

Resolution No.:	<u>18-156</u>
Introduced:	<u>May 21, 2015</u>
Adopted:	<u>May 21, 2015</u>

**COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND**

By: County Council

SUBJECT: Approval of the FY 2016-2021 Capital Improvements Program for the Washington Suburban Sanitary Commission

Background

1. As required by Section 23-304 of the Public Utilities Article 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. On October 1, 2014, WSSC transmitted its Proposed CIP for Fiscal Years 2016-2021.
3. On January 15, 2015, the County Executive transmitted his recommendations regarding the FY 2016-2021 WSSC CIP.
4. Section 23-306 of the Public Utilities Article of the Maryland Code authorizes the Council to approve, disapprove, or modify the WSSC CIP.
5. Section 23-305 of the Public Utilities Article of the Maryland Code 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 24, 2015.
6. The Council considered the recommendations of the Executive and the Montgomery County Planning Board regarding the CIP and reviewed the project description forms.
7. The Council recognizes that the information and documentation contained in the CIP are 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.
8. On May 7, 2015, 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 Proposed CIP.

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 2016-2021 as transmitted on October 1, 2014, except those projects which are approved as modified by the Montgomery and Prince George's County Councils. Amended project description forms are attached to this resolution and are identified by the following WSSC project numbers:

S-22.06, S-22.07, S-22.09, S-22.10, S-22.11, S-96.15, S-96.16

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

A. Identification and Coding Information

1. Project Number: Agency Number: Update Code
 064811 S-22.06 Change

2. Date: October 1, 2014
 Revised: May 7, 2015

3. Project Name: Blue Plains WWTP: Liquid Train Projects, Part 2

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

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

S. Agency: WSSC

B. Expenditure Schedule (000's)

	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Total	Estimate	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Beyond
		FY 14	6 Years	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	8 Years
Cost Elements										
Planning, Design & Supervision	118,846	84,302	5,219	17,814	3,284	4,259	3,877	2,945	2,139	1,220
Land										
Site Improvements & Utilities										
Construction	226,864	147,453	5,991	81,389	4,726	11,455	15,824	16,993	7,268	5,194
Other	1,927	112	791	79	157	197	180	94	66	124
Total	346,636	241,766	11,322	79,994	8,066	15,991	18,878	20,102	9,821	6,578

C. Funding Schedule (000's)

	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Total	WSSC Bonds	City of Rockville	WSSC Bonds	City of Rockville	WSSC Bonds	City of Rockville	WSSC Bonds	City of Rockville	WSSC Bonds
WSSC Bonds	325,051	228,484	10,700	75,802	7,569	18,787	19,003	8,368	6,218	11,875
City of Rockville	19,378	13,271	622	4,382	440	873	1,104	823	981	680

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: Filtration and Disinfection Rehabilitation, Raw Wastewater Pumping Station No. 2, Dual Purpose Sedimentation Basins Rehabilitation, Primary Treatment Facilities Upgrade Phase II, and Grit Chamber Bldg 1 & 2.

JUSTIFICATION

Plains & Studies
 The Blue Plains Inter-municipal Agreement of 2012, the DCWASA Master Plan (1998), and the DCWASA Approved FY 2014 Capital Improvements Program.

Specifics: Data
 This is a continuation of the DCWASA's upgrading of the Blue Plains Wastewater Treatment Plant.

Cost Change
 Cost increase is primarily due to revised higher estimates for the Dual Purpose Sedimentation Basins Rehab, Filtration/Disinfection Facilities Rehab Phase II, Grit Chamber Bldg 1 & 2, Effluent Filter Upgrades, Replaces/Upgrades balustr screens. Several projects within this program also experienced higher than estimated expenditures caused by project changes.

STATUS Not Applicable

OTHER

The project scope has remained the same. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast of operating and DCWASA's best project management data, and fully reflect DCWASA's current cost estimates and expenditure schedules. Given the open-ended nature of the Blue Plains projects, this PDF does 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. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION

City of Rockville (responsible for a share of funding), District of Columbia Water & Sewer Authority (responsible for design and construction) and WSSC Project S-22.10, Blue Plains WWTP: Enhanced Nutrient Removal.

