### MEMORANDUM

May 11, 2022

**TO:** Montgomery County Council

Prince George's County Council

**FROM:** Robert J. Williams, Jr., Prince George's County Council Administrator

Marlene Michaelson, Montgomery County Council Executive Director

**SUBJECT:** Bi-County Meeting Issues for Fiscal Year 2023

Our joint staff recommendations for the May 12 Bi-County meeting are as follows:

## 1. Bi-County Portion of the M-NCPPC Budget and Central Administrative Services (CAS)

Regarding the Commission's budget proposal for the administrative funds that are jointly allocable to both counties under Section 18-106 of the Maryland Land Use Article, we recommend that the Councils concur with the proposed funding for Central Administrative Services (CAS) with reductions of \$117,523 for the Prince George's portion of the CAS budget and a reduction of \$99,230 for the Montgomery County portion.

We recommend approval of agency-wide collective bargaining and compensation policies that consider the adjustments for similar employees of both counties, including unionized (FOP and MCGEO), and non-represented employees. Since our counties are likely to approve different compensation amounts and policies for other County employees, we recommend that we support the amount allocated in the Commission budget for FY 2023 for compensation. However, compensation adjustments should not exceed the amount proposed in the Commission's FY 2023 budget (\$3.9 million for Montgomery County and \$5.5 million for Prince George's County).

### 2. WSSC Budget and Capital Improvements Program

We recommend approval of the joint staff recommendations attached on circles 1-3.

## 3. WSTC Budget

We recommend approval of the FY 2023 amounts proposed for Prince George's County (\$123,065) and Montgomery County (\$143,065).

Letters on these issues from Chair Hawkins and President Albornoz start on circles 4-9.

## WSSC WATER FY 2023 PROPOSED BUDGET COUNTY COUNCIL RECOMMENDATIONS

ITEM	MONTGOMERY COUNTY COUNCIL				
Rate Increase	Supports a 6.5% rate increase to the volumetric and fixed fees.	Supports a 6.5% rate increase to the volumetric and fixed fees.	Adopt both Council's actions.		
Amendments	Supports amendments to the FY23 Proposed Operating Budget:	Proposed Operating Budget:  - \$7,040,654 million: Reduce rate revenue for shift in consumption patterns  - \$2,300,000 million: Reduce debt service resulted from Mid-Cycle CIP updates  - \$3,283,865 million: Increase in lapse from 4% to 6%  - \$4,799,490 million: Reduce All Other for reduction to			
Water Production	Concurs with the proposed water production estimate of 163 mgd.	Concurs with the proposed water production estimate of 163 mgd.	Adopt both Council's actions.		
Workyears	Concurs with the proposed level of 1,796 authorized workyears.	Concurs with the proposed level of 1,796 authorized workyears.	Adopt both Council's actions.		
Compensation	Supports inclusion of a salary enhancements marker for FY 2023.	Supports the inclusion of a salary enhancements marker for FY 2023.	Adopt both Council's actions.		
SDC Rates	Concurs with WSSC Water's proposal to maintain current SDC rates but to increase the maximum allowable rate.	Concurs with WSSC Water's proposal to maintain current SDC rates but to increase the maximum allowable rate.	Adopt both Council's actions.		

## WSSC WATER FISCAL YEARS 2023-2028 CIP COUNTY COUNCIL RECOMMENDATIONS

## **CIP & INFORMATION ONLY PROJECTS – ADDITIONS & CHANGES**

PROJECT NAME	MONTGOMERY COUNTY COUNCIL	PRINCE GEORGE'S COUNTY COUNCIL	JOINT STAFF RECOMMENDATIONS
Proposed FY2023-2028 Capital Improvements Program.	Concurs with the Proposed FY2023-2028 Capital Improvements Program as transmitted by WSSC on September 15, 2021 with the revisions WSSC Water transmitted on February 17, 2022 to both Councils as part of its "Mid-Cycle Update," and the clarifying text revisions to the I-495/I-270 Traffic Relief Plan Pipeline Relocations.	Concurs with the Proposed FY2023-2028 Capital Improvements Program as transmitted by WSSC on September 15, 2021 with the revisions WSSC Water transmitted on February 17, 2022 to both Councils as part of its "Mid-Cycle Update."	Adopt both Council's actions.

## WSSC WATER FY 2023 PROPOSED BUDGET COUNTY COUNCIL RECOMMENDATIONS - INCREASES (DECREASES)

				DMERY COUNTY	PRINCE GI	EORGE'S COUNTY	JOINT STAFF		
	WSSC	WATER PROPOSED		COUNCIL		COUNCIL	RECOMMENDATIONS		
		WATER / SEWER	TOTAL	WATER / SEWER	TOTAL	WATER / SEWER	TOTAL	WATER / SEWER	
	TOTAL	OPERATING AMOUNT	<u>ADJUSTMENT</u>	OPERATING IMPACT	ADJUSTMENT	OPERATING IMPACT	<u>ADJUSTMENT</u>	OPERATING IMPACT	
REVENUES									
PROPOSED REVENUE Decrease Revenue: Change in Consumption by Tier	\$ 1,441,916,190		\$ 1,438,025,730 (7,040,654)	\$ 828,679,000 (7,040,654)	\$ 1,438,025,730 (7,040,654)	•	\$ 1,438,025,730 (7,040,654)		
Water and Sewer Revenue Account Maintenance Fee	-	707,460,000 31,838,000	-	<del>-</del>	-	-			
Infrastructure Fee	-	38,794,000	=	-	=	-			
Bonds Issued and Cash on Hand	500,878,000		=	-	=	-			
Anticipated Contributions	49,105,000	-	-	-	-	-			
REVISED REVENUE	\$ 1,441,916,190	\$ 828,679,000	\$ 1,430,985,076	\$ 821,638,346	\$ 1,430,985,076	\$ 821,638,346	\$ 1,430,985,076	\$ 821,638,346	
<u>EXPENDITURES</u>									
PROPOSED EXPENDITURES	\$ 1,479,771,117	\$ 864,828,682	\$ 1,479,771,117	\$ 864,828,682	\$ 1,479,771,117	\$ 864,828,682	\$ 1,479,771,117	\$ 864,828,682	
Increase Lapse (from 4% to 6%) Reduced Debt Service from Mid-Cycle CIP Changes Cornerstone Budget Reductions Cornerstone Strategy & Innovation Dept Reductions Miscellaneous			(3,283,873) (2,300,000) (2,891,990) (1,907,500)	(2,300,000) (2,374,324)	(3,283,873) (2,300,000) (2,891,990) (1,907,500)	(2,300,000) (2,374,324)	(3,283,873) (2,300,000) (2,891,990) (1,907,500)	(2,300,000) (2,374,324)	
REVISED BUDGET	\$ 1,479,771,117	\$ 864,828,682	\$ 1,469,387,754	\$ 855,945,531	\$ 1,469,387,754	\$ 855,945,531	\$ 1,469,387,754	\$ 855,945,531	
Additional Cash Balance Reserve		18,317,000		16,270,683		16,270,683	-	16,270,683	
DIFFERENCE INCLUDING ADDITIONAL CASH RESER	VE	\$ 54,466,682		\$ 50,577,868		\$ 50,577,868		\$ 50,577,868	
RATE INCREASE									
Water/Sewer Rate Increase		7.00%		6.50%		6.50%		6.50%	



## PRINCE GEORGE'SIESUNTI

"Building the People's Movement"

### Calvin S. Hawkins, II Chair At-Large Council Member

May 10, 2022

The Honorable Gabe Albornoz, President Montgomery County Council 100 Maryland Avenue, 6<sup>th</sup> Floor Rockville, MD 20850

Dear President Albornoz:

The Prince George's County Council has reviewed the Fiscal Year (FY) 2023 Operating and Capital budgets of the Washington Suburban Sanitary Commission (WSSC), the Maryland-National Capital Park and Planning Commission (M-NCPPC), and the Washington Suburban Transit Commission (WSTC). The Council's recommendations on each of these budgets are provided for your information.

