

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 February 2020 Wastewater Revenue Sufficiency and Rate Analysis and the consultant's COVID Sensitivity Analysis Technical Memo dated April 16, 2020.

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 2021, the Availability Charge will remain the same at \$8,340 for single-family homes based on the COVID-19 pandemic and 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 2021 rate is consistent with the recommendations of DPWES, the analysis included in the February 2020 Wastewater Revenue Sufficiency and Rate Analysis report and the consultant's COVID-19 Sensitivity Analysis Technical Memo dated April 16, 2020. Rates are expected to remain the same for FY 2021 and increase by 1.0 percent each year through FY 2025. The following table displays the rates by category:

Category	FY 2020 Availability Charge	FY 2021 Availability Charge
Single Family	\$8,340	\$8,340
Townhouses and Apartments	\$6,672	\$6,672
Hotels/Motels	\$2,085	\$2,085
Nonresidential	\$417/fixture unit	\$417/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 2020 Adopted Budget Plan proposed to increase the sewer charges by 6.0 percent in FY 2021. After a careful review and due to the COVID-19 pandemic, the Wastewater Management staff recommended and the Board of Supervisors agreed to keep the sewer charges unchanged in

Fund 69000: Sewer Revenue

FY 2021. The Sewer Service Charge will remain level at \$7.28 per 1,000 gallons of water consumed based on Fairfax County's winter quarter average consumption of 18,000 gallons.

The Base Charge will remain level at \$32.91 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 2021 is equal to 22.9 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 remain at \$655.80 in FY 2021. The FY 2021 average bill in Fairfax County is one of the lowest compared to the average bill in other regional jurisdictions. The increases in the Sewer Service Charge and Base Charge from FY 2022 to FY 2025 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
2020	\$7.28	\$32.91	4.8%	21.6%
2021	\$7.28	\$32.91	0.0%	22.9%
2022	\$7.94	\$39.05	11.0%	23.2%
2023	\$8.20	\$43.12	4.8%	23.7%
2024	\$8.48	\$47.36	4.9%	24.9%
2025	\$8.90	\$49.73	5.0%	25.2%

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 septicage 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.

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

Fund 69000: Sewer Revenue

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 2021. The fee for low strength waste will also remain the same at \$7.28 per 1,000 gallons of hauler truck capacity FY 2021 due to the COVID-19 pandemic. 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 2021 revenue from charges for hauled wastewater is equal to \$148,500.

This level of revenue in FY 2021 will allow the system to meet permit conditions, meet and maintain all of the required financial targets through FY 2025, 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 2021 and FY 2022. 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 ¹				
Financial Indicator	Target	Achieved	FY 2021	FY 2022
Net Revenue Margin	37.0% to 50.0%	Yes	43.4%	51.1%
Days Working Capital ²	150 to 200 days	Yes	188	189
Debt Coverage Senior	Min. 2.50x	Yes	2.89x	3.50x
Debt Coverage All-in ³	1.80x to 2.20x	Yes	1.62x	2.12x
Affordability (% of median income spent on sewer bill)	Less than 1.2%	Yes	0.6%	0.6%
Debt to Net Plant in Service	Below 40.0% Never above 50.0%	Yes	32.8%	35.2%
Outstanding Debt per Connection	Max \$3,000	Yes	\$1,578	\$1,750
Next Sewer Bond Sale Expected in FY 2021			\$200 million	

¹ Amounts shown are based on a financial model valid as of April 30, 2020.

² 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.

³ The Debt Coverage All-in financial indicator is exclusive of Availability Charges. The decrease in coverage for FY 2021 is due to a combination of loss of revenue due to no rate increase and the COVID-19 pandemic and the issuance of bonds in FY 2021. It is expected that this is a one-time decrease in FY 2021 and coverage levels will return to the targeted levels in FY 2022.

It is anticipated that the rates in FY 2021 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 since no rate increase is programmed for FY 2021. The FY 2021 projected revenues were decreased from \$247.8 million as part of the FY 2021 Advertised Budget Plan to \$200 million as part of the FY 2021 Adopted Budget Plan, a decrease of \$47.8 million or 19.3 percent. The resulting revenue loss assumes the following: the COVID-19 pandemic continues throughout FY 2021; no increase in residential-billed flows due to stay-at-home orders because of the County's sewer billing cap, which is based on the prior winter usage, and decreased flow billings to commercial and government facilities, which resulted in a decrease of \$31.9 million; and no availability fees due to a slowdown in development, which resulted in a decrease of \$15.9 million. To proactively address the negative financial impact, the System is reducing some projected operating expenditures through delaying the replacement of vehicles and equipment, slowing down some capital projects, and using some of the existing cash reserves. Consistent with the Board's decision with the adoption of the FY 2021 budget, the elimination of employee raises and eliminating new positions will also impact operating expenditures for FY 2021. The System's 10-year financial plan has been updated to include adjustments for revenue losses from the pandemic and closely monitoring unfolding trends throughout the year.

