



**DISTRICT OF COLUMBIA  
WATER AND SEWER AUTHORITY  
Board of Directors**

Meeting of the  
Environmental Quality and Operations Committee

**Thursday, January 18, 2024  
9:30 a.m.**

Microsoft Teams meeting  
**Join on your computer, mobile app**  
[Click here to join the meeting](#)

Meeting ID: 234 812 408 467

Passcode: DJ3eBT

**Or call in (audio only)**

[+1 202-753-6714,,56535432#](#)

Phone Conference ID: 565 354 32#

9:30 a.m.	I	<b>Call to Order</b>	Sarah Motsch, Chair
	II	<b>Roll Call</b>	Michelle Rhodd Board Secretary
9:35 a.m.	III	<a href="#">BPAWTP Performance Update</a>	Nicholas Passarelli
9:40 a.m.	IV	<a href="#">Clean Rivers Project Status Update</a>	Moussa Wone
9:55 a.m.	V	<a href="#">Ten-Year FY24 to FY33 Proposed CIP Budget</a>	David Parker Matthew Brown
10:35 a.m.	VI	<b>Other Business/Emerging Issues</b>	
10:40 a.m.	VII	<b>Executive Session*</b> - To discuss matters that may affect DC Water's bargaining position or negotiation strategy under DC Official Code § 2-575(b)(2).	
11:00 a.m.	VIII	<b>Adjournment</b>	Sarah Motsch

*This meeting is governed by the Open Meetings Act. Please address any questions or complaints arising under this meeting to the Office of Open Government at [opengovoffice@dc.gov](mailto:opengovoffice@dc.gov).*

**Follow-up Items from Prior Meetings:**

1. Getachew Melsew (Sr. Manager, Planning, Engineering): To provide copy of white paper on the equity analysis benefits and either a presentation to the full Board or the opportunity for Board Members to observe a training session on the equity analysis tool and dashboard.  
**Responses will be provided in January.**

2. William Elledge (Director, Engineering and Technical Services): Provide an estimate for the new parallel pipe and redundancy creation because it'd be worth the Board understanding what the cost of the rehabilitation of the old pipe to create that redundancy, to allow David Franco to watch the equipment being flown in, and to keep the Board up to date on the schedule of this project. **Responses will be provided in February.**

<sup>1</sup>The DC Water Board of Directors may go into executive session at this meeting pursuant to the District of Columbia Open Meetings Act of 2010, if such action is approved by a majority vote of the Board members who constitute a quorum to discuss certain matters, including but not limited to: matters prohibited from public disclosure pursuant to a court order or law under D.C. Official Code § 2-575(b)(1); terms for negotiating a contract, including an employment contract, under D.C. Official Code § 2-575(b)(2); obtain legal advice and preserve attorney-client privilege or settlement terms under D.C. Official Code § 2-575(b)(4)(A); collective bargaining negotiations under D.C. Official Code § 2-575(b)(5); facility security matters under D.C. Official Code § 2-575(b)(8); disciplinary matters under D.C. Official Code § 2-575(b)(9); personnel matters under D.C. Official Code § 2-575(b)(10); third-party proprietary matters under D.C. Official Code § 2-575(b)(11); train and develop Board members and staff under D.C. Official Codes § 2-575(b)(12); adjudication action under D.C. Official Code § 2-575(b)(13); civil or criminal matters or violations of laws or regulations where disclosure to the public may harm the investigation under D.C. Official Code § 2-575(b)(14); and other matters provided under the Act.



# ***BPAWTP UPDATE***



**Blue Plains Complete Treatment Performance**  
Environmental Quality & Operations Committee  
January 18, 2024

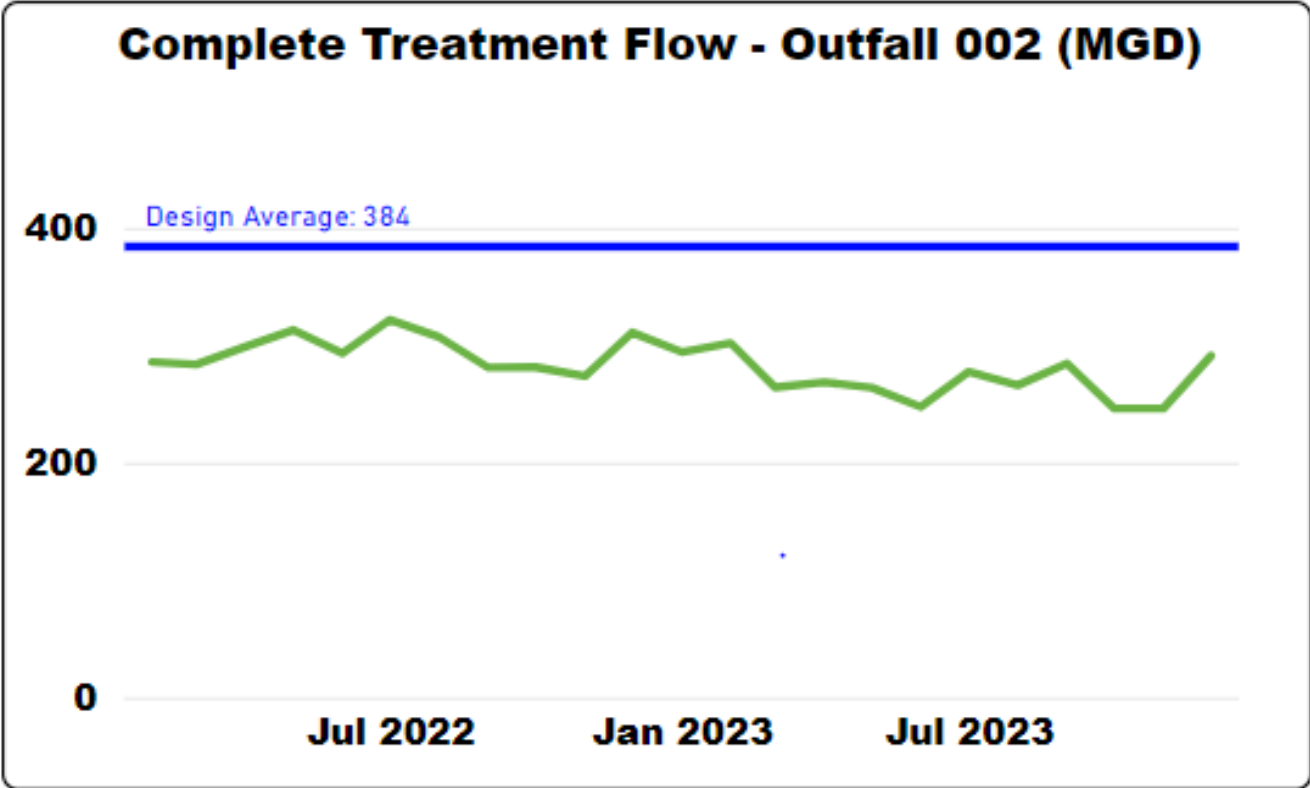


Nicholas Passarelli, Vice President , Wastewater Treatment Operations



# Operational Performance Complete Treatment

Monthly Average Flow Trend to Complete Treatment (MGD)



All weekly and monthly NPDES permit requirements were met

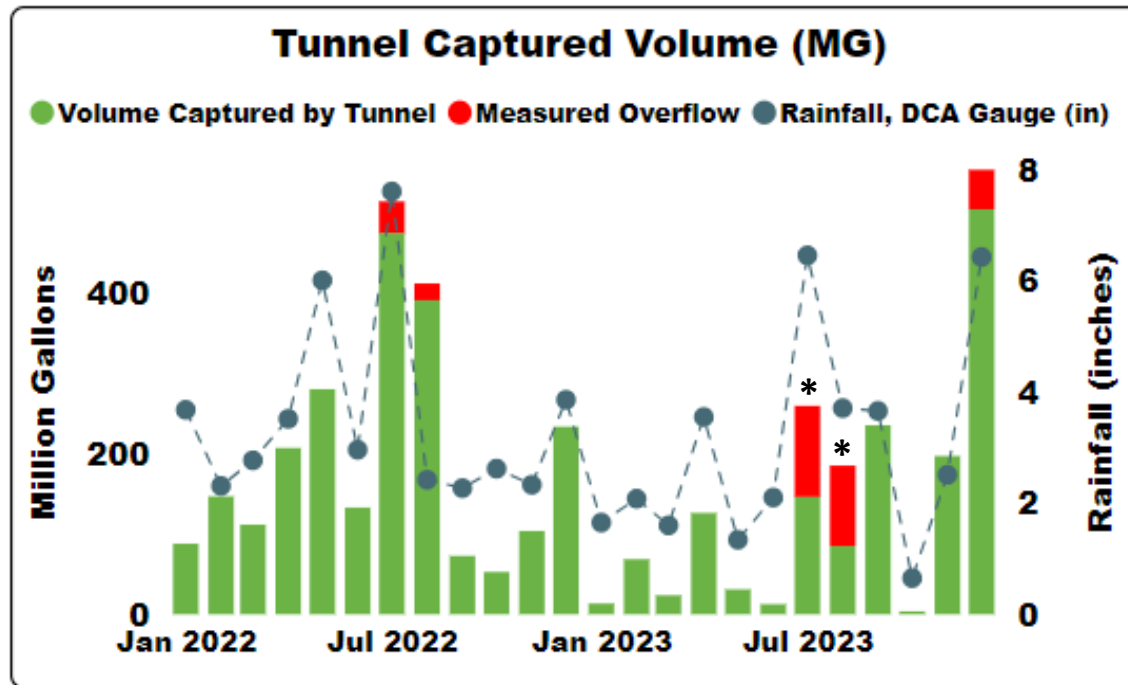
Average Outfall 002 flow for Dec: 291MGD



# Operational Performance Tunnel Systems and Wet Weather Treatment

## Anacostia River Tunnel System Annual Performance 2022 – 2023 (Through Dec 2023)

## Total System Performance from Start-Up (2018-2023)



	Anacostia River Tunnel System
Number of events	290
Volume Captured, MG	16,229
Volume to CSO, MG	1,538
Percent Captured, %	91.0