### WASHINGTON SUBURBAN SANITARY COMMISSION

## WSSC Operating Budget:

Listed below is a summary of recommended actions taken by the Council:

- Increase the combined water and sewer rates by 6.5% for FY 2023.
- Approve the Commission's water production proposal of 163 million gallons per day in FY 2023.
- Approve the Commission's proposed level of authorized work-years at 1,796, an increase of 10 work-years over the approved FY 2022 level.
- Approve the Operating Budget of \$864.6 million, an increase of \$22.3 million (1.5%) above the FY 2022 Approved Budget.
- A. System Development Charge
- The Council concurs with WSSC's recommendation that the maximum allowable charge be increased by 1.6%, but still maintains the current rate of \$203 per fixture unit.
- B. Capital Program Categories

Total WSSC CIP \$413.5 million Total Information Only \$212.0 million

### C. New CIP Projects

• The Council concurs with the addition of 5 new projects to the six-year CIP, consisting of 5 new sewer projects in Prince George's County. These projects (listed below) have a projected total cost of \$28.2 million, with \$2.5 million programmed in FY 2023.

S-28.02 Carsondale WWPS & FM	Total Cost \$5.6 M	FY 2023 \$0
S-75.23 Brandywine Woods WWPS & FM	\$3.5 M	\$1.24 M
S-87.20 Freeway Airport WWPS & FM	\$3.5 M	\$1.24 M
S-89.26 Colmar Manor WWPS & FM	\$6.6 M	\$0
S-113.13 Forest Heights WWPS & FM	\$9.0 M	\$0

### D. All Other Projects

• The Council concurs with all projects as proposed in WSSC FY 2023 - 2028 Capital Improvements Program.

#### MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

We recommend approval of agency-wide collective bargaining and compensation policies that consider the adjustments for similar employees of both counties, namely (1) adjustments required under the Commission's agreement with the Fraternal Order of Police Lodge #30 and the Municipal and County Government Employees Organization (MCGEO), pending final negotiations and ratification of each agreement and (2) adjustments for non-represented employees. Compensation adjustments should not exceed the amount proposed in the Commission's FY 2023 budget (\$3.9 million for Montgomery County and \$5.5 million for Prince George's County).

With regard to the FY 2023 proposed Central Administrative Services (CAS) budget, Montgomery County proposed a number of reductions (\$99,230 for Montgomery County and \$117,523 for Prince George's County). We concur with these reductions.

### WASHINGTON SUBURBAN TRANSIT COMMISSION

The Council recommends the amount of \$120,493 will be appropriated for the Prince George's County portion of the Fiscal Year 2023 Washington Suburban Transit Commission budget.

Sincerely,

Calvin S. Hawkins, II

Chair



#### OFFICE OF THE COUNCIL PRESIDENT

May 9, 2022

The Honorable Calvin S. Hawkins, II Chairman, Prince George's County Council County Administration Building 14741 Governor Oden Bowie Drive, 2<sup>nd</sup> Floor Upper Marlboro, Maryland 20772

#### Dear Chairman Hawkins:

In preparation for the bi-county meeting on May 12, I respectfully send to you the Montgomery County Council's recommendations on the FY2023 Operating Budget and FY2023-28 Capital Improvements Program (CIP) of the Washington Suburban Sanitary Commission (WSSCWater), the bi-county portion of the Maryland-National Capital Park and Planning Commission (M-NCPPC), and the Washington Suburban Transit Commission (WSTC).

### **WSSCWater**

#### **Operating Budget**

We recommend a total of \$864.61 million for WSSCWater's FY2023 Operating Budget and \$855.95 million for WSSCWater's Water/Sewer operating expenses. We recommend a combined water/sewer volumetric rate increase of 6.5 percent and support WSSCWater's proposed increases in the Account Maintenance Fee and Infrastructure Investment Fee.

### System Development Charge

We concur with WSSCWater on maintaining System Development Charge rates for FY2023 at current approved levels while increasing the maximum chargeable rate (the rate the charge could be increased in the future) by a CPI adjustment, as authorized by State law.

### WSSCWater FY23-28 Capital Improvements Program

We recommend approval of WSSCWater's FY23-28 Capital Improvements Program with the following changes:

• We recommend some clarifying text revisions to the <u>I-495/I-270 Traffic Relief Plan</u> Pipeline Relocations project (see enclosed Project Description Form).

 We recommend approval of WSSCWater's FY2023-2028 Capital Improvements Program (CIP) with WSSCWater's "Mid-Cycle Update" transmitted to both Councils on February 17, 2022 (enclosed).

## M-NCPPC Compensation and Bi-County Budget (Central Administrative Services)

Regarding the Commission's budget proposal for the administrative funds that are jointly allocable to both counties under Section 18-106 of the Maryland Land Use Article, we recommend that the Councils concur with the proposed funding for Central Administrative Services as revised by the reductions proposed to meet Montgomery County's fiscal constraints. The proposed reductions include only those identified by Central Administrative Services as reductions/savings. There are no non-recommended reductions proposed.

Central Administrative Services	MC	PGC	Total
Savings/Offered Reductions to the Proposed FY23 Operating Budget	\$99,230	\$117,523	\$216,753

Since our counties are likely to approve different compensation amounts and policies for other County employees, we recommend that we support the amount allocated in the Commission budget for FY 2023 for compensation, recognizing that this may be more or less than other County agencies.

## **Washington Suburban Transit Commission**

We recommend approval of \$140,493 as Montgomery County's share of the FY2023 WSTC budget.

We look forward to seeing you at the bi-county meeting on May 12.

Sincerely,

Gabe Albornoz

President, Montgomery County Council

**Enclosures** 

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

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

DF Date	October 1, 2022
Date Revised	

Pressure Zones	Cabin John 350A; Falls Road 552A; Montgomery High HG660A;
Drainage Basins	Cabin John 07; Muddy Branch 13; Rock Run 1; Watts Branch 16
Planning Areas	Gaithersburg & Vicinity PA 20; Potomac-Cabin John & Vicinity PA

#### B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year I 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		ı									
Construction	150,420	5		150,415	15,041	45,125	45,125	30,083	15,041		
Other	8,690	1	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)

\$\frac{1}{2}\tate of Maryland 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 I 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 I. 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 I 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 I. May 2021, Alternative 9: Phase I 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 I 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

E. Annual Operating Budget Impact (0	00's)	FY of Impact
Staff & Other	ı	
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 I	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. Man

1	
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	
	MAP NOT APPLICABLE



COMMISSIONERS

Keith E. Bell, Chair Howard A. Denis, Vice Chair Fausto R. Bayonet T. Eloise Foster Chris Lawson

GENERAL MANAGER Carla A. Reid

February 17, 2022

The Honorable Gabe Albornoz Montgomery County Council President Stella B. Werner Office Building 100 Maryland Avenue Rockville, MD, 20850

Dear Council President Albornoz:

The purpose of this letter is to transmit a mid-cycle update to the WSSC Water Proposed Fiscal Years 2023-2028 Capital Improvements Program transmitted on September 24, 2021. We hereby request you incorporate these changes into your annual comments, recommendations and amendments to the program. The mid-cycle update provides for revised expenditure schedules for certain projects in the Proposed CIP to align them with the revised capital program and resultant capital debt impact incorporated into the Fiscal Year 2023 Proposed Budget.

Reductions totaling \$110.5 million across 15 projects are required in order to reduce the FY 2023 Proposed Budget combined rate increase to 7.0% and to reduce projected bond requirements for capital projects to help lower our leverage ratio and address concerns raised by the ratings agencies.

Enclosed for your information are tables summarizing the impacts of the reductions by County Council district for each County, detailed impact statements for each project, a revised financial summary for the FYs 2023-2028 CIP, and revised project description forms for each of the projects.

Sincerely,
Docusigned by:

Kith Bell

Keith Bell 186...

