

Resolution No:	<u>16-170</u>
Introduced:	<u>May 24, 2007</u>
Adopted:	<u>May 24, 2007</u>

COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND

By: County Council

Subject: Approval of the FY 2008-2013 Capital Improvements Program for the Washington Suburban Sanitary Commission

Background

1. As required by Article 29, Sections 7-101, 7-103 and 7-104, of the Maryland Code, before October 1 of each year, the Washington Suburban Sanitary Commission (WSSC) must prepare and submit to the County Executive and County Council of Montgomery County a 6-year Capital Improvements Program (CIP) for water and sewer facilities.
2. Article 29, Section 7-105 (d) (1) authorizes the Council to approve, disapprove, or modify the WSSC CIP.
3. Article 29, Section 7-105 (b) (1) requires that before final action on the WSSC CIP is taken, public hearings must be held on the Program. The Council held a public hearing on the CIP on February 13, 2007.
4. The Council considered the recommendations of the Executive and the Montgomery County Planning Board with respect to the CIP and reviewed the project description forms.
5. The Council recognizes that the information and documentation contained in the CIP is an integral part of the Comprehensive Water Supply and Sewerage Systems Plan which must be submitted to the State Department of the Environment in accordance with Section 9-501 et seq. of the Environment Article of the Maryland Code.
6. On May 10, 2007, the Montgomery County and Prince George's County Councils jointly reviewed their respective proposed additions to, deletions from, increases to, and decreases in the WSSC capital and operating budgets and further considered all proposed changes. The Councils agree on changes to the WSSC capital and operating budgets.

Action


The County Council for Montgomery County, Maryland approves the following resolution for the Washington Suburban Sanitary Commission:

1. The Council approves the projects in the WSSC Proposed CIP for FY 2008-2013, except those projects which are approved as modified by the Montgomery and Prince George's County Councils. Revised project description forms for the Prince George's County projects are included in the Prince George's County resolution approving the WSSC Proposed CIP for FY 2008-2013. Amended project description forms for the Montgomery County and Bi-County projects are attached to this resolution and are identified by the following WSSC project numbers:

S-22.06, S-22.07, S-22.08, S-22.09, S-22.10, W-172.05, W-1.00

2. The Council approves the close out of the projects in Part I.

This is a correct copy of Council action.



Linda M. Lauer, Clerk of the Council

E. Annual Operating Budget Impact (000's)

Program Costs: Staff
 Other
 Facility Costs: Maintenance 19639
 Debt Service 19639
 Total Costs 424
 Impact on Water or Sewer Rate..... 424

F. Approval and Expenditure Data (000's)

Date First in Capital Program: FY 95
 Date First Approved: FY 95
 Initial Cost Estimate: 69,745
 Cost Estimate Last FY: 222,581
 Present Cost Estimate: 236,638
 Approved Request, Last FY: 18,622
 Total Expenditures & Encumbrances: 168,339
 Approval Request FY 08: 12,649
 Supplemental Approval Request Current FY (07):

G. Status Information

Land Status: Not applicable
 % Project Completion: On-Going
 Est. Completion Date: On-Going

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number: 954811 Agency Number: S-22.06 Update Code: Change
 2. Date: October 1, 2006 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.:
 Revised: May 10, 2007
 3. Project Name: Blue Plains WWTP: Liquid Train Projects, Part 2 5. Agency: **WSSC**
 4. Program: Sanitation 6. Planning Area: Bi-County

B. Expenditure Schedule (000's)

Cost Elements	(6) Total	(9) Thru FY 06	(10) Estimate FY '07	(11) Total 6 Years	(12) Year 1 FY '08	(13) Year 2 FY '09	(14) Year 3 FY '10	(15) Year 4 FY '11	(16) Year 5 FY '12	(17) Year 6 FY '13	(18) Beyond 6 Years
Planning, Design & Supervision	30,167	16,298	4,253	6,763	1,597	1,416	1,180	963	666	941	2,853
Land											
Site Improvements & Utilities											
Construction	205,424	151,670	13,244	39,255	10,927	14,536	10,002	3,773	16	1	1,255
Other	1,047	371	175	460	125	160	112	47	7	9	41
Total	236,638	168,339	17,672	46,476	12,649	16,112	11,294	4,793	689	951	4,149