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)

Program Costs	Start	End	FY of Impact
Facility Costs			
Total Costs			
Impact on Water or Sewer Rate			

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 96
Date First Approved	FY 95
Initial Cost Estimate	88,746
Cost Estimate Last FY	280,210
Present Cost Estimate	346,636
Approved Request, Last FY	9,932
Total Expenditures & Encumbrances	241,765
Approval Request FY 16	8,005
Supplemental Approval Request Current FY (15)	

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 / Change
 954812 / S-22.07

2. Date: October 1, 2014 / 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	(6) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	139,864	124,904	7,275	6,987	1,315	1,645	1,144	511	947	1,425	698
Land											
Site Improvements & Utilities											
Construction	269,390	217,889	25,410	24,586	3,198	6,673	4,342	2,182	1,809	6,381	1,498
Other	665		327	316	45	63	55	27	28	78	22
Total	409,909	342,793	33,012	31,888	4,558	8,401	5,541	2,720	2,784	7,884	2,216

C. Funding Schedule (000's)

	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
WSSC Bonds	31,200	30,138	4,308	7,840	5,237	2,571	2,631	7,451	2,094
City of Rockville	18,817	1,750	250	461	304	149	153	433	122

D. Description & Justification

DESCRIPTION
 This project provides funding for WSSC's share of the Blue Plains biosolids handling projects for which construction began after June 30, 1993. Major projects include: new Digestion Facilities; Gravity Thickener Facilities; and Solids Processing Building/Dewatered Sludge Loading Facility.

SERVICE AREA BI-County Area

CAPACITY 370 MGD

JUSTIFICATION
Plans & Studies
 The Blue Plains Intermunicipal Agreement of 2012; the DCWASA Master Plan (1998); EPMC IV Facility Plan, CH2MHILL (2001); the Biosolids Management at DCWASA Blue Plains Wastewater Treatment Plant Phase II - Design and Cost Considerations for Treatment Alternatives Report (December 2007); and the DCWASA Approved FY 2014 Capital Improvement Program.

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
 Cost increase is due to revised higher estimates for Gravity Thickeners Upgrades Phase II and Dewatering Additional Centrifuges; and, the addition of Combined Heat and Power as backup power project.

STATUS Not Applicable

OTHER
 The project scope has remained the same. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast of spending and DCWASA's latest project management data, and fully reflect DCWASA's current cost estimates and expenditure schedules. Given the open-ended nature of the Blue Plains projects, this PDF does 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. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION
 City of Rockville (responsible for a share of funding) and 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, Other, Maintenance, Debt Service

Facility Costs: 25178

Total Costs: 25178

Impact on Water or Sewer Rate: 564

FY of Impact: 21

F. Approval and Expenditure Data (000's)

Date First In Capital Program	FY 95
Date First Approved	FY 95
Initial Cost Estimate	77,298
Cost Estimate Last FY	387,209
Present Cost Estimate	409,909
Approved Request, Last FY	27,969
Total Expenditures & Encumbrances	342,793
Approval Request FY 16	4,558
Supplemental Approval Request Current FY (16)	

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, 2014 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.
 Revised: May 7, 2015
 3. Project Name: Blue Plains WWTP: Plant-wide Projects
 4. Program: Sanitation 6. Planning Area: Bi-County
 5. Agency: WSSC

B. Expenditure Schedule (000's)

Cost Elements	(6) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	96,815	72,229	3,522	17,000	1,958	1,948	1,434	2,398	4,842	4,420	4,064
Land											
Site Improvements & Utilities											
Construction	188,680	109,394	6,648	45,641	3,960	4,368	4,974	6,204	16,521	9,516	26,977
Other	1,038		102	626	59	63	64	86	214	140	310
Total	286,513	181,623	10,272	63,267	5,977	6,377	6,472	8,688	21,577	14,176	31,361

C. Funding Schedule (000's)

	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
WSSC Bonds	171,653	9,708	58,795	5,649	6,027	6,117	8,211	20,393	13,398	29,630
City of Rockville	9,970	564	3,472	328	350	355	477	1,184	778	1,721

