

Anacostia #2 WWPS Upgrades

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

PDF Date	October 1, 2020
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'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	4,187	79	1,144	2,964	1,934	720	310				
Land											
Construction	24,274		6,000	18,274	8,000	7,192	3,082				
Other	2,837		714	2,123	993	791	339				
Total	31,298	79	7,858	23,361	10,927	8,703	3,731				

C. Funding Schedule (000's)

WSSC Bonds	24,412	62	6,129	18,221	8,523	6,788	2,910				
SDC	6,886	17	1,729	5,140	2,404	1,915	821				

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 II Wastewater Pump Station (WWPS). The Anacostia II 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.

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 In addition, several equipment parts are becoming increasingly difficult to find since the equipment is obsolete.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

Not applicable.

OTHER

The present project scope was developed for the FY2022 CIP and has an estimated cost of \$31,298,000. The schedule and expenditure projections shown in Block B above are planning level estimates and may change based upon site conditions and design constraints. Preliminary planning work for the pump station began in FY'19 under ESP project S-637.37, Anacostia No. 2 WWPS Electrical Upgrades.

COORDINATION

Coordinating Agencies: 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	\$1,588	
Total Cost	\$1,588	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY 20
Date First Approved	FY 20
Initial Cost Estimate	31,298
Cost Estimate Last FY	
Present Cost Estimate	31,298
Approved Request Last FY	
Total Expense & Encumbrances	79
Approval Request Year 1	10,927

G. Status Information	
Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	0 %
Estimated Completion Date	TBD

Growth	22%
System Improvement	78%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE