Resolution No:	19-1291
Introduced:	May 26, 2022
Adopted:	May 26, 2022

COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND

Lead Sponsor: County Council

SUBJECT: Approval of the FY 2023-2028 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 (Commission) 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 September 24, 2021, the Commission transmitted its Proposed FY 2023-2028 CIP and Information Only projects.

3. On January 18, 2022, the County Executive transmitted his recommendations regarding the Commission's Proposed FY 2023-2028 CIP and Information Only projects.

4. On February 18, 2022, the Commission transmitted a mid-cycle update which included changes to various Proposed FY 2023-2028 CIP and Information Only projects.

5. Section 23-306 of the Public Utilities Article of the Maryland Code authorizes the Council to approve, disapprove, or modify the Commission's Proposed CIP.

6. Section 23-305 of the Public Utilities Article of the Maryland Code requires that before final action on the Commission's CIP is taken, public hearings must be held on the Program. The Commission held public hearings on its FY 2023-2028 CIP and Information Only projects on September 1 and 2, 2021. The Council held public hearings on the Commission's FY 2023-2028 CIP and Information Only projects on February 8 and 9, 2022.

7. The Council considered the recommendations of the Executive and the Montgomery County Planning Board regarding the Commission's FY 2023-2028 CIP and Information Only projects and reviewed the project description forms.

8. The Council recognizes that the information and documentation contained in the Commission's FY 2023-2028 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.

9. On May 12, 2022, the Montgomery County and Prince George's County Councils jointly reviewed and approved the Commission's Proposed FY 2023-2028 CIP and Information Only projects with changes.

Action

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

1. The Council approves the WSSC Proposed FY 2023-2028 CIP and Information Only projects as transmitted on September 24, 2022, except those projects which are approved as modified by the Montgomery and Prince George's County Councils. The projects that the Council approves as modified are reflected in the project description forms attached to this resolution, and are identified by the following WSSC project numbers:

   S-36.01
   S-61.02
   S-63.08
   S-68.02
   S-89.26
   S-94.14
   S-113.13
   S-170.08
   W-1.00
   W-84.05
   W-137.03
   W-161.01
   W-161.02
   A-100.01
   A-102.00
   A-110.00

2. The Council approves the close out of the projects in the attachment to this resolution entitled *Part I: Washington Suburban Sanitary Commission Capital Projects To Be Closed Out*.

This is a correct copy of Council action.

Judy Rupp
Clerk of the Council

Arcola WWPS & FM

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000036.01		Add

PDF Date	October 1, 2021
Date Revised	February 16, 2022

Pressure Zones	
Drainage Basins	Sligo Creek 06
Planning Areas	Kensington-Wheaton PA 31

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	1,463	188	100	1,175		600	300	275			
Land											
Construction	3,900			3,900			1,700	2,200			
Other	777		15	762		90	300	372			
Total	**6,140**	**188**	**115**	**5,837**		**690**	**2,300**	**2,847**			

C. Funding Schedule (000's)

WSSC Bonds	6,140	188	115	5,837		690	2,300	2,847			

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of the modifications to the Arcola Wastewater Pumping Station and replacement of the Arcola Force Main. The rehabilitation will replace both pumps, maintaining the pumping station's 0.17 MGD capacity. The existing 1,300 linear feet of 4-inch force main will be replaced. In addition, replacement of all electrical and mechanical components, piping assets, and the HVAC system are included.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.

JUSTIFICATION

The existing pumping station and force main were constructed in 1961 and have reached the end of their useful lives. Replacement of the existing force main is in accordance with an initiative to prioritize replacing force mains that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program (CNPV #183).

COST CHANGE

Due to budgetary constraints, this project has been deferred for one year.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of $6,140,000. The schedule and expenditure projections shown in Block B above are based on preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work for the replacement and upgrade began in FY'21 under ESP S-616.01, Arcola Force Main Replacement and WWPS Upgrade.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Montgomery County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	$355	26
Total Cost	$355	26
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	6,140
Cost Estimate Last FY	
Present Cost Estimate	6,140
Approved Request Last FY	
Total Expense & Encumbrances	188
Approval Request Year 1	

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Planning
Percent Complete	100 %
Estimated Completion Date	April 2025

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	0.17 MGD

H. Map

MAP NOT APPLICABLE

Reddy Branch WWPS & FM

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000061.02		Add

PDF Date	October 1, 2021
Date Revised	February 16, 2022

Pressure Zones	
Drainage Basins	Rock Creek 05
Planning Areas	Olney & Vicinity PA 23

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	2,376	16	250	1,860		250	100	630	630	250	250
Land											
Construction	20,000			10,000						10,000	10,000
Other	2,238		25	1,187		25	10	63	63	1,026	1,026
Total	**24,614**	**16**	**275**	**13,047**		**275**	**110**	**693**	**693**	**11,276**	**11,276**

C. Funding Schedule (000's)

WSSC Bonds	24,614	16	275	13,047		275	110	693	693	11,276	11,276

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of the modifications to the existing 3.04 MGD wastewater pumping station and replacement of approximately 12,774 feet of existing force main.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.

JUSTIFICATION

The existing pumping station and 16-inch diameter PCCP force main were built in 1971 and have reached the end of their useful lives. The station is subject to flooding and there are safety concerns with equipment operation. Replacement of the existing force main is in accordance with an initiative to prioritize replacing force mains that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program (CNPV #200).

COST CHANGE

Due to budgetary constraints, this project has been deferred for one year.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of $24,614,000. The schedule and expenditure projections shown in Block B above are based on preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work for the upgrade began in FY'21 under ESP S-611.04, Reddy Branch WWPS Upgrade. Future land costs are included in project S-203.00.

COORDINATION

Coordinating Agencies: Maryland-National Capital Park & Planning Commission; Montgomery County Government; Town of Brookeville
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	$1,423	29
Total Cost	$1,423	29
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	24,614
Cost Estimate Last FY	
Present Cost Estimate	24,614
Approved Request Last FY	
Total Expense & Encumbrances	16
Approval Request Year 1	

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	0 %
Estimated Completion Date	June 2028

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	3.04 MGD

H. Map

Sam Rice Manor WWPS & FM

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000063.08		Add

PDF Date	October 1, 2021
Date Revised	February 16, 2022

Pressure Zones	
Drainage Basins	Lower Anacostia 9
Planning Areas	Patuxent PA 15

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	1,586	36	250	1,100		150	100	150	500	200	200
Land											
Construction	3,200			800						800	2,400
Other	715		38	287		23	15	24	75	150	390
Total	**5,501**	**36**	**288**	**2,187**		**173**	**115**	**174**	**575**	**1,150**	**2,990**

C. Funding Schedule (000's)

WSSC Bonds	937	6	49	373		29	20	30	98	196	509
SDC	4,564	30	239	1,814		144	95	144	477	954	2,481

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a 0.12 MGD wastewater pumping station and 3,521 linear feet of force main. The relocated wastewater pumping station and force main will provide service to the existing and future Ashton Service Area.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.

JUSTIFICATION

The existing pumping station was originally installed in 1977 and has reached the end of its useful life. The station does not meet current standards and is in jeopardy from encroaching streambank erosion. Replacement of the existing force main is in accordance with an initiative to prioritize replacing force mains that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program (CNPV #191).

COST CHANGE

Due to budgetary constraints, this project has been deferred for one year.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of $5,501,000. The schedule and expenditure projections shown in Block B above are based on preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work for the rehabilitation began in FY'21 under ESP S-625.02, Sam Rice Manor WWPS Rehabilitation. Future land costs are included in project S-203.00.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Montgomery County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	$54	29
Total Cost	$54	29
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	5,501
Cost Estimate Last FY	
Present Cost Estimate	5,501
Approved Request Last FY	
Total Expense & Encumbrances	36
Approval Request Year 1	

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	0 %
Estimated Completion Date	June 2028

Growth	83%
System Improvement	17%
Environmental Regulation	
Population Served	
Capacity	0.12 MGD

H. Map

MAP NOT APPLICABLE

Carsondale WWPS & FM

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000068.02		Add

PDF Date	October 1, 2021
Date Revised	February 16, 2022

Pressure Zones	
Drainage Basins	Beaverdam Branch 3
Planning Areas	Landover & Vicinity PA 72

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	1,190	240	100	850		300	450	100			
Land											
Construction	3,750			3,750			2,750	1,000			
Other	705		15	690		45	480	165			
Total	**5,645**	**240**	**115**	**5,290**		**345**	**3,680**	**1,265**			

C. Funding Schedule (000's)

WSSC Bonds	5,645	240	115	5,290		345	3,680	1,265			

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of the modifications to the Carsondale Wastewater Pumping Station and replacement of the Carsondale Force Main. The rehabilitation will replace both pumps maintaining the pumping station's 0.6 MGD capacity. The existing 3,000 linear feet of 8-inch force main will be replaced. In addition, replacement of all electrical components, including the generator, replacement of the HVAC system, general upgrade to the pump station building and grounds as needed, and the addition of a restroom are included.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.

JUSTIFICATION

The existing pumping station and force main were built in 1960. In 1989 the pump station and meter vault were modified to the current configuration and have reached the end of their useful life. Replacement of the existing force main is in accordance with an initiative to prioritize replacing force mains that have reached their anticipated life expectancy.

Hydraulics Analysis Memorandum (July 2019).

COST CHANGE

Due to budgetary constraints, this project has been deferred for one year.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of $5,645,000. The schedule and expenditure projections shown in Block B above are planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work for the upgrades began in FY'21 under ESP S-642.25, Carsondale WWPS Upgrades with Forcemain.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	$326	26
Total Cost	$326	26
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	5,647
Cost Estimate Last FY	
Present Cost Estimate	5,645
Approved Request Last FY	
Total Expense & Encumbrances	240
Approval Request Year 1	

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Planning
Percent Complete	100 %
Estimated Completion Date	April 2025

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	0.6 MGD

H. Map

MAP NOT APPLICABLE

Colmar Manor WWPS & FM

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000089.26		Add

PDF Date	October 1, 2021
Date Revised	February 16, 2022

Pressure Zones	
Drainage Basins	Lower Anacostia 9
Planning Areas	Hyattsville-Riverdale-Mount Rainier PA 68

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	1,710	10	250	1,200		150	100	200	500	250	250
Land											
Construction	4,000			2,000						2,000	2,000
Other	857		38	481		23	15	30	75	338	338
Total	**6,567**	**10**	**288**	**3,681**		**173**	**115**	**230**	**575**	**2,588**	**2,588**

C. Funding Schedule (000's)

WSSC Bonds	6,567	10	288	3,681		173	115	230	575	2,588	2,588

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a 0.799 MGD wastewater pumping station and 726 linear feet of force main. The relocated wastewater pumping station and force main will provide service to the existing and future Spring Gardens service area.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.

JUSTIFICATION

The existing pumping station and force main were installed in 1956 and have reached the end of their useful lives. The station is outdated and could be considered "piece-meal" due to a number of in-house modifications through the decades. Replacement of the existing force main is in accordance with an initiative to prioritize replacing force mains that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program (CNPV #189).

COST CHANGE

Due to budgetary constraints, this project has been deferred for one year.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of $6,567,000. The schedule and expenditure projections shown in Block B above are preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work for the upgrades began in FY'21 under ESP S-636.75, Colmar Manor WWPS Upgrade with Forcemain. Future land costs are included in project S-203.00.