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: Plantwide Program Management; comprehensive Management Program; Electrical Power Systems - Switch Gear; Instrumentation, Control, and Electric Engineering Project Management Consultant; New Warehouse Facility; and Central Office Facility (COF) Renovations and Additions. Control System Replacement and Upgrades have been added to this project.
Service Area Bi-County Area
CAPACITY 370 MGD

JUSTIFICATION
Plans & Studies
 The Blue Plains Inter-municipal Agreement of 2012, the WASA Master Plan (1998), and the DCWASA Approved FY 2014 Capital Improvement Program.
Specific Data
 This is a continuation of the DCWASA's upgrading of the Blue Plains Wastewater Treatment Plant.
Cost Change
 Cost increase is due to the addition of Control System upgrade projects and revised higher estimates for other projects in the program.

STATUS Not Applicable
OTHER
 The project scope has remained the same. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast and latest project management data, and reflect DCWASA's current expenditure estimates and schedules. Given the open-ended nature of the project, this PDF does 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. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION
 City of Rockville (responsible for a share of funding) and 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
 Facility Costs: Other
 Total Costs: Maintenance 16543
 Debt Service 18643
 Impact on Water or Sewer Rate 374

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: 212,236
 Present Cost Estimate: 286,513
 Approved Request, Last FY: 8,109
 Total Expenditures & Encumbrances: 181,623
 Approval Request FY 16: 5,977
 Supplemental Approval Request Current FY (15):

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: 063800 Agency Number: S-22.10 Update Code: Change

2. Date: October 1, 2014 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 '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	102,846	61,009	10,814	28,883	9,920	7,671	7,553	2,736	1,467	536	940
Land											
Site Improvements & Utilities											
Construction	281,543	124,930	50,164	106,369	54,718	28,067	21,842	622	117	3	80
Other	1,982		610	1,362	846	367	294	34	16	5	10
Total	386,171	185,939	61,588	137,614	65,284	37,105	29,689	3,392	1,600	544	1,030

C. Funding Schedule (000's)

WSSC Bonds	161,672	33,930	38,143	88,628	40,911	26,412	19,585	1,271	230	217	973
State Aid	215,108	150,038	21,230	43,840	21,997	9,159	8,966	2,047	1,357	314	
City of Rockville	9,391	1,971	2,215	5,148	2,378	1,534	1,138	74	13	13	57

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 Strategies Process. Sub-projects include: Nitrogen Removal Facilities, Centrate Treatment, Enhanced Clarification Facility, Blue Plains Tunnel and Dewatering Pumping Station, and Program Management.

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); Selection of the Enhanced Nitrogen Removal Process Alternative for the Blue Plains Advanced Wastewater Treatment Facility, Metcalf & Eddy (2009); DCWASA Approved FY 2014 Capital Improvement Program, and the Blue Plains Intermunicipal Agreement of 2012.

Specific Data
 The funding schedule reflects the final cost sharing agreement with the Maryland Department of the Environment.

Cost Change
 Not applicable.

STATUS Not Applicable (WSSC Contract Nos. CB4168L05, CB4168Q05).

OTHER
 The project scope has remained the same. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast and latest project management data, and reflect DCWASA's current expenditure estimates and schedules. Total Nitrogen Secondary Treatment Upgrades will take place after 2021. Projects extending beyond those supported by State Aid include rehabilitation and upgrades to older projects.

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)

Program Costs: Staff FY of Impact:
 Other
 Facility Costs: Maintenance 10488
 Debt Service 10488
 Total Costs 204
 Impact on Water or Sewer Rate

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 06
Date First Approved	FY 07
Initial Cost Estimate	648
Cost Estimate Last FY	366,743
Present Cost Estimate	386,171
Approved Request, Last FY	49,031
Total Expenditures & Encumbrances	185,939
Approval Request FY 16	65,284
Supplemental Approval Request Current FY (15)	

