

Blue Plains WWTP: Enhanced Nutrient Removal

A. Identification and Coding Information			PDF Date	October 1, 2019	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'19	Estimate FY'20	Total 6 Years	Year 1 FY'21	Year 2 FY'22	Year 3 FY'23	Year 4 FY'24	Year 5 FY'25	Year 6 FY'26	Beyond 6 Years
Planning, Design & Supervision											
Land											
Construction	440,462	412,789	1,492	21,257	291	316	1,826	1,881	5,737	11,206	4,924
Other	276		15	212	3	3	18	19	57	112	49
Total	440,738	412,789	1,507	21,469	294	319	1,844	1,900	5,794	11,318	4,973

C. Funding Schedule (000's)

WSSC Bonds	192,669	167,000	677	20,292	278	302	1,743	1,796	5,476	10,697	4,700
State Aid	238,981	238,190	791								
City of Rockville	9,088	7,599	39	1,177	16	17	101	104	318	621	273

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC'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 2005 Tributary Strategies Process and DC Water's 2010 NPDES permit. Major projects to achieve enhanced nutrient removal have been completed and are operational. Additional projects are required to ensure NPDES permit compliance, as flows and levels to the plant increase. The projects will include ongoing program management upgrades to the secondary treatment facilities.

JUSTIFICATION

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 & Eddy (2005); Selection of the Enhanced Nitrogen Removal Process Alternative for the Blue Plains Advanced Wastewater Treatment Facility, Metcalf & Eddy (2009); Blue Plains Facilities Master Plan (2016); DCWASA Approved FY2020 Capital Improvement Program; and the Blue Plains Intermunicipal Agreement of 2012.

COST CHANGE

ENR upgrades are substantially complete. Future upgrades are planned for secondary treatment to provide full nitrification under future flow conditions.

OTHER

The project scope has remained the same. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast and latest project management data, and reflect DCWASA's current expenditure estimates and schedules. Total Nitrogen Secondary Treatment Upgrades are scheduled to be initiated in FY23 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.

COORDINATION

Coordinating Agencies: City of Rockville;(responsible for a share of funding); District of Columbia Water and Sewer Authority;(responsible for design and construction); Maryland Department of the Environment; U.S. Environmental Protection Agency, Region III
Coordinating Projects: S - 000022.06 - Blue Plains WWTP: Liquid Train Projects, Part 2

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$12,533	28
Total Cost	\$12,533	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	394,543
Present Cost Estimate	440,738
Approved Request Last FY	1,507
Total Expense & Encumbrances	412,789
Approval Request Year 1	294

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