Chair

**Enclosure** 

cc: Marlene Michaelson, Council Administrator Montgomery County Council

> Keith Levchenko, Legislative Analyst Montgomery County Council

County/District/Project	Impact Statement	Communities Impacted	Department(s)	Detailed Impact
Montgomery County				
At-Large  Anacostia Depot Reconfiguration	This project will be deferred one year. The existing buildings were generally built in the 1970s. The depot houses several critical functions for WSSC Water that support system-wide operations. Any disruptions to the Anacostia Depot due to flooding would be felt across the entire service area.	County-wide	Engineering & Construction General Services Production Utility Services	Bi-County/ Information Only Item A
Septage Discharge Facility Planning & Implementation	This project will be deferred one year. WSSC Water has been working with Montgomery County to address concerns with the traffic disruptions impacting the public at the Muddy Branch Road disposal site. The deferral will delay WSSC Water's ability to address these concerns.	County-wide Gaithersburg	Engineering & Construction Production Utility Services	Bi-County/ Information Only Item B
Water Reconstruction Program	The reductions to this program eliminate funding for 20 miles of design projects and 12 miles of construction projects. These projects replace existing water mains that have reached the end of their useful life and which are prone to failure. Failure of these pipes will cause temporary loss of water service to residents and businesses and community impacts due to emergency repairs. Due to the ongoing nature of this program, these reductions impact planned work in FYs 2022, 2023, 2024 and beyond.	Impacts throughout the County as detailed below by district	Engineering & Construction Utility Services	Bi-County/ Information Only Item C
Large Diameter Water Pipe & Large Valve Rehabilitation Program	The reductions to this program eliminate funding for I mile of large transmission water main construction, PCCP carbon fiber and planned and emergency replacement work, and the water redundancy program. Transmission mains are the backbone of the water system and failure of these mains will cause temporary loss of water service to residences and businesses across a large area.	Impacts throughout the County as detailed below by district	Engineering & Construction Production Utility Services	Bi-County/ Information Only Item D
Engineering Support Program	The reductions to this program eliminate funding for a diverse group of projects that support operations systemwide. The reductions will increase the likelihood of SSOs, increase the likelihood of water service outages, and delay response times to emergencies.	County-wide Silver Spring	Engineering & Construction General Services Production Utility Services	Bi-County/ Information Only Item E
Other Capital Programs	The reductions to this program reduce the funding available for paving activities and purchases of water meters. The paving reduction is related to the reduction in water main replacement. WSSC Water's water meter population is aging and is in need of replacement. Older meters are less likely to be accurate and delays to replacing the meters could result in more estimated bills and higher call volumes from customers.	County-wide	Engineering & Construction Utility Services	Bi-County/ Information Only Item F
District I			F	D: C /
Water Reconstruction Program	Chevy Chase Village South Alt (Construction; 0.13 miles) Cheltenham WMR (Construction; 0.63 miles) Red Coat Lane WMR (Construction; 2.75 miles)	Chevy Chase Bethesda Potomac	Engineering & Construction Utility Services	Bi-County/ Information Only Item C
Large Diameter Water Pipe & Large Valve Rehabilitation Program	Burdette Road 20" WMR (Construction; 0.90 miles) West Cedar Lane WMR (Construction; 1.12 miles)	Bethesda Bethesda	Engineering & Construction Production Utility Services	Bi-County/ Information Only Item D
District 2				
Spring Gardens WWPS Replacement	This project will be deferred one year. The existing WWPS and FM were built in 1977 and serve approximately 620 households in the King Valley, King Valley Manor and Kingstead Knoll communities near Damascus. Failure of the WWPS or FM would result in an SSO.	Damascus	Engineering & Construction Production Utility Services	Montgomery County Item D
Water Reconstruction Program	Middleboro Drive WMR (Design; 2.16 miles)	Damascus	Engineering & Construction Utility Services	Bi-County/ Information Only Item C

County/District/Project	Impact Statement	Communities Impacted	Department(s)	Detailed Impact
District 3				
Water Reconstruction Program	Mill Creek Drive WMR (Design; 3.08 miles) Olde Mill Run WMR (Design; 1.44 miles) Trailway Drive WMR (Construction; 1.95 miles) Waterway Drive WMR (Construction; 2.10 miles) Haverford Drive WMR (Construction; 1.71 miles) Rock Creek Valley WMR (Construction; 1.63 miles)	Derwood Derwood Rockville Rockville Aspen Hill Rockville	Engineering & Construction Utility Services	Bi-County/ Information Only Item C
Large Diameter Water Pipe & Large Valve Rehabilitation Program	Redundancy Project - 560B Zone Pressure Reducing Valve	Germantown	Engineering & Construction Production Utility Services	Bi-County/ Information Only Item D
District 4				
Arcola WWPS & FM	This project will be deferred one year. The existing WWPS and FM were built in 1961 and serve approximately 130 households in the Arcola area, just west of the Wheaton Regional Park. Failure of the WWPS or FM would result in an SSO.	Silver Spring	Engineering & Construction Production Utility Services	Montgomery County Item A
Reddy Branch WWPS & FM	This project will be deferred one year. The existing WWPS and FM were built in 1971 and serve approximately 5,650 households in the Brookeville and Olney areas. Failure of the WWPS or FM would result in an SSO.	Brookeville Olney	Engineering & Construction Production Utility Services	Montgomery County Item B
Sam Rice Manor WWPS & FM	This project will be deferred one year. The existing WWPS and FM were built in 1977 and serve approximately 135 households in the Sam Rice Manor community near Ashton. Failure of the WWPS or FM would result in an SSO.	Ashton	Engineering & Construction Production Utility Services	Montgomery County Item C
Large Diameter Water Pipe & Large Valve Rehabilitation Program	Queen Elizabeth Drive 16" WMR (Construction; 1.18 miles)	Olney	Engineering & Construction Production Utility Services	Bi-County/ Information Only Item D
District 5				
Water Reconstruction Program	Meadowood WMR (Design; 1.02 miles) Beaufort Place 20" WMR (Design; 1.90 miles) Lemontree Lane WMR (Construction; 2.34 miles) Cantrell Road WMR (Construction; 1.80 miles) Montgomery Knolls WMR (Construction; 2.68 miles)	Silver Spring Silver Spring Silver Spring Silver Spring Silver Spring	Engineering & Construction Utility Services	Bi-County/ Information Only Item C

County/District/Project	Impact Statement	Communities Impacted	Department(s)	Detailed Impact
Prince George's County		impacted		Impact
At-Large  Anacostia Depot Reconfiguration	This project will be deferred one year. The existing buildings were generally built in the 1970s. The depot houses several critical functions for WSSC Water that support system-wide operations. Any disruptions to the Anacostia Depot due to flooding would be felt across the entire service area. The impacts would likely be most acutely felt by the areas in	County-wide Beltsville Bowie College Park Glenarden Greenbelt	Engineering & Construction General Services Production	Bi-County/ Information Only Item A
Septage Discharge Facility Planning & Implementation	these facilities is currently on hold while a plan is developed	Hyattsville Laurel County-wide	Utility Services  Engineering &  Construction  Production	Bi-County/ Information Only
Water Reconstruction Program	to address final dispatch of fats, oils and grease (FOG) waste. The reductions to this program eliminate funding for 20 miles of design projects and 12 miles of construction projects. These projects replace existing water mains that have reached the end of their useful life and which are prone to failure. Failure of these pipes will cause temporary loss of water service to residents and businesses and community impacts due to emergency repairs. Due to the ongoing nature of this program, these reductions impact planned	Impacts throughout the County as detailed below by district	Utility Services  Engineering &  Construction Utility Services	Bi-County/ Information Only Item C
Large Diameter Water Pipe & Large Valve Rehabilitation Program	work in FYs 2022, 2023, 2024 and beyond. The reductions to this program eliminate funding for I mile of large transmission water main construction, PCCP carbon fiber and planned and emergency replacement work, and the water redundancy program. Transmission mains are the backbone of the water system and failure of these mains will cause temporary loss of water service to residences and businesses across a large area.	Impacts throughout the County as detailed below by district	Engineering & Construction Production Utility Services	Bi-County/ Information Only Item D
Engineering Support Program	The reductions to this program eliminate funding for a diverse group of projects that support operations systemwide. The reductions will increase the likelihood of SSOs, increase the likelihood of water service outages, and delay response times to emergencies.	County-wide District Heights Fort Washington Landover Oxon Hill Upper Marlboro	Engineering & Construction General Services Production Utility Services	Bi-County/ Information Only Item E
Other Capital Programs	The reductions to this program reduce the funding available for paving activities and purchases of water meters. The paving reduction is related to the reduction in water main replacement. WSSC Water's water meter population is aging and is in need of replacement. Older meters are less likely to be accurate and delays to replacing the meters could result in more estimated bills and higher call volumes from customers.	County-wide	Engineering & Construction Utility Services	Bi-County/ Information Only Item F
District I			- · · · ·	Di C
Water Reconstruction Program	Shadetree Lane WMR (Construction; 2.11 miles)	Laurel	Engineering & Construction Utility Services	Bi-County/ Information Only Item C
District 2			F	D: Country!
Water Reconstruction Program	Powhatan Street WMR (Construction; 1.73 miles)	Hyattsville	Engineering & Construction Utility Services	Bi-County/ Information Only Item C
District 3				5: 5
Water Reconstruction Program	Goucher Drive WMR (Construction; 2.25 miles)	College Park	Engineering & Construction Utility Services	Bi-County/ Information Only Item C
District 4			Engineering &	Ri-County/
Water Reconstruction Program	Locris Drive WMR (Construction; 3.10 miles) Newburg Drive (Construction; 1.56 miles)	Upper Marlboro Greenbelt	Engineering & Construction Utility Services	Bi-County/ Information Only Item C
Large Diameter Water Pipe & Large Valve Rehabilitation Program	Redundancy Project - Race Track Road	Bowie	Engineering & Construction Production Utility Services	Bi-County/ Information Only Item D

