#16 – WSSC CIP

Resolution No:	16-583
Introduced:	May 22, 2008
Adopted:	May 22, 2008

COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND

By: County Council

Subject: Approval of the FY 2009-2014 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 public hearings on the CIP on February 5 and 6, 2008.

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 8, 2008, 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.

Resolution No. 16-583

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 2009-2014, 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 2009-2014. 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

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

This is a correct copy of Council action.

Linda M. Lauer

Linda M. Lauer, Clerk of the Council

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
954811	S-22.06	Change

2. Date: October 1, 2007
Revised: May 8, 2008

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

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	(8) Total	(9) Thru FY '07	(10) Estimate FY '08	(11) Total 6 Years	(12) Year 1 FY '09	(13) Year 2 FY '10	(14) Year 3 FY '11	(15) Year 4 FY '12	(16) Year 5 FY '13	(17) Year 6 FY '14	(18) Beyond 6 Years
Planning, Design & Supervision	**28,563**	19,852	2,734	**5,397**	1,373	933	747	824	831	689	580
Land											
Site Improvements & Utilities											
Construction	**198,901**	162,738	12,227	**22,108**	14,450	5,774	1,739			145	1,828
Other	**965**	517	150	**274**	158	67	25	8	8	8	24
Total	**228,429**	**183,107**	**15,111**	**27,779**	**15,981**	**6,774**	**2,511**	**832**	**839**	**842**	**2,432**

C. Funding Schedule (000's)

WSSC Bonds	**215,889**	173,056	14,281	**26,254**	15,104	6,402	2,373	786	793	796	2,298
City of Rockville	**12,540**	10,051	830	**1,525**	877	372	138	46	46	46	134

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 Secondary Treatment; Grit Chamber Buildings; Nitrification/Denitrification Facilities Upgrade; Filtration Facilities Pumping System; and Filtration and Disinfection Rehabilitation.

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

JUSTIFICATION

Plans & Studies

The Blue Plains Intermunicipal Agreement of 1985; the WASA Master Plan (1998); and the DC-WASA Proposed FY 2007 - FY 2016 Capital Improvement Program information (October, 2007).

Specific Data

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

Cost Change

The cost decrease in the six-year period is attributable to construction progress on the Grit Chamber Buildings, Influent Screens, Secondary Treatment Facilities, Nitrification Facilities, and Filtration/Disinfection Facilities Phase I projects.

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-Intermunicipal 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). (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)

			FY of Impact
Program Costs	Staff		....
	Other		....
Facility Costs	Maintenance		....
	Debt Service	19594	....
Total Costs		19594	....
Impact on Water or Sewer Rate		42¢	....

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	236,638
Present Cost Estimate	228,429
Approved Request, Last FY	12,649
Total Expenditures & Encumbrances	183,107
Approval Request FY 09	15,981
Supplemental Approval Request Current FY (08)	

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, 2007
Revised: May 8, 2008

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

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 '07	(10) Estimate FY '08	(11) Total 6 Years	(12) Year 1 FY '09	(13) Year 2 FY '10	(14) Year 3 FY '11	(15) Year 4 FY '12	(16) Year 5 FY '13	(17) Year 6 FY '14	(18) Beyond 6 Years
Planning, Design & Supervision	**40,123**	33,553	1,365	**4,610**	543	1,828	720	488	401	630	595
Land											
Site Improvements & Utilities											
Construction	**194,026**	54,865	2,564	**113,691**	5,018	12,410	12,810	18,383	30,231	34,839	22,906
Other	**1,755**	298	39	**1,183**	56	142	135	189	306	355	235
Total	**235,904**	**88,716**	**3,968**	**119,484**	**5,617**	**14,380**	**13,665**	**19,060**	**30,938**	**35,824**	**23,736**

C. Funding Schedule (000's)

WSSC Bonds	**222,955**	83,846	3,750	**112,926**	5,309	13,591	12,915	18,014	29,240	33,857	22,433
City of Rockville	**12,949**	4,870	218	**6,558**	308	789	750	1,046	1,698	1,967	1,303

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: new digestion facilities; centrifuge thickener facilities; and additional dewatering facilities.