Note: Total System includes Anacostia, Potomac, and Rock Creek  
 MG ~ Million Gallons  
 CSO~ Combined Sewer Overflow

1443 MG of volume captured by Anacostia River Tunnel System in Calendar Year 2023 through December, with 262 MG overflow

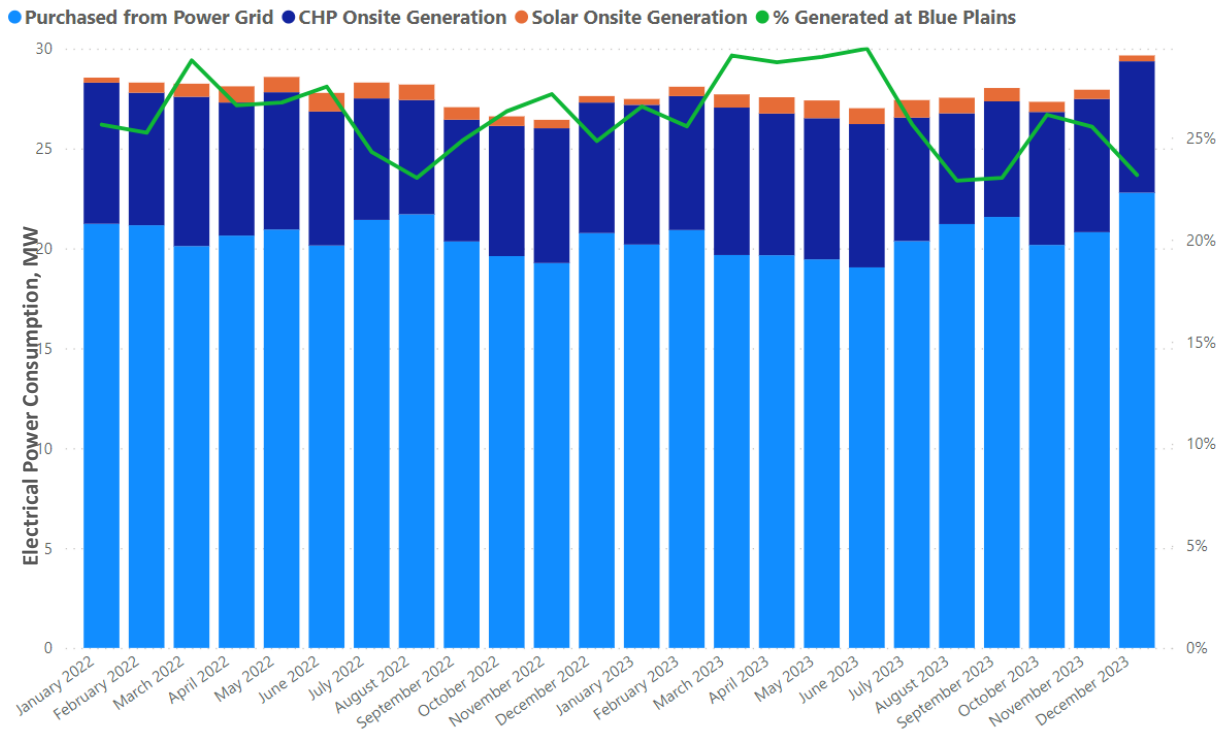
\* - CSO 019 diversion to tunnel was out of service July 5 - Aug 29 for commissioning of Northeast Boundary Tunnel, causing temporary increase in overflows. Necessary for safety of workers in tunnel. EPA/DOEE advised in advance.



# Operational Performance Electrical Energy Use and Generation

## Blue Plains Electrical Energy Use and Generation

Blue Plains Electricity Report

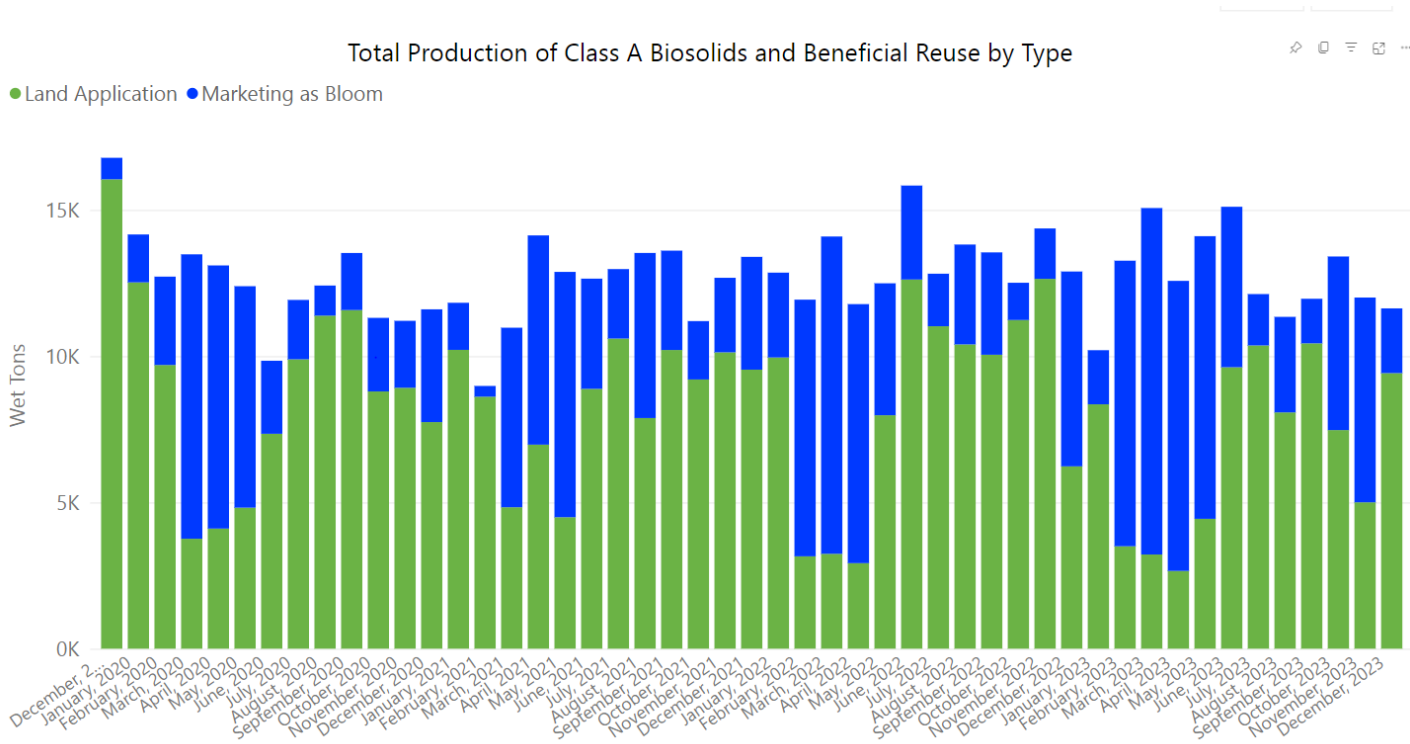


- 23% of electricity was generated onsite
- Combined Heat and Power (CHP) facility produced an average of 7.9 megawatts (MW), with 6.6 MW net to Blue Plains grid
- Solar System produced an additional 0.6 MW of power on average
- Total electricity consumption at Blue Plains averaged 29.7 MW
- DC Water purchased an average of 21.8 MW of electricity from PEPCO



# Operational Performance Class A Biosolids Production

## Total Production of Class A Biosolids and Beneficial Reuse by Type



In December, Blue Drop sold approximately 2,213 tons of Bloom; for a total of 15,147 tons towards the FY24 goal of 65,000 tons.

Blue Plains Produced 11,633 tons of biosolids for the month with the remaining 9,420 tons managed through land application contracts.





# *Clean Rivers Project Status Update*



DC Cleans Rivers Project Quarterly Update  
Environmental Quality & Operations Committee  
January 18, 2024