County/District/Project	Impact Statement	Communities Impacted	Department(s)	Detailed Impact
District 5		puecea		
Carsondale WWPS & FM	This project will be deferred one year. The existing WWPS and FM were built in 1960 and serve the Carsondale community southeast of the I-95 and Route 50 interchange near Lanham. Failure of the WWPS or FM would result in an SSO.	Lanham	Engineering & Construction Production Utility Services	Prince George's County Item A
Colmar Manor WWPS & FM	This project will be deferred one year. The existing WWPS and FM were built in 1956 and serve approximately 240 households in the Colmar Manor community. Failure of the WWPS or FM would result in an SSO.	Colmar Manor	Engineering & Construction Production Utility Services	Prince George's County Item B
Water Reconstruction Program	Cheverly WMR Phase I (Design; I.61 miles) Cheverly WMR Phase 2 (Design; 2.31 miles)	Cheverly Cheverly	Engineering & Construction Utility Services	Bi-County/ Information Only Item C
District 6			•	
Water Reconstruction Program	Village in the Woods (Construction; 1.59 miles) Thurston WMR (Construction; 1.69 miles)	Landover Kettering	Engineering & Construction Utility Services	Bi-County/ Information Only Item C
District 7				
Water Reconstruction Program	Horizon Way WMR (Construction; 2.17 miles) Hillside/Clovis Avenue WMR (Construction; 0.93 miles) Woodlark Park I WMR (Construction; 1.12 miles) Woodlark Park II WMR (Construction; 1.27 miles)	District Heights Capitol Heights District Heights District Heights	Engineering & Construction Utility Services	Bi-County/ Information Only Item C
District 8		_		
Forest Heights WWPS & FM	This project will be deferred one year. The existing WWPS and FM were built in 1946 and serve approximately 1,200 households in the Forest Heights community. Failure of the WWPS or FM would result in an SSO.	Forest Heights	Engineering & Construction Production Utility Services	Prince George's County Item C
		Andrews Air Force Base		
Prince George's County 450A Zone Water Main	This project will be deferred one year. This delay will continue concerns of a transmission main failure that would create water service outages for 90,000 customers due to a lack of redundancy within this area of the water system.	Camp Springs District Heights Forestville Hillcrest Heights Suitland	Engineering & Construction Production Utility Services	Prince George's County Item D
South Potomac Supply Improvement, Phase 2	This project will be deferred one year. This delay will continue concerns of a transmission main failure that would create water service outages for 13,500 customers due to a lack of redundancy within this area of the water system.	National Harbor	Engineering & Construction Production Utility Services	Prince George's County Item E
Water Reconstruction Program	Larkwood WMR (Design; 2.35 miles) Fort Washington WMR (Design; 2.15 miles) Simmons Lane WMR (Construction; 1.49 miles) Leisure Drive (Construction; 2.74 miles) Vistula Drive WMR (Construction; 1.14 miles) Karla Road WMR (Construction; 1.45 miles) Alexandria Drive WMR (Construction; 1.65 miles)	Fort Washington Fort Washington Temple Hills Temple Hills Fort Washington Fort Washington Oxon Hill	Engineering & Construction Utility Services	Bi-County/ Information Only Item C
Large Diameter Water Pipe & Large Valve Rehabilitation Program	Allentown Road 16" WMR and Flow Control Valve (Construction; 1.09 miles)	Fort Washington	Engineering & Construction Production Utility Services	Bi-County/ Information Only Item D
District 9			Jame, del vices	
Water Reconstruction Program	Buckler Road WMR (Design; 2.20 miles) Edwards Drive WMR (Construction; 1.52 miles) Darlene Drive WMR (Construction; 1.63 miles)	Clinton Clinton Clinton	Engineering & Construction Utility Services	Bi-County/ Information Only Item C
Large Diameter Water Pipe & Large Valve Rehabilitation Program	Rosaryville 20" WMR (Construction; 0.61 miles)	Rosaryville	Engineering & Construction Production Utility Services	Bi-County/ Information Only Item D

## **Montgomery County Projects**

a. \$690,000 - Arcola WWPS & FM - This project provides for the planning, design and construction of the modifications to the Arcola Wastewater Pumping Station (WWPS) and replacement of the Arcola Force Main (FM). The rehabilitation will replace both pumps, maintaining the 0.17 million gallons per day (MGD) capacity of the WWPS. The existing 1,300 linear feet of 4" FM will be replaced. In addition, replacement of all electrical and mechanical components, piping assets and the heating, ventilation and air conditioning (HVAC) system are included.

The existing WWPS and FM serve approximately 130 households in the Arcola area, just west of the Wheaton Regional Park in Montgomery County. They were constructed in 1961 and have reached the end of their useful lives. Replacement of the existing FM is in accordance with an initiative to prioritize replacing FMs that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program.

Due to budgetary constraints, this project will be deferred for one year. The delay could lead to failure of the WWPS or FM before the work is completed. Failure of the WWPS will cause a release of raw sewage into the park. Failure of the FM will cause a release of raw sewage onto the travelled roadways along its alignment and repairs will cause construction nuisances to the travelling public.

b. \$275,000 - Reddy Branch WWPS & FM - This project provides for the planning, design and construction of the modifications to the Reddy Branch WWPS and replacement of the Reddy Branch FM. The work will maintain the 3.04 MGD capacity of the WWPS. The existing 12,774 linear feet of 16" FM will be replaced.

The existing WWPS and pre-stressed concrete cylinder pipe (PCCP) FM serve approximately 5,650 households in the Brookeville and Olney areas within Montgomery County. They were built in 1971 and have reached the end of their useful lives. Additionally, the existing site is immediately adjacent to Reddy Branch, which is experiencing streambank erosion that could soon encroach upon the facility. The WWPS is subject to flooding and there are safety concerns with equipment operation. Replacement of the existing FM is in accordance with an initiative to prioritize replacing FMs that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program.

Due to budgetary constraints, this project will be deferred for one year. The delay could lead to failure of the WWPS or FM before the work is completed. Failure of the WWPS will cause a release of raw sewage into Reddy Branch. Much of the existing FM, which is prone to failure, is located within parkland and environmentally sensitive areas that would be impacted by the release of raw sewage in the event of failure of the FM.

c. \$173,000 - Sam Rice Manor WWPS & FM - This project provides for the planning, design and construction of the relocated Sam Rice Manor WWPS and replacement of the Sam Rice Manor FM. The capacity of the relocated WWPS will be 0.12 MGD. A new 3,521 linear foot FM will be constructed.

