

Blue Plains WWTP: Enhanced Nutrient Removal

A. Identification and Coding Information			PDF Date	October 1, 2020	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Bi-County 30
S - 000022.10	083800	Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'20	Estimate FY'21	Total 6 Years	Year 1 FY'22	Year 2 FY'23	Year 3 FY'24	Year 4 FY'25	Year 5 FY'26	Year 6 FY'27	Beyond 6 Years
Planning, Design & Supervision											
Land											
Construction	429,757	420,224	291	3,042	115	920	996			1,011	6,200
Other	95		3	30	1	9	10			10	62
Total	429,852	420,224	294	3,072	116	929	1,006			1,021	6,262

C. Funding Schedule (000's)

WSSC Bonds	179,108	170,008	278	2,904	110	878	951			965	5,918
State Aid	242,480	242,480									
City of Rockville	8,264	7,736	16	168	6	51	55			56	344

D. Description & Justification

<p><b>DESCRIPTION</b></p> <p>This project provides funding for WSSC Water's share of the Blue Plains Enhanced Nutrient Removal projects required to achieve nutrient removal to levels below BNR levels to meet the Chesapeake Bay water quality targets determined in the 2010 Bay TMDL and DC Water's 2010 NPDES permit. Major projects to achieve enhanced nutrient removal are substantially completed and operational. Additional projects are required to ensure NPDES permit compliance, as flows and influent load to the plant increase. The projects will include ongoing program management upgrades to the secondary treatment facilities.</p> <p><b>JUSTIFICATION</b></p> <p>The funding schedule reflects the final cost sharing agreement with the Maryland Department of the Environment. Chesapeake Bay Program Tributary Strategies Process (2005); Blue Plains Strategic Process Study, Metcalf &amp; Eddy (2005); Selection of the Enhanced Nitrogen Removal Process Alternative for the Blue Plains Advanced Wastewater Treatment Facility, Metcalf &amp; Eddy (2009); Blue Plains Facilities Master Plan (2016); DC Water Approved FY2021 Capital Improvement Program; and the Blue Plains Inter-municipal Agreement of 2012.</p> <p><b>COST CHANGE</b></p> <p>ENR upgrades are substantially complete. Future upgrades are planned for secondary treatment to provide full nitrification under future flow conditions.</p> <p><b>OTHER</b></p> <p>The project scope has remained the same. Project costs are derived from the DC Water Capital &amp; Operating Budget 10-year forecast and latest project management data, and reflect DC Water's current expenditure estimates and schedules. Total Nitrogen Secondary Treatment Upgrades are scheduled to be initiated in FY'28 or later. At this time there are no additional BRF grant funds approved for this project. Projects extending beyond those supported by State Aid include rehabilitation and upgrades to older projects. Portions of the program have been financed by low interest loans through the Maryland Department of the Environment's Water Quality Administration State Revolving Loan Program. The funding schedule also indicates the calculated Rockville share of the cost.</p> <p><b>COORDINATION</b></p> <p>Coordinating Agencies: City of Rockville;(responsible for a share of funding); DC Water;(responsible for design and construction); Maryland Department of the Environment; U.S. Environmental Protection Agency, Region III</p> <p>Coordinating Projects: S - 000022.06 - Blue Plains WWTP: Liquid Train Projects, Part 2</p>
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E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$11,651	28
Total Cost	\$11,651	28
Impact on Water and Sewer Rate	\$0.03	28

F. Approval and Expenditure Data (000's)	
Date First in Program	FY 08
Date First Approved	FY 07
Initial Cost Estimate	648
Cost Estimate Last FY	440,739
Present Cost Estimate	429,852
Approved Request Last FY	294
Total Expense & Encumbrances	420,224
Approval Request Year 1	116

G. Status Information	
Land Status	Not Applicable
Project Phase	Construction
Percent Complete	96 %
Estimated Completion Date	July 2026

Growth	
System Improvement	
Environmental Regulation	100%
Population Served	
Capacity	169.2 / 370 MGD

H. Map
<p>MAP NOT AVAILABLE</p>