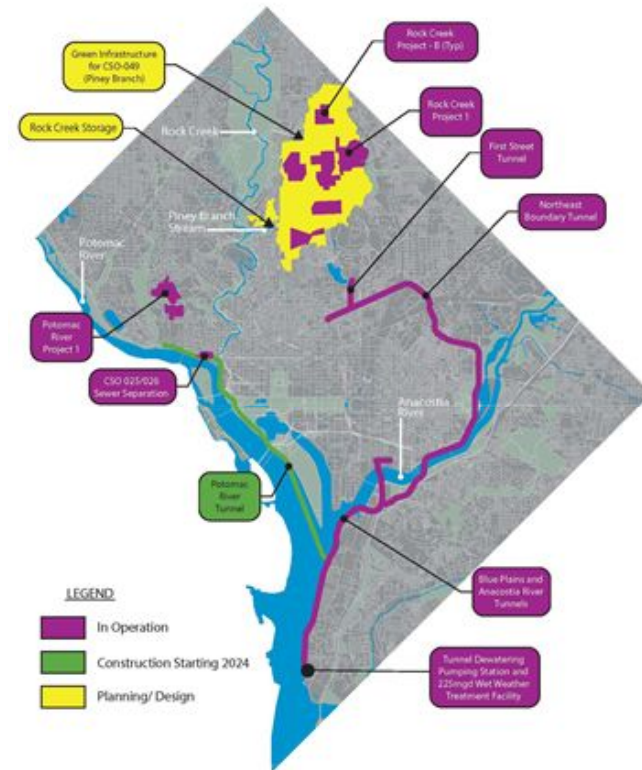


Moussa Wone, Vice President, DC Clean Rivers Project



# DC Clean Rivers Project Snapshot

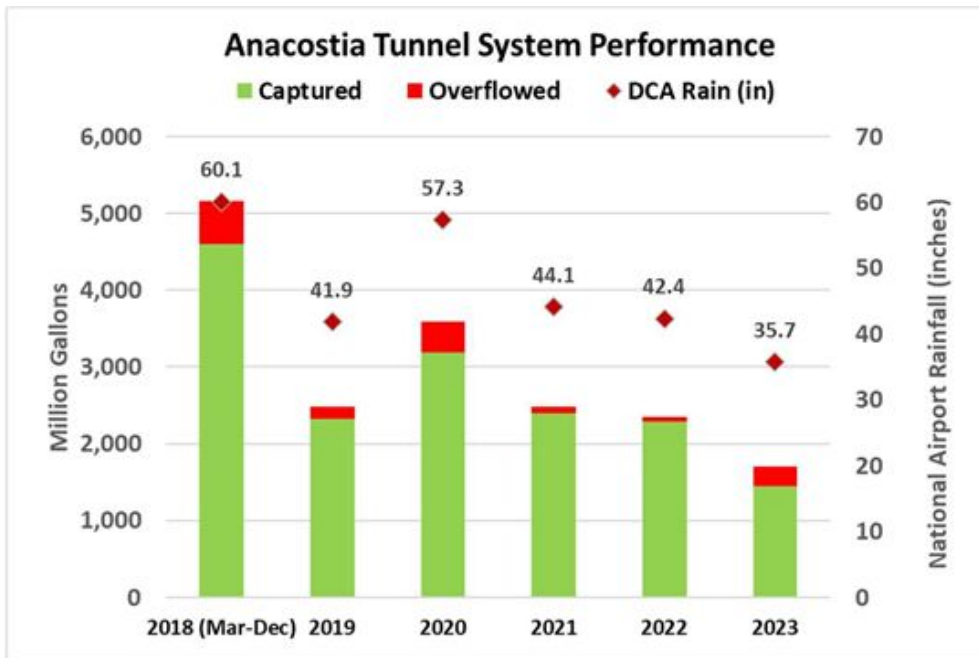
Area	Status
<b>Anacostia</b>	
Anacostia Tunnel System	<ul style="list-style-type: none"> <li>Northeast Boundary Tunnel commissioned September 15, 2023.</li> <li>More than 16.2 billion gallons captured as of December 2023</li> <li>More than 10,137 tons of trash/debris removed</li> </ul>
<b>Potomac</b>	
Potomac Tunnel Advance Utility Construction	<ul style="list-style-type: none"> <li>Completed, working with PEPCO to pull cable to institute electrical services</li> </ul>
Potomac Tunnel Construction	<ul style="list-style-type: none"> <li>Notice to Proceed issued November 9, 2023</li> </ul>
<b>Rock Creek</b>	
Green Infrastructure Project B	<ul style="list-style-type: none"> <li>All GI Facilities in Operation: December 29, 2023</li> <li>Consent Decree Date: January 23, 2024</li> </ul>
Green Infrastructure Project C	<ul style="list-style-type: none"> <li>Planning underway</li> </ul>
Piney Branch Tunnel	<ul style="list-style-type: none"> <li>Environmental Assessment underway</li> </ul>





# Anacostia Tunnel System Performance

- Over **16.2 billion gallons** captured Mar 2018 – Dec 2023
- Over **10,137 tons of trash**, debris, and other solids captured
- Exceeding predicted capture rate (91%>80%)