The relocated WWPS and FM will serve approximately 135 households in the Sam Rice Manor community near Ashton in Montgomery County. The existing WWPS and FM were originally installed in 1977 and have reached the end of their useful lives. The WWPS does not meet current standards and is in jeopardy from encroaching streambank erosion. Replacement of the existing FM is in accordance with an initiative to prioritize replacing FMs that have reached their expected life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program.

Due to budgetary constraints, this project will be deferred for one year. The delay could lead to failure of the WWPS or FM before the work is completed. Failure of the WWPS will cause a release of raw sewage into some tributaries to the Patuxent River. The existing FM, which is prone to failure, is within the backyards of numerous residences that would be impacted by the release of raw sewage in the event of failure of the FM, causing health hazards and nuisances to the property owners.

d. \$132,000 - Spring Gardens WWPS Replacement - This project provides for the planning, design and construction of a new Spring Gardens WWPS and replacement of the Spring Gardens FM. The capacity of the new WWPS will be 1.30 MGD in order to accommodate build-out of the service area. A new 7,500 linear foot FM will be constructed. Additionally, 900 linear feet of gravity sewer will also be built.

The existing WWPS and FM serve approximately 620 households in the King Valley, King Valley Manor, and Kingstead Knoll communities near Damascus in Montgomery County. They were constructed in 1977 and have reached the end of their useful lives. Replacement of the existing FM is in accordance with an initiative to prioritize replacing FMs that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program.

Due to budgetary constraints, this project will be deferred for one year. The delay could lead to failure of the WWPS or FM before the work is completed. Failure of the WWPS will cause a release of raw sewage into Little Bennett Creek and environmentally sensitive areas. The existing FM, which is prone to failure, follows the Little Bennett Creek streambed. Failure of the FM will cause a release of raw sewage into the creek.

## **Prince George's County Projects**

a. \$345,000 - Carsondale WWPS & FM - This project provides for the planning, design and construction of the modifications to the Carsondale WWPS and replacement of the Carsondale FM. The rehabilitation will replace both pumps, maintaining the 0.60 MGD capacity of the WWPS. The existing 3,000 linear feet of 8" FM will be replaced. In addition, replacement of all electrical components, including the generator, replacement of the HVAC system, general upgrade to the WWPS building and grounds as needed and the addition of a restroom are included.

The existing WWPS and FM serve the Carsondale community southeast of the I-95 and Route 50 interchange near Lanham in Prince George's County. The WWPS is located adjacent to the local community park. The WWPS and FM were constructed in I960 and have reached the end of their useful lives. Replacement of the existing FM is in accordance with an initiative to prioritize replacing FMs that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program.

Due to budgetary constraints, this project will be deferred for one year. The delay could lead to failure of the WWPS or FM before the work is completed. Failure of the WWPS will cause a release of raw sewage into the local community park. Failure of the FM will cause a release of raw sewage onto the travelled roadways along its alignment and repairs will cause construction nuisances to the travelling public.

b. \$173,000 - Colmar Manor WWPS & FM - This project provides for the planning, design and construction of the relocated Colmar Manor WWPS and replacement of the Colmar Manor FM. The capacity of the relocated WWPS will be 0.80 MGD. A new 726 linear foot FM will be constructed.

The relocated WWPS and FM will serve approximately 240 households in the Colmar Manor community in Prince George's County. The existing WWPS and FM were originally installed in 1956 and have reached the end of their useful lives. The WWPS is outdated and could be considered "piece-meal" due to a number of in-house modifications through the decades. Replacement of the existing FM is in accordance with an initiative to prioritize replacing FMs that have reached their expected life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program.

Due to budgetary constraints, this project will be deferred for one year. The delay could lead to failure of the WWPS or FM before the work is completed. The WWPS is located adjacent to the Anacostia River tributary and greenway. Failure of the WWPS or FM will cause a release of raw sewage into the tributary and greenway.

c. \$173,000 - Forest Heights WWPS & FM - This project provides for the planning, design and construction of the modifications to the Forest Heights WWPS and replacement of the Forest Heights FM. The work will maintain the 2.28 MGD capacity of the WWPS. The existing 1,940 linear feet of 14" FM will be replaced.

The existing WWPS and FM serve approximately 1,200 households in the Forest Heights community in Prince George's County. They were built in 1946 and have reached the end of their useful lives. Additionally, replacement parts are unavailable since the equipment is obsolete. The WWPS is located adjacent to the Forest Heights Elementary School ballfields and Oxon Run stream. Replacement of the existing FM is in accordance with an initiative to prioritize replacing FMs that have reached their expected life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program.

Due to budgetary constraints, this project will be deferred for one year. The delay could lead to failure of the WWPS or FM before the work is completed. Failure of the WWPS will cause a release of raw sewage onto the elementary school ballfields, into Oxon Run stream, and into other environmentally sensitive areas. The existing FM, which is prone to failure, is within the backyards of numerous residences that would be impacted by the release of raw sewage in the event of failure of the FM, causing health hazards and nuisances to the property owners.

d. \$14,410,000 - Prince George's County 450A Zone Water Main - This project provides for a capacity and alignment study, design and construction of approximately 3.8 miles of new 48" 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. 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. 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.

The new transmission main may parallel or replace existing mains as determined by modeling. The new main should be a minimum of 30" diameter, will start where the existing 54" diameter main inside the Beltway connects to an existing 30" diameter main just north of Pennsylvania Avenue and tie in to the new 30" diameter main to be constructed under the Old Branch Avenue Water Main project. This project benefits a large water pressure zone that includes the areas of Hillcrest Heights, Suitland, Forestville, District Heights, Andrews Air Force Base and Camp Springs.

Due to budgetary constraints, this project will be deferred for one year. This delay will continue concerns with lack of redundancy within this area of the water system. Failure of the existing main will create water outages for 90,000 customers. The delay will also impact the ability to adequately inspect the PCCP transmission mains in the water system, which are critical pipes that transmit high quantities of water and are prone to failure without adequate inspections that identify and remedy defects in a timely manner.

e. \$22,552,000 - South Potomac Supply Improvement, Phase 2 - This project provides for the design and construction of 4.4 miles of 42" diameter ductile iron transmission main, 6.0 miles of distribution mains (diameters ranging from 10" to 16") and a new flow control valve and vault. The project will replace 3.5 miles of existing 42" diameter PCCP transmission main located within the Henson Creek corridor and will replace parallel aged distribution infrastructure located along the project limits.

During design of the 42" PCCP transmission main replacement under the South Potomac Supply Improvement, Phase I project, 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 this project to evaluate possible relocation of the existing 42" 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 Hills Road and Indian Head Highway, for a total of 4.4 miles of new 42" 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. This project primarily benefits the National Harbor area in Prince George's County.

Due to budgetary constraints, this project will be deferred for one year. This delay will continue concerns of a transmission main failure. Failure of the existing main would impact 13,500 customers in the National Harbor area.

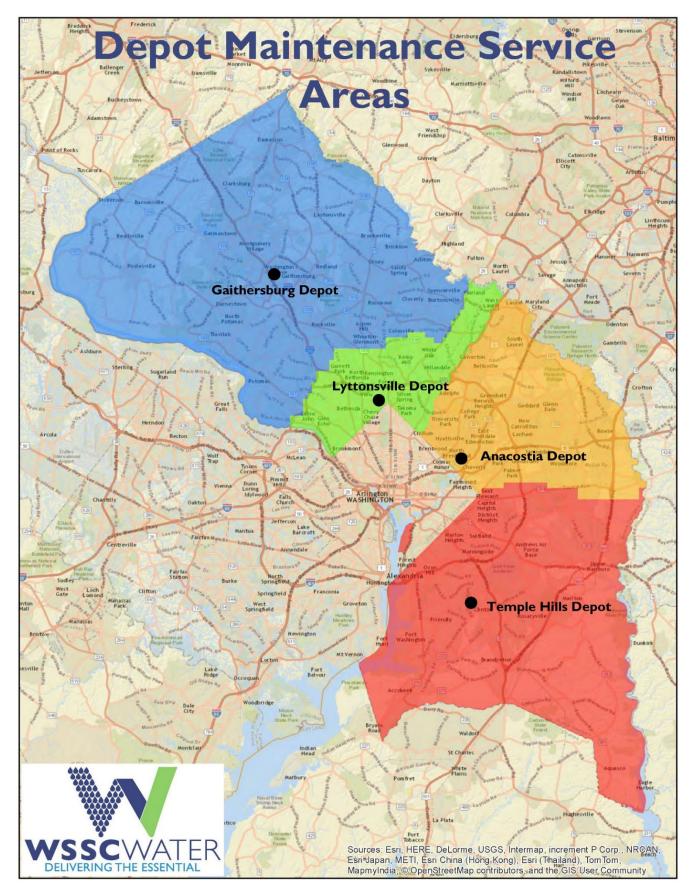
## **Bi-County/Information Only Projects**

a. \$1,314,000 - Anacostia Depot Reconfiguration - 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.

