

Anacostia #2 WWPS Upgrades

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000089.24		Change

PDF Date	October 1, 2021
Date Revised	

Pressure Zones	
Drainage Basins	Lower Anacostia 9
Planning Areas	Landover & Vicinity PA 72

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	5,366	695	1,999	2,672	1,366	990	316				
Land											
Construction	33,315	79	920	32,316	14,520	13,646	4,150				
Other	3,792		292	3,500	1,589	1,464	447				
Total	42,473	774	3,211	38,488	17,475	16,100	4,913				

C. Funding Schedule (000's)

WSSC Bonds	31,637	507	2,658	28,472	10,901	13,004	4,567				
SDC	7,903	213	327	7,363	5,349	2,014					
DC Water Contribution	2,933	54	226	2,653	1,225	1,082	346				

D. Description & Justification

DESCRIPTION

This project provides for the replacement of transformers, switch gear, and MCC-A with redesign of 13.8kv switch gear in two IPA enclosures and 4.16KV switch gear in one IPA enclosure at the Anacostia #2 Wastewater Pump Station (WWPS). The Anacostia #2 WWPS is WSSC Water's largest and most critical WWPS with an average flow of 50 to 60 MGD, and storm peaks up to 260 MGD instantaneous flow. This WWPS receives wastewater from a large portion of WSSC Water's service area and delivers it to the Blue Plains Advanced Wastewater Treatment Plant in Washington, DC. Secondly, this project involves replacement of five existing bar screens and associated electrical upgrades and implementing NFPA 820 requirements for the pump station. Thirdly, the coarse screening of Beaver Dam S.A. flows will be evaluated and rehabilitated.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.; Employee Safety: This project includes components that help protect the health and safety of employees.

JUSTIFICATION

The majority of the electrical equipment, excluding all 4.16kV MCCs and the unit substation, were installed with the original construction in the late 1970s and is beyond its useful life. In addition, several equipment parts are becoming increasingly difficult to find since the equipment is obsolete. Failure of any of the above critical components could cause serious issues in providing reliable power to the pump station. This replacement, rehabilitation, and upgrade work was recommended by various business case evaluations undertaken as part of WSSC Water's Asset Management Program.

COST CHANGE

The schedule and expenditure projections have been revised based upon updated engineer's estimates.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are planning and early design level estimates and are expected to change based upon site conditions and design constraints. DC Water will contribute a share of the electrical upgrades and bar screens project costs, which is indicated on the funding schedule shown in Block C above.

COORDINATION

Coordinating Agencies: DC Water;(responsible for a share of funding); Maryland Department of the Environment; Potomac Electric Power Company
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$1,830	26
Total Cost	\$1,830	26
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'22
Date First Approved	FY'22
Initial Cost Estimate	31,298
Cost Estimate Last FY	31,298
Present Cost Estimate	42,473
Approved Request Last FY	10,927
Total Expense & Encumbrances	774
Approval Request Year 1	17,475

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	5 %
Estimated Completion Date	March 2025

Growth	20%
System Improvement	80%
Environmental Regulation	
Population Served	
Capacity	199 MGD

H. Map

MAP NOT APPLICABLE