C. Funding Schedule (000's)

WSSC Bonds	223,648	159,098	16,702	43,927	11,955	15,228	10,674	4,520	651	899	3,921
City of Rockville	12,990	9,241	970	2,551	694	884	620	263	38	52	228

D. Description & Justification

DESCRIPTION
 This project provides funding for WSSC's share of Blue Plains liquid train projects for which construction began after June 30, 1993. Major projects include: Improvements to Primary and Secondary Treatment; Influent Screens and Grit Removal Systems Renovations; Raw Wastewater Pump Stations 1 & 2; Nitrification/Denitrification Facilities Upgrade; and Piloting and Research Projects.
Service Area Bi-County Area **Capacity** 370 MGD

JUSTIFICATION
Plans & Studies
 The Blue Plains Inter-municipal Agreement of 1985; the WASA Master Plan (1998); and the DC-WASA Proposed FY 2006 - FY 2015 Capital Improvement Program (October, 2006).
Specific Data
 This is a continuation of the DC-WASA's upgrading of the Blue Plains Wastewater Treatment Plant.
Cost Change
 The cost increase reflects the latest information from DC-WASA. Significant cost increases are projected for the Grit Chamber Buildings, Nitrification Facility, and the Filtration/Disinfection Facility projects due to the exceptional escalation in construction materials and labor costs. In addition, proposed projects continue to move from the Beyond 6 Year period into the Six-Year program.
STATUS Not Applicable

OTHER
 The project scope has remained the same. Project costs are derived from the DC-WASA Capital & Operating Budget 10-year forecast of spending and WASA's latest project management data, and fully reflect WASA's current cost estimates and expenditure schedules. Given the open-ended nature of the Blue Plains projects, this PDF may not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. Expenditures shown in Column 9 are post-Inter-municipal Agreement. The funding schedule also indicates the calculated Rockville share of the cost. For administrative reasons, preliminary planning expenditures for Enhanced Nutrient Removal were transferred from this project to S-22.10, Blue Plains WWTP: Enhanced Nutrient Removal, in FY 2008.

COORDINATION
 District of Columbia Water & Sewer Authority (responsible for design and construction). (Biological Nutrient Removal costs are carried on WSSC Project S-22.08). (Enhanced Nutrient Removal costs are carried on WSSC Project S-22.10).
NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)

Program Costs	Start	FY of Impact
Facility Costs	Other	
Total Costs	Maintenance	19660
Impact on Water or Sewer Rate	Debt Service	19660
		42¢

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 95
Date First Approved	FY 95
Initial Cost Estimate	77,296
Cost Estimate Last FY	223,810
Present Cost Estimate	238,552
Approved Request, Last FY	16,139
Total Expenditures & Encumbrances	78,591
Approval Request FY 08	2,630
Supplemental Approval Request Current FY (07)	

G. Status Information

Land Status: Not applicable
 % Project Completion: On-Going
 Est. Completion Date: On-Going

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
954812	S-22.07	Change

2. Date: October 1, 2006 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised: May 10, 2007

3. Project Name: Blue Plains WWTP: Biosolids Management, Part 2 5. Agency: **WSSC**

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

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '06	(10) Estimate FY '07	(11) Total 6 Years	(12) Year 1 FY '08	(13) Year 2 FY '09	(14) Year 3 FY '10	(15) Year 4 FY '11	(16) Year 5 FY '12	(17) Year 6 FY '13	(18) Beyond 6 Years
Planning, Design & Supervision	44,592	27,877	4,993	7,750	434	452	1,277	2,020	1,749	1,818	3,972
Land											
Site Improvements & Utilities											
Construction	192,179	50,516	3,826	92,978	2,170	6,381	6,924	13,992	27,425	36,086	44,859
Other	1,781	198	88	1,007	26	68	82	160	292	379	488
Total	238,552	78,591	8,907	101,735	2,630	6,901	8,283	16,172	29,466	38,283	49,319

C. Funding Schedule (000's)

WSSC Bonds	225,458	74,277	8,418	96,149	2,486	6,522	7,828	15,284	27,848	36,181	46,612
City of Rockville	13,086	4,314	489	5,586	144	379	455	888	1,618	2,102	2,707

D. Description & Justification

DESCRIPTION
 This project includes funding for WSSC's share of the Blue Plains Wastewater Treatment Plant biosolids handling projects for which construction began after June 30, 1993. Major projects include: egg-shaped digestion facilities; centrifuge thickener facilities; and additional dewatering facilities.