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 was finalized in June 2021.

Due to budgetary constraints, this project will be deferred for one year. This delay will impact addressing the electrical, mechanical, accessibility, safety and floodplain deficiencies of the facility. Many of the critical functions housed at the Anacostia Depot support system-wide operations. The beneficiaries of this project are all of WSSC Water's 1.9 million customers. Any disruptions to the Anacostia Depot due to flooding would be felt across the entire service area. The impacts would likely be most acutely felt in the areas serviced primarily by the Anacostia Depot. While the service areas differ depending on the function, the map on the next page shows the maintenance boundaries for the Anacostia Depot. As shown on the map, the Anacostia Depot maintenance service area encompasses the Beltsville, Bowie, College Park, Glenarden, Greenbelt, Hyattsville and Laurel communities in Prince George's County, among others.



b. \$12,959,000 - Septage Discharge Facility Planning & Implementation - 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 Water Resource Recovery Facility (WRRF) and new septage discharge facilities at the Anacostia #2 WWPS and Piscataway WRRF. Currently, septage waste is collected at three locations: the Muddy Branch Road disposal site in Montgomery County and the Ritchie Road and Bladensburg disposal sites in Prince George's County. A fourth site on Temple Hills Road in Prince George's County 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.

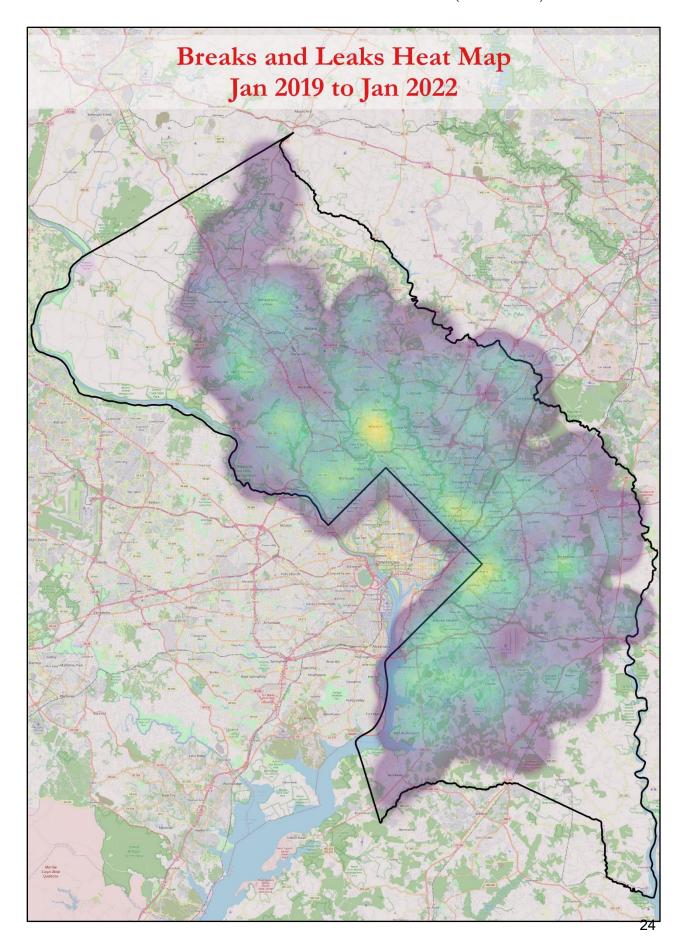
The design of the Rock Creek, Anacostia and Piscataway sites are complete. The construction of these facilities is currently on hold while a plan is developed to address final dispatch of FOG wastes. The Piscataway site will be coordinated with the construction schedule of other Piscataway facility projects.

Due to budgetary constraints, this project will be deferred for one year. While the construction of these facilities was already on hold, WSSC Water has been working with Montgomery County to address concerns with the traffic disruptions impacting the public at the existing Muddy Branch Road disposal site. The reductions will delay WSSC Water's ability to address these concerns.

c. \$27,725,000 - Water Reconstruction Program - This program, which has been ongoing since 1979, renews and extends 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 firefighting. 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 pressure reducing valve vaults are replaced on an as needed basis when they have exceeded their useful life.

Due to budgetary constraints, the budget for this project in FY 2023 has been reduced by \$27.7 million. This reduction will lower the targeted design mileage from 30 miles down to 10 miles and lower the targeted construction mileage from 37 miles down to 25 miles. However, the mileage impacts will be much larger than the stipulated figures. This is an ongoing program and the commencement of new work is a continual process throughout the year. Additionally, the replacement projects typically span multiple fiscal years. Consequently, the projects currently under construction or out to bid already constitute the full allotment of 25 miles for construction in FY 2023. The program will therefore be required to stop issuing tasks for new work, which will slow the work of the program and lead to impacts that exceed the stipulated 12 mile reduction to the construction target and extend into future fiscal years.

Customers across WSSC Water's service area will be impacted by these reductions. The pipes replaced under this program are typically prone to failure. Failure of these pipes will cause temporary loss of water service to residences and businesses and repairs will cause construction nuisances to the travelling public. The heat map on the next page shows the historic location of water main breaks and leaks throughout the WSSC Water service area between January 2019 and January 2022. Generally speaking, the frequency of breaks and leaks has historically been highest in the communities closest to Washington D.C. The pipes in these areas are generally the oldest in the system and there is a higher concentration of pipes in these regions. The historic location of breaks and leaks is not necessarily a predictor of the location of future breaks and leaks, as water mains are replaced each year and other factors like soil conditions, transient pressures, and the temperature of the water in the pipes also impact the frequency and location of breaks and leaks.



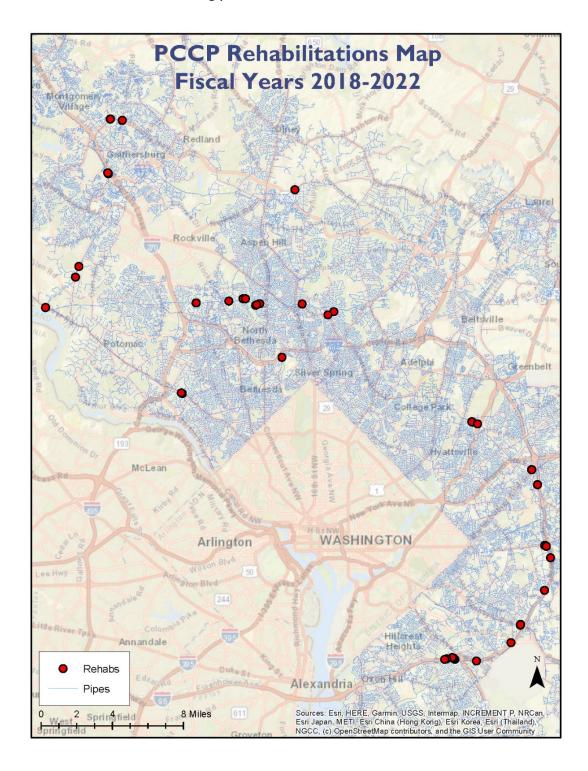
d. \$18,641,000 - Large Diameter Water Pipe & Large Valve Rehabilitation Program - This program plans, inspects, designs, and rehabilitates or replaces large diameter water transmission mains and large system valves that have reached the end of their useful lives. Condition assessment and/or corrosion 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 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.