COORDINATION

Coordinating Agencies: Maryland-National Capital Park & Planning Commission
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	$380	29
Total Cost	$380	29
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	6,567
Cost Estimate Last FY	
Present Cost Estimate	6,567
Approved Request Last FY	
Total Expense & Encumbrances	10
Approval Request Year 1	

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	0 %
Estimated Completion Date	June 2028

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	0.799 MGD

H. Map

Spring Gardens WWPS Replacement

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000094.14	382003	Change

PDF Date	October 1, 2021
Date Revised	February 16, 2022

Pressure Zones	
Drainage Basins	Monocacy 25
Planning Areas	Damascus & Vicinity PA 11

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	2,821	301	400	2,120		120	650	650	350	350	
Land											
Construction	7,200			7,200					3,600	3,600	
Other	972		40	932		12	65	65	395	395	
Total	**10,993**	**301**	**440**	**10,252**		**132**	**715**	**715**	**4,345**	**4,345**	

C. Funding Schedule (000's)

WSSC Bonds	3,517	96	141	3,280		42	229	229	1,390	1,390	
SDC	7,476	205	299	6,972		90	486	486	2,955	2,955	

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a 1.3 MGD wastewater pumping station, 7,500 linear feet of force main, and 900 linear feet of gravity sewer. The relocated wastewater pumping station and force main will provide service to the existing and future Spring Gardens service area.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.

JUSTIFICATION

The existing pumping station and force main are over 41 years old and have reached the end of their useful lives. Additionally, the existing capacity of the pumping station must be increased to accommodate build-out of the service area and therefore it must be replaced with a new facility rated at 1.3 MGD. This replacement work was recommended by various business case evaluations undertaken as part of WSSC Water's Asset Management Program.

COST CHANGE

Due to budgetary constraints, this project has been deferred for one year.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Planning work began in FY'18 under ESP project S-602.26, Spring Gardens WWPS Replacement. Future land costs are included in project S-203.00.

COORDINATION

Coordinating Agencies: Maryland Department of the Environment; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Montgomery County Department of Public Works and Transportation; Montgomery County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	$75	28
Debt Service	$203	28
Total Cost	$278	28
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'20
Date First Approved	FY'20
Initial Cost Estimate	10,180
Cost Estimate Last FY	10,665
Present Cost Estimate	10,993
Approved Request Last FY	110
Total Expense & Encumbrances	301
Approval Request Year 1	

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	5 %
Estimated Completion Date	June 2027

Growth	67%
System Improvement	33%
Environmental Regulation	
Population Served	
Capacity	1.3 MGD

H. Map

MAP NOT APPLICABLE

Forest Heights WWPS & FM

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000113.13		Add

PDF Date	October 1, 2021
Date Revised	February 16, 2022

Pressure Zones	
Drainage Basins	Oxon Run 18
Planning Areas	The Heights PA 76A

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	1,823	273	150	1,150		150	50	200	500	250	250
Land											
Construction	6,000			3,000						3,000	3,000
Other	1,135		23	624		23	8	30	75	488	488
Total	**8,958**	**273**	**173**	**4,774**		**173**	**58**	**230**	**575**	**3,738**	**3,738**

C. Funding Schedule (000's)

WSSC Bonds	1,614	49	31	860		31	10	41	104	674	674
SDC	7,344	224	142	3,914		142	48	189	471	3,064	3,064

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of the modifications to the existing 2.28 MGD wastewater pumping station and replacement of approximately 1,940 feet of existing force main.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.

JUSTIFICATION

The existing pumping station and 14-inch diameter cast iron force main were built in 1946 and have reached the end of their useful life. In addition, replacement parts are unavailable since the equipment is obsolete. Replacement of the existing force main is in accordance with an initiative to prioritize replacing force mains that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program (CNPV #192).

COST CHANGE

Due to budgetary constraints, this project has been deferred for one year.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of $8,958,000. The schedule and expenditure projections shown in Block B above are based on preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work for the upgrades and improvements began in FY'21 under ESP S-650.25, Forest Heights WWPS Upgrades/Improvements. Future land costs are included in project S-203.00.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	$93	29
Total Cost	$93	29
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	8,958
Cost Estimate Last FY	
Present Cost Estimate	8,958
Approved Request Last FY	
Total Expense & Encumbrances	273
Approval Request Year 1	

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	10 %
Estimated Completion Date	June 2028

Growth	82%
System Improvement	18%
Environmental Regulation	
Population Served	
Capacity	2.28 MGD

H. Map

Septage Discharge Facility Planning & Implementation

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000170.08	103802	Change

PDF Date	October 1, 2021
Date Revised	February 16, 2022

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	5,288	3,317	208	1,763		583	583	129	234	234	
Land											
Construction	33,320	2,015		31,305		11,198	11,198	2,489	3,210	3,210	
Other	3,327		21	3,306		1,178	1,178	262	344	344	
Total	**41,935**	**5,332**	**229**	**36,374**		**12,959**	**12,959**	**2,880**	**3,788**	**3,788**	

C. Funding Schedule (000's)

WSSC Bonds	41,935	5,332	229	36,374		12,959	12,959	2,880	3,788	3,788	

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a new Septage and Fats, Oils, and Grease (FOG) discharge facility at the abandoned Rock Creek WRRF and new Septage discharge facilities at the Anacostia #2 WWPS and Piscataway WRRF.

BENEFIT

Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.; Innovation: This project utilizes new ideas, methods, and/or research to streamline processes, enhance services, and reduce costs.

JUSTIFICATION

Currently septage waste is collected at three locations: Muddy Branch Road Disposal Site in Montgomery County; and Ritchie Road Disposal Site and Bladensburg Disposal Site in Prince George's County (the Temple Hills Road site was closed down on July 1, 2015). The types of waste collected are as follows: Septic Tank Pump-Out (Sludge); Waste Holding Tank Discharge (Gray Water); Grease Trap Pump Out (FOG); Bus Holding Tank Discharge (Sewage and Chemicals); and Small Food Service Providers (Low Volume FOG Waste). FOG wastes should not be discharged to WSSC Water's sewerage system without treatment.
Septage Discharge Facility Study for Montgomery County: Final Report, JMT (July 2012); Septage Discharge Facility Study for Prince George's County: Final Report, JMT (July 2012).

