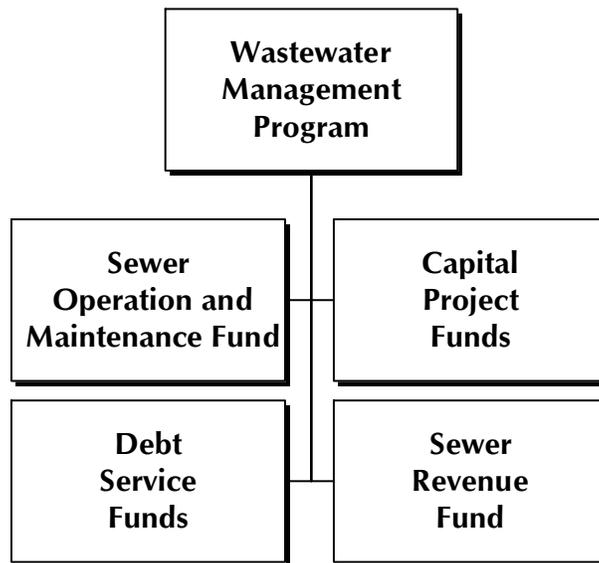


Wastewater Management Program Overview



Focus

The Wastewater Management Program (WWM) is operated, maintained and managed within the Department of Public Works and Environmental Services. The program currently includes the County-owned Noman M. Cole, Jr. Pollution Control Plant (54 million gallons per day (mgd) capacity), approximately 3,260 miles of sewer lines, 64 pump stations, 53 flow-metering stations, and covers approximately 234 square miles of the County's 407 square-mile area. Capacity entitlement at the other regional facilities totals 94 mgd. A total of 333/332.50 SYE positions will perform wastewater maintenance and operations in FY 2006. The WWM anticipates a total of 351,905 households in Fairfax County will be connected to public sewer in FY 2006.

In addition to providing County residents and businesses with sewer service, Fairfax County provides sewer service to other nearby jurisdictional entities through "Sales of Service" agreements with Arlington County, the cities of Falls Church and Fairfax, the towns of Herndon and Vienna, Fort Belvoir, the Covanta Waste-to-Energy facility and the Fairfax County Water Authority. These entities share the capital and operating costs of the WWM based on actual wastewater flow and reserved treatment capacity.

The strategic planning and overall business monitoring is the responsibility of the Wastewater Management Leadership Team, whose responsibilities focus on long range planning, strategic thinking, continuous improvement processing, wastewater capacity, and financial management. This team is comprised of employees from the three divisions within WWM.

The Wastewater Collection Division (WCD) is responsible for the County's wastewater collection and conveyance system consisting of sewers, force mains, pumping stations and metering stations. The WCD has a proactive sewer system maintenance program that facilitates a safe and effective wastewater collection system. Each year, over 800 miles of sewer lines are inspected and about 400 miles of sewer lines are cleaned to ensure maximum flow carrying capacity and reduce sewer backups and overflows. Over the last five years, WCD has rehabilitated 120 miles of sewer lines to protect the environment and citizens of Fairfax County.

The Wastewater Treatment Division (WTD) is responsible for operating and maintaining the County's wastewater treatment facility, the Noman M. Cole, Jr. Pollution Control Plant (NCPCP). The WTD continues to produce a quality effluent to meet regulatory and permit requirements, despite major construction occurring throughout the plant site. The NCPCP has improved performance with no significant increase in costs. In addition, the NCPCP continues to make significant efforts to be a "good neighbor" by constructing an odor control system, which improves the air quality around the plant.

Wastewater Management Program Overview

The Wastewater Planning and Monitoring Division (WPMD) is responsible for the agency's fiscal planning, engineering planning and wastewater monitoring. The WPMD continues to effectively monitor the long-term planning needs for the Wastewater Management Program in terms of infrastructure upgrades, maintenance and expansions. The WPMD ensures that all financial requirements are fulfilled by maintaining a rate structure to adequately recover all operating and maintenance costs, capital improvements and debt service obligations. The WPMD also plans for system capacity, both in the conveyance system and treatment facilities, by initiating expansion and improvement projects to keep pace with increased wastewater flows. The WPMD safeguards the environment by ensuring compliance with water quality standards and prevention of toxic discharges into the collection system.