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
 113804 S-22.11 Change

2. Date: October 1, 2014
 Revised: May 7, 2015

3. Project Name: Blue Plains: Pipelines & Appurtenances

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

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

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estm'ts FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	39,211	11,492	4,865	18,859	4,659	3,839	2,872	2,605	2,454	2,430	3,975
Land											
Site Improvements & Utilities											
Construction	138,287	42,792	10,272	68,303	17,130	15,780	9,802	11,007	9,237	5,347	16,920
Other	1,233		152	872	218	196	127	136	117	78	209
Total	178,731	54,284	15,309	88,034	22,007	19,815	12,801	13,748	11,808	7,865	21,104

C. Funding Schedule (000's)

	WSSC Bonds	City of Rockville
	172,317	6,414
	53,012	1,272
	14,950	359
	86,141	2,893
	21,657	450
	19,128	886
	12,174	627
	13,182	566
	11,465	343
	7,634	221
	19,214	1,890

D. Description & Justification

DESCRIPTION
 This project provides funding for WSSC's share of Blue Plains-associated projects which are "outside the fence" of the treatment plant. Major projects include: Potomac Interceptor Rehabilitation; Upper Potomac Interceptor; Potomac Sewage Pumping Station Rehabilitation; Infiltrant Sewers Rehabilitation; and projects associated with the Combined Sewer Overflow (CSO) Long Term Control Plan (e.g. Anacostia Tunnel).

SERVICE AREA: Bi-County Area
CAPACITY: Various

JUSTIFICATION
Plans & Studies
 The Blue Plains Intermunicipal Agreement of 2012; the WASA Master Plan (1998); Technical Memorandum No. 1, Multi-Jurisdictional Use Facilities Capital Cost Allocation, (June 2013); and the DCWASA Approved FY 2014 Capital Improvement Program.

Specific Data
 This is a continuation of DCWASA's upgrading of the Blue Plains-associated projects outside the fence.

Cost Change
 Cost increase is due to revised higher estimates for projects to rehabilitate DCWASA interceptor sewers and pumping stations that carry WSSC wastewater to the Blue Plains WWTP, and the addition of creekbed sewer rehabilitation 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 and latest project management data, and reflect WASA's current expenditure estimates and schedules. Given the open-ended nature of the project, this PDF does 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. The funding schedule also indicates the calculated Rockville share of the cost which varies by project based on the City's relative share of WSSC's flow as derived in the Multijurisdiction Use Facilities Study.

COORDINATION
 City of Rockville (responsible for a share of funding) and District of Columbia Water & Sewer Authority (responsible for design and construction).

NOTE This project supports 45% System Improvement and 55% Environmental Regulation.

E. Annual Operating Budget Impact (000's)

Program Costs: Staff
 Other
 Facility Costs: Maintenance 10801
 Debt Service 10801
 Total Costs 244
 Impact on Water or Sewer Rate

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 11
Date First Approved	FY 02
Initial Cost Estimate	102,833
Cost Estimate Last FY	161,952
Present Cost Estimate	178,731
Approved Request, Last FY	23,795
Total Expenditures & Encumbrances	54,284
Approval Request FY 16	22,007
Supplemental Approval Request Current FY (15)	

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: S-96.15 Agency Number: [] Update Code: []
 2. Date: October 1, 2014 7. Pre PDF Pg.No.: 8. Req. Adeg. Pub. Fac. []
 Revised: []

3. Project Name: Piscataway WWTP Post Lime Stabilization 5. Agency: WSSC
 4. Program: Sanitation 6. Planning Area: Accokeek P.A. 83

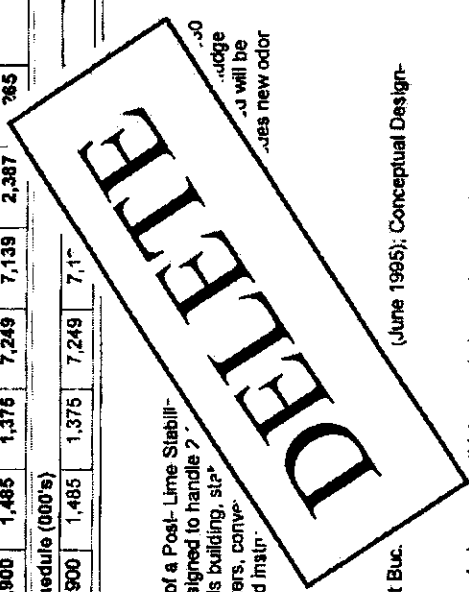
B. Expenditure Schedule (000's)