COST CHANGE

Due to budgetary constraints, this project has been deferred for one year.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are design level estimates and may change based upon actual bids. The design of the Rock Creek, Anacostia, and Piscataway sites are complete. The construction of these facilities is currently on hold while a plan is developed to address final dispatch of FOG wastes. The Piscataway site will be coordinated with the construction schedule of other Piscataway facility projects.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission;(Mandatory Referral); Montgomery County Department of Environmental Protection; Montgomery County Government; Prince George's County Department of Environmental Resources; Prince George's County Government
Coordinating Projects: S - 000096.14 - Piscataway WRRF Facility Upgrades; S - 000103.02 - Piscataway Bioenergy

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other	$446	28
Maintenance	$124	28
Debt Service	$2,425	28
Total Cost	$2,995	28
Impact on Water and Sewer Rate	$0.01	28

F. Approval and Expenditure Data (000's)

Date First in Program	FY'10
Date First Approved	FY'10
Initial Cost Estimate	10,835
Cost Estimate Last FY	40,048
Present Cost Estimate	41,935
Approved Request Last FY	12,461
Total Expense & Encumbrances	5,332
Approval Request Year 1	

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	100 %
Estimated Completion Date	June 2027

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Water Reconstruction Program

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W - 000001.00		Change

PDF Date	October 1, 2021
Date Revised	February 16, 2022

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

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	122,498		11,671	110,827	8,059	15,535	18,688	20,908	23,351	24,286	
Land											
Construction	635,193		61,664	573,529	54,521	82,920	98,564	108,126	112,448	116,950	
Other	96,983		10,148	86,835	9,031	12,731	14,723	16,024	16,825	17,501	
Total	**854,674**		**83,483**	**771,191**	**71,611**	**111,186**	**131,975**	**145,058**	**152,624**	**158,737**	

C. Funding Schedule (000's)

WSSC Bonds	854,674		83,483	771,191	71,611	111,186	131,975	145,058	152,624	158,737	

D. Description & Justification

DESCRIPTION

The purpose of this program is to renew and extend the useful life of water mains, house connections, and large water services. 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 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. Selected mains are chronically breaking and other mains are undersized for the current flow standards. Replacement, rehabilitation via structural lining, and the addition of cathodic protection to these mains provides added value to the customer. Galvanized, copper, and cast iron water mains, as well as all other water main appurtenances including meter and PRV vaults are replaced on an as needed basis when they have exceeded their useful life.

*EXPENDITURES FOR WATER RECONSTRUCTION ARE EXPECTED TO CONTINUE INDEFINITELY.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Reliability: This project will improve service reliability through fewer and shorter service interruptions.; Water Quality: This project supports WSSC Water's mission to provide safe, clean water by improving the quality and/or safety of drinking water.

JUSTIFICATION

The program's projected work units and expenditure levels for FY'23 are as follows: design and construction of main replacement and associated water house connection renewals, 25 miles - $52.2M; cathodic protection - $1.8M; design and construction of large water service replacements - $11.6M; emergency contracts at depots - $5.4M; pipe armoring - $0.6M. 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 to be addressed. The program level may be adjusted in future years based upon the results of the Asset Management Plan. Based upon the prioritization and recommendations in the FY'22 Enterprise Asset Management Plan, the number of miles of water main replacement should begin to ramp back up by approximately 5 miles per year.

Flow studies, water system modeling, and field surveys are routinely conducted. The annual Buried Water Assets System Asset Management Plan identifies the business risk exposure of the water distribution system. FY'23 Enterprise Asset Management Plan (May 2021).

COST CHANGE

Program costs reflect the latest expenditure and schedule estimates based on the recommendations from the FY'23 Enterprise Asset Management Plan (May 2021).

Due to budgetary constraints, the budget for this project in FY'23 has been reduced by $27.7 million.

OTHER

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'20 summarize the magnitude of the reconstruction effort: 1,952 miles rehabilitated or replaced; 317 large water service/meters replaced. It is anticipated water reconstruction activity will be a perpetual element of future work programs.

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	$51,029	
Total Cost	$51,029	
Impact on Water and Sewer Rate	$0.11	

F. Approval and Expenditure Data (000's)

Date First in Program	
Date First Approved	
Initial Cost Estimate	
Cost Estimate Last FY	798,631
Present Cost Estimate	854,674
Approved Request Last FY	83,563
Total Expense & Encumbrances	
Approval Request Year 1	71,611

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

COORDINATION

Coordinating Agencies: Local Community Civic Associations; Maryland State Highway Administration; Montgomery County Department of Public Works and Transportation; Montgomery County Government; Prince George's County Government; Prince George's County Department of Permitting Inspection and Enforcement
Coordinating Projects: W - 000161.01 - Large Diameter Water Pipe & Large Valve Rehabilitation Program

Prince George's County 450A Zone Water Main

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W - 000084.05		Change

PDF Date	October 1, 2021
Date Revised	February 16, 2022

Pressure Zones	Prince George's High HG450A
Drainage Basins	
Planning Areas	Prince George's County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	3,869	2,724	600	430		100	100	100	65	65	115
Land											
Construction	41,865			41,340		3,380	13,000	12,480	8,320	4,160	525
Other	4,302		60	4,178		348	1,310	1,258	839	423	64
Total	**50,036**	**2,724**	**660**	**45,948**		**3,828**	**14,410**	**13,838**	**9,224**	**4,648**	**704**

C. Funding Schedule (000's)

WSSC Bonds	50,036	2,724	660	45,948		3,828	14,410	13,838	9,224	4,648	704

D. Description & Justification

DESCRIPTION

This project provides for a capacity and alignment study, design, and construction of approximately 3.8 miles of new 48-inch diameter redundant transmission main for Prince George's High Pressure Zone HG450A. Portions of the transmission main that currently serve the HG450A and HG290B Pressure Zones will be out of service almost every year to meet the goals of the PCCP inspection program. A redundant transmission main is required to continue to provide service to our customers while the existing transmission main is planned to be out of service and to provide service in case the existing main fails.

BENEFIT

System Reliability: This project will improve service reliability through fewer and shorter service interruptions.