Service Area Bi-County Area
Capacity 370 MGD

JUSTIFICATION
Plans & Studies
 The Blue Plains Inter-municipal Agreement of 1985; the WASA Master Plan (1998); EPMC IV Facility Plan (CH2MHILL, 2001); and the DC-WASA Proposed FY 2006 - FY 2015 Capital Improvement Program (October, 2006).

Specific Data
 This project is needed to implement a set of facilities which will provide a permanent biosolids management program for Blue Plains.

Cost Change
 The cost increase is largely the result of escalation in construction materials and labor costs for the Egg-Shaped Digesters. In addition, the decision to delay their construction has resulted in increased costs later in the Six-Year Program and in the Beyond 6 Years period.

STATUS Not Applicable
OTHER
 The project scope has remained the same. Project costs are derived from the DC-WASA Capital & Operating Budget 10-year forecast of spending and WASA's latest project management data, and fully reflect WASA's current cost estimates and expenditure schedules. Given the open-ended nature of the Blue Plains projects, this PDF may not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. Expenditures shown in Column 9 are post-Inter-municipal Agreement. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION
 District of Columbia Water & Sewer Authority (responsible for design and construction).

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)

Program Costs	Staff		FY of Impact
Facility Costs	Other		
Total Costs	Maintenance	1661	14
Impact on Water or Sewer Rate	Debt Service	1661	14
		4¢	14

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 96
Date First Approved	FY 96
Initial Cost Estimate	12,189
Cost Estimate Last FY	34,814
Present Cost Estimate	40,302
Approved Request, Last FY	4,352
Total Expenditures & Encumbrances	19,520
Approval Request FY 08	3,436
Supplemental Approval Request Current FY (07)	

G. Status Information

Land Status: Not applicable
 % Project Completion: C-54%
 Est. Completion Date: FY 2011

H. Map Map Reference Code:
MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
973817	S-22.08	Change
3. Project Name: Blue Plains WWTP: Biological Nutrient Removal		
4. Program: Sanitation		
6. Planning Area: Bi-County		
5. Agency: WSSC		
2. Date: October 1, 2006		
7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.		
Revised: May 10, 2007		

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '06	(10) Estimate FY '07	(11) Total 6 Years	(12) Year 1 FY '08	(13) Year 2 FY '09	(14) Year 3 FY '10	(15) Year 4 FY '11	(16) Year 5 FY '12	(17) Year 6 FY '13	(18) Beyond 6 Years
Planning, Design & Supervision	6,465	4,320	625	1,520	387	383	381	369			
Land											
Site Improvements & Utilities											
Construction	33,614	15,183	250	18,181	3,015	7,265	5,299	2,590	11	1	
Other	223	17	9	197	34	76	57	30			
Total	40,302	19,520	884	19,898	3,436	7,724	5,737	2,989	11	1	

C. Funding Schedule (000's)

	(10) Estimate FY '07	(11) Total 6 Years	(12) Year 1 FY '08	(13) Year 2 FY '09	(14) Year 3 FY '10	(15) Year 4 FY '11	(16) Year 5 FY '12	(17) Year 6 FY '13	(18) Beyond 6 Years
WSSC Bonds	19,044	9,224	418	9,402	1,624	3,650	2,711	1,412	5
State Aid	20,163	9,760	442	9,851	1,718	3,862	2,869	1,495	6
City of Rockville	1,105	536	24	545	94	212	157	82	1

D. Description & Justification

DESCRIPTION
 This project provides funding for WSSC's share of the Blue Plains Biological Nitrogen Removal Pilot Project and BNR Permanent Facility design and construction. The project includes modifications to the nitrification basins, methanol storage and feed facilities, a control building, addition of fine bubble diffusers, and improvements to the nitrification facilities (Phase II). This project is stipulated in the 1995 Consent Decree signed by the District of Columbia and the United States Department of Justice.