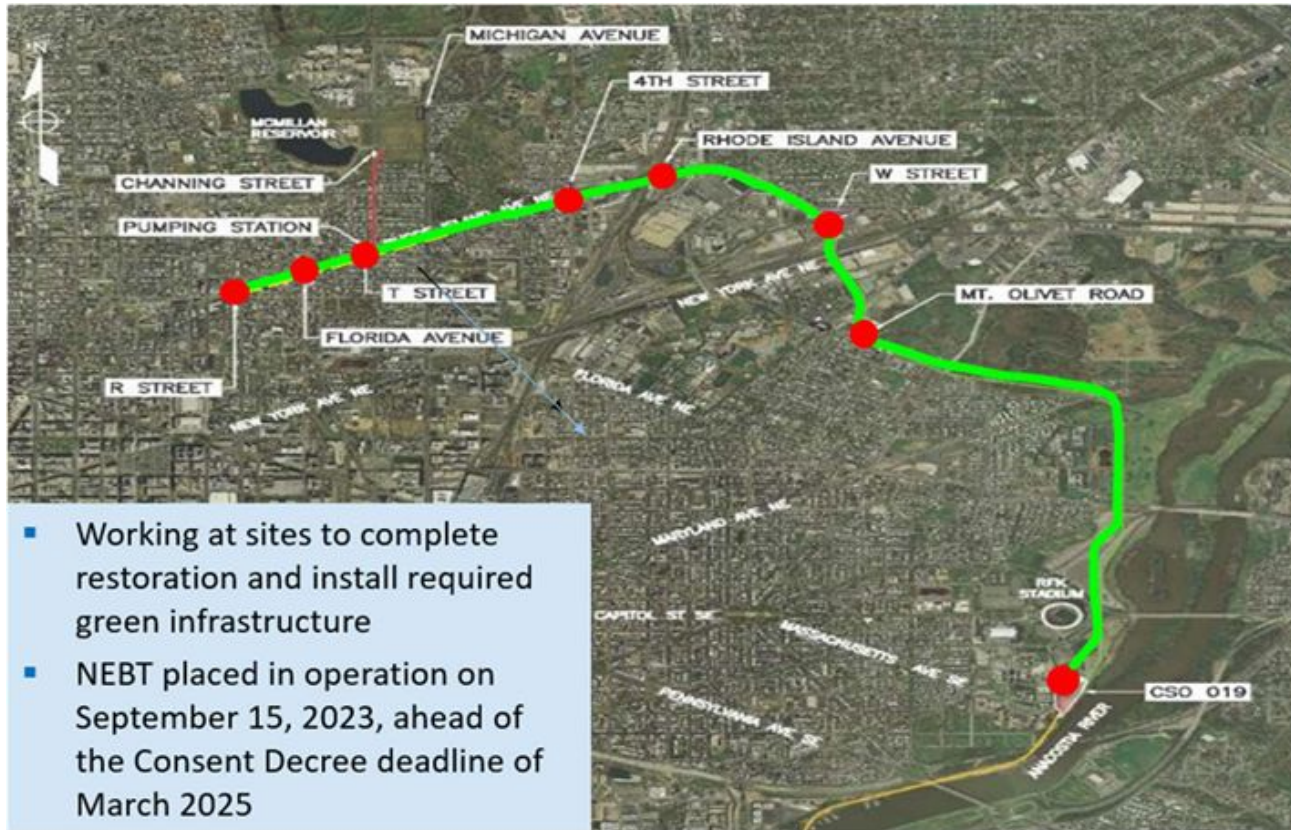


**Trash, Debris and Solids Removal from Screening Shaft at Tunnel Dewatering Pumping Station**





## Division J – Northeast Boundary Tunnel





## Division J – Northeast Boundary Tunnel



**T Street - Sidewalk Restoration**



**Rhode Island - Sidewalk Restoration**



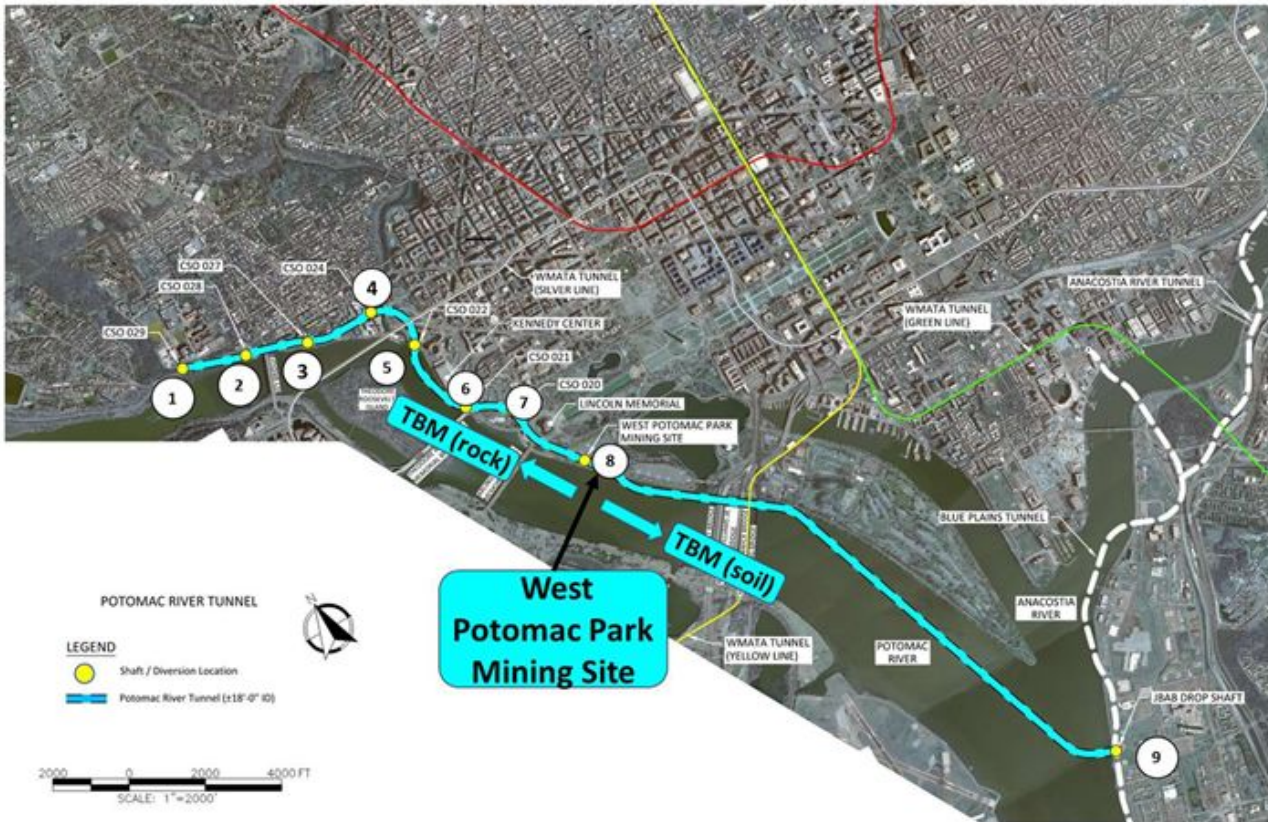
**Mt Olivet Rd - Road Restoration**

**Restoration and demolition works  
underway at sites**





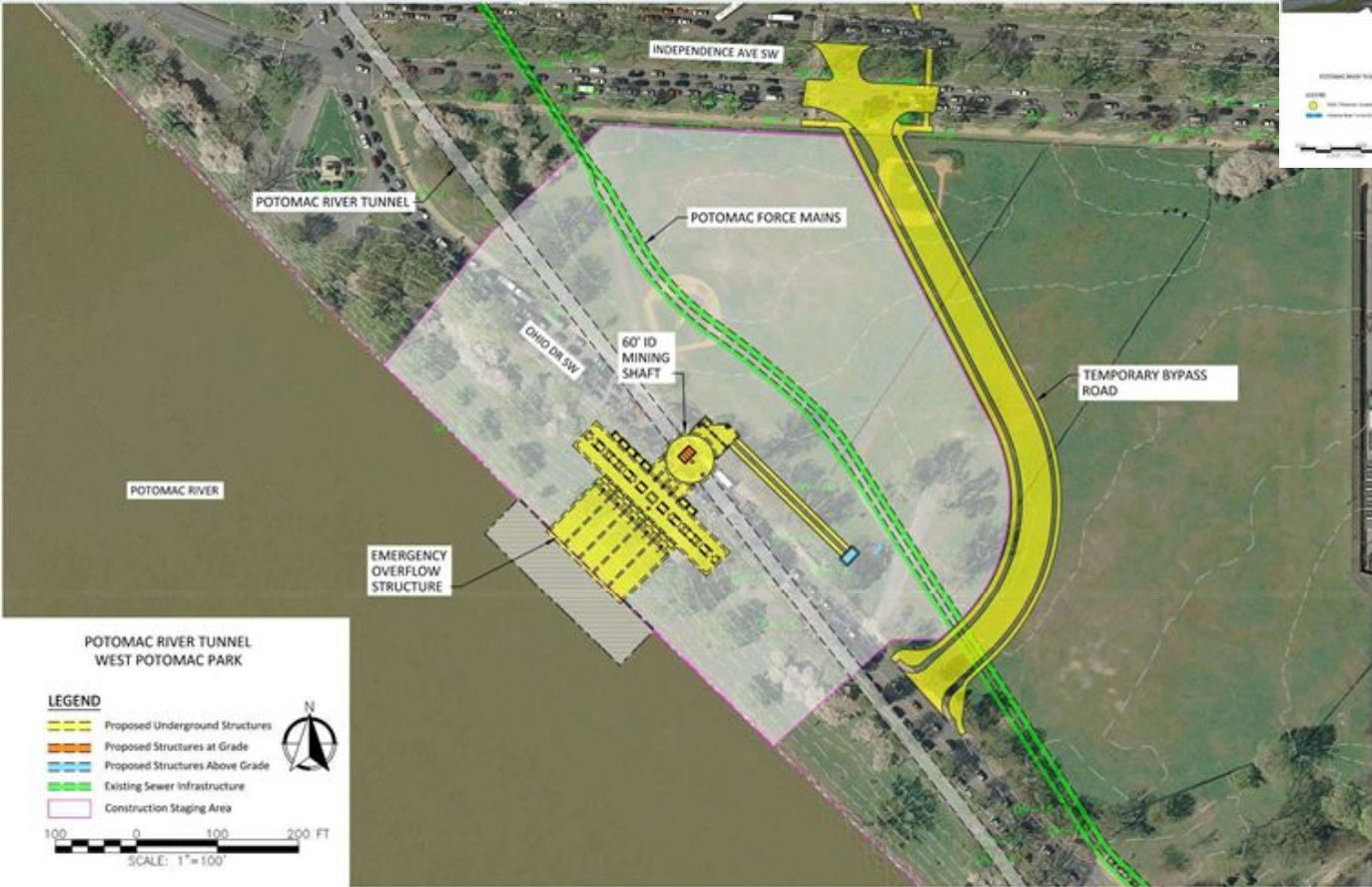
# Potomac River Tunnel



- **Tunnel Contract:**
  - Design-Builder: CBNA-Halmar Clean Rivers JV
  - NTP: November 9, 2023
  - Design-Builder preparing design packages and for mobilization to West Potomac Park
  - Place in Operation: February 2030

**dc** **West Potomac Park Mining Site**

**Anticipated Construction:**  
Jan/Feb 2024 through 2030







## Potomac Tunnel – West Potomac Park

CBNA - Potomac River Project Overview

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# Schedule (simplified)

Activity	2024				2025				2026				2027				2028				2029				2030			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
West Potomac Park	Planned work				Planned work				Planned work				Planned work				Planned work				Planned work				Planned work			
CSO 022 (Watergate)				Planned work	Planned work				Planned work				Planned work				Planned work				Planned work				Planned work			
CSO 028 (C&O Canal at Key Bridge)				Planned work	Planned work				Planned work				Planned work				Planned work				Planned work				Planned work			
CSO 027 (Potomac and K St NW)					Planned work				Planned work				Planned work				Planned work				Planned work				Planned work			
CSO 020					Planned work				Planned work				Planned work				Planned work				Planned work				Planned work			
CSO 024 (30 <sup>th</sup> and K St NW)					Planned work				Planned work				Planned work				Planned work				Planned work				Planned work			
CSO 029 (Georgetown University)					Planned work				Planned work				Planned work				Planned work				Planned work				Planned work			
CSO 021 (Kennedy Center)																	Planned work				Planned work				Planned work			
JBAB									Planned work								Planned work				Planned work				Planned work			

← Planned Tunnel Mining →

**Legend**

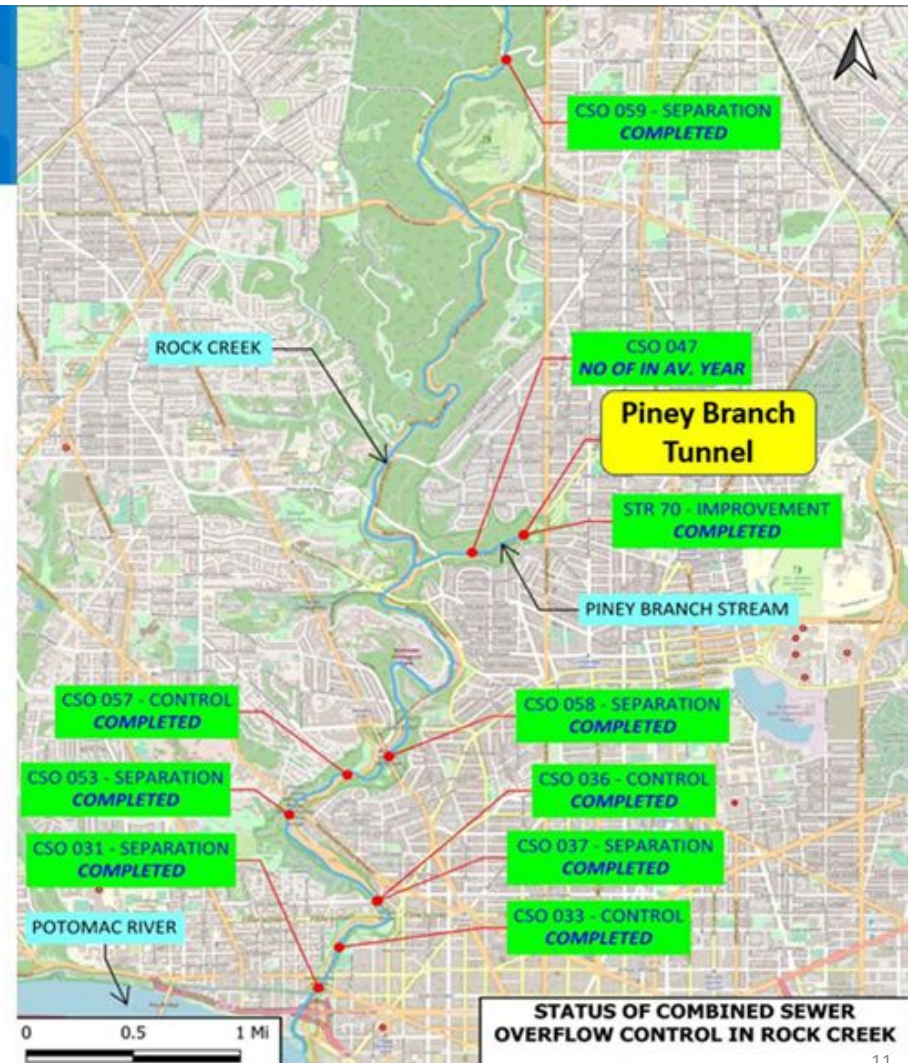
- Planned work
- Work may be performed pending construction progress/schedule adjustments

# dc Rock Creek CSO Controls

## Rock Creek CSO Projects in Consent Decree:

- Completed projects:
  - Sewer separation - 5 outfalls
  - Diversion structure improvements - 5 outfalls
  - Green Infrastructure
    - GI Project A
    - GI Project B
- Remaining projects:
  - ***Piney Branch Tunnel***
  - Green Infrastructure
    - GI Project C
    - GI Project D

More detail in this presentation





# Piney Branch Tunnel –Consent Decree Requirements

- Construct minimum 4.2-million-gallon storage facility to control CSO 049 to Piney Branch
- Reduce CSOs in an average year as follows:

Parameter	Before Clean Rivers	After Clean Rivers
No. Overflows (#/avg yr)	25	1
Overflow Volume (mil. gal./avg yr)	39.7	1.4
% Reduction	--	96%



- Consent Decree schedule:
  - Award design contract by: May 23, 2024 (completed)
  - Award construction contract by: May 23, 2026
  - Place in operation by: November 23, 2029