Changes to FY 2020 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2020 Revised Budget Plan since passage of the FY 2020 Adopted Budget Plan. Included are all adjustments made as part of the FY 2019 Carryover Review, FY 2020 Third Quarter Review, and all other approved changes through April 30, 2020.

There have been no expenditure adjustments to this fund since approval of the FY 2020 Adopted Budget Plan. However, the Transfers Out were increased by \$1,030,000. This adjustment included an increase of \$30,000 to the Transfer Out to Fund 69010, Sewer Operation and Maintenance, to support Operating Expenses; an increase of \$7,900,000 to the Transfer Out to Fund 69020, Sewer Bond Parity Debt Service, to support debt service expenses; and an increase of \$3,100,000 to the Transfer Out to Fund 69040, Sewer Bond Subordinate Debt Service, to support subordinate debt service expenses. These increases are partially offset by a decrease of \$10,000,000 to the Transfer Out to Fund 69300, Sewer Construction Improvements, to support capital projects.

Fund 69000: Sewer Revenue

FUND STATEMENT

Category	FY 2019 Actual	FY 2020 Adopted Budget Plan	FY 2020 Revised Budget Plan	FY 2021 Advertised Budget Plan	FY 2021 Adopted Budget Plan
Beginning Balance	\$90,507,789	\$95,645,692	\$108,685,073	\$115,107,774	\$115,107,774
Revenue:					
Lateral Spur Fees	\$9,600	\$16,911	\$16,911	\$17,020	\$17,020
Water Reuse Charges	234,058	164,606	164,606	164,606	164,606
Sales of Service	11,051,369	9,042,552	9,042,552	10,000,620	10,000,620
Availability Charges	21,473,258	15,887,138	15,887,138	15,887,138	1,869
Connection Charges	673,942	34,425	34,425	34,648	34,648
Sewer Service Charges	198,631,795	209,182,463	209,182,463	220,107,939	188,174,662
Miscellaneous Revenue	361,043	664,606	664,606	829,212	829,212
Sale Surplus Property	42,425	100,000	100,000	100,000	100,000
Interest on Investments	2,669,794	650,000	650,000	650,000	650,000
Total Revenue	\$235,147,284	\$235,742,701	\$235,742,701	\$247,791,183	\$199,972,637
Total Available	\$325,655,073	\$331,388,393	\$344,427,774	\$362,898,957	\$315,080,411
Transfers Out:					
Sewer Operation and Maintenance (69010)	\$100,470,000	\$109,220,000	\$109,220,000	\$115,500,000	\$109,250,000
Sewer Bond Parity Debt Service (69020)	21,250,000	23,100,000	23,100,000	31,000,000	31,000,000
Sewer Bond Subordinate Debt Service (69040)	25,250,000	22,000,000	22,000,000	25,100,000	25,100,000
Sewer Construction Improvements (69300)	70,000,000	75,000,000	75,000,000	85,000,000	65,000,000
Total Transfers Out	\$216,970,000	\$229,320,000	\$229,320,000	\$256,600,000	\$230,350,000
Total Disbursements	\$216,970,000	\$229,320,000	\$229,320,000	\$256,600,000	\$230,350,000
Ending Balance¹	\$108,685,073	\$102,068,393	\$115,107,774	\$106,298,957	\$84,730,411
Management Reserves:					
Operating and Maintenance Reserve ²	\$45,000,000	\$45,000,000	\$45,000,000	\$43,000,000	\$30,000,000
New Customer Reserve ³	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000
Virginia Resource Authority Reserve ⁴	5,974,892	5,974,892	5,974,892	5,974,892	5,974,892
Capital Reinvestment Reserve ⁵	27,710,181	21,093,501	34,132,882	27,324,065	18,755,519
Total Reserves	\$108,685,073	\$102,068,393	\$115,107,774	\$106,298,957	\$84,730,411
Unreserved Balance	\$0	\$0	\$0	\$0	\$0

¹ The Wastewater Management Program maintains fund balances at adequate levels relative to projected debt service requirements, operation and maintenance expenses and capital improvements. The FY 2021 Adopted figure is projected to decrease notably compared to the FY 2021 Advertised figure as no rate increase is planned for FY 2021 with the resulting lower Sewer Service Charges and the elimination of Availability Charges based on an assumed slowdown in development. Financial monitoring will continue throughout FY 2021 as additional billing information becomes available.

² 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 and \$45 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.

Fund 69000: Sewer Revenue

³ 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.

⁴ 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.

⁵ 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 million would be required to reach 3.0 percent.