

A. Identification and Coding Information

1. Project Number: 033807 | Agency Number: W-172.05 | Update Code: Change

2. Date: October 1, 2011 | Revised: _____

3. Project Name: Patuxent WFP Phase II Expansion

4. Program: Sanitation | 5. Agency: WSSC | 6. Planning Area: Bi-County

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

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	9,475	4,694	1,268	3,513	1,139	1,356	848	170			
Land											
Site Improvements & Utilities											
Construction	49,871		200	49,671	15,461	19,548	12,218	2,444			
Other	5,465		147	5,318	1,660	2,090	1,307	261			
Total	64,811	4,694	1,615	58,502	18,260	22,994	14,373	2,875			

C. Funding Schedule (000's)

WSSC Bonds	64,811	4,694	1,615	58,502	18,260	22,994	14,373	2,875			
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D. Description & Justification

DESCRIPTION

This project provides for the addition of a sixth treatment train, a new electrical substation, a new residuals handling facility, new UV disinfection facilities, upgrades to existing yard piping, and upgrades to chemical facilities at the Patuxent WFP along with an upgrade to the existing potassium permanganate feed system at the Patuxent Pretreatment Facility and a new relief sewer which upgrades the existing sewer system along Sweitzer Lane to accommodate the new residuals facility.

Service Area Bi-County Area | **Capacity** 72 MGD nominal/110 MGD emergency

JUSTIFICATION

Plans & Studies
 "Patuxent WFP Facility Plan", O'Brien & Gere Engineers, Inc., (April, 1997); In-House Study (April, 2002); Patuxent Expansion Design Criteria Report (April 2005), "Parkway WWTP Biosolids Facility Plan", CH2M Hill (October 2009); "Evaluation of Residuals Handling Process Alternatives", AECOM Technical Services, (Draft March 2011)

Specific Data
 Phase II will add a sixth treatment train consisting of a three stage flocculation chamber, sedimentation basin with chain and flight solids removal and plate settlers, disinfectant contact chamber, and two deep bed granular carbon filters. A fourth raw water pipeline from Rocky Gorge Raw Water Pipeline (W-172.07) and the modification and expansion of the Rocky Gorge Water Pumping Station (W-172.08) will provide a firm raw water pumping/transmission capacity of 110 MGD. These improvements will give the plant a firm nominal capacity of 72 MGD, with emergency capacity of 110 MGD. New UV disinfection facilities are being added to the plant in order to assure compliance with future EPA regulations for Cryptosporidium treatment and Stage 2 Disinfection Byproducts Rule effective 2012. This project also adds a residuals handling facility to remove the solids from impacting the Parkway WWTP and a relief sewer along Sweitzer Lane to assure no sanitary sewer overflows (SSO) occur as a result of Plant wastewater discharge.

Cost Change
 Cost increase is a result of development of a conceptual design level construction cost estimate which incorporates several decisions on residuals handling process technology/equipment selection, building and equipment layout, etc., made by WSSC in spring 2011.

STATUS Preliminary Design (WSSC Contract Nos. BF1582H91, CT1582A91).

OTHER
 The project scope has remained the same. In the event of an outage at the Potomac WFP, additional capacity at the Patuxent WFP will reduce customer impact. However, emergency conservation measures will still be required. Expenditure estimates shown above are preliminary design estimates and may change as the design progresses.

E. Annual Operating Budget Impact (000's)

Program Costs	Staff	Other	Facility Costs	Maintenance	Debt Service	Total Costs	Impact on Water or Sewer Rate
	5795	17
						5795	17
						11¢	17

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 04
Date First Approved	FY 03
Initial Cost Estimate	33,002
Cost Estimate Last FY	52,508
Present Cost Estimate	64,811
Approved Request, Last FY	969
Total Expenditures & Encumbrances	4,694
Approval Request FY 13	18,260
Supplemental Approval Request Current FY (12)	

G. Status Information

Land Status: No land or R/W required

% Project Completion: D-65%

Est. Completion Date: FY 2016

H. Map | **Map Reference Code:**

MAP NOT AVAILABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 172.05

Project Name: Patuxent WFP Phase II Expansion

COORDINATION

Montgomery County Government, Prince George's County Government, Maryland-National Capital Park & Planning Commission, Maryland Department of the Environment, Maryland State Department of Transportation, Baltimore Gas & Electric and WSSC Projects W-12.02, Prince George's County HG415 Zone Water Main, W-172.07, Patuxent Raw Water Pipeline, W-172.08, Rocky Gorge Pump Station Upgrade and W-73.18, Power Reliability and Arc Flash Studies(Coordination of UV Criteria).

NOTE This project supports 80% System Improvement and 20% Environmental Regulation.

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