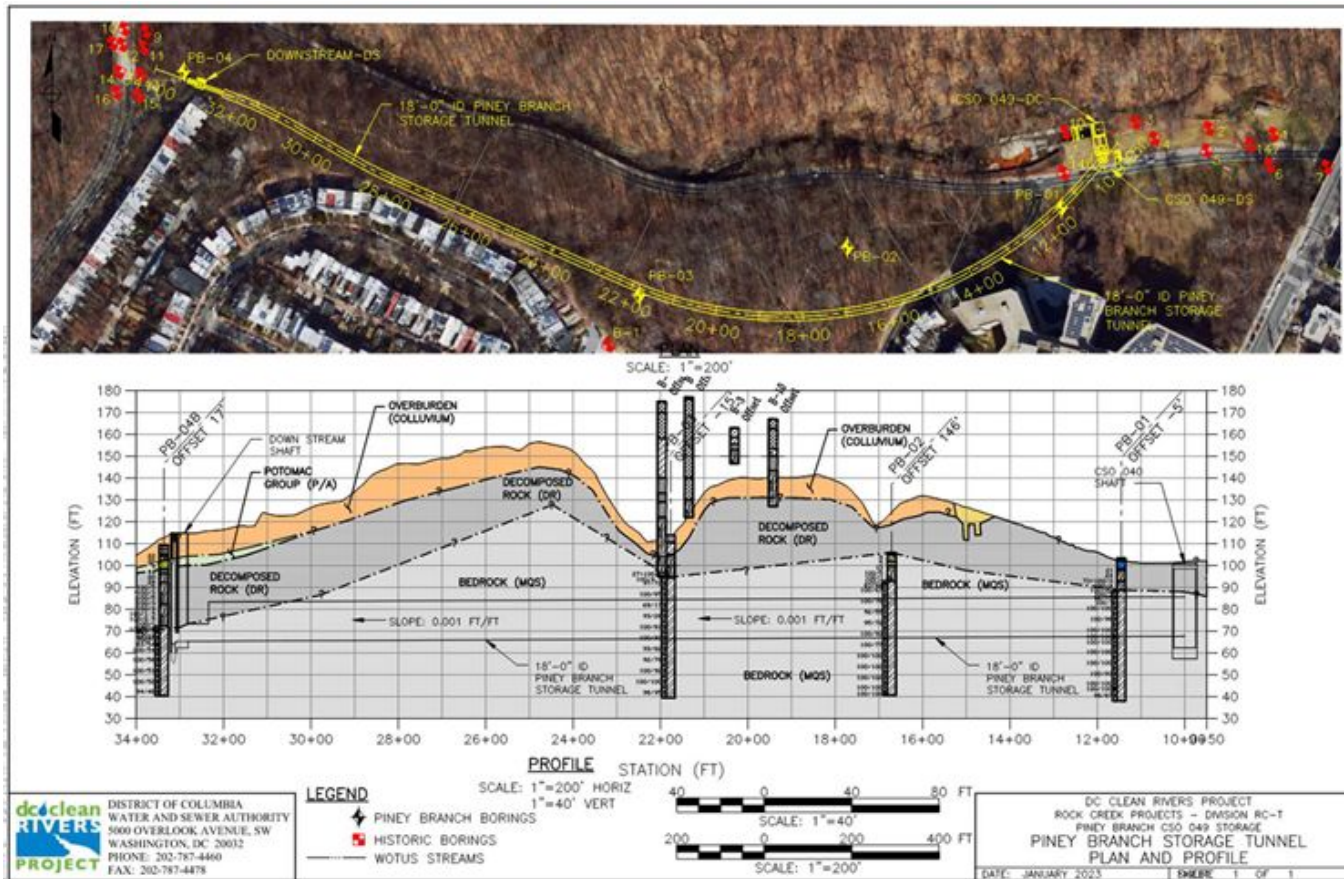
## Piney Branch Tunnel – Conceptual Layout

- Piney Branch is largest CSO to Rock Creek
- Drainage area is more than 2,300 acres
- Tunnel intercepts CSO at outfall and provides storage
- Discharge captured CSO back into sewer system by gravity (no pumping station) after storm
- Environmental Assessment underway with National Park Service





# Piney Branch Tunnel – Geologic Profile (Additional Investigations Underway)







## Piney Branch Tunnel - Schedule

Activity	Date
RFP Preparation	2024
Procurement	2025
Construction	Late 2025 – 2029 (about 4 years)
Place in Operation	November 23, 2029 (Consent Decree deadline)



CSO 049 in Dry Weather



CSO 049 During Wet Weather Overflow

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# DC Clean Rivers Public Outreach Efforts

Category	Activities:
<b>Community Coordination</b>	<ul style="list-style-type: none"> <li>▪ Regular coordination ongoing for the Potomac River Tunnel project to perform preconstruction surveys of business and residential properties near construction sites.</li> <li>▪ Outreach to Piney Branch Storage Project area residents and businesses to inform of upcoming Environmental Assessment.</li> </ul>
<b>Community Outreach</b>	<ul style="list-style-type: none"> <li>▪ Regular community outreach and communication of updates regarding site restoration activities for the Northeast Boundary Tunnel sites.</li> <li>▪ Worked closely with IT to update Clean Rivers Project websites ahead of pending website GoLive launch.</li> </ul>
<b>Project Completion &amp; Kick-Off</b>	<ul style="list-style-type: none"> <li>▪ Informed stakeholders of the completed construction and close-out items for Rock Creek Project B Green Infrastructure facilities.</li> <li>▪ Project kick-off meeting with Ward 2 Councilmember Pinto's office for the Potomac River Tunnel Project.</li> </ul>