Cost Elements	(9) Total	(10) Estimate Thru FY'14	(11) Total 6 Years	(12) Year 1 FY'16	(13) Year 2 FY'17	(14) Year 3 FY'18	(15) Year 4 FY'19	(16) Year 5 FY'20	(17) Year 6 FY'21	(18) Beyond 6 Years
Planning, Design & Supervision	5,050	60	5,000	1,350	1,250	990	880	370	150	
Land										
Site Improvements & Utilities										
Construction	14,000					5,800	5,800	1,800	1,000	
Other	1,906	6	1,900	135	125	659	649	217	115	
Total	20,956	66	20,900	1,485	1,375	7,249	7,139	2,387	785	

C. Funding Schedule (000's)

WSSC Bonds	20,966	20,900	1,485	1,375	7,249	7,139
Total	20,966	20,900	1,485	1,375	7,249	7,139

D. Description & Justification
DESCRIPTION
 This project will provide for the planning, design and construction of a Post-Lime Stabilization Piscataway Wastewater Treatment Plant. The facilities will be designed to handle an average daily flow condition (30 MGD) and will include a new solids building, slip conveyor to lime stabilization, and post lime stabilization (lime mixers, conveyor, building plumbing and fire protection, process piping, electrical and instrumentation control equipment added to the headworks facilities.
SERVICE AREA Piscataway Creek Drainage Basin
JUSTIFICATION
Plans & Studies
 Update to the Prince George's County Biosolids Master Plan, Post Bus. Western Branch SSI Upgrades, HDR (February 2014)
Specific Data
 Piscataway WWTP's solids handling system consists of two stage sludge grinders/thickeners (primary sludge and waste sludge in the first stage), where lime and water (slaked lime) is added (pumped) and mixed between the first and second stage thickeners. The primary lime stabilization system was constructed during the 1970's, before the post lime stabilization was developed commercially.
 Numerous studies have shown that it is more cost effective to add lime after dewatering than to add lime in the liquid solids. Lime added to liquid solids creates much more solids to dispose of and is very abrasive to equipment. Additionally, it takes much more lime to increase the solids to pH > 11 when added to the liquid solids. The disadvantages of the pre-lime system have been: additional routine maintenance, reduced equipment service life, use of more lime, and increased biosolids trucking and hauling costs. In addition, the high concentration of lime and other components in the dewatering sidestream returned to the Piscataway Raw WWTP has caused reduction in capacity of the plant drain system and reduction in capacity of the Piscataway Raw WWTPS which could lead to Sanitary Sewer Overflows during wet weather events.
Cost Change
 Not applicable.
STATUS Planning
OTHER
 The project scope was developed for the FY 2016 CIP and has a total estimated cost of \$20,966,000. 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.



E. Annual Operating Budget Impact (000's)

Program Costs	Staff	Other	Maintenance	Debt Service	FY of Impact
Facility Costs			1442	1442	22
Total Costs			1442	1442	22
Impact on Water or Sewer Rate				34	22

F. Approval and Expenditure Data (000's)

Date First In Capital Program	FY 16
Date First Approved	FY 16
Initial Cost Estimate	20,966
Cost Estimate Last FY	
Present Cost Estimate	20,966
Approved Request, Last FY	
Total Expenditures & Encumbrances	
Approval Request FY 16	1,485
Supplemental Approval Request Current FY (15)	

G. Status Information
 Land Status: No land or RW required
 % Project Completion: P-20%
 Est. Completion Date: FY 2021

H. Map Map Reference Code:

MAP NOT APPLICABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 96.15

Project Name: Piscataway WWTP Post Lime Stabilization

and construction. This project had been deferred pending a decision on the final siting for the new Anaerobic Digester/Combined Heat & Power project. It now must be included in the FY 2016 CIP so that preliminary planning work can begin. In the event that WSSC project S-103.02, Anaerobic Digester/Combined Heat & Power is approved to proceed to design in FY 2015 this project will not be needed, the project may be removed from the CIP, and the capital cost will be avoided.

