

Resolution No:	<u>18-829</u>
Introduced:	<u>May 25, 2017</u>
Adopted:	<u>May 25, 2017</u>

**COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND**

By: County Council

SUBJECT: Approval of the FY 2018-2023 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, 2016, WSSC transmitted its Proposed CIP for Fiscal Years 2018-2023.
3. On January 17, 2017, the County Executive transmitted his recommendations regarding the FY 2018-2023 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. Notice of public hearing was given and a public hearing was held.
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 11, 2017, 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

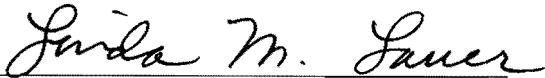
The County Council for Montgomery County, Maryland approves the following resolution for the Washington Suburban Sanitary Commission:

1. The Council approves the projects in the WSSC Proposed CIP for FY 2018-2023 as transmitted on October 1, 2016, 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.

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

Blue Plains WWTP: Liquid Train Projects, Part 2

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-22.06	954811	Change

PDF Date	October 1, 2016
Date Revised	May 11, 2017

Pressure Zones	
Drainage Basins	Bi-County 30;
Planning Areas	Bi-County;

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'16	Estimate FY'17	Total 6 Years	Year 1 FY'18	Year 2 FY'19	Year 3 FY'20	Year 4 FY'21	Year 5 FY'22	Year 6 FY'23	Beyond 6 Years
Planning, Design & Supervision	32,466		2,739	17,210	2,819	2,926	3,020	2,348	2,639	3,458	12,517
Land											
Site Improvements & Utilities											
Construction	138,848		5,861	97,187	10,205	24,813	20,079	10,279	14,996	16,815	35,800
Other	1,712		86	1,143	130	277	231	126	176	203	483
Total	173,026		8,686	115,540	13,154	28,016	23,330	12,753	17,811	20,476	48,800

C. Funding Schedule (000's)

WSSC Bonds	163,527	8,209	109,197	12,432	26,478	22,049	12,053	16,833	19,352	46,121	
City of Rockville	9,499	477	6,343	722	1,538	1,281	700	978	1,124	2,679	

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: Dual Purpose Sedimentation Basins Rehabilitation, Filtration/Disinfection Facilities Phases I&II, and Grit Chamber Buildings 1&2.

JUSTIFICATION

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

The Blue Plains Intermunicipal Agreement of 2012; the DCWASA Master Plan (1998); and the DCWASA Approved FY 2017 Capital Improvements Program.

COST CHANGE

Cost increase is primarily due to the addition of new projects for High Strength Waste Receiving Facility, Wastewater Asset Management Support, Process Control Upgrade, and Chemical System/Building Upgrades.

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. Life to date expenditures for this program are approximately \$360 million.

COORDINATION

Coordinating Agencies: District of Columbia Water and Sewer Authority; (responsible for design and construction); City of Rockville; (responsible for a share of funding)

Coordinating Projects: S-22.10-Blue Plains WWTP: Enhanced Nutrient Removal;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	\$10,638	
Total Cost	\$10,638	
Impact on Water and Sewer Rate	\$0.24	

F. Approval and Expenditure Data (000's)

Date First in Program	FY 95
Date First Approved	FY 95
Initial Cost Estimate	69,745
Cost Estimate Last FY	359,105
Present Cost Estimate	173,026
Approved Request Last FY	12,078
Total Expense & Encumbrances	
Approval Request Year 1	13,154

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	
Est Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	370 MGD

H. Map

MAP NOT AVAILABLE

Attachment to Resolution No.: 18-829

Blue Plains WWTP: Biosolids Management, Part 2

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-22.07	954812	Change

PDF Date	October 1, 2016
Date Revised	May 11, 2017

Pressure Zones	
Drainage Basins	Bi-County 30;
Planning Areas	Bi-County;

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'16	Estimate FY'17	Total 6 Years	Year 1 FY'18	Year 2 FY'19	Year 3 FY'20	Year 4 FY'21	Year 5 FY'22	Year 6 FY'23	Beyond 6 Years
Planning, Design & Supervision	7,135		971	5,652	554	975	1,297	1,567	1,065	194	512
Land											
Site Improvements & Utilities											
Construction	28,609		3,103	25,278	1,978	7,044	7,077	5,866	2,745	568	228
Other	357		41	309	25	80	84	74	38	8	7
Total	36,101		4,115	31,239	2,557	8,099	8,458	7,507	3,848	770	747

C. Funding Schedule (000's)

WSSC Bonds	34,120		3,889	29,525	2,417	7,654	7,994	7,095	3,637	728	706
City of Rockville	1,981		226	1,714	140	445	464	412	211	42	41

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.