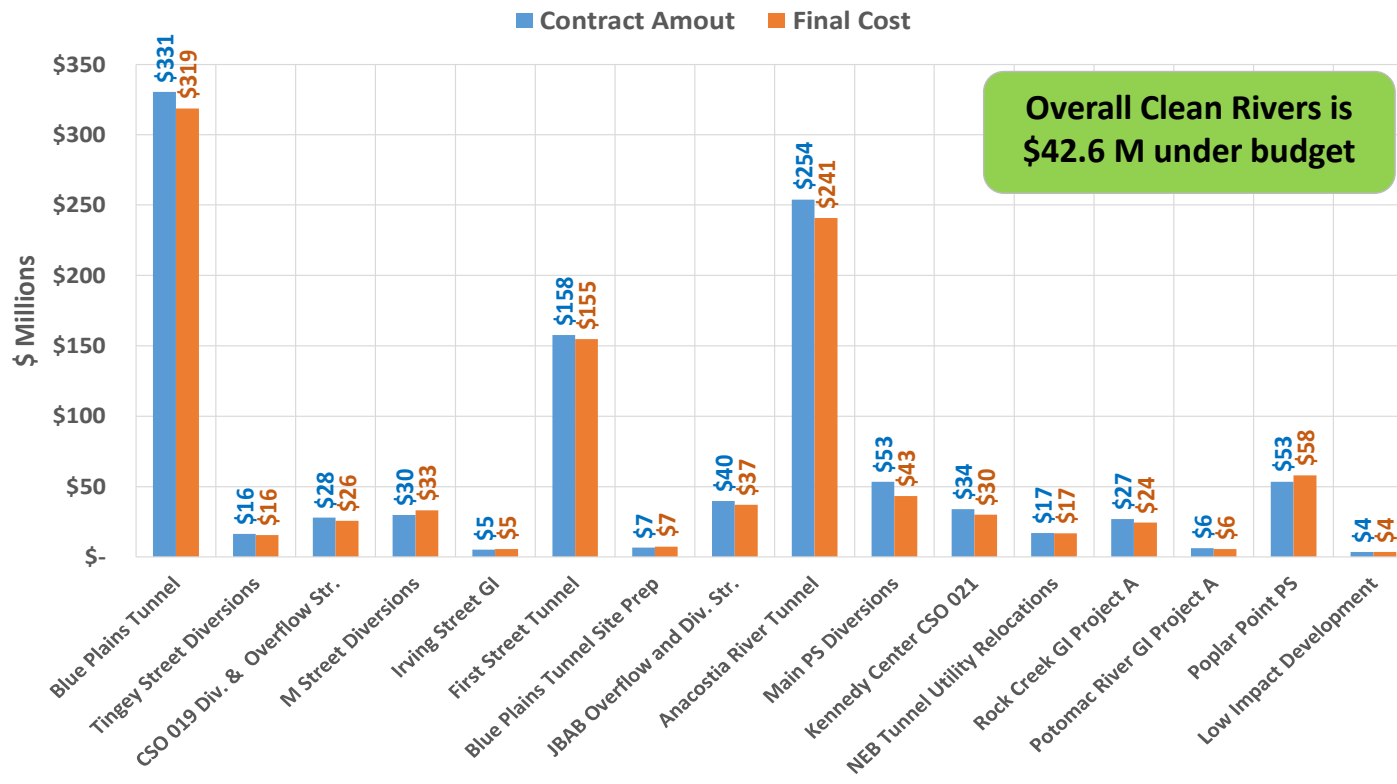






# Clean Rivers Budget

**Construction Contract Amounts vs Final Cost**



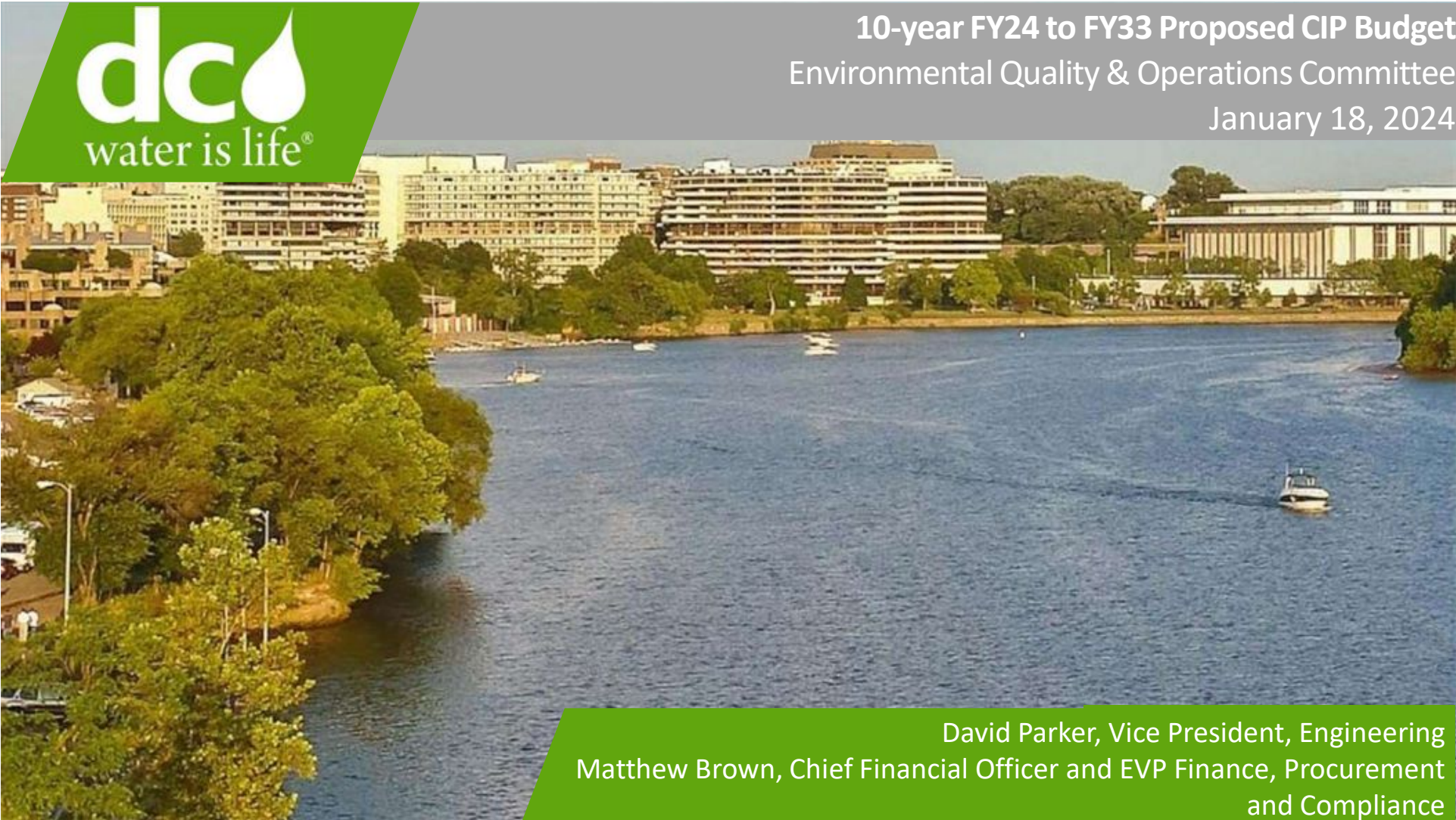
**Overall Clean Rivers is \$42.6 M under budget**

**Clean Rivers expenditures on Northeast Boundary Tunnel are not expected to exceed the budget**



# *10-year FY24 to FY33 Proposed CIP Budget*

Revised 01-17-2024



**dc** water is life®

**10-year FY24 to FY33 Proposed CIP Budget**  
Environmental Quality & Operations Committee  
January 18, 2024

David Parker, Vice President, Engineering  
Matthew Brown, Chief Financial Officer and EVP Finance, Procurement  
and Compliance



# Budget & Rates Adoption Calendar

Timeline	Activity	Status
January 4	Budget Workshop with Board of Directors	✓
January 12	Wholesale Customer Briefing	✓
January 19	Office of People’s Counsel Briefing	
<b>Committee Discussions &amp; Reviews</b>		
January 18	Environmental Quality & Operations	
January 23	Joint DC Retail Water & Sewer Rates and Finance & Budget Committee	
February 1	Board Meeting (No Board Action Required)	
<b>Committee Reviews, Recommendations &amp; Actions</b>		
February 15	Environmental Quality & Operations	
February 22	Finance & Budget	
February 27	DC Retail Water & Sewer Rates	
<b>March 7</b>	<b>Board Adoption of Budgets</b>	
April	Submit Budget via the District to U.S. Congress	
April – June	Rates Public Outreach & Town Halls & Public Hearing	
<b>July 3</b>	<b>Board Adoption of Rates</b>	
October 1	Fiscal Year 2025 Begins	



# Proposed FY 2025 Budget

## Proposed \$788.2 million FY 2025 Operating Budget, increase of \$50.7 million

Operations and Maintenance (O&M) Budget	Non-O&M Budget	PILOT and ROW
\$454.5 million	Debt Service - \$249.5 million Cash Financed Capital Improvements - \$60.4 million	\$23.8 million
<ul style="list-style-type: none"> <li>Personnel and non-personnel costs</li> </ul>	<ul style="list-style-type: none"> <li>Support the capital program</li> </ul>	<ul style="list-style-type: none"> <li>Payments to the District</li> </ul>

## Proposed \$7.74 billion 10-year Capital Budget, increase of \$792 million

Capital Projects	Capital Equipment	Washington Aqueduct
\$7.04 billion	\$347.4 million	\$357.5 million
<ul style="list-style-type: none"> <li>Clean Rivers</li> <li>Lead Free DC</li> <li>Equipment upgrades and rehabilitation at Blue Plains</li> <li>Investments in the aging water and sewer infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Pumps, motors, and meter equipment</li> <li>Backhoes, jet-vacs, catch basin trucks, other aged vehicles to meet operational needs</li> <li>Information technology projects</li> </ul>	<ul style="list-style-type: none"> <li>Improvements at the Washington Aqueduct</li> </ul>



## Multi-Year Rate Proposal for FY 2025 and FY 2026

- Proposed rate changes:
  - Water and sewer rates increase by 8.0% for FY 2025 and 6.0% for FY 2026
  - Proposed CRIAC of \$21.23 per ERU in FY 2025 and \$24.23 per ERU in FY 2026
  - Right-of-Way Fee at \$0.19 per Ccf for FY 2025 and \$0.20 per Ccf for FY 2026
  - PILOT Fee at \$0.61 per Ccf for FY 2025 and \$0.62 per Ccf for FY 2026
- Rates and charges that remain the same:
  - Customer Metering Fee remains at \$7.75 for 5/8" meters
  - Water System Replacement Fee (WSRF) at \$6.30 for 5/8" meters
  - Proposed Groundwater Rate of **\$3.50** for FY 2025 and **\$3.76** for FY 2026
  - Proposed High Flow Filter Backwash Sewer Rate of **\$3.32** for FY 2025 and **\$3.54** for FY 2026

- Cost of Service Study aligned with rate proposal
- Combined rate increases lower than last year's forecast

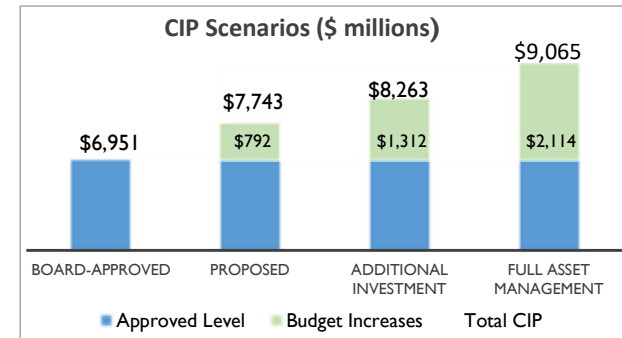
Change in Average Household Charge	Fiscal Year	
	2025	2026
Recommendation	4.8%	6.5%
Previous Forecast	7.0%	6.8%

*Reflects updated changes based on cost of service study completed*



# Multiple Capital Budget Scenarios Considered

- Budget Process includes consideration, evaluation, and prioritization of various CIP scenarios including related rate and revenue impacts
- Proposed CIP of \$7.7 billion
  - Funds two major ongoing “once in a generation” projects
  - Strikes a balance between necessary rate increases and critical capital investments



CIP Scenario	Description
<b>Proposed</b>	Funds increases for the Potomac River Tunnel; advances Lead Free DC program; ramps up to 1.5% annual replacement rates for small diameter water mains and 1.0% for sewer rehabilitation; includes upgrades at Blue Plains, Non-Process Facilities and Washington Aqueduct etc.
<b>Additional Investment</b>	Would add additional investments at Blue Plains and ramp up to 2.0% annual replacement rates for small diameter water mains and 1.3% for sewer rehabilitation
<b>Full Asset Management</b>	Would ramp up to 2.5% annual replacement rates for small diameter water mains and 1.5% for sewer rehabilitation; funds projects at Blue Plains including implementation of innovative treatment processes and renewable energy projects





## Capital Budget Scenarios

- The primary source of funding is Retail Rates and Wholesale Customer participation
- Growing the capital plan would increase customer rates higher than the Proposed CIP

Projected FY 2024 – 2033	Proposed	Additional Investment	Full Asset Management
Size of Capital Plan	\$7.7 billion	\$8.3 billion	\$9.1 billion
Wholesale Contributions	\$1.3 billion	\$1.4 billion	\$1.4 billion
New debt anticipated to be issued	\$3.3 billion	\$3.6 billion	\$3.8 billion
FY 2033 Debt Service Costs	\$462.9 million	\$484.5 million	\$504.4 million
Average Rate Growth for Average Household	6.3%	6.8%	7.4%
FY 2033 Average Household Charge	\$229.50	\$241.52	\$253.26
Average Annual Bill Increase	\$10.43	\$11.64	\$12.81
10-year Cumulative Water Rate Increase	75.75%	82.75%	89.75%

*Reflects updated changes based on cost of service study completed*





## Jurisdictional Cost Shares - General


### BLUE PLAINS INTERMUNICIPAL AGREEMENT of 2012

[Effective: 4/3/13]

