

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); and Subordinate Debt Service (Fund 69040). 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 2014 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 treatment facilities. In FY 2015, Availability Charge will remain at \$7,750 for single-family homes based on current projections of capital requirements. Rates are based on requirements associated with treatment plant upgrades and interjurisdictional payments that result from population growth, more stringent treatment requirements and inflation. The FY 2015 rate is consistent with the recommendations of the Department of Public Works and Environmental Services and the analysis included in the January 2014 Wastewater Revenue Sufficiency and Rate Analysis report prepared by a financial consultant to the Wastewater Management Program. Rates are expected to remain at the FY 2015 level through FY 2018. The following table displays the rates by category:

| Category | FY 2014 Availability Fee | FY 2015 Availability Fee |
|---------------------------|-----------------------------|-----------------------------|
| Single Family | \$7,750 | \$7,750 |
| Townhouses and Apartments | \$6,200 | \$6,200 |
| Hotels/Motels | \$1,938 | \$1,938 |
| Nonresidential | \$401/fixture unit | \$401/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 2014 Adopted Budget Plan proposed to increase sewer revenues by 6.0 percent in FY 2015. This would have increased the annual cost to the typical household by \$30.28. Wastewater Management staff proposed and the Board of Supervisors approved revised billing rates for both Sewer Service Charges and Base Charges, which will result in an increase of 3.3 percent to a typical household, a reduction of 2.7

Fund 69000 Sewer Revenue

percent from the FY 2014 projection. At the request of the Board of Supervisors, the FY 2015 rate increase is distributed between the Base Charge and the Sewer Service Charge. The Base Charge will increase from \$12.79 per quarter to \$15.86 per quarter. The Sewer Service Charge will increase from \$6.55 to \$6.62 per 1,000 gallons of water consumed. Based on Fairfax County's winter quarter average consumption of 18,000 gallons, the average customer will see an annual cost increase of \$17.32 or 3.3 percent. This 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.

Base charges provides for a more equitable rate structure by recovering a portion of the Program's fixed costs. The industry practice for a fixed cost recovery rate is 25 percent. In order to strive towards this level of recovery, a phase-in approach is being proposed with a cost recovery rate in FY 2015 of 12.9 percent. The current System, including sewer lines, facilities, purchased capacity and equipment, is valued at approximately \$1.9 billion. Based on the age and required maintenance of the system, it is imperative that reinvestment continues to be addressed. The implementation of the proposed increases to the Base Charge will help ensure that all users of the system share in the fixed costs associated with reinvestment and operations.

| Year | Sewer Service Charge Per 1,000 gallons water consumed | New Base Charge Per Quarterly Bill | Revenue Percentage Increase | Percent Fixed Cost Recovered |
|------|---|---------------------------------------|--------------------------------|---------------------------------|
| 2014 | \$6.55 | \$12.79 | 6.0% | 10.7% |
| 2015 | \$6.62 | \$15.86 | 3.3% | 12.9% |
| 2016 | \$6.65 | \$20.15 | 4.0% | 15.9% |
| 2017 | \$6.68 | \$24.68 | 4.0% | 18.8% |
| 2018 | \$6.75 | \$27.62 | 3.0% | 20.4% |

The FY 2015 Sewer Service Charges will increase a total of 6.9 percent compared to the FY 2014 Adopted Budget Plan, which reflects a 3.3 percent increase associated with the rate increase and a 3.6 percent increase based on new customer growth. The level of revenue required in FY 2015 will allow the system to meet permit conditions, meet and maintain all of the required financial targets through FY 2018, maintain competitive rates with neighboring utilities, continue to preserve an AAA bond rating, and require less debt to support capital projects. Projected revenue requirements are consistent with the analysis included in the January 2014 Wastewater Revenue Sufficiency and Rate Analysis report. The reduction in revenue requirements from the level projected in the FY 2014 budget is possible due to operational savings such as savings associated with chemicals used in the treatment of wastewater, energy consumption savings due to replacing fixed drive pumps with variable drive pumps, lower than anticipated utility requirements, and other operational efficiencies throughout the program.

The table below reflects the Wastewater Management Program's projected fiscal health in FY 2015 and FY 2016. 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.

Fund 69000 Sewer Revenue

Calculated Financial Indicators

| Financial Indicator | Target | Achieved | FY 2015 | FY 2016 |
|--|-----------------|----------|---------|-----------|
| Net Revenue Margin | 45.0% to 52.0% | Yes | 51.6% | 51.9% |
| Days Working Capital ¹ | 150 to 200 days | Yes | 156 | 157 |
| Debt Coverage Senior | Min. 3.00x | Yes | 4.50x | 3.37x |
| Debt Coverage All-in | 1.80x to 2.20x | Yes | 2.02x | 2.09x |
| Affordability (% of median income spent on sewer bill) | Less than 1.2% | Yes | 0.5% | 0.5% |
| Debt to Net Plant in Service | 40.0% to 50.0% | Yes | 50.8% | 48.5% |
| Outstanding Debt per Connection | Max \$3,000 | Yes | \$1,633 | \$1,556 |
| Anticipated Sewer Bond Sales Through FY 2018 | | | | \$100.0 M |

(1) Exclusive of Availability Charges in Fund 69000, Sewer Revenue Fund, and Fund 69300, Sewer Construction Improvement Fund. Calculated based on Operating Expenses and 360 days.