WSSC Water has approximately 1,031 miles of large diameter water main ranging from 16" to 96" 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 are performed on PCCP pipelines 36" and larger in diameter. Of the 335 miles of PCCP, 140 miles are 36" 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.

In July 2013, WSSC Water's Acoustic Fiber Optic monitoring system identified breaking wires in a 54" 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 reducing 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.

Due to budgetary constraints, the budget for this project in FY 2023 has been reduced by \$18.6 million. This reduction will lower the targeted construction mileage from 6 miles to 5 miles, reduce the funding available for PCCP carbon fiber and planned and emergency replacement work by \$10.7 million and eliminate funding for the water redundancy program in FY 2023. The PCCP funding is used for planned and emergency interventions on PCCP transmission mains throughout the system that are identified as requiring repair or replacement through the Acoustic Fiber Optic monitoring program. The map on the next page shows the historic location of PCCP rehabilitation throughout the WSSC Water service area in FYs 2018 through 2022. The historic location of interventions is not necessarily a predictor of the location of needs. The water redundancy program provides for planning, design and construction of projects that improve the redundancy of the water system in order to improve service to customers when critical pipe segments are out of service. Projects are identified using a criticality analysis of WSSC Water's hydraulic model for the water system.

Customers across WSSC Water's service area will be impacted by these reductions. Transmission mains are the backbone of the water system, providing water service to large areas. The pipes replaced under this program are typically prone to failure or have been identified as at-risk of failure in the near future through the inspection, condition assessment and monitoring program. Failure of these pipes will cause temporary loss of water service to residences and businesses across a large area and repairs will cause construction nuisances to the travelling public.



e. \$5,699,000 - Engineering Support Program - This program 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. Engineering Support Program 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, Engineering Support Program 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 program does not include proposed "major projects" which, by law, must be programmed in WSSC Water's Capital Improvements Program or projects to serve new development.

Due to budgetary constraints, the budget for this project in FY 2023 has been reduced by \$5.7 million. This reduction will impact the ability to execute projects through the program. Due to the diverse scope of projects implemented under this program, the impacts of the reduction will be felt by all of WSSC Water's 1.9 million customers. The following are some projects planned for execution under the Engineering Support Program that will be delayed due the budget reductions.

Northwest Branch Aerial Sewers Rehabilitation/Replacement Phase 2 - This project provides for the planning, design and construction to mitigate exposure to 5 aerial sewer pipelines and their supporting structures. Aerial sewers are elevated sewer pipelines supported by piers or pedestals that pass over geographical features such as streams and low-lying areas due to the inability or impracticability of burying the pipelines in that location. A condition assessment of the 5 aerial sewers identified existing or imminent risks posed by the site conditions, deterioration of the pipes and/or deterioration of the structural support systems. Failure of these pipes will cause a release of raw sewage into environmentally sensitive areas.

<u>Village in the Woods Service Reliability Water Main Supply</u> - During three planned shutdowns of the 42" PCCP transmission main along Brightseat Road in 2014, the Village in the Woods apartment complex was put out of water service for an extended period of time. Hydraulic analysis and a business case were performed to develop a long-term solution to this issue. The scope of work includes upsizing existing mains in the area, installing new mains and removing a dead-end by connecting it to another existing main. Delays to this work will extend the period of time that residents and businesses in the area are at risk of inadequate fire flow or loss of service in the event of a disruption to the 42" PCCP main.

<u>Temple Hills Depot Renovation</u> - A high portion of the assets at the Temple Hills Depot are in poor condition and there are safety concerns with the current condition of the facility. A renovation of the facility will: improve the efficiency of operations; address safety concerns; update the facility to current building codes, regulations and ADA requirements; and improve the energy efficiency of the facility. Delays to this work will extend of period of time that safety issues persist and lengthen the duration that the condition of the facility impairs efficient operations.

f. \$5,229,000 - Other Capital Programs - This program includes miscellaneous capital projects, programs and expenditures for common, non-CIP, enterprise-wide activities such as relocations, new water and sewer house connections, purchases of water meters, paving and general construction of local lines. The program summarizes capital expenditures and allocated costs that are not already included in the CIP or in other Information Only projects.

Due to budgetary constraints, the budget for this project in FY 2023 has been reduced by \$5.2 million. This is comprised of a reduction of \$10.0 million to paving, a reduction of \$3.8 million to purchases of water meters, and a net increase of \$8.6 million in allocated costs due to the reductions to other capital projects and programs and changes to the operating budget. Customers across WSSC Water's service area will be impacted by these reductions.

## **FINANCIAL SUMMARY**

(ALL FIGURES IN THOUSANDS)

### **EXPENDITURE PROJECTIONS**

	EST.	EXPEND	EST.	TOTAL		E	XPENDITURI	SCHEDULE	<b>.</b>		BEYOND	
	TOTAL	THRU	EXPEND	SIX	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	SIX	PAGE
	COST	21	22	YEARS	23	24	25	26	27	28	YEARS	NUM
Montgomery County Water Projects	9,237	49	23	9,165	2,621	1,045	2,577	2,738	92	92	0	1-1
Prince George's County Water Projects	220,139	35,041	12,933	162,353	26,925	41,686	41,687	37,205	9,713	5,137	9,812	5-1
Bi-County Water Projects	1,224,325	71,486	83,204	979,239	104,105	169,697	169,946	213,348	200,941	121,202	90,396	3-1
TOTAL WATER PROJECTS	1,453,701	106,576	96,160	1,150,757	133,651	212,428	214,210	253,291	210,746	126,431	100,208	
Montgomery County Sewer Projects	75,388	2,403	8,852	49,867	4,242	7,512	10,349	5,223	5,692	16,849	14,266	2-1
Prince George's County Sewer Projects	405,337	134,878	47,539	214,100	57,000	70,097	47,113	23,401	8,265	8,224	8,820	6-1
Bi-County Sewer Projects	1,970,429	552,940	213,348	1,021,814	218,559	175,732	175,989	166,531	142,598	142,405	182,327	4-1
TOTAL SEWER PROJECTS	2,451,154	690,221	269,739	1,285,781	279,801	253,341	233,451	195,155	156,555	167,478	205,413	
TOTAL CIP PROGRAM	3,904,855	796,797	365,899	2,436,538	413,452	465,769	447,661	448,446	367,301	293,909	305,621	
Total Information Only Projects	1,983,005	2,003	244,340	1,735,067	212,043	269,809	294,249	309,759	322,818	326,389	1,595	7-1
COMBINED PROGRAM	5,887,860	798,800	610,239	4,171,605	625,495	735,578	741,910	758,205	690,119	620,298	307,216	