Service Area Bi-County Area
Capacity 370 MGD

JUSTIFICATION
Plans & Studies
 Porter, MacNamee & Seely Study (1992); Civil Action No. 90-163; Civil Action No. 84-2842 JGP; the WASA Master Plan (1998); and the DC-WASA Proposed FY 2006 - FY 2015 Capital Improvement Program (October, 2006).
Specific Data
 The initial \$12.1 million Pilot Project was planned as a phased, four year, half-plant trial. For the Pilot, portions of the nitrification basins converted to anoxic zones with methanol added as the carbon source. After the Pilot Project proved successful in the first two years, the third and fourth years were not required and the design and construction of permanent BNR facilities commenced. The Consent Decree acknowledged that applying this technology was experimental.
Cost Change
 Costs increased due to incorporating reliability improvements/upgrades previously planned for future years.

STATUS Under Construction
OTHER
 The project scope has remained the same. The expenditure schedule shown above reflects the cost of permanent BNR facilities as required under the Consent Decree. Phase I and portions of Phase II are complete. The Maryland Department of the Environment (MDE) has, by agreement, committed to providing 50% grant funding in the amount shown. However, MDE has not yet agreed that all of the Phase II costs are grant eligible.

COORDINATION
 Maryland Department of the Environment and District of Columbia Water & Sewer Authority (responsible for design and construction).
NOTE This project supports 100% Environmental Regulation.

E. Annual Operating Budget Impact (000's)

Program Costs	Staff	
Facility Costs	Other	
Total Costs	Maintenance	13293
Impact on Water or Sewer Rate	Debt Service	13293
		29¢

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 95
Date First Approved	FY 02
Initial Cost Estimate	84,650
Cost Estimate Last FY	150,924
Present Cost Estimate	161,298
Approved Request, Last FY	20,098
Total Expenditures & Encumbrances	105,246
Approval Request FY 08	20,056
Supplemental Approval Request Current FY (07)	

G. Status Information

Land Status: Not applicable
 % Project Completion: On-Going
 Est. Completion Date: On-Going

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number: 023805 Agency Number: S-22.09 Update Code: Change

2. Date: October 1, 2006 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

3. Project Name: Blue Plains WWTP: Plant-Wide Projects 5. Agency: WSSC

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

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '06	(10) Estimate FY '07	(11) Total 6 Years	(12) Year 1 FY '08	(13) Year 2 FY '09	(14) Year 3 FY '10	(15) Year 4 FY '11	(16) Year 5 FY '12	(17) Year 6 FY '13	(18) Beyond 6 Years
Planning, Design & Supervision	35,646	24,092	2,878	6,867	2,828	1,312	1,153	916	303	355	1,809
Land											
Site Improvements & Utilities											
Construction	124,872	80,929	7,620	35,407	17,029	6,096	8,236	3,901	126	19	916
Other	780	225	105	423	199	74	94	48	4	4	27
Total	161,298	105,246	10,603	42,697	20,056	7,482	9,483	4,865	433	378	2,752

C. Funding Schedule (000's)

WSSC Bonds	152,443	99,469	10,021	40,352	18,955	7,071	8,962	4,598	409	357	2,601
City of Rockville	8,855	5,777	582	2,345	1,101	411	521	267	24	21	151

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC's share of Blue Plains plant-wide projects for which construction began after June 30, 1993. Major projects include: Process Control Computer Systems; Central Office Facility Renovations; Additional Chemical Systems and Transmission Improvements; Electrical Power Systems Additions, Phases I & II; Alternative Disinfection Facilities; High Priority Rehabilitation Program; and Potomac Interceptor, Upper Potomac Interceptor, and Potomac Pumping Station Rehabilitations.

Service Area Bi-County Area **Capacity** 370 MGD

JUSTIFICATION

Plans & Studies
 The Blue Plains Inter-municipal Agreement of 1985; the WASA Master Plan (1998); and the DC-WASA Proposed FY 2006 - FY 2015 Capital Improvement Program (October, 2006).

Specific Data
 This is a continuation of the DC-WASA's upgrading of the Blue Plains Wastewater Treatment Plant.

Cost Change
 The net cost increase reflects the latest information from DC-WASA. Contributing to the higher costs for the Six-Year Program are increased costs associated with the Potomac Interceptor Odor Control Project, Rock Creek Sewage Pumping Station, Additional Chemical Systems, and Plant Wide Fine Bubble Aeration projects. In addition, there has been some slippage in schedule, evidenced by a decrease in FY'07 estimates and an increase in the current Six-Year Program costs.