COORDINATION

Prince George's County Government, Maryland Department of the Environment and WSSC Projects S-103.02, Anaerobic Digester/Combined Heat & Power and S-96.14, Piscataway WWTP Facility Upgrades.

NOTE This project supports 100% System Improvement.

A. Identification and Coding Information

1. Project Number: Agency Number: Update Code: 7. Pre PDF Pg.No.: 8. Req. Adsq. Pub. Fac.

S-96.16 Add

2. Date: October 1, 2014

3. Project Name: Piscataway WWTP Backup Generators

4. Program: Sanitation 5. Agency: WSSC

6. Planning Area: Accokeek P.A. 83

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Est. FY '15	(11) Total 6 Years	(12) FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	4,185	60	4,125	1,097	1,358	1,520	150				
Land											
Site Improvements & Utilities											
Construction	16,700		15,700	9,487	1,000						
Other	1,988	5	1,983	110	659	1,099	115				
Total	21,873	65	21,808	1,207	7,250	12,086	1,265				

C. Funding Schedule (000's)

WSSC Bonds	21,873	1,207	7,250	12,086	1,265
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D. Description & Justification

DESCRIPTION
 This project provides for the planning, design, and construction of an on-site diesel generation facility for the Piscataway WWTP Treatment Plant. The facility will consist of two (2) engine-generator sets, rated at 2,725 kW each.

SERVICE AREA
 Piscataway Creek Drainage Basin

JUSTIFICATION

Plans & Studies
 Power Reliability Analysis and Conceptual Design for the Piscataway WWTP Treatment Plant, prepared by Greeley and Hansen/Shah & Associates (June 2013).

Specific Data
 In recent years WSSC has experienced an increase in power outages, at critical treatment and pumping facilities. The consequences of such power outages include a compromise of public health and safety, and also include erosion of public confidence, increased regulatory involvement. To address these concerns, WSSC has initiated a comprehensive analysis of emergency power capabilities, reliability, and requirements for major pumping stations and treatment plants. Piscataway WWTP is currently supplied by SMECO through four 12.47 kV lines. In October 2010 and August 2011, the plant experienced complete power outages (all four 12.47 kV lines disrupted at the same time). The analysis revealed that the existing small diesel generator at the Piscataway WWTP is inadequate to provide power to the entire facility during a power outage. Five potential electric supply alternatives were evaluated in detail in the Electric Reliability Analysis report; the most economical was the selection of two (2) 2,725 kW generators to supply electricity to plant processes in the event of a complete utility power outage. A Priority ranking was assigned to each facility that was studied during the analysis, with the facilities receiving the higher priority rankings to be upgraded first. The Piscataway WWTP was ranked 2nd of the twenty-two facilities which were ranked, behind only the Potomac Water Filtration Plant.

Cost Change
 Not applicable.

STATUS
 Planning

OTHER
 The project scope was developed for the FY 2016 CIP and has a total estimated cost of \$21,873,000. Expenditure and schedule projections shown in Block B above are planning level estimates and are expected to change as the project moves into design and construction. The need for this project was first identified in WSSC Project W-73.18 Power Reliability and Arc Flash Implementation. Expenditures shown in FY '15 were transferred from the Power Reliability project. This project had been deferred pending a decision.

E. Annual Operating Budget Impact (000's)

Program Costs	Staff	FY of Impact
Facility Costs	Maintenance	20
Total Costs	Debt Service	20
Impact on Water or Sewer Rate		\$4

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 15
Date First Approved	FY 03
Initial Cost Estimate	21,873
Present Cost Estimate	21,873
Approved Request, Last FY	
Total Expenditures & Encumbrances	
Approval Request FY 16	1,207
Supplemental Approval Request Current FY (16)	