### **FUNDING SOURCES**

4,420,005	504,841	533,878	3,209,272	500,878	559,075	563,473	570,879	536,533	478,434	172,014
537,601	0	27,585	400,016	31,016	44,000	65,000	80,000	80,000	100,000	110,000
572,969	246,143	20,456	306,370	39,514	76,224	76,106	56,364	38,162	20,000	0
224,154	27,846	8,307	173,348	29,606	34,913	23,845	41,027	28,435	15,522	14,653
59,287	11,497	12,324	35,464	14,710	12,057	5,499	1,671	764	763	2
57,370	7,903	3,569	35,351	5,486	5,024	6,380	6,657	6,225	5,579	10,547
16,474	570	4,120	11,784	4,285	4,285	1,607	1,607	0	0	0
5 007 000	700.000	640.000	4 474 605	605 405	705 570	744.040	750 005	600 440	600 000	307,216
	537,601 572,969 224,154 59,287 57,370 16,474	537,601     0       572,969     246,143       224,154     27,846       59,287     11,497       57,370     7,903       16,474     570	537,601     0     27,585       572,969     246,143     20,456       224,154     27,846     8,307       59,287     11,497     12,324       57,370     7,903     3,569	537,601       0       27,585       400,016         572,969       246,143       20,456       306,370         224,154       27,846       8,307       173,348         59,287       11,497       12,324       35,464         57,370       7,903       3,569       35,351         16,474       570       4,120       11,784	537,601       0       27,585       400,016       31,016         572,969       246,143       20,456       306,370       39,514         224,154       27,846       8,307       173,348       29,606         59,287       11,497       12,324       35,464       14,710         57,370       7,903       3,569       35,351       5,486         16,474       570       4,120       11,784       4,285	537,601       0       27,585       400,016       31,016       44,000         572,969       246,143       20,456       306,370       39,514       76,224         224,154       27,846       8,307       173,348       29,606       34,913         59,287       11,497       12,324       35,464       14,710       12,057         57,370       7,903       3,569       35,351       5,486       5,024         16,474       570       4,120       11,784       4,285       4,285	537,601       0       27,585       400,016       31,016       44,000       65,000         572,969       246,143       20,456       306,370       39,514       76,224       76,106         224,154       27,846       8,307       173,348       29,606       34,913       23,845         59,287       11,497       12,324       35,464       14,710       12,057       5,499         57,370       7,903       3,569       35,351       5,486       5,024       6,380         16,474       570       4,120       11,784       4,285       4,285       1,607	537,601       0       27,585       400,016       31,016       44,000       65,000       80,000         572,969       246,143       20,456       306,370       39,514       76,224       76,106       56,364         224,154       27,846       8,307       173,348       29,606       34,913       23,845       41,027         59,287       11,497       12,324       35,464       14,710       12,057       5,499       1,671         57,370       7,903       3,569       35,351       5,486       5,024       6,380       6,657         16,474       570       4,120       11,784       4,285       4,285       1,607       1,607	537,601       0       27,585       400,016       31,016       44,000       65,000       80,000       80,000         572,969       246,143       20,456       306,370       39,514       76,224       76,106       56,364       38,162         224,154       27,846       8,307       173,348       29,606       34,913       23,845       41,027       28,435         59,287       11,497       12,324       35,464       14,710       12,057       5,499       1,671       764         57,370       7,903       3,569       35,351       5,486       5,024       6,380       6,657       6,225         16,474       570       4,120       11,784       4,285       4,285       1,607       1,607       0	537,601         0         27,585         400,016         31,016         44,000         65,000         80,000         80,000         100,000           572,969         246,143         20,456         306,370         39,514         76,224         76,106         56,364         38,162         20,000           224,154         27,846         8,307         173,348         29,606         34,913         23,845         41,027         28,435         15,522           59,287         11,497         12,324         35,464         14,710         12,057         5,499         1,671         764         763           57,370         7,903         3,569         35,351         5,486         5,024         6,380         6,657         6,225         5,579           16,474         570         4,120         11,784         4,285         4,285         1,607         1,607         0         0

## 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)

C. Fulluling Schedule (0003)									
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)							
Staff & Other							
Maintenance							
Debt Service	\$355	26					
Total Cost	\$355	26					
Impact on Water and Sewer Rate							
5 A							

#### 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%

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

#### Н. Мар

### 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)						
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)

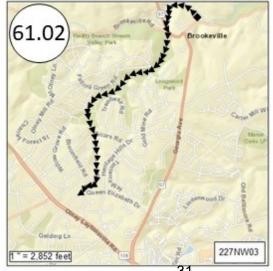
1 17 pproval and Exponditure Data (000 0)	
Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	24,614
Cost Estimate Last FY	
Present Cost Estimate	24,614
Approved Request Last FY	
Total Expense & Encumbrances	16
Approval Request Year 1	

#### 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

#### Н. Мар



31

## 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)

O. I diffulling Confodulo (000 0)										
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

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

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

#### F. Approval and Expenditure Data (000's)

FY'23
FY'23
5,501
5,501
36

#### 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

## 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)

C. Fulluling Scriedule (0003)										
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)		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

a. Otatus illioilliation	
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

#### Н. Мар

MAP NOT APPLICABLE

## Large Diameter Water Pipe & Large Valve Rehabilitation Program

A. Identification and	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)

or r unumg comodule (coco)										
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).

E. Annual Operating Budget Impact (000's)		
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	

#### Н. Мар

#### MAP NOT AVAILABLE

COST CHANGE

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 Department of Permitting Inspection and Enforcement

Coordinating Projects: W - 000001.00 - Water Reconstruction Program; W - 000107.00 - Specialty Valve Vault Rehabilitation Program

# Septage Discharge Facility Planning & Implementation

A. Identification and	Coding Information	n		
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.

#### <u>JUSTIFICATION</u>

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)

-1
FY'10
FY'10
10,835
40,048
41,935
12,461
5,332

#### 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

# Prince George's County 450A Zone Water Main

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

Data Davisad   Fahruary 16, 2022	
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)			
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	

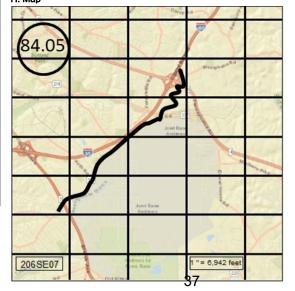
#### G. Status Information

Environmental Regulation

Population Served

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	90 %
Estimated Completion Date	July 2027
Growth	
System Improvement	100%

# Capacity H. Map



# South Potomac Supply Improvement, Phase 2

A. Identification and Coding Information							
Agency Number							
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)

or r arialing corrodate (coco)									
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)					
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			

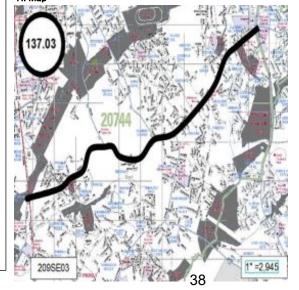
#### F. Approval and Expenditure Data (000's)

FY'18
FY'07
53,374
67,875
71,143
21,685
2,723

#### G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	70 %
Estimated Completion Date	June 2025
	<u>.</u>
Growth	34%
System Improvement	66%
Environmental Regulation	
Population Served	
Capacity	

# Н. Мар



# 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)

C. Fullding Schedule (0003)									
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)					
Staff & Other					
Maintenance					
Debt Service	\$326	26			
Total Cost	\$326	26			
Impact on Water and Sewer Rate					
E Approval and Expanditure Data (000's)					

#### 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	

# Capacity H. Map

Population Served

# MAP NOT APPLICABLE

0.6 MGD

# Colmar Manor WWPS & FM

A. Identification and	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)				
Staff & Other				
Maintenance				
Debt Service	\$380	29		
Total Cost	\$380	29		
Impact on Water and Sewer Rate				

#### F. Approval and Expenditure Data (000's)

+ p	
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

## Н. Мар



# Forest Heights WWPS & FM

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

PDF Date C	October 1, 2021
Date Revised F	ebruary 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)

or rainaing constant (coco)											
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)					
Staff & Other					
Maintenance					
Debt Service	\$93	29			
Total Cost	\$93	29			
Impact on Water and Sewer Rate					

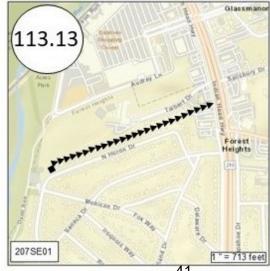
#### F. Approval and Expenditure Data (000's)

· · · · · · · · · · · · · · · · · · ·	~
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



41

# Water Reconstruction Program

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

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

Pressure Zones	Bi-County	
Drainage Basins		ı
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)				
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	

#### Н. Мар

# 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

# **Anacostia Depot Reconfiguration**

A. Identification and Coding Information					
Agency 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)

C. Fulluling Schedule (0003)									
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)					
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

**Environmental Regulation** 

Population Served

Land Status	Public/Agency owned land
Project Phase	Planning
Percent Complete	5 %
Estimated Completion Date	December 2025
Growth	
System Improvement	100%

# Capacity H. Map

# **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)

or r unumg constant (coco)										
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)						
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
Approved Request Last FY Total Expense & Encumbrances Approval Request Year 1	,

#### G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going
Growth	
Growth System Improvement	100%
	100%

# Capacity H. Map

# Other Capital Programs

A. Identification and Coding Information							
Agency 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)				
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)

FY'21
FY'21
466,502
478,716
53,738
52,473

#### G. Status Information

Not Applicable
On-Going
0 %
On-Going
100%

#### Н. Мар