STATUS Not Applicable

OTHER

The project scope has remained the same. Project costs are derived from the DC-WASA Capital & Operating Budget 10-year forecast of spending and WASA's latest project management data, and fully reflect WASA's current cost estimates and expenditure schedules. Given the open-ended nature of the Blue Plains projects, this PDF may not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. Expenditures shown in Column 9 are post-inter-municipal Agreement. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION
 District of Columbia Water & Sewer Authority (responsible for design and construction).

NOTE This project supports 100% System Improvement.

A. Identification and Coding Information
 1. Project Number / Agency Number / Update Code / Change
 083800 / S-22.10
 3. Project Name: Blue Plains WWTP: Enhanced Nutrient Removal
 4. Program: Sanitation 6. Planning Area: Bi-County
 2. Date: October 1, 2006 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.
 Revised: May 10, 2007
 5. Agency: WSSC

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '06	(10) Estimate FY '07	(11) Total 6 Years	(12) Year 1 FY '08	(13) Year 2 FY '09	(14) Year 3 FY '10	(15) Year 4 FY '11	(16) Year 5 FY '12	(17) Year 6 FY '13	(18) Beyond 6 Years
Planning, Design & Supervision	835			835	698	137					
Land											
Site Improvements & Utilities											
Construction	8			8	7	1					
Other	843			843	705	138					
Total	843			843	705	138					

C. Funding Schedule (000's)

State Aid	843			843	705	138					
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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 to meet the Chesapeake Bay water quality targets determined in the 2005 Tributary Strategy process.
Service Area Bi-County Area
Capacity 370 MGD
JUSTIFICATION
Plans & Studies
 Chesapeake Bay Program Tributary Strategies Process (2005); Blue Plains Strategic Process Study, Metcalf & Eddy (2005); DCWASA Proposed FY 2006 - FY 2015 Capital Improvement Program (October, 2006).
Specific Data
 This project will eventually incorporate all phases - planning, research & piloting, design, and construction - in order to reduce nutrient concentrations in the plant effluent. The estimated cost shown above includes only research & piloting expenses. Expenditures for planning are currently included as a portion of Program Management costs for the plant, and are shown in WSSC project S-22.06. These initial costs for planning, research & piloting, together with design and construction costs, are anticipated to be covered by the Bay Restoration Fund up to \$377 million, based upon estimates by the Maryland Department of the Environment.
Cost Change
 Not applicable.
STATUS Planning
OTHER
 The present project scope was developed for the FY 2008 CIP and has an estimated cost of \$843,000. For administrative reasons, Enhanced Nutrient Removal costs have been transferred from WSSC project S-22.06 to this project. The split will facilitate tracking of grant eligible ENR costs, separate from System Improvement costs. The project is currently in the preliminary planning phase, with piloting of alternate processes expected to identify the best components. Ultimate process selection and cost will depend on negotiations between DCWASA and US EPA with regard to treatment specifications and permitted effluent limits. Currently the CIP's of both WSSC and DCWASA include only the estimated cost of planning, research and piloting. Design and construction estimates have not been developed as yet and are not currently included in either agency's CIP.
COORDINATION
 Maryland Department of the Environment, U.S. Environmental Protection Agency, Region III, District of Columbia Water & Sewer Authority (responsible for design and construction) and WSSC Project S-22.06, Blue Plains WWTP: Liquid Train Projects, Part 2.
NOTE This project supports 100% Environmental Regulation.

E. Annual Operating Budget Impact (000's)
 Program Costs Staff
 Facility Costs Other
 Total Costs Maintenance
 Impact on Water or Sewer Rate Debt Service

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 08
Date First Approved	FY 07
Initial Cost Estimate	843
Cost Estimate Last FY	843
Present Cost Estimate	843
Approved Request, Last FY	705
Total Expenditures & Encumbrances	
Approval Request FY 08	
Supplemental Approval Request Current FY (07)	

G. Status Information
 Land Status: Not Applicable
 % Project Completion: P-0%
 Est. Completion Date: Not Determined

H. Map Map Reference Code:
MAP NOT AVAILABLE

E. Annual Operating Budget Impact (000's)

Program Costs	Start	FY of Impact
Facility Costs	Other	
	Maintenance	1158
	Debt Service	1158
Total Costs		24
Impact on Water or Sewer Rate		