JUSTIFICATION

When portions of the existing main are out of service, the remaining mains lack sufficient capacity and pumping against these restrictions can cause high pressure that may result in pipe failure. The new transmission main may parallel or replace existing mains as determined by modeling. The new main should be a minimum of 30-inch diameter and will start where the existing 54-inch diameter main inside the beltway connects to an existing 30-inch diameter main just north of Pennsylvania Avenue and tie in to the new 30-inch diameter main to be constructed under project W-34.02.

COST CHANGE

Due to budgetary constraints, this project has been deferred for one year.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are preliminary design level estimates and are expected to change based upon site conditions and design constraints. An alignment and capacity study has been performed and final alignment and pipeline diameter has been selected. Northern alignment change required due SHA permitting requirements change. This design change also required the relocation of an existing PRV (May 2021). Future land costs are included in project W-202.00.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Historical Trust; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission;(Mandatory Referral Process); National Park Service; Prince George's County Department of Public Works and Transportation; Prince George's County Government; Prince George's County Department of Permitting Inspection and Enforcement; U.S. Army Corps of Engineers;Joint Base Andrews military base; Washington Metropolitan Area Transit Authority
Coordinating Projects: W - 000034.02 - Old Branch Avenue Water Main; W - 000137.03 - South Potomac Supply Improvement, Phase 2

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	$594	29
Debt Service	$2,894	29
Total Cost	$3,488	29
Impact on Water and Sewer Rate	$0.01	29

F. Approval and Expenditure Data (000's)

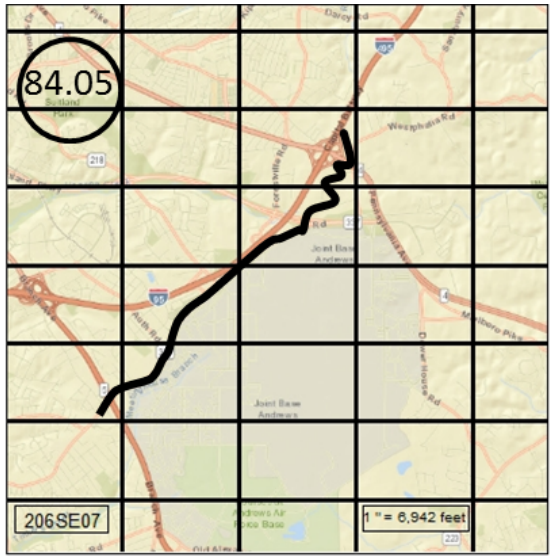
Date First in Program	FY'13
Date First Approved	FY'13
Initial Cost Estimate	374
Cost Estimate Last FY	47,778
Present Cost Estimate	50,036
Approved Request Last FY	13,805
Total Expense & Encumbrances	2,724
Approval Request Year 1	

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	90 %
Estimated Completion Date	July 2027

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map



South Potomac Supply Improvement, Phase 2

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W - 000137.03		Change

PDF Date	October 1, 2021
Date Revised	February 16, 2022

Pressure Zones	Potomac 290B; Prince George's High HG450A; Rosecroft
Drainage Basins	
Planning Areas	Henson Creek PA 76B

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	3,613	2,723	728	162		54	54	54			
Land											
Construction	64,272			64,272		21,424	21,424	21,424			
Other	3,258		36	3,222		1,074	1,074	1,074			
Total	**71,143**	**2,723**	**764**	**67,656**		**22,552**	**22,552**	**22,552**			

C. Funding Schedule (000's)

WSSC Bonds	46,953	1,797	504	44,652		14,884	14,884	14,884			
SDC	24,190	926	260	23,004		7,668	7,668	7,668			

D. Description & Justification

DESCRIPTION

This project provides for the design and construction of 4.4 miles of 42-inch diameter ductile iron transmission main, 6.0 miles of distribution mains (diameters ranging from 10 to 16-inches), and a new flow control valve and vault. The project will replace 3.5 miles of existing 42-inch diameter PCCP transmission main located within the Henson Creek corridor and will replace parallel aged distribution infrastructure located along the project limits.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.

JUSTIFICATION

During design of the 42-inch PCCP transmission main replacement under CIP W-137.02, South Potomac Supply Improvement, Phase 1, WSSC Water and the Maryland Department of the Environment discussed extensive requirements for stream restoration of Henson Creek. At that time, WSSC Water staff identified up to 3.5 miles of pipe south of the project area that is exposed along eroding stretches of Henson Creek. An alignment study began under CIP W-137.03, South Potomac Supply Improvement, Phase 2, to evaluate possible relocation of the existing 42-inch PCCP main between Rosecroft Drive and Indian Head Highway. The 3.5 miles of PCCP main will be relocated out of Henson Creek and into a roadway alignment between Temple Hill Road and Indian Head Highway, for a total of 4.4 miles of new 42-inch ductile iron pipe. The transmission main will be relocated out of the 290B pressure zone and into the 450A pressure zone. Phase 2 includes the installation of a flow control valve between pressure zones 450A and 290B.

Concept Finalization Report, O'Brien & Gere Engineers Inc. (January 2014); Alignment Study - Final: Henson Creek 42-Inch Water Main Replacement, O'Brien & Gere Engineers Inc. (April 2017).

COST CHANGE

Due to budgetary constraints, this project has been deferred for one year.