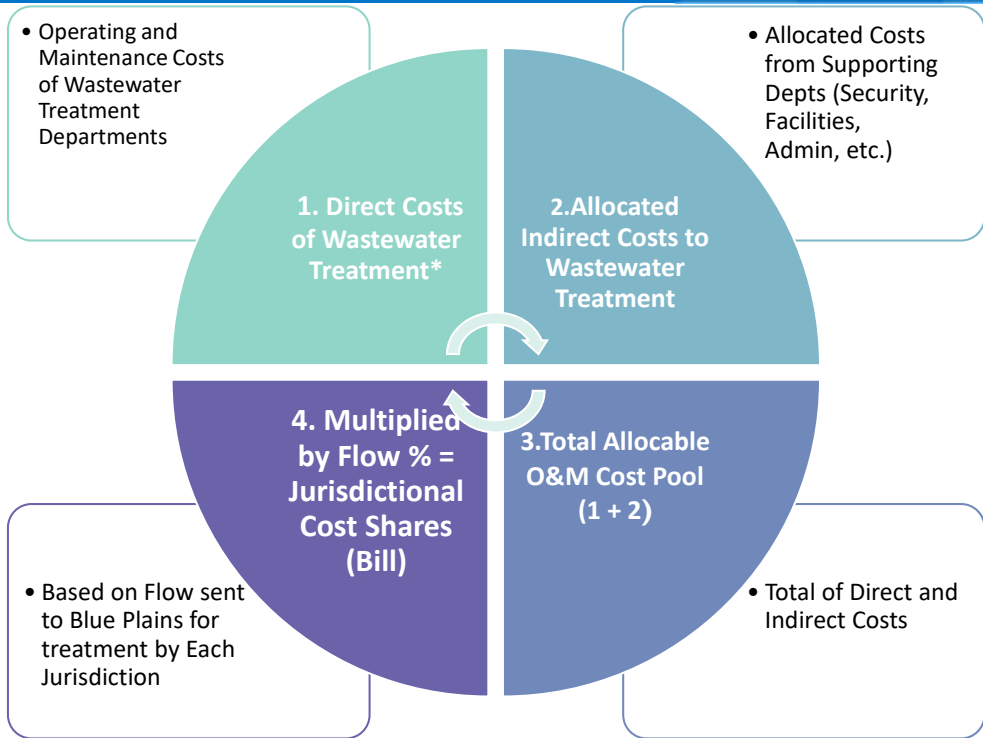
*Among the*  
District of Columbia  
District of Columbia Water and Sewer Authority  
Fairfax County, Virginia  
Montgomery County, Maryland  
Prince George's County, Maryland  
Washington Suburban Sanitary Commission



- Both DC Ratepayers and Wholesale Customers are responsible for the costs of joint-use capital projects and operation and maintenance costs of wastewater treatment and multi-jurisdictional user facilities
- The Board-approved operating budget and the CIP are the basis for Annual Estimate Bills for both Operating & Maintenance and Capital
- The Intermunicipal Agreement (IMA) stipulates the basis of the cost allocation for the jurisdictional customers
  - Operating – based on actual flows and adjustments made for user fees and biosolids hauled by Washington Suburban Sanitary Commission (WSSC)
  - Capital - Jurisdictional cost shares for Capital Projects are based on capacity allocation or specially negotiated cost shares with IMA Partners through Council of Government Technical Committees
- Capital Bills are true-up every Quarter based on actual invoices paid during the period. WSSC audits the quarterly bills on behalf of wholesale customers.
- Operating settlement (true-up) is completed within 90 days of the completion of audit of financial statements. WSSC further audits the operating settlement bills on behalf of wholesale customers



# Blue Plains Operating & Maintenance Cost Allocation

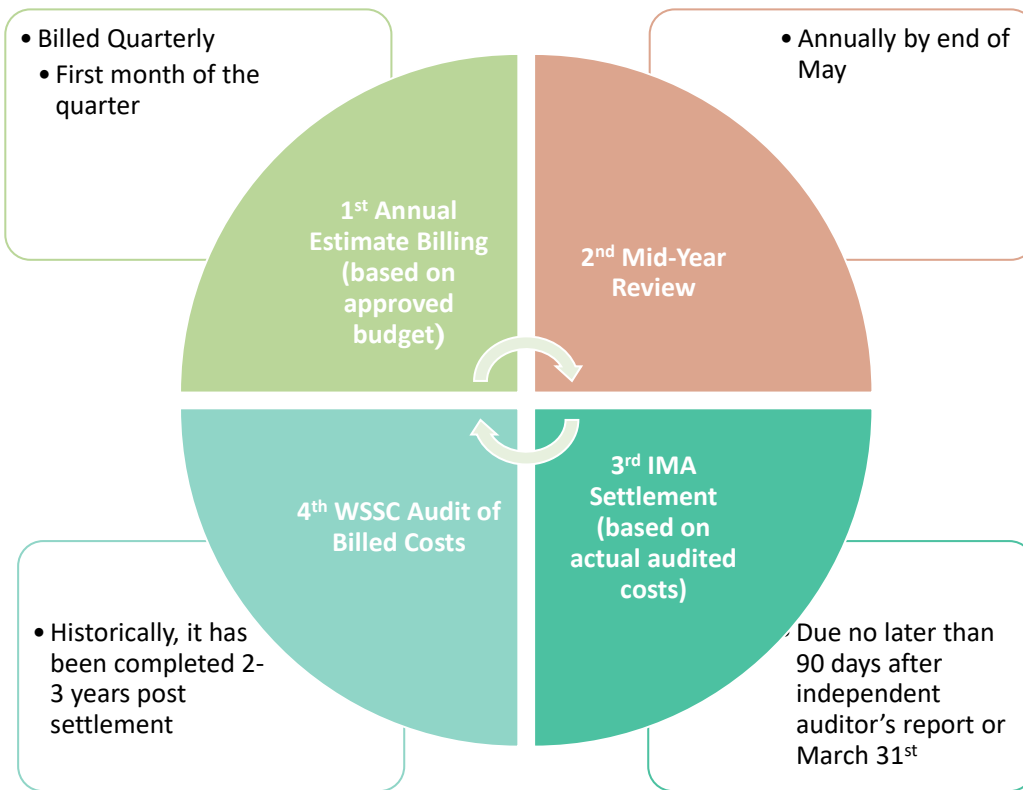


- DC Ratepayers and the jurisdictions are allocated costs associated with treating wastewater (Direct Costs)
- This also includes allocated costs associated with “Supporting Departments” like Facilities, and Information Technology (Indirect Costs)
  - For example: Facilities – *Costs are allocated based on Sq Ft occupied by departments.* Information Technology – *Costs are allocated based on CPU in use by departments*
- This pools of costs is then allocated based on flows to Blue Plains
  - The proposed budget is based on the actual flow in the most recently completed Fiscal Year
- Wholesale billings are expected to increase from \$106.5 million in FY 2024 to \$114.2 million in FY 2025, mainly because of growth in Personnel Services, Contractual Services, Supplies and Biosolid Costs

\*Wastewater treatment operations, maintenance, process engineering, wastewater engineering, resource recovery, and clean water technology - are departments related to Blue Plains and considered direct costs from cost recovery/billing purposes.



## Blue Plains Operating & Maintenance Cost Shares - Billing Cycle



- The billing cycle is a year-round one
- Jurisdictions are billed according to the budget
- Bills for the first quarter will be provided in October and are due mid-November; second, third, and fourth quarter bills are sent on January, April and July
- DC Water performs a mid-year review after the second quarter-end to determine additional billing or refund needed
- After the fiscal year end, the true-up (settlement) process is completed which may result in additional billing or refund
- WSSC audits the settlement bills which may result in additional billing or refund



## Blue Plains Operating & Maintenance Cost Shares

- Direct Costs** - The cost for operating and maintaining Blue Plains Advance Wastewater Treatment Plant includes personnel, chemicals, contractual services, utilities & rent, among others; these costs are considered direct cost for the Plant
- Indirect Costs** - Costs from supporting departments (e.g. Administration, Security, Facilities, Information Technology, etc.) are allocated to the Wastewater Treatment Plant
- The total of direct and indirect costs is then multiplied by the flow to arrive at the estimated billing for jurisdictions

- Below is the summary of estimated wholesale revenue from operations and maintenance billing to our wholesale customers for fiscal year 2024 and 2025

Cost Pool for Jurisdictional Shares Blue Plains	FY25 Budgeted (In'000)	FY24 Budgeted (In'000)	Change	Change %	
Operating & Maintenance Costs for Blue Plains* (Budget)	\$149,103	\$137,773	\$11,330	8.2%	
Estimated Indirect Cost Allocation for Support Services	\$29,821	\$27,555	\$2,266	8.2%	
<b>Total Allocable/Billable Cost Pool</b>	<b>\$178,923</b>	<b>\$165,328</b>	<b>\$13,596</b>	<b>8.2%</b>	
Estimated Jurisdictional Cost Shares (Based on Flow)	FY23 Flow %	FY25 Revenue Estimate	FY24 Revenue Estimate	Change	Change %
District	43.27%	\$77,425	\$71,223	\$6,201	8.7%
WSSC	41.18%	73,673	69,272	\$4,401	6.4%
Fairfax	10.02%	17,927	15,871	\$2,056	13.0%
Loudoun	4.81%	8,608	7,787	\$821	10.5%
Potomac Interceptor	0.72%	1,291	1,174	\$117	10.0%
<b>Total</b>	<b>100.00%</b>	<b>\$178,923</b>	<b>\$165,328</b>	<b>\$13,596</b>	<b>8.2%</b>
Wholesale Revenue from Blue Plains Operating & Maintenance Costs		102,899	95,582	7,317	7.7%
Wholesale Revenue from Multi-Jurisdictional User Facilities		7,802	7,391	411	5.6%
Potomac Interceptor Revenue		3,547	3,547	-	0.0%
<b>Total Estimated Wholesale Revenue</b>		<b>\$114,248</b>	<b>\$106,519</b>	<b>\$7,728</b>	<b>7.3%</b>

\*Departments at Blue Plains include Wastewater Treatment Operations, Maintenance Services, Process Engineering, Resource Recovery, Wastewater Engineering and Clean Water & Technology.