The system supplements the capacity of its own collections and treatment facilities through "Treatment by Contract" agreements with the District of Columbia Water and Sewer Authority (DCWASA), the Alexandria Sanitation Authority (ASA), the Upper Occoquan Sewage Authority (UOSA) and Arlington County. As stated in the individual agreements, the County pays its share of operating, capital and/or debt costs of each entity's system based on actual wastewater flows and allocated capacity, respectively.

The Wastewater Management Program has issued debt to fund major expansion and upgrade projects for both its own plant and its portion at the "Treatment by Contract" facilities. The following is a table showing the remaining debt service as of July 1, 2004.

Wastewater Management Debt Service			
Years	Principal	Interest	Total
2005	\$8,991,627	\$15,720,302	\$24,711,929
2006	8,152,723	18,194,214	26,346,937
2007	8,960,219	17,802,026	26,762,245
2008	11,401,004	17,375,716	28,776,720
2009	11,878,971	16,905,753	28,784,724
2010	12,392,309	16,405,134	28,797,443
2011	13,490,784	15,895,061	29,385,845
2012-2029	329,395,388	154,009,106	483,404,494
TOTAL	\$404,663,025	\$272,307,312	\$676,970,337

In FY 2006, the County is projected to provide for the treatment of 113.23 million gallons of wastewater per day. Approximately 42 percent of this flow is treated at the NCPCP. The flow is distributed between the NCPCP and the interjurisdictional facilities as detailed in the table below. The table also includes the capacity utilization percentage and the available (unused) capacity for each plant.

Treatment Plant	FY 2006 Projected Daily Average (MGD)	Capacity Utilization (%)	Available Capacity (MGD)
DCWASA Blue Plains	27.64	89%	3.36
Norman M. Cole, Jr.	47.45	88%	6.55
Alexandria Sanitation Authority	22.96	71%	9.44
Arlington County	2.30	77%	0.70
Upper Occoquan Sewage Authority	12.88	47%	14.72
Total	113.23	77%	34.77

Wastewater Management Program Overview

To ensure that WMP remains competitive and provides a high performance operation including improvements to the technical and managerial capacities that will continue to enhance service quality, customer service and financial planning, WMP closely monitors the following areas:

	FY 2004	FY 2005	FY 2006
Sewer Service Charge, \$/1,000 gallons	\$3.03	\$3.20	\$3.28
Treatment Plant Costs, \$/MGD	\$1,089	\$1,198	\$1,137
Sewer System Overflows, Number/1,000 Miles of Sewer	16	28	28
Odor Complaints per year	25	55	41

The WWM is comprised of seven separate funds under a self-supporting fund structure (Enterprise Funds) consistent with the Sewer Bond Resolution adopted by the Board of Supervisors in July 1985. For more detailed information of the operational aspects of the various programs, refer to the narrative of Fund 401, Sewer Operation and Maintenance, which immediately follows this Overview. The following is a brief description of the seven active funds:

- ◆ Fund 400 - Sewer Revenue is used to credit all operating revenues of the system, as well as most of the interest on invested fund balances. Revenues recorded in this fund are transferred to the various funds to meet their operational requirements. The remaining fund balances are used to set aside funds for various reserves and future system requirements.
- ◆ Fund 401 - Sewer Operation and Maintenance provides funding for the three divisions responsible for the management and operation of the program, supported by a transfer from Fund 400.
- ◆ Fund 402 - Sewer Construction Improvements provides funding for the repair, rehabilitation and improvement requirements of the entire program's infrastructure.
- ◆ Fund 403 - Sewer Bond Debt Service is used to record principal, interest and fiscal agent fees for the 2004 Sewer Revenue Refunding Bonds Series in accordance with the current Sewer Bond Resolution.
- ◆ Fund 406 - Sewer Bond Debt Reserve provides debt reserve funds for the 1996 Series of Sewer Revenue Bonds in accordance with the current Sewer Bond Resolution.
- ◆ Fund 407 - Sewer Bond Subordinate Obligations records all debt service payments on the UOSA revenue bonds, VRA Loans, and ASA revenue bonds. All future issues or refinancing of debt arising from interjurisdictional capacity rights may be treated as subordinate obligations of the system as provided by the General Bond Resolution for Sewer Revenue Bonds.
- ◆ Fund 408 - Sewer Bond Construction provides for major program construction projects, which are funded from the issuance of sewer revenue bonds and/or program revenues.