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

JUSTIFICATION

Plans & Studies

The Blue Plains Intermunicipal Agreement of 1985; the WASA Master Plan (1998); EPMC IV Facility Plan (CH2MHILL, 2001); and the DC-WASA Proposed FY 2007 - FY 2016 Capital Improvement Program information (October, 2007).

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 in the six-year period is attributable to the addition of Area Electrical Substation No. 6 as a new project, and another year of construction of the deferred Digester Facility entering the last year of the 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-Intermunicipal 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)

			FY of Impact
Program Costs	Staff		....
	Other		....
Facility Costs	Maintenance		....
	Debt Service	20235	....
Total Costs		20235	....
Impact on Water or Sewer Rate		44¢	....

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	238,552
Present Cost Estimate	235,904
Approved Request, Last FY	2,630
Total Expenditures & Encumbrances	88,716
Approval Request FY 09	5,617
Supplemental Approval Request Current FY (08)	

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
973817	S-22.08	Change

2. Date: October 1, 2007
Revised: May 8, 2008

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

3. Project Name: Blue Plains WWTP: Biological Nutrient Removal

5.Agency: **WSSC**

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

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '07	(10) Estimate FY '08	(11) Total 6 Years	(12) Year 1 FY '09	(13) Year 2 FY '10	(14) Year 3 FY '11	(15) Year 4 FY '12	(16) Year 5 FY '13	(17) Year 6 FY '14	(18) Beyond 6 Years
Planning, Design & Supervision	**7,833**	4,284	871	**2,162**	574	613	490		33	452	516
Land											
Site Improvements & Utilities											
Construction	**49,555**	15,168	5,989	**28,398**	13,986	10,159	4,248	5			
Other	**397**	17	69	**306**	146	108	47			5	5
Total	**57,785**	**19,469**	**6,929**	**30,866**	**14,706**	**10,880**	**4,785**	**5**	**33**	**457**	**521**

C. Funding Schedule (000's)

WSSC Bonds	**27,549**	9,200	3,274	**14,583**	6,949	5,141	2,261	2	15	215	492
State Aid	**28,635**	9,735	3,465	**15,435**	7,353	5,440	2,393	3	17	229	
City of Rockville	**1,601**	534	190	**848**	404	299	131		1	13	29

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC's share of the Blue Plains Biological Nutrient 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 2007 - FY 2016 Capital Improvement Program information* (October, 2007).

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 were 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 higher construction bid prices than expected in the Engineer's estimate.

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)

			FY of Impact
Program Costs	Staff		....
	Other		....
Facility Costs	Maintenance		....
	Debt Service	2500	....
Total Costs		2500	....
Impact on Water or Sewer Rate		5¢	....

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	40,302
Present Cost Estimate	57,785
Approved Request, Last FY	3,436
Total Expenditures & Encumbrances	19,469
Approval Request FY 09	14,706
Supplemental Approval Request Current FY (08)	

G. Status Information

Land Status: Not applicable
% Project Completion: C-47%
Est. Completion Date: FY 2012

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

A. Identification and Coding Information

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

2. Date: October 1, 2007
Revised: May 8, 2008

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 '07	(10) Estimate FY '08	(11) Total 6 Years	(12) Year 1 FY '09	(13) Year 2 FY '10	(14) Year 3 FY '11	(15) Year 4 FY '12	(16) Year 5 FY '13	(17) Year 6 FY '14	(18) Beyond 6 Years
Planning, Design & Supervision	**33,769**	25,354	2,290	**6,094**	1,811	2,005	854	692	620	112	31
Land											
Site Improvements & Utilities											
Construction	**122,789**	84,271	8,435	**29,583**	9,841	8,172	2,275	4,986	3,814	495	500
Other	**740**	271	107	**357**	117	102	31	57	44	6	5
Total	**157,298**	**109,896**	**10,832**	**36,034**	**11,769**	**10,279**	**3,160**	**5,735**	**4,478**	**613**	**536**

C. Funding Schedule (000's)

WSSC Bonds	**148,663**	103,863	10,237	**34,056**	11,123	9,715	2,987	5,420	4,232	579	507
City of Rockville	**8,635**	6,033	595	**1,978**	646	564	173	315	246	34	29

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 Intermunicipal Agreement of 1985; the WASA Master Plan (1998); and the DC-WASA Proposed FY 2007 - FY 2016 *Capital Improvement* Program information (October, 2007).