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	18,345
Present Cost Estimate	28,967
Approved Request, Last FY	10,010
Total Expenditures & Encumbrances	2,066
Approval Request FY 08	605
Supplemental Approval Request Current FY (07)	

G. Status Information

Land Status: No land or R/W required
 % Project Completion: D-55%
 Est. Completion Date: FY 2011

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
033807	W-172.05	Change
3. Project Name: Patuxent WFP Phase II Expansion		
4. Program:	Sanitation	6. Planning Area: Bi-County
5. Agency: WSSC		
2. Date: October 1, 2006	8. Req. Adeq. Pub. Fac.	
Revised: May 10, 2007		

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '06	(10) Estimate FY '07	(11) Total 6 Years	(12) Year 1 FY '08	(13) Year 2 FY '09	(14) Year 3 FY '10	(15) Year 4 FY '11	(16) Year 5 FY '12	(17) Year 6 FY '13	(18) Beyond 6 Years
Planning, Design & Supervision	3,621	2,066	550	1,005	550	200	200	55			
Land											
Site Improvements & Utilities											
Construction	22,900			22,900		10,000	12,000	900			
Other	2,448		55	2,391	55	1,020	1,220	96			
Total	28,967	2,066	605	26,296	605	11,220	13,420	1,051			

C. Funding Schedule (000's)

WSSC Bonds	28,967	2,066	605	26,296	605	11,220	13,420	1,051
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D. Description & Justification

DESCRIPTION

This project provides for the addition of a sixth treatment train (floculators, sedimentation basins, disinfectant contact chamber and filters), a new electrical substation, upgrades to existing yard piping, upgrades to chemical facilities and new UV disinfection facilities to the Patuxent WFP, along with an upgrade to the existing potassium permanganate feed system at the Patuxent Pretreatment Facility and upgrades to the existing sewer system at Sweitzer Lane to handle residuals from the plant.

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

JUSTIFICATION

Plans & Studies
 Patuxent WFP Facility Plan (April, 1997); In-House Study (April, 2002); Patuxent Expansion Design Criteria Report (April 2005)

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 comply with upcoming EPA regulations for Cryptosporidium treatment and Stage 2 Disinfection Byproducts Rule. Phase II also includes a new electrical substation, upgrade to Plant water piping, upgrades to the sewer system along Sweitzer Lane to handle Plant residuals, new and upgraded chemical treatment facilities.

Cost Change
 The scope change along with material cost escalation have caused a large increase in anticipated construction cost. Due to spending affordability considerations construction has been delayed for one year.

STATUS Preliminary Design (WSSC Contract No. BF1582H91,).

OTHER
 The project scope was expanded for the FY 2008 CIP and now has an estimated total cost of \$28,967,000. The scope has been modified to include upgrade of existing yard piping to accommodate increased plant capacity and upgrade to the existing sewer collection system along Sweitzer Lane to handle residuals from the plant. Costs shown are preliminary design estimates and may change as the detailed design progresses. In the event of an outage at the Potomac WFP, additional capacity at Patuxent WFP will reduce customer impact. However, emergency conservation measures will still be required. WSSC will seek federal funding for this project.

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, Interstate Commission on the Potomac River Basin, Local Community Civic Associations (West Laurel Civic Association), Baltimore Gas & Electric and WSSC Projects W-172.04, Patuxent Water Treatment Implementation, W-172.07, Patuxent Raw Water Pipeline, W-172.08, Rocky Gorge Pump Station Upgrade and W-73.16, Potomac WFP Improvements(coordination of UV criteria).

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)

Program Costs	Start	FY of Impact
Facility Costs	Other	
Total Costs	Maintenance	14
Impact on Water or Sewer Rate	Debt Service	14
		14
		674
		33885
		33885

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY --
Date First Approved	FY --
Initial Cost Estimate	
Cost Estimate Last FY	196,025
Present Cost Estimate	388,588
Approved Request, Last FY	31,900
Total Expenditures & Encumbrances	
Approval Request FY 08	44,046
Supplemental Approval Request	
Current FY (07)	

G. Status Information

Land Status: Not applicable

% Project Completion: Not Applicable

Est. Completion Date: On-Going

H. Map Map Reference Code:

NOT APPLICABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.	
2. Date:	October 1, 2006	
Revised:	May 10, 2007	
3. Project Name:	Water Reconstruction Program	5. Agency:
4. Program:	Sanitation	6. Planning Area:
	Bi-County	WSSC