OTHER

The project scope has remained the same. The Phase 1 alignment study was completed in April 2017. Notice to Proceed for Phase 2 (Design) was issued in February 2018. The schedule and expenditure projections for Phase 2 are preliminary design estimates and are expected to change based upon design constraints, site-specific conditions, and stream restoration requirements for Henson Creek. Future land costs are included in project W-202.00.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Prince George's County Government; Prince George's County Department of Permitting Inspection and Enforcement; U.S. Army Corps of Engineers; Washington Gas Light Company
Coordinating Projects: W - 000034.02 - Old Branch Avenue Water Main; W - 000084.05 - Prince George's County 450A Zone Water Main

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	$1,078	26
Debt Service	$2,715	26
Total Cost	$3,793	26
Impact on Water and Sewer Rate	$0.01	26

F. Approval and Expenditure Data (000's)

Date First in Program	FY'18
Date First Approved	FY'07
Initial Cost Estimate	53,374
Cost Estimate Last FY	67,875
Present Cost Estimate	71,143
Approved Request Last FY	21,685
Total Expense & Encumbrances	2,723
Approval Request Year 1	

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	70 %
Estimated Completion Date	June 2025

Growth	34%
System Improvement	66%
Environmental Regulation	
Population Served	
Capacity	

H. Map

Large Diameter Water Pipe & Large Valve Rehabilitation Program

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W - 000161.01	113803	Change

PDF Date	October 1, 2021
Date Revised	February 16, 2022

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	65,872		7,240	58,632	7,607	9,350	9,764	10,518	10,528	10,865	
Land											
Construction	458,111		42,328	415,783	33,915	58,844	61,505	83,393	92,975	85,151	
Other	52,400		4,957	47,443	4,153	6,821	7,126	9,391	10,351	9,601	
Total	**576,383**		**54,525**	**521,858**	**45,675**	**75,015**	**78,395**	**103,302**	**113,854**	**105,617**	

C. Funding Schedule (000's)

WSSC Bonds	576,383		54,525	521,858	45,675	75,015	78,395	103,302	113,854	105,617	

D. Description & Justification

DESCRIPTION

The purpose of this program is to plan, inspect, design, and rehabilitate or replace large diameter water transmission mains and large system valves that have reached the end of their useful life. Condition assessment and/or corrosion monitoring is performed on metallic pipelines, including ductile iron, cast iron, and steel, to identify lengths of pipe requiring replacement or rehabilitation and cathodic protection. The PCCP Inspection and Condition Assessment and Monitoring Program identifies individual pipe segments that require repair or replacement to assure the continued safe and reliable operation of the pipeline. The program also identifies extended lengths of pipe that require the replacement of an increased number of pipe segments in varying stages of deterioration that are most cost effectively accomplished by the replacement or rehabilitation of long segments of the pipeline or the entire pipeline. Rehabilitation or replacement of these mains provides value to the customer by minimizing the risk of failure and ensuring a safe and reliable water supply. The program includes installation of Acoustic Fiber Optic Monitoring equipment in order to accomplish these goals in PCCP mains.

*EXPENDITURES FOR LARGE DIAMETER WATER PIPE REHABILITATION ARE EXPECTED TO CONTINUE INDEFINITELY.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Reliability: This project will improve service reliability through fewer and shorter service interruptions.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.

JUSTIFICATION

WSSC Water has approximately 1,031 miles of large diameter water main ranging from 16-inches to 96-inches in diameter. This includes 335 miles of cast iron, 326 miles of ductile iron, 35 miles of steel, and 335 miles of PCCP. Internal inspection and condition assessment is performed on PCCP pipelines 36-inches and larger in diameter. Of the 335 miles of PCCP, 140 miles are 36-inch diameter and larger. The inspection program includes internal visual and sounding, sonic/ultrasonic testing, and electromagnetic testing to establish the condition of each pipe section and determine if maintenance repairs, rehabilitation, or replacement are needed.

The planning and design phase evaluates the alignment, hydraulic capacity, and project coordination, among other factors, in an effort to re-engineer these pipelines to meet today's design standards. The design effort includes the preparation of bid ready contract documents including all needed rights-of-way acquisitions and regulatory permits. The constructed system is inspected and an as-built plan is produced to serve as the renewed asset record.

In July 2013, WSSC Water's Acoustic Fiber Optic monitoring system identified breaking wires in a 54-inch diameter PCCP water transmission main in the Forestville area of Prince George's County. Upon attempting to close nearby valves to isolate the failing pipe for repair, WSSC Water crews encountered an inoperable valve with a broken gear, requiring the crew to drop back to the next available valve. This dropping-back to another valve would block one of the major water mains serving Prince George's County, significantly enlarging the shutdown area and reduce our capacity to supply water to over 100,000 residents. In order to minimize the risk associated with inoperable large valves and possible water outages, the large valve inspection and repair program was initiated to systematically inspect, exercise, repair, or replace any of the nearly 1,500 large diameter valves and vaults located throughout the system.

Utility Wide Master Plan (December 2007); 30 Year Infrastructure Plan (2007); FY'23 Water Network Asset Management Plan (May 2021).

COST CHANGE

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	$34,410	
Total Cost	$34,410	
Impact on Water and Sewer Rate	$0.07	

F. Approval and Expenditure Data (000's)

Date First in Program	FY'11
Date First Approved	FY'11
Initial Cost Estimate	
Cost Estimate Last FY	518,952
Present Cost Estimate	576,383
Approved Request Last FY	61,681
Total Expense & Encumbrances	
Approval Request Year 1	45,675

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

Program costs reflect the latest schedule and expenditure estimates based upon the recommendations from the Buried Water Assets System Asset Management Plan.

Due to budgetary constraints, the budget for this project in FY'23 has been reduced by $18.6 million

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are order of magnitude estimates and are expected to change based upon the results of the on-going inspections and condition assessments. Additional costs associated with PCCP inspection/condition assessment, large valve inspection/repairs, and emergency repairs are included in the Operating Budget. WSSC Water Green Bonds will be utilized to fund a portion of this project. The annual replacement work for large diameter water mains will address the following International Capital Market Association (ICMA) Green Bond Principles 2016 category: Sustainable water management.

