

# 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 (formerly Fund 400), 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 2013 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 2014, 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 2014 rate is consistent with the recommendations of the Department of Public Works and Environmental Services and the analysis included in the January 2013 Wastewater Revenue Sufficiency and Rate Analysis report prepared by Public Resource Management Group, a financial consultant to the Wastewater Management Program. Rates are expected to remain at the FY 2013 level through FY 2017. The following table displays the rates by category.

Category	FY 2013 Availability Fee	FY 2014 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

### Sewer Service Charges and Base Charges

Sewer Service 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 Sewer Service Charge included in the 5-year plan approved by the Board of Supervisors as part of the FY 2013 Adopted Budget Plan was proposed to increase 8.0 percent in FY 2014. This would have increased the Sewer Service Charge from \$6.55 to \$7.07 per 1,000 gallons of water consumption in FY 2014, resulting in an anticipated increase in the annual cost to the typical household of \$37.44.

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Wastewater Management staff in consultation with Public Resources Management Group is proposing a revised billing process for both Sewer Service and Base charges which will result in an increase of 6 percent, a reduction of 2 percent from the FY 2013 projection, or an increase in the annual cost to the typical household of \$29.16.

The level of revenue required in FY 2014 to allow the system to: meet permit conditions, meet and maintain all of the required financial targets through FY 2017, maintain competitive rates with neighboring utilities, continue to preserve AAA credit rating and require less debt to support capital projects would require an increase of 6 percent. The level of revenue required is consistent with the analysis included in the January 2013 Wastewater Revenue Sufficiency and Rate Analysis report. This reduction in revenue requirements is possible due to operational savings such as savings associated with chemicals used in the treatment of wastewater, energy consumption savings due to replacing fix drive pumps with variable drive pumps, lower than anticipated utility requirements and other operational efficiencies throughout the program.

In FY 2014, staff is proposing a more balanced rate implementation program by increasing the Base Charge instead of the Sewer Service Charge. This approach is consistent with other utilities in the area and provides for a more equitable rate structure by recovering a portion of the Program's fixed costs while holding the Sewer Service Charge at the current rate of \$6.55 per 1,000 gallons water consumed. The impact of the proposed increase in the Base Charge on a typical household is effectively the same as if the Sewer Service Charge were to increase by 6 percent. Currently, Fairfax County uses the winter quarter average to determine sewer invoices. The proposal to increase the Base Charge in order to recover the fixed cost of providing sewer service to those customers who do not consume water in the winter months, but consume water during the remainder of the year, will no longer be subsidized by the other customers. The current Base Charge of \$5.50 per quarter recovers only the cost of customer billing as charged by Fairfax Water. The Base Charge is proposed to increase \$7.29 per quarter for a total Base Charge of \$12.79 per quarterly bill. The proposed Base Charge will recover 100 percent of the cost of billing and approximately 5.2 percent of the Program's fixed costs. Industry practice for fixed cost recovery rate is 25 percent. In order to strive towards such recovery rate, a phase-in approach is being proposed through FY 2017 to increase the Base Charge, and maintain the Sewer Service Charge at \$6.55 per 1,000 gallons water consumed. 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	Percent Cost Recovered
2013	\$6.55	\$ 5.50	3.52%
2014	\$6.55	\$12.79	8.70%
2015	\$6.55	\$20.36	13.51%
2016	\$6.55	\$25.34	16.37%
2017	\$6.55	\$30.45	19.09%

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The FY 2014 Sewer Service Charge and the Base Charge will generate an additional \$9.7 million in revenue over the *FY 2013 Revised Budget Plan* amount and 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. Other sources of revenue are projected to remain fairly flat due to a moderate level of new development and growth anticipated in the County as compared to previous years.

The table below reflects the Wastewater Management Program's projected fiscal health in FY 2014 and FY 2015. The financial planning process incorporates these 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	Achieved	FY 2014	FY 2015
Net Revenue Margin	Min. 45.0%	Yes	46.2%	47.2%
Days Working Capital [1]	90 to 120	Yes	304	291
Debt Coverage Senior	Min. 3.00x	Yes	3.85x	3.73x
Debt Coverage All-in	Min 1.75x	Yes	2.14x	2.10x
Net Capital Funds Available Ratio	Min 3.0%	Yes	4.1%	3.7%
Debt to Net Plant in Service	Max 50.0%	Yes	45.3%	49.0%
Outstanding Debt per Connection	Max \$3,000	Yes	\$2,349	\$2,591
Anticipated Sewer Bond Sales Through FY 2018				\$192.0 M

[1] Exclusive of Availability Charges in Fund 69300 Sewer Construction Improvement Fund. Calculated based on Operating Expenses and 360 days.