JUSTIFICATION

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

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 2017 Capital Improvement Program.

COST CHANGE

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. Portions of the program have been financed by low interest loans through the Maryland Department of the Environment's Water Quality Administration State Revolving Loan Program. The funding schedule also indicates the calculated Rockville share of the cost. Life to date expenditures for this program are approximately \$400 million.

COORDINATION

Coordinating Agencies: City of Rockville; (responsible for a share of funding); District of Columbia Water and Sewer Authority; (responsible for design and construction)

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	\$2,220	
Total Cost	\$2,220	
Impact on Water and Sewer Rate	\$0.05	

F. Approval and Expenditure Data (000's)

Date First in Program	FY 95
Date First Approved	FY 95
Initial Cost Estimate	77,296
Cost Estimate Last FY	446,827
Present Cost Estimate	36,101
Approved Request Last FY	4,010
Total Expense & Encumbrances	
Approval Request Year 1	2,557

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	
Est Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	370 MGD

H. Map

MAP NOT AVAILABLE

Blue Plains WWTP: Plant-wide Projects

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-22.09	023805	Change

PDF Date	October 1, 2016
Date Revised	May 11, 2017

Pressure Zones	
Drainage Basins	Bi-County 30;
Planning Areas	Bi-County;

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'16	Estimate FY'17	Total 6 Years	Year 1 FY'18	Year 2 FY'19	Year 3 FY'20	Year 4 FY'21	Year 5 FY'22	Year 6 FY'23	Beyond 6 Years
Planning, Design & Supervision	21,499		1,960	16,600	2,743	1,436	4,635	3,256	2,544	1,986	2,939
Land											
Site Improvements & Utilities											
Construction	75,963		3,544	56,602	4,208	7,607	12,070	8,557	11,297	12,863	15,817
Other	974		55	731	70	90	167	118	138	148	188
Total	98,436		5,559	73,933	7,021	9,133	16,872	11,931	13,979	14,997	18,944

C. Funding Schedule (000's)

WSSC Bonds	93,034		5,254	69,876	6,636	8,632	15,946	11,276	13,212	14,174	17,904
City of Rockville	5,402		305	4,057	385	501	926	655	767	823	1,040

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: Plant-wide Fine Bubble Aeration, Plant-wide Painting of Steel Pipes, Process Computer Control System, and Miscellaneous Projects.

JUSTIFICATION

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

The Blue Plains Intermunicipal Agreement of 2012; the WASA Master Plan (1998); and the DCWASA Approved FY 2017 Capital Improvement Program.

COST CHANGE

Cost increased for new major projects including: Blue Plains IT Backbone, Wastewater Asset Management Technical Support, and Plant-wide Paving.

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. Life to date expenditures for this program are approximately \$200 million.

COORDINATION

Coordinating Agencies: City of Rockville; (responsible for a share of funding); District of Columbia Water and Sewer Authority; (responsible for design and construction)

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

	FY of Impact
Staff	
Maintenance	
Other Project Costs	
Debt Service	\$6,052
Total Cost	\$6,052
Impact on Water and Sewer Rate	\$0.14

F. Approval and Expenditure Data (000's)

Date First in Program	FY 95
Date First Approved	FY 02
Initial Cost Estimate	84,650
Cost Estimate Last FY	303,487
Present Cost Estimate	98,436
Approved Request Last FY	8,242
Total Expense & Encumbrances	
Approval Request Year 1	7,021

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	
Est Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	370 MGD

H. Map

MAP NOT AVAILABLE

Blue Plains WWTP: Enhanced Nutrient Removal

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-22.10	083800	Change

PDF Date	October 1, 2016
Date Revised	May 11, 2017

Pressure Zones	
Drainage Basins	Bi-County 30;
Planning Areas	Bi-County;

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'16	Estimate FY'17	Total 6 Years	Year 1 FY'18	Year 2 FY'19	Year 3 FY'20	Year 4 FY'21	Year 5 FY'22	Year 6 FY'23	Beyond 6 Years
Planning, Design & Supervision	103,423	78,215	10,033	14,181	8,462	2,622	1,998	494	0	605	994
Land											
Site Improvements & Utilities											
Construction	277,487	214,936	37,126	20,342	19,874	276	111	18	3	60	5,083
Other	878		472	345	283	29	21	5	0	7	61
Total	381,788	293,151	47,631	34,868	28,619	2,927	2,130	517	3	672	6,138

C. Funding Schedule (000's)

WSSC Bonds	164,078	94,513	34,671	29,093	23,475	2,555	1,938	487	3	635	5,801
State Aid	210,083	193,148	12,850	4,085	3,780	224	79	2	0	0	0
City of Rockville	7,627	5,490	110	1,690	1,364	148	113	28	0	37	337

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 and DC Water's 2010 NPDES permit. Major projects include: Enhanced Nitrogen Removal North, Enhanced Clarification Facilities, Enhanced Nitrogen Removal Facilities, Biosolids Filtrate Treatment Facilities, Combined Heat & Power as Back-up Power, Biosolids Blending Development Center, ENR Program Management, and Wet Weather Mitigation, Diversion at Bolling and Tunnel Dewatering Pump Station.