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '06	(10) Estimate FY '07	(11) Total 6 Years	(12) Year 1 FY '08	(13) Year 2 FY '09	(14) Year 3 FY '10	(15) Year 4 FY '11	(16) Year 5 FY '12	(17) Year 6 FY '13	(18) Beyond 6 Years
Planning, Design & Supervision	38,859		2,971	35,888	4,405	5,717	5,993	6,282	6,586	6,905	
Land											
Site Improvements & Utilities											
Construction	291,441		22,286	269,155	33,034	42,878	44,945	47,116	49,395	51,787	
Other	58,288		4,457	53,831	6,607	8,576	8,989	9,423	9,879	10,357	
Total	388,588		29,714	358,874	44,046	57,171	59,927	62,821	65,860	69,049	

C. Funding Schedule (000's)

WSSC Bonds	388,588	29,714	358,874	44,046	57,171	59,927	62,821	65,860	69,049
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D. Description & Justification

DESCRIPTION

The purpose of this project is to renew and extend the useful life of water mains. Portions of the water system are more than 80 years old. Bare cast iron mains, installed generally before 1965, permit the build-up of tuberculation which can reduce flow and cause discoloration at the customer's tap. Selected replacement and cleaning and cement mortar lining is necessary to supply water in sufficient quantity, quality and pressure for domestic use and fire fighting. As the system ages, water main breaks are increasing, averaging at present approximately 1,300 per year. Selected mains are chronically breaking and other mains are undersized for the current flow standards. Replacement of these mains provides added value to the customer. Galvanized iron water services are replaced as they have exceeded their useful life.

* EXPENDITURES FOR WATER RECONSTRUCTION ARE EXPECTED TO CONTINUE INDEFINITELY.

JUSTIFICATION

Service Area: Bi-County Area

Plans & Studies

Flow studies, water system modeling, and field surveys are routinely conducted. A staff level report: Water Main Condition Assessment, 1915-1998; Analysis and Recommendations by the Water Main Reconstruction Work Group (June, 1999) examined the historical main break data for performance measures to define, characterize, and prioritize the future replacement needs of the distribution system. An early outcome of this project identified the need to increase the frequency of water main replacement.

Specific Data

The program's projected work units, and expenditure levels for FY '08 are as follows: main replacement, 27 miles, \$40.5 M; water main cleaning and lining, 5 miles, \$1.0 M; water house connection renewals \$1.5 M; large meter replacement program \$1.0 M; Note: The specific mix and type of water main reconstruction may vary in any given year depending on the nature and priority of the work in the reconstruction backlog to be addressed.

Cost Change

The project costs have been increased to accelerate the rate of replacement of water mains.

STATUS Under Construction

OTHER

The project scope has remained the same. The water reconstruction program has been ongoing since 1979. Funding in the six-year program period is subject to Spending Affordability Guideline limits. The following work accomplishments through FY'06 summarize the magnitude of the reconstruction effort: water main cleaning and lining, 1,129 miles completed; water main replacement, 141 miles

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 1.00

Project Name: Water Reconstruction Program

completed. Water house connections are replaced on an "as needed" basis. Note: The specific mix and type of water reconstruction may vary in any given year depending on identified system defects; however, work is limited to the fiscal allocation for the program. It is anticipated water reconstruction activity will be a perpetual element of future work programs.

COORDINATION

Maryland State Highway Administration, Montgomery County Department of Public Works and Transportation, Montgomery County Government (including local municipalities where work is to be performed), Prince George's County Government (including local municipalities where work is to be performed), Prince George's County Department of Public Works & Transportation and Local Community Civic Associations.

**PART I: WASHINGTON SUBURBAN SANITARY COMMISSION
CAPITAL PROJECTS TO BE CLOSED OUT**

The Washington Suburban Sanitary Commission has authorized the close out of the following Montgomery County and Bi-County Projects.

<u>COUNTY NUMBER</u>	<u>CATEGORY</u>	<u>PROJECTS</u>
033803	Montgomery	Clarksburg Area Stage 3 Water Main, Part 2
954803	Montgomery	Olney Water Storage Facility