G. Status Information

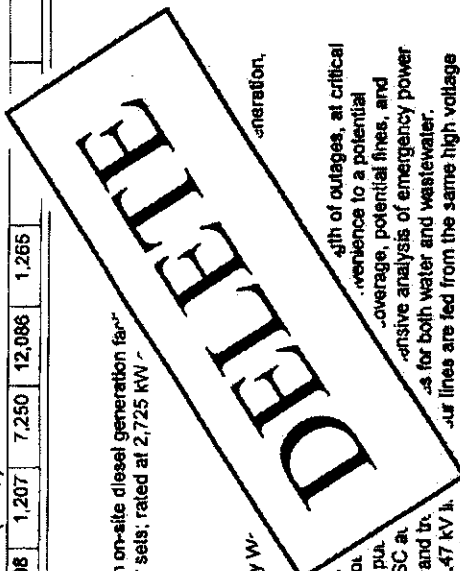
Land Status: No land or RWW required

% Project Completion: P-75%

Est. Completion Date: FY 2019

H. Map Map Reference Code:

MAP NOT APPLICABLE



D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 96.16

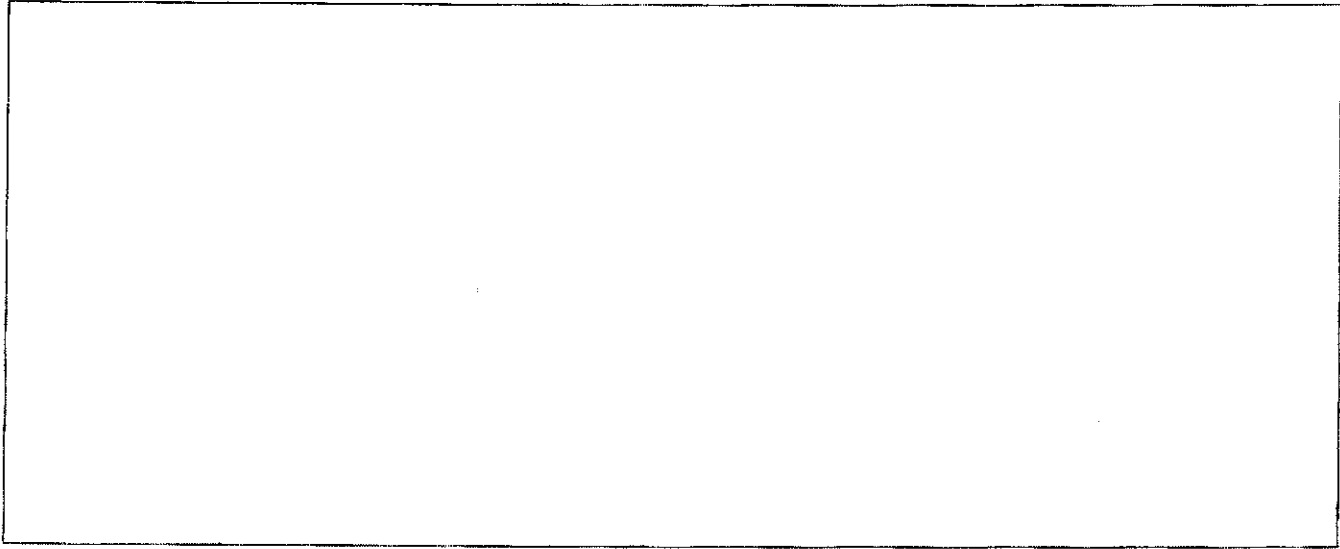
Project Name: Piscataway WWTP Backup Generators

on the final siting for the new Anaerobic Digester/Combined Heat & Power project. It now must be included in the FY 2016 CIP so that preliminary planning work can begin. In the event that WSSC project S-103.02, Anaerobic Digester/Combined Heat & Power is approved to proceed to design in FY 2016 this project will not be needed, the project may be removed from the CIP, and the capital cost will be avoided.

COORDINATION

Prince George's County Government, Maryland Department of the Environment and WSSC Projects S-103.02, Anaerobic Digestion/Combined Heat & Power and S-96.14, Piscataway WWTP Facility Upgrades.

NOTE This project supports 100% System Improvement.



**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>
023800	Montgomery	Laytonsville Elevated Tank & Pumping Station
123800	Montgomery	Montgomery College Germantown Campus Sewer
033811	Bi-County	Potomac WFP Improvements
973817	Bi-County	Blue Plains WWTP: Biological Nutrient Removal