JUSTIFICATION

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

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 2017 Capital Improvement Program, and the Blue Plains Intermunicipal Agreement of 2012.

COST CHANGE

Minor cost savings due to accelerated construction schedule.

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. Portions of the program have been financed by low interest loans through the Maryland Department of the Environment's Water Quality Administration State Revolving Loan Program. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION

Coordinating Agencies: Maryland Department of the Environment; U.S. Environmental Protection Agency, Region III; District of Columbia Water and Sewer Authority; (responsible for design and construction); City of Rockville; (responsible for a share of funding)

Coordinating Projects: S-22.06-Blue Plains WWTP: Liquid Train Projects, Part 2;

E. Annual Operating Budget Impact (000's)

	FY of Impact
Staff	
Maintenance	
Other Project Costs	
Debt Service	\$10,673
Total Cost	\$10,673
Impact on Water and Sewer Rate	\$0.24

F. Approval and Expenditure Data (000's)

Date First in Program	FY 08
Date First Approved	FY 07
Initial Cost Estimate	648
Cost Estimate Last FY	398,919
Present Cost Estimate	381,788
Approved Request Last FY	47,437
Total Expense & Encumbrances	293,151
Approval Request Year 1	28,619

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	80%
Est Completion Date	FY 2024

Growth	
System Improvement	
Environmental Regulation	100%
Population Served	
Capacity	370 MGD

H. Map

MAP NOT AVAILABLE

Blue Plains: Pipelines & Appurtenances

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-22.11	113804	Change

PDF Date	October 1, 2016
Date Revised	May 11, 2017

Pressure Zones	
Drainage Basins	Bi-County 30;
Planning Areas	Bi-County;

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'16	Estimate FY'17	Total 6 Years	Year 1 FY'18	Year 2 FY'19	Year 3 FY'20	Year 4 FY'21	Year 5 FY'22	Year 6 FY'23	Beyond 6 Years
Planning, Design & Supervision	19,200		4,395	12,153	2,536	1,678	1,659	2,641	2,284	1,355	2,652
Land											
Site Improvements & Utilities											
Construction	78,744		17,372	48,689	10,262	10,577	11,969	5,817	3,649	6,415	12,683
Other	980		218	609	128	123	136	85	59	78	153
Total	98,924		21,985	61,451	12,926	12,378	13,764	8,543	5,992	7,848	15,488

C. Funding Schedule (000's)

Funding Source	Total	WSSC Bonds	City of Rockville
WSSC Bonds	93,418	21,039	59,142
City of Rockville	5,506	946	2,309

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: A new headquarters building; Potomac Interceptor Rehabilitation; Upper Potomac Interceptor; Potomac Sewage Pumping Station Rehabilitation; Influent Sewers Rehabilitation; and projects associated with the Combined Sewer Overflow (CSO) Long Term Control Plan (Clean Rivers Program) (e.g. Anacostia Tunnel).

JUSTIFICATION

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

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 2017 Capital Improvement Program.

COST CHANGE

With the major upgrade projects at Blue Plains underway, attention is increasingly being paid to the sewer system leading to the WWTP.

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. Life to date expenditures for this program are approximately \$100 million.

COORDINATION

Coordinating Agencies: City of Rockville; (responsible for a share of funding); District of Columbia Water and Sewer Authority; (responsible for design and construction)

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

	FY of Impact
Staff	
Maintenance	
Other Project Costs	
Debt Service	\$6,077
Total Cost	\$6,077
Impact on Water and Sewer Rate	\$0.14

F. Approval and Expenditure Data (000's)

Date First in Program	FY 11
Date First Approved	FY 02
Initial Cost Estimate	102,833
Cost Estimate Last FY	176,502
Present Cost Estimate	98,924
Approved Request Last FY	17,094
Total Expense & Encumbrances	
Approval Request Year 1	12,926

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	
Est Completion Date	On-Going

Growth	
System Improvement	45%
Environmental Regulation	55%
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

**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>
013802	Montgomery	Newcut Road Water Main, Part 2
103800	Montgomery	Preserve at Rock Creek Wastewater Pumping Station
103801	Montgomery	Preserve at Rock Creek WWPS Force Main