COORDINATION

Coordinating Agencies: Local Community Civic Associations; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Montgomery County Department of Public Works and Transportation; Montgomery County Government;(including localities where work is to be performed); Prince George's County Government;(including localities where work is to be performed); Prince George's County Department of Permitting Inspection and Enforcement
Coordinating Projects: W - 000001.00 - Water Reconstruction Program; W - 000107.00 - Specialty Valve Vault Rehabilitation Program

I-495/I-270 Traffic Relief Plan Pipeline Relocations

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W - 000161.02		Add

PDF Date	October 1, 2021
Date Revised	

Pressure Zones	Cabin John 350A; Falls Road 552A; Montgomery High
Drainage Basins	Cabin John 07; Muddy Branch 13; Rock Run 1; Watts Branch
Planning Areas	Gaithersburg & Vicinity PA 20; Potomac-Cabin John & Vicinity

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	23,490	120	61	23,309	2,630	6,993	6,881	4,549	2,256		
Land											
Construction	150,420	5		150,415	15,041	45,125	45,125	30,083	15,041		
Other	8,690		3	8,687	884	2,606	2,600	1,732	865		
Total	**182,600**	**125**	**64**	**182,411**	**18,555**	**54,724**	**54,606**	**36,364**	**18,162**		

C. Funding Schedule (000's)

Contributions/Other	182,600	125	64	182,411	18,555	54,724	54,606	36,364	18,162		

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of water and sewer pipe relocations necessitated by the State of Maryland's plans to expand I-495 and I-270.

BENEFIT

Regulatory & Other Agreements: This project is required to meet regulatory requirements, multi-jurisdictional agreements, and/or consent decrees.

JUSTIFICATION

In September 2017, the Maryland Department of Transportation (MDOT) State Highway Administration (SHA) announced a proposed highway improvement project to widen I-495 and I-270 in Montgomery and Prince George's Counties. January 2020, the Maryland Board of Public Works set a condition that the process start with Phase 1 of the project, which focuses on I-495 from the George Washington Memorial Parkway in Virginia to I-270 in Maryland and on I-270 from I-495 to I-70. February 2020, MDOT SHA issued a request for qualifications for preliminary development activities for Phase 1. July 2020, the Federal Highway Administration (FHWA) and MDOT SHA completed the draft environmental impact statement (DEIS). December 2020, a request for proposals was issued by MDOT and the Maryland Transportation Authority (MDTA) for a Phase 1 developer. January 2021, MDOT SHA recommended that Alternative 9 be identified as the preferred alternative in the DEIS. February 2021, MDOT and MDTA announced the selection of Accelerate Maryland Partners, LLC to lead the predevelopment work on Phase 1. May 2021, Alternative 9: Phase 1 South was announced as the new recommended preferred alternative by FHWA and MDOT SHA. This alternative focuses on adding two high occupancy toll (HOT) managed lanes in each direction for I-495 from the George Washington Memorial Parkway in Virginia to east of MD 187 in Maryland, for I-270 from I-495 to I-370, and on the I-270 eastern spur from east of MD 187 to I-270. This alternative includes the construction of a new American Legion Bridge.

The preliminary plans indicate that the proposed MDOT SHA project will impact water and sewer assets owned by WSSC Water that are located in the I-495 and I-270 corridors within the WSSD. The impacted pipes range from 6 to 96-inches in diameter. WSSC Water has an existing memorandum of understanding (MOU) agreement with MDOT SHA to review and coordinate potential impacts to existing WSSC Water infrastructure to accommodate MDOT SHA highway improvement projects. Negotiations on a Framework Agreement to ensure this project poses no financial impact to ratepayers are underway.

COST CHANGE

Not applicable.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated cost of $182,600,000. The schedule and expenditure projections shown in Block B above are order of magnitude estimates based upon Alternative 9: Phase 1 South and are expected to change based upon site conditions and design constraints. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Maryland State Department of Transportation; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Montgomery County Government; Prince George's County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	182,600
Cost Estimate Last FY	
Present Cost Estimate	182,600
Approved Request Last FY	
Total Expense & Encumbrances	125
Approval Request Year 1	18,555

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	0 %
Estimated Completion Date	TBD

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Anacostia Depot Reconfiguration

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
A - 000100.01		Add

PDF Date	October 1, 2021
Date Revised	February 16, 2022

Pressure Zones	
Drainage Basins	
Planning Areas	Landover & Vicinity PA 72

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	5,410	10	2,316	3,084		1,194	738	760	392		
Land											
Construction	33,532			33,532			12,438	12,810	8,284		
Other	3,896		232	3,664		120	1,318	1,358	868		
Total	**42,838**	**10**	**2,548**	**40,280**		**1,314**	**14,494**	**14,928**	**9,544**		

C. Funding Schedule (000's)

WSSC Bonds	42,838	10	2,548	40,280		1,314	14,494	14,928	9,544		

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a reconfiguration of the Anacostia Depot to improve the efficiency of operations; to update to current building codes, regulations, and Americans with Disabilities Act (ADA) requirements; to improve the energy efficiency of the facilities; to address floodplain vulnerabilities due to climate change; and to replace assets that are at or beyond their useful lives.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Workplace Optimization: This project supports WSSC Water's commitment to provide a productive work environment for its employees and secure its critical infrastructure.; Employee Safety: This project includes components that help protect the health and safety of employees.

JUSTIFICATION

The Anacostia Depot is the largest of WSSC Water's four depots that support water and sewer field operations. The existing buildings were generally constructed in the 1970s. The depot houses several critical functions for WSSC Water, including the workshop and administrative space for the Facility Maintenance Division, the water meter testing and hydrant shop, the heavy equipment shop, the Fleet Services Division building and one of the fleet garages, and the main warehouse. The depot is constrained by CSX railroad tracks that traverse the site, leading to operational inefficiencies when vehicles and staff must wait for trains to pass. The site also has floodplain vulnerabilities due to the effects of climate change.

A facility-wide condition assessment was undertaken in June 2019 to identify deficiencies in the existing facilities and provide a recommended course of action to remedy the issues. The study identified a significant number of deficiencies, including electrical, mechanical, accessibility, and safety deficiencies. The study examined potential remedies, including renovation and new build scenarios. A facility master plan was subsequently commissioned to provide a more detailed analysis of the potential renovation and new build alternatives, which will be finalized in June 2021. Anacostia Depot Facility Condition Assessment, Louis Berger (July 2020); Anacostia Depot Master Plan, Samaha Associates (June 2021).

