

A. Identification and Coding Information

1. Project Number: 113802
 Agency Number: W-73.19
 Update Code: Change

2. Date: October 1, 2011
 Revised:

3. Project Name: Potomac WFP Outdoor Substation No. 2 Replacement

4. Program: Sanitation
 6. Planning Area: Bi-County

5. Agency: WSSC

7. Pre PDF Pg.No.:
 8. Req. Adeq. Pub. Fac.:

E. Annual Operating Budget Impact (000's) FY of Impact

Program Costs	Staff
	Other
Facility Costs	Maintenance
	Debt Service	803	18
Total Costs		803	18
Impact on Water or Sewer Rate		2¢	18

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '11	(10) Estimate FY '12	(11) Total 6 Years	(12) Year 1 FY '13	(13) Year 2 FY '14	(14) Year 3 FY '15	(15) Year 4 FY '16	(16) Year 5 FY '17	(17) Year 6 FY '18	(18) Beyond 6 Years
Planning, Design & Supervision	2,075	118	800	1,157	500	150	250	150	107		
Land											
Site Improvements & Utilities	6,180			6,180		1,500	2,500	1,680	500		
Construction											
Other	1,222		120	1,102	75	248	413	275	91		
Total	9,477	118	920	8,439	575	1,898	3,163	2,105	698		

C. Funding Schedule (000's)

WSSC Bonds	9,477	118	920	8,439	575	1,898	3,163	2,105	698		
------------	-------	-----	-----	-------	-----	-------	-------	-------	-----	--	--

D. Description & Justification

DESCRIPTION

22-45
 This project provides for the planning, design, and construction required to replace the Outdoor Substation No. 2 (OSS-2) and two motor control centers (MCCs) located in the Raw Water Pumping Station No. 1 at the Potomac Water Filtration Plant. OSS-2 is over 30 years old and contains 5kV switchgear that houses air magnetic breakers which are obsolete. The two MCCs are over 50 years old, and the manufacturer is no longer in business, making replacement parts difficult to obtain.

JUSTIFICATION

Plans & Studies
 Energy Performance Project, Phase ID, Energy Systems Group (ESG). Raw Water Pump Testing and subsequent site visits and meetings at Potomac from April – June 2009 by ESG, Whitman Reardon & Assoc., and Shah Assoc. (sub-consultants to ESG).

Specific Data
 Phase ID - Energy Performance Project was awarded to Energy Systems Group in March 2009. Phase I included engineering, and planning of equipment and operations upgrades to develop an energy efficient and guaranteed savings program to upgrade/replace pumps at the Potomac Raw Water Pumping Stations (RWPS) #1 and #2, and upgrade Main Zone pump #3. Subsequent tests and inspections of OSS-2 serving RWPS #1 and #2 resulted in the development of a report that indicated that OSS-2 was in poor condition, unsafe, and that WSSC should move in an expeditious manner to replace the switchgear in its entirety. Industry practice is to replace 5 kV switchgear between 25 and 30 years old, when in an environment where chemicals are in the air. The old breakers in OSS-2 have misalignment problems, and the switchgear housing is corroded, which can pose safety risks to the plant electrical and mechanical maintenance staff as well as the operators. Also, the electromechanical relays are obsolete and the manufacturer is no longer in business making it difficult and costly and requiring long lead times to obtain replacement parts.

Cost Change
 Costs were increased for inflation.

STATUS Planning

OTHER
 The project scope has remained the same. Expenditure and schedule projections shown in Block B above are Order of Magnitude estimates and are expected to change as the project moves into design.

COORDINATION
 WSSC Projects A-103.00, Energy Performance Program and W-73.16, Potomac WFP Improvements.

NOTE This project supports 100% System Improvement.

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 11
Date First Approved	FY 11
Initial Cost Estimate	7,934
Cost Estimate Last FY	9,087
Present Cost Estimate	9,477
Approved Request, Last FY	920
Total Expenditures & Encumbrances	118
Approval Request FY 13	575
Supplemental Approval Request Current FY (12)	

G. Status Information

Land Status: Public/Agency owned land
 % Project Completion: P-50%
 Est. Completion Date: July 2016

H. Map Map Reference Code: