
PROGRAM: Wastewater Treatment Plant & Blue Plains

DEPARTMENT: Environmental Services

PROGRAM DESCRIPTION: The Water Pollution Control Plant (WPCP) processes and recycles of an average of 30 million gallons of wastewater per day. Virginia's Department of Environmental Quality (DEQ) and the U.S. Environmental Protection Agency (EPA) regulate and monitor operations at the Plant for compliance.

There are three components of the capital program for the WPCP: 1) Plant non-expansion capital, 2) charges from the Blue Plains Sewage Plant, and 3) the 2001 Update to the WPCP Master Plan, or plant expansion capital.

The Water Pollution Control Plant's non-expansion capital program provides annually for the repair and replacement of current plant equipment and infrastructure at the Plant and lift stations. Major components of this program include refurbishing or replacing equipment to prevent premature failure, completing infrastructure improvements, and automating treatment processes to increase operational efficiency. Non-expansion capital, in conjunction with daily Plant operations and the on-going expansion program, ensures continued operations and compliance with the National Pollution Discharge Elimination System (NPDES) Permit and Virginia Department of Environmental Quality (VDEQ) Operating Permit.

The WPCP Capital program also funds Arlington's annual payment through Fairfax County to the District of Columbia Water-Sewer Authority Blue Plains Plant for capital improvements, as the Blue Plains Plant processes a portion of the County's sewage.

The Plant expansion capital program consists solely of the 2001 Update to the WPCD Master Plan. The Water Pollution Control Plant has undertaken an extensive process to develop the 2001 Update to the Master Plan to create a wastewater treatment facility that is attractive, sustainable, and a model facility. The Master Plan has been divided into two phases: Immediate Needs and Future Issues. The Immediate Needs projects under consideration include replacing failing internal infrastructure, upgrading the facility to create capacity to meet the current and anticipated demand of 40 million gallons per day (mgd) by 2020 and support continued community growth and minimize bypasses. In addition, the Immediate Needs portion of the Plan includes projects to increase operational redundancy to more reliably meet new ammonia limits and improve Plant security and aesthetics. Finally, this portion of the Master Plan will fund research to determine the most environmentally friendly and cost-effective biosolids recycling option. When the designs and cost estimates are fully developed, the Master Plan Immediate Need funding requirement will be presented and evaluated for inclusion in future revisions to the CIP. The Preliminary estimate for the immediate needs portion of the Master Plan is \$135 million in CY 2001 dollars. FY 2003 funding is specifically for detailed architectural and engineering designs to clarify these cost estimates, and for program management and the initial funding of biosolids research. It is assumed that some of the overall project costs will be borne by flow contributors (Fairfax County and the cities of Alexandria and Falls Church) according to existing interjurisdictional agreements.

Beyond FY 2008, Master Plan implementation costs will depend on the potential impact of future regulations. These long-term projections will change as new legislative mandates arise. However, it is highly probable that Federal, state and other funding may be available for a portion of the long-term project costs as these are predicated on regulatory changes and environmental mandates.

PLANNING RELATIONSHIP: The WPCP is nearing completion of the planned \$139 million multi-phased, multi-year expansion and upgrade program which began in FY 1989. As current flows are close to the permitted maximum of 30 million gallons per day and have, at times, exceeded the rated capacity, the WPCP began the Master Planning Process to plan for the future sewage treatment needs of Arlington County. Neighborhood associations, County commissions, neighboring jurisdictions, and

agencies that contribute to flow at the Plant are being given the opportunity to participate in the continuing development of the Plan.

CIP PROJECTS:

PROJECT DESCRIPTION	AMOUNT (\$ in 000's)	FISCAL YEAR	FUNDING SOURCE
1. Plant Non-Expansion	1,538	2003	PAYG
2. Master Plan A&E and Consulting Fees	12,342	2003	Bond
3. Blue Plains	500	2003	PAYG
4. Plant Non-Expansion	1,300	2004	PAYG
5. Blue Plains	600	2004	PAYG
6. Plant Non-Expansion	1,300	2005	PAYG
7. Blue Plains	550	2005	PAYG
8. Plant Non-Expansion	1,300	2006	PAYG
9. Blue Plains	425	2006	PAYG
10. Plant Non-Expansion	1,300	2007	PAYG
11. Blue Plains	400	2007	PAYG
12. Plant Non-Expansion	1,300	2008	PAYG
13. Blue Plains	400	2008	PAYG

PROGRAM TOTALS:

	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	TOTAL
Bond	12,342	-	-	-	-	-	12,342
PAYG	2,038	1,900	1,850	1,725	1,700	1,700	10,913
<i>Less Inter- Jurisdictional Payment.</i>		489	550	550	550	550	2,689
Utility Fund / Operating Revenue	14,380	1,411	1,300	1,175	1,150	1,150	20,566