COST CHANGE

Due to budgetary constraints, this project has been deferred for one year.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of $42,838,000. The schedule and expenditure projections shown in Block B above are preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work began under ESP project A-859.11, Anacostia Depot Reconfiguration.

COORDINATION

Coordinating Agencies: Montgomery County Government; Prince George's County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	$2,477	27
Total Cost	$2,477	27
Impact on Water and Sewer Rate	$0.01	27

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	42,838
Cost Estimate Last FY	
Present Cost Estimate	42,838
Approved Request Last FY	
Total Expense & Encumbrances	10
Approval Request Year 1	

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Planning
Percent Complete	5 %
Estimated Completion Date	December 2025

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Engineering Support Program

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
A - 000102.00		Change

PDF Date	October 1, 2021
Date Revised	February 16, 2022

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

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	2,100		2,100								
Land											
Construction	114,835		13,900	100,935	10,935	18,000	18,000	18,000	18,000	18,000	
Other	13,366		2,000	11,366	1,366	2,000	2,000	2,000	2,000	2,000	
Total	**130,301**		**18,000**	**112,301**	**12,301**	**20,000**	**20,000**	**20,000**	**20,000**	**20,000**	

C. Funding Schedule (000's)

WSSC Bonds	130,301		18,000	112,301	12,301	20,000	20,000	20,000	20,000	20,000	

D. Description & Justification

DESCRIPTION

The Engineering Support Program (ESP) represents a consolidation of a diverse group of projects whose unified purpose is to support the extensive water and sewer infrastructure and numerous support facilities that are owned, operated, and maintained by WSSC Water.

*EXPENDITURES FOR ENGINEERING SUPPORT ARE EXPECTED TO CONTINUE INDEFINITELY.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Workplace Optimization: This project supports WSSC Water's commitment to provide a productive work environment for its employees and secure its critical infrastructure.; Employee Safety: This project includes components that help protect the health and safety of employees.

JUSTIFICATION

ESP projects are identified primarily through WSSC Water's Asset Management Program. Engineering services are provided for planning, design, and construction to meet a wide range of needs. As such, ESP projects are diverse in scope and typically include work needed to upgrade operating efficiency, modify existing processes, satisfy regulatory requirements, improve safety and security, or rehabilitate aging facilities. The ESP does not include proposed "major projects" which, by law, must be programmed in WSSC Water's Six-Year Capital Improvements Program or projects to serve new development.

Asset Management Implementation Plan, Stearns & Wheler (April 2008); FY 2023 Enterprise Asset Management Plan (May 2021).

COST CHANGE

Due to budgetary constraints, the budget for this project in FY'23 has been reduced by $5.7 million.

OTHER

The ESP process provides a stable funding level for projects that require engineering support. Each year, the requested projects will be prioritized and then initiated subject to the available funding for the fiscal year.

COORDINATION

Coordinating Agencies: Not Applicable
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	$7,865	
Total Cost	$7,865	
Impact on Water and Sewer Rate	$0.02	

F. Approval and Expenditure Data (000's)

Date First in Program	FY'87
Date First Approved	FY'87
Initial Cost Estimate	
Cost Estimate Last FY	125,000
Present Cost Estimate	130,301
Approved Request Last FY	18,000
Total Expense & Encumbrances	
Approval Request Year 1	12,301

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Other Capital Programs

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
A - 000110.00		Change

PDF Date	October 1, 2021
Date Revised	February 16, 2022

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	63,976		7,286	56,690	8,962	9,146	9,337	9,538	9,745	9,962	
Land											
Construction	292,426		40,856	251,570	28,185	41,781	43,061	43,600	47,144	47,799	
Other	122,314		16,148	106,166	15,326	10,681	14,009	16,750	21,819	27,581	
Total	**478,716**		**64,290**	**414,426**	**52,473**	**61,608**	**66,407**	**69,888**	**78,708**	**85,342**	

C. Funding Schedule (000's)

WSSC Bonds	478,716		64,290	414,426	52,473	61,608	66,407	69,888	78,708	85,342	

D. Description & Justification

DESCRIPTION

Other Capital Programs (OCP) includes miscellaneous capital projects, programs, and expenditures for common, non-CIP, enterprise-wide activities such as relocations, new water and sewer house connections, purchase of water meters, paving, and general construction of local lines.

*EXPENDITURES FOR OTHER CAPITAL PROGRAMS ARE EXPECTED TO CONTINUE INDEFINITELY.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.

JUSTIFICATION

The OCP does not include proposed "major projects" which, by law, must be programmed in WSSC Water's Six-Year Capital Improvements Program (CIP) or projects to serve new development.

COST CHANGE

Due to budgetary constraints, the budget for this project in FY'23 has been reduced by $5.2 million.

OTHER

The OCP summarizes capital expenditures and allocated costs that are not already included in the CIP or in other Information Only projects. Expenditures for the budget year are estimated during the annual CIP update cycle each summer for the Proposed CIP document. The estimates will be revised and updated during the annual budget update cycle each fall for the Proposed Operating & Capital Budget document. Future years are Order of Magnitude estimates and are expected to change with each update cycle.

COORDINATION

Coordinating Agencies: Not Applicable
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	$28,080	
Total Cost	$28,080	
Impact on Water and Sewer Rate	$0.06	

F. Approval and Expenditure Data (000's)

Date First in Program	FY'21
Date First Approved	FY'21
Initial Cost Estimate	
Cost Estimate Last FY	466,502
Present Cost Estimate	478,716
Approved Request Last FY	53,738
Total Expense & Encumbrances	
Approval Request Year 1	52,473

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

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 capital projects

Project Number	Project Name
P073802	Duckett and Brighton Dam Upgrades
P063805	Rocky Gorge Pump Station Upgrade
P143800	Brink Zone Reliability Improvements
P113800	Clarksburg Area Stage 3 Water Main, Part 4
P163801	Clarksburg Area Stage 3 Water Main, Part 5