Specific Data

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

Cost Change

The cost decrease in the six-year period is attributable to construction progress on the Central Operations Facility Upgrades, Process Control Computer System, and Potomac and Rock Creek sewage pumping stations projects.

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-Intermunicipal 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)

			FY of Impact
Program Costs	Staff		....
	Other		....
Facility Costs	Maintenance		....
	Debt Service	13493	....
Total Costs		13493	....
Impact on Water or Sewer Rate		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	161,298
Present Cost Estimate	157,298
Approved Request, Last FY	20,056
Total Expenditures & Encumbrances	109,896
Approval Request FY 09	11,769
Supplemental Approval Request Current FY (08)	

G. Status Information

Land Status:	Land & R/W to be acquired
% 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
083800	S-22.10	Change

2. Date: October 1, 2007
Revised: May 8, 2008

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

3. Project Name: Blue Plains WWTP: Enhanced Nutrient Removal

5.Agency: **WSSC**

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

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '07	(10) Estimate FY '08	(11) Total 6 Years	(12) Year 1 FY '09	(13) Year 2 FY '10	(14) Year 3 FY '11	(15) Year 4 FY '12	(16) Year 5 FY '13	(17) Year 6 FY '14	(18) Beyond 6 Years
Planning, Design & Supervision	**43,538**		2,728	**36,593**	4,149	7,971	4,607	6,554	6,847	6,465	4,217
Land											
Site Improvements & Utilities											
Construction	**224,147**			**195,517**			8,367	60,530	85,063	41,557	28,630
Other	**2,676**		27	**2,321**	41	80	130	671	919	480	328
Total	**270,361**		**2,755**	**234,431**	**4,190**	**8,051**	**13,104**	**67,755**	**92,829**	**48,502**	**33,175**

C. Funding Schedule (000's)

State Aid	**270,361**		2,755	**234,431**	4,190	8,051	13,104	67,755	92,829	48,502	33,175

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 levels 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 2007 - FY 2016 Capital Improvement Program information (October, 2007).

Specific Data

The costs for planning, research, piloting, design, and construction are anticipated to be covered by the Bay Restoration Fund.

Cost Change

The substantial overall project cost increase is due to the inclusion of design and construction costs estimates.

STATUS Planning

OTHER

The project scope has remained the same. 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.

COORDINATION

Maryland Department of the Environment, U.S. Environmental Protection Agency, Region III 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)

		FY of Impact
Program Costs	Staff	....
	Other	....
Facility Costs	Maintenance	....
	Debt Service	....
Total Costs		....
Impact on Water or Sewer Rate		....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 08
Date First Approved	FY 07
Initial Cost Estimate	648
Cost Estimate Last FY	843
Present Cost Estimate	270,361
Approved Request, Last FY	705
Total Expenditures & Encumbrances	
Approval Request FY 09	4,190
Supplemental Approval Request Current FY (08)	

G. Status Information

Land Status: Not Applicable
% Project Completion: P-0%
Est. Completion Date: FY 2019

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

Resolution No. 16-583

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.

COUNTY NUMBER	CATEGORY	PROJECTS
973837	Bi-County	Patuxent Water Treatment Implementation
053803	Montgomery	Piedmont Road Water Main
053801	Montgomery	Poolesville WWTP: Biological Nutrient Removal
033809	Bi-County	Potomac WFP Chemical Feed Facilities
973821	Montgomery	Seneca WWTP Expansion