It is anticipated that the proposed rates in FY 2015 will support the County's ability to maintain high bond ratings (AAA by Fitch Investor Service and Standard and Poor's Corporation and Aa1 by Moody's Investors Service, Inc.) from 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.

Changes to FY 2014 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2014 Revised Budget Plan since passage of the FY 2014 Adopted Budget Plan. Included are all adjustments made as part of the FY 2013 Carryover Review, FY 2014 Third Quarter Review, and all other approved changes through April 30, 2014.

- ◆ There have been no revisions to this fund since approval of the FY 2014 Adopted Budget Plan.

Fund 69000 Sewer Revenue

FUND STATEMENT

Fund 69000, Sewer Revenue

| | FY 2013 Actual | FY 2014 Adopted Budget Plan | FY 2014 Revised Budget Plan | FY 2015 Advertised Budget Plan | FY 2015 Adopted Budget Plan |
|--|----------------------|-----------------------------------|-----------------------------------|--------------------------------------|-----------------------------------|
| Beginning Balance | \$119,542,939 | \$132,384,303 | \$142,759,050 | \$125,747,537 | \$125,747,537 |
| Revenue: | | | | | |
| Lateral Spur Fees | \$27,600 | \$51,000 | \$51,000 | \$6,000 | \$6,000 |
| Sales of Service | 9,886,546 | 10,727,717 | 10,727,717 | 10,727,717 | 10,727,717 |
| Availability Charges | 20,477,318 | 19,984,500 | 19,984,500 | 19,375,000 | 19,375,000 |
| Connection Charges | 348,983 | 76,250 | 76,250 | 76,250 | 76,250 |
| Sewer Service Charges | 163,052,021 | 171,473,020 | 171,473,020 | 183,232,260 | 183,232,260 |
| Miscellaneous Revenue | 238,480 | 150,000 | 150,000 | 150,000 | 150,000 |
| Sale Surplus Property | 187,421 | 30,000 | 30,000 | 100,000 | 100,000 |
| Interest on Investments | 747,742 | 485,000 | 485,000 | 792,530 | 792,530 |
| Total Revenue | \$194,966,111 | \$202,977,487 | \$202,977,487 | \$214,459,757 | \$214,459,757 |
| Total Available | \$314,509,050 | \$335,361,790 | \$345,736,537 | \$340,207,294 | \$340,207,294 |
| Transfers Out: | | | | | |
| Sewer Operation and Maintenance (69010) | \$93,750,000 | \$96,000,000 | \$96,000,000 | \$92,000,000 | \$92,000,000 |
| Sewer Bond Parity Debt Service (69020) | 21,000,000 | 12,000,000 | 12,000,000 | 18,500,000 | 18,500,000 |
| Sewer Bond Subordinate Debt Service (69040) | 27,000,000 | 27,500,000 | 27,500,000 | 25,000,000 | 25,000,000 |
| Sewer Construction Improvements (69300) | 30,000,000 | 84,489,000 | 84,489,000 | 83,693,176 | 83,693,176 |
| Total Transfers Out | \$171,750,000 | \$219,989,000 | \$219,989,000 | \$219,193,176 | \$219,193,176 |
| Total Disbursements | \$171,750,000 | \$219,989,000 | \$219,989,000 | \$219,193,176 | \$219,193,176 |
| Ending Balance¹ | \$142,759,050 | \$115,372,790 | \$125,747,537 | \$121,014,118 | \$121,014,118 |
| Management Reserves: | | | | | |
| Operating and Maintenance Reserve ² | \$45,000,000 | \$45,000,000 | \$45,000,000 | \$45,000,000 | \$45,000,000 |
| New Customer Reserve ³ | 23,000,000 | 23,000,000 | 23,000,000 | 33,138,000 | 33,138,000 |
| Virginia Resource Authority Reserve ⁴ | 6,637,072 | 6,637,072 | 6,637,072 | 6,637,072 | 6,637,072 |
| Capital Reinvestment Reserve ⁵ | 29,500,000 | 29,500,000 | 29,500,000 | 30,000,000 | 30,000,000 |
| Total Reserves | \$104,137,072 | \$104,137,072 | \$104,137,072 | \$114,775,072 | \$114,775,072 |
| Unreserved Balance | \$38,621,978 | \$11,235,718 | \$21,610,465 | \$6,239,046 | \$6,239,046 |

Fund 69000 Sewer Revenue

¹ The Wastewater Management Program maintains fund balances at adequate levels relative to projected debt service requirements, operation and maintenance expenses and capital improvements.

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 industry practice to maintain existing customer reserves at a level which 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.

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. Based on the most recent Sewer Bond sale in 2012, the FY 2015 reserve is recommended at a level of approximately \$33 million.

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. In FY 2015, this reserve has reached an amount which is 3.0 percent of the total five year capital funding plan or \$30,000,000. A reserve of 3.0 percent of the five year capital plan is consistent with other utilities and is recommended by rating agencies.