The series 2012 Sewer Revenue Bonds in the amount of \$110 million support capital projects including enhanced nutrient removal upgrades at the Noman M. Cole, Jr. Pollution Control Plant and treatment by contract wastewater treatment facilities. An original bond amount of \$150 million was proposed but reduced to \$110 million due to the sale of 2.0 mgd of capacity to Prince William County which was approved by the Board of Supervisors on January 25, 2011, providing approximately \$40 million in revenues for the system. It is anticipated that the proposed billing changes in FY 2014 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 2013 Adopted Budget Plan**

*The following funding adjustments reflect all approved changes in the FY 2013 Revised Budget Plan since passage of the FY 2013 Adopted Budget Plan. Included are all adjustments made as part of the FY 2012 Carryover Review, and all other approved changes through December 31, 2012:*

- ◆ There have been no revisions to this fund since approval of the FY 2013 Adopted Budget Plan.

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## FUND STATEMENT

### Fund 69000, Sewer Revenue

	FY 2012 Actual	FY 2013 Adopted Budget Plan	FY 2013 Revised Budget Plan	FY 2014 Advertised Budget Plan
<b>Beginning Balance</b>	\$96,393,648	\$117,973,930	\$119,595,619	\$132,436,983
Revenue:				
Lateral Spur Fees	\$87,000	\$10,000	\$10,000	\$51,000
Sales of Service	10,544,496	8,929,364	8,929,364	10,727,717
Availability Charges	28,959,575	12,927,000	12,927,000	19,984,500
Connection Charges	125,430	30,000	30,000	76,250
Sewer Service Charges	148,891,691	161,767,000	161,767,000	171,473,020
Miscellaneous Revenue	323,720	150,000	150,000	150,000
Sale Surplus Property	30,527	30,000	30,000	30,000
Interest on Investments	428,116	748,000	748,000	485,000
<b>Total Revenue</b>	<b>\$189,390,555</b>	<b>\$184,591,364</b>	<b>\$184,591,364</b>	<b>\$202,977,487</b>
<b>Total Available</b>	<b>\$285,784,203</b>	<b>\$302,565,294</b>	<b>\$304,186,983</b>	<b>\$335,414,470</b>
Transfers Out:				
Sewer Operation and Maintenance (69010)	\$86,000,000	\$93,750,000	\$93,750,000	\$96,000,000
Sewer Construction Improvements (69300)	29,000,000	30,000,000	30,000,000	84,489,000
Sewer Bond Parity Debt Service (69020)	25,554,960	21,000,000	21,000,000	12,000,000
Sewer Bond Subordinate Debt Service (69040)	25,633,624	27,000,000	27,000,000	27,500,000
<b>Total Transfers Out</b>	<b>\$166,188,584</b>	<b>\$171,750,000</b>	<b>\$171,750,000</b>	<b>\$219,989,000</b>
<b>Total Disbursements</b>	<b>\$166,188,584</b>	<b>\$171,750,000</b>	<b>\$171,750,000</b>	<b>\$219,989,000</b>
<b>Ending Balance<sup>1</sup></b>	<b>\$119,595,619</b>	<b>\$130,815,294</b>	<b>\$132,436,983</b>	<b>\$115,425,470</b>
Management Reserves:				
Operating and Maintenance Reserve <sup>2</sup>	\$45,000,000	\$45,000,000	\$45,000,000	\$45,000,000
New Customer Reserve <sup>3</sup>	23,000,000	23,000,000	23,000,000	23,000,000
Virginia Resource Authority Reserve <sup>4</sup>	6,637,072	6,637,072	6,637,072	6,637,072
Capital Reinvestment Reserve <sup>5</sup>	23,000,000	29,500,000	29,500,000	29,500,000
<b>Total Reserves</b>	<b>\$97,637,072</b>	<b>\$104,137,072</b>	<b>\$104,137,072</b>	<b>\$104,137,072</b>
<b>Unreserved Balance</b>	<b>\$21,958,547</b>	<b>\$26,678,222</b>	<b>\$28,299,911</b>	<b>\$11,288,398</b>

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

<sup>2</sup> 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.

<sup>3</sup> 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 targeted to be maintained at approximately \$22 to \$23 million. This level of reserve is based on payment expenses associated with one year of debt service and administrative expenses associated with new customer debt.

<sup>4</sup> 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.

<sup>5</sup> 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 as well as fluctuations in project scope requirements. It is anticipated that this reserve will eventually reach an amount which is 3.0 percent of the total five year capital funding plan or approximately \$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.