, the *FY 2021 Revised Budget Plan* Transfer Out to Fund 69300, Sewer Construction Improvements, was increased by \$12,000,000 as part of the *FY 2020 Carryover Review*. This increase is necessary to support Fairfax County's share of facility improvements at the Alexandria Wastewater Treatment Plant to comply with nutrient discharge limits.

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FUND STATEMENT

Category	FY 2020 Actual	FY 2021 Adopted Budget Plan	FY 2021 Revised Budget Plan	FY 2022 Advertised Budget Plan
Beginning Balance	\$108,685,073	\$115,107,774	\$121,830,460	\$101,451,228
Revenue:				
Lateral Spur Fees	\$11,400	\$17,020	\$17,020	\$10,000
Water Reuse Charges ¹	282,185	164,606	164,606	175,000
Sales of Service ¹	8,222,053	10,000,620	10,000,620	10,635,500
Availability Charges ²	22,180,963	1,869	12,000,000	22,517,000
Connection Charges	580,558	34,648	34,648	176,000
Sewer Service Charges ^{1,3}	208,257,853	188,174,662	198,174,662	219,781,000
Miscellaneous Revenue ¹	499,473	829,212	829,212	650,000
Sale Surplus Property	69,981	100,000	100,000	100,000
Interest on Investments	2,360,921	650,000	650,000	1,100,000
Total Revenue	\$242,465,387	\$199,972,637	\$221,970,768	\$255,144,500
Total Available	\$351,150,460	\$315,080,411	\$343,801,228	\$356,595,728
Transfers Out:				
Sewer Operation and Maintenance (69010)	\$109,220,000	\$109,250,000	\$109,250,000	\$116,100,000
Sewer Bond Parity Debt Service (69020)	23,100,000	31,000,000	31,000,000	32,000,000
Sewer Bond Subordinate Debt Service (69040)	22,000,000	25,100,000	25,100,000	25,000,000
Sewer Construction Improvements (69300) ⁴	75,000,000	65,000,000	77,000,000	86,000,000
Total Transfers Out	\$229,320,000	\$230,350,000	\$242,350,000	\$259,100,000
Total Disbursements	\$229,320,000	\$230,350,000	\$242,350,000	\$259,100,000
Ending Balance⁵	\$121,830,460	\$84,730,411	\$101,451,228	\$97,495,728
Management Reserves:				
Operating and Maintenance Reserve ⁶	\$45,000,000	\$30,000,000	\$45,000,000	\$43,000,000
New Customer Reserve ⁷	30,000,000	30,000,000	30,000,000	30,000,000
Virginia Resource Authority Reserve ⁸	5,974,892	5,974,892	5,974,892	0
Capital Reinvestment Reserve ⁹	40,855,568	18,755,519	20,476,336	24,495,728
Total Reserves	\$121,830,460	\$84,730,411	\$101,451,228	\$97,495,728
Unreserved Balance	\$0	\$0	\$0	\$0

¹ In order to account for revenues and expenditures in the proper fiscal year, audit adjustments in the amount of \$476,888.39 have been reflected as increases to the FY 2020 Water Reuse Charges, Sales of Service, Sewer Service Charges and Miscellaneous Revenue. The audit adjustments were included in the FY 2020 Comprehensive Annual Financial Report (CAFR). Details of the audit adjustments were included in the FY 2021 Mid-Year Package.

² As part of the FY 2021 Adopted Budget Plan, the County assumed a minimal amount of Availability Fee revenue as a result of the COVID-19 pandemic. Updated data for the final quarter of FY 2020 noted an average of \$2.5 million per month. The \$12.0 million figure for the FY 2021 Revised Budget Plan assumed a conservative \$1.0 million in fee revenue per month. Historically, the minimum annual availability fee revenue collected over the past 20 years was \$10.7 million in FY 2010 at lower fee levels.

³ As part of the FY 2021 Adopted Budget Plan, the County assumed a 5 percent decline in revenues for delinquent payments as a result of the COVID-19 pandemic. Updated data through June 2020 indicated delinquent payments to be immaterial. As a result, \$10.0 million was added back to the FY 2021 Revised Budget Plan.

⁴ The FY 2021 Revised Budget Plan Transfer Out to Fund 69300, Sewer Construction Improvements, increased \$12.0 million. This increase was necessary to support Fairfax County's share of facility improvements at the Alexandria Wastewater Treatment Plant to comply with nutrient discharge limits.

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⁵ The Wastewater Management Program maintains fund balances at adequate levels relative to projected debt service requirements, operation and maintenance expenses and capital improvements.

⁶ The Operating and Maintenance Reserve provides for unforeseen expenses associated with sewer system emergencies. This reserve is targeted to be maintained at a level between \$25.0 and \$45.0 million. This level of reserve is based on an industry practice to maintain existing customer reserves at a level that can support 30 and 180 days of working capital and approximately 50 percent of one year's requirements for rehabilitation and replacement of the current system's assets.

⁷ The New Customer Reserve provides for debt service and administrative expenses associated with new customer debt, until such time as adjustments to availability charges can be accommodated. This reserve is based on payment expenses associated with one year of debt service and administrative expenses associated with new customer debt.

⁸ The Virginia Resource Authority Reserve was established in anticipation of debt service reserve requirements for Virginia Resource Authority loans related to future treatment plant issues. The reserve will be used to cover the final year of scheduled debt service for FY 2022.

⁹ The Capital Reinvestment Reserve is intended to address both anticipated and unanticipated increases within the Capital Improvement Program. This reserve will provide for significant rehabilitation and replacement of emergency infrastructure repairs. A reserve of 3.0 percent of the five-year capital plan is consistent with other utilities and is recommended by rating agencies. Based on the total five-year capital plan, an amount of \$30.0 million would be required to reach 3.0 percent.