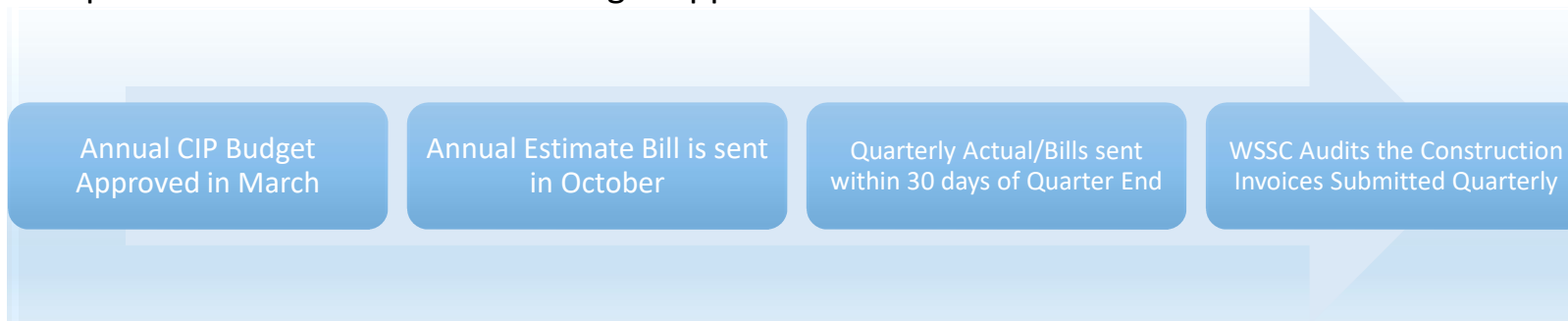


## Overview of Wholesale Customer Capital Cost Shares

- Capital cost shares for joint use projects are based on capacity allocation or the specially negotiated cost % with Intermunicipal Agreement (IMA) Partners through Council of Government Technical Committees
- Unique codes are used to allocate costs to Jurisdictions correctly. See some cost code examples below:

Work Type	Description	DCW	WSSC	FAIRFAX	LOUDOUN	PI	OTHERS	TOTAL
GIBP	Blue Plains Joint Projects	41.22	45.84	8.38	3.72	0.84	-	100.00
LTCP	Long Term Control Plan	92.90	5.54	1.01	0.45	0.10	-	100.00
MJ73	Anacostia Main Interceptor (AMI)	83.97	16.03	-	-	-	-	100.00
CAPM	Capital Money (100% DC)	100.00	-	-	-	-	-	100.00

- The process starts in March with Budget Approval and concludes with the Audit:



# DC Water Budget Overview

FY2024-2033 Proposed Capital Investments of **\$7.7 billion**



Fully funds DC Clean Rivers projects to meet Consent Decree requirements



**\$347 million**

Invests in process equipment, specialized vehicles, and information technology infrastructure

Invests in the Aqueduct's capital infrastructure



**\$732M**

To continue lead service line replacements

Continues investment in Water & Sewer infrastructure



**\$1.62 billion**

Ramps up to 1.5% replacement for small diameter water mains per year



**\$1.92 billion**

Ramps up to 1% rehabilitation for small/local sewer lines per year

**\$197 million**



Renovates Non-Process Facilities including the Historic Main Pump Station, Bryant Street Pump Station, non-process buildings at Blue Plains, laboratory upgrades, and solar installations



Improves stormwater pump stations to relieve local flooding

**\$1.33 billion**

Funds rehabilitation and upgrades at Blue Plains







## The Proposed Budget

### The 10-Year \$7.74B Capital Program, with projected rate increases:

- Fully funds the Clean Rivers Program including completion of the Potomac River tunnel to meet the consent decree requirement by 2030
- Allocates funding for the Lead-Free DC program
- Funds more than 150 miles of small diameter water main replacement
- Invests \$3.5B in the aging water and sewer system infrastructure
- Directs \$1.3B for major rehabilitation and upgrades at Blue Plains
- Allocates \$357.5M for DC Water's share of the Aqueduct's infrastructure program
- Provides \$347.4M for the purchase/replacement of vehicles, heavy-duty equipment, mechanical equipment, operational facilities, meters, office renovations, and IT projects

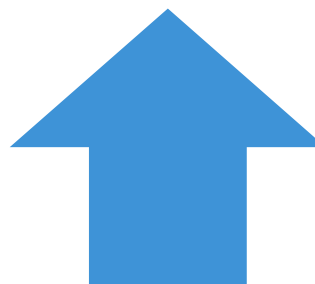




## Proposed Changes to 10-year CIP by Service Area

### Increases

Service Area	Increase	10-yr Total
Non-Process	\$56M	\$197M
Wastewater	\$152M	\$1.3B
DCCR	\$207M	\$1.2B
Sewer & CSS	\$19M	\$1.9B
Water (excluding LFDC)	\$221M	\$1.6B
LFDC	\$120M	\$732M



**Approved 10-yr FY 2023-2032 vs  
Proposed 10-yr FY 2024-2033**

**Overall 12% increase across the  
10-year window**



### Decreases

Service Area	Decrease	10-yr Total
Stormwater	\$4M	\$69M





# The Capital Improvement Program

- The **proposed ten-year CIP budget of \$7.74B** includes annual spending estimates for capital construction, capital equipment and DC Water’s share of the Aqueduct’s capital projects
  - This is a \$792M increase over the Board-approved CIP for the ten-year period
- The **proposed lifetime budget is \$16.1B** and covers total commitments, including labor, for active projects prior to, during, and beyond the ten-year window

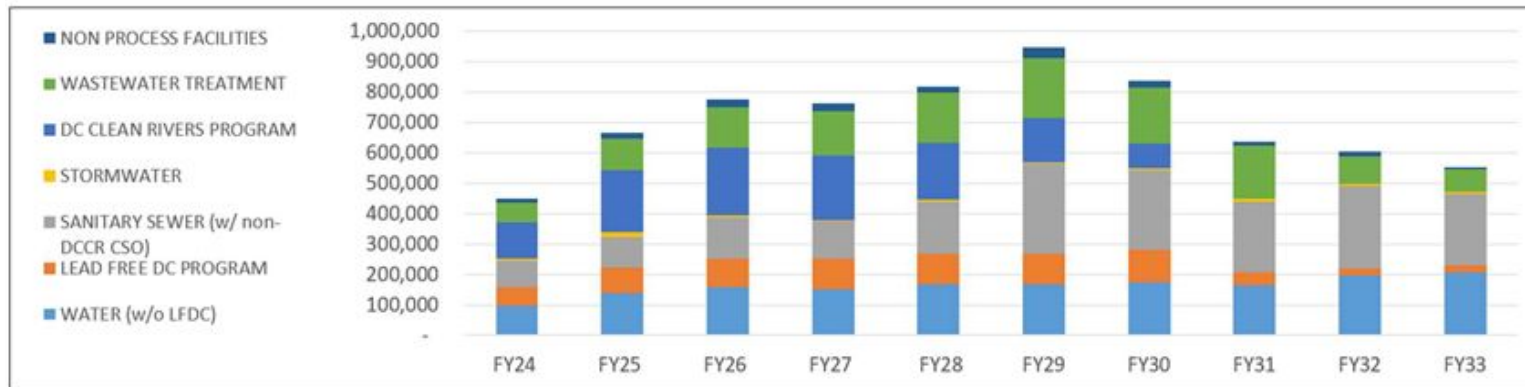
Cash Disbursements (\$ in thousands)

	FY 2024 - FY 2033 Disbursement Plan											Lifetime Budget
	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-yr Total	
NON PROCESS FACILITIES	\$ 13,074	\$ 19,900	\$ 25,190	\$ 27,461	\$ 17,775	\$ 35,413	\$ 23,100	\$ 13,283	\$ 14,977	\$ 7,345	\$ 197,518	\$ 362,044
WASTEWATER TREATMENT	65,150	103,291	133,487	146,143	164,601	194,637	185,233	174,807	91,587	74,666	1,333,603	3,348,779
COMBINED SEWER OVERFLOW	123,793	213,408	231,323	216,615	193,750	154,800	92,363	4,041	-	-	1,230,093	3,430,748
STORMWATER	7,293	13,565	7,958	3,804	4,532	3,268	6,697	9,432	6,772	5,231	68,551	157,075
SANITARY SEWER	80,599	92,235	123,854	118,639	169,037	287,816	249,471	227,771	269,312	236,846	1,855,580	2,897,505
WATER	158,736	222,494	252,395	250,278	266,256	268,591	279,184	207,235	219,880	227,979	2,353,028	4,738,104
<b>CAPITAL PROJECTS</b>	<b>\$ 448,646</b>	<b>\$ 664,893</b>	<b>\$ 774,206</b>	<b>\$ 762,940</b>	<b>\$ 815,951</b>	<b>\$ 944,526</b>	<b>\$ 836,048</b>	<b>\$ 636,568</b>	<b>\$ 602,528</b>	<b>\$ 552,067</b>	<b>\$ 7,038,373</b>	<b>\$ 14,934,255</b>
CAPITAL EQUIPMENT	30,535	31,477	31,839	30,523	37,169	37,169	37,169	37,169	37,169	37,169	347,390	347,390
WASHINGTON AQUEDUCT	35,546	35,770	35,770	35,770	35,770	35,770	35,770	35,770	35,770	35,770	357,472	357,472
<b>ADDITIONAL CAPITAL PROJECTS</b>	<b>\$ 66,081</b>	<b>\$ 67,246</b>	<b>\$ 67,609</b>	<b>\$ 66,293</b>	<b>\$ 72,939</b>	<b>\$ 72,939</b>	<b>\$ 72,939</b>	<b>\$ 72,939</b>	<b>\$ 72,939</b>	<b>\$ 72,939</b>	<b>\$ 704,863</b>	<b>\$ 704,863</b>
LABOR												\$443,166
<b>TOTAL CAPITAL BUDGETS</b>	<b>\$ 514,727</b>	<b>\$ 732,139</b>	<b>\$ 841,815</b>	<b>\$ 829,232</b>	<b>\$ 888,890</b>	<b>\$ 1,017,465</b>	<b>\$ 908,987</b>	<b>\$ 709,507</b>	<b>\$ 675,467</b>	<b>\$ 625,006</b>	<b>\$ 7,743,235</b>	<b>\$ 16,082,284</b>



# Proposed 10-year CIP for Capital Projects

	FY 2024 -2033 (\$1,000s)										
<i>(Cash Disbursements \$ in thousands)</i>	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	10-yr Total
NON-PROCESS FACILITIES	13,074	19,900	25,190	27,461	17,775	35,413	23,100	13,283	14,977	7,345	<b>197,518</b>
WASTEWATER TREATMENT	65,150	103,291	133,487	146,143	164,601	194,637	185,233	174,807	91,587	74,666	<b>1,333,603</b>
DC CLEAN RIVERS PROGRAM	118,913	204,033	220,390	212,583	189,057	147,147	77,719	-	-	-	<b>1,169,843</b>
STORMWATER	7,293	13,565	7,958	3,804	4,532	3,268	6,697	9,432	6,772	5,231	<b>68,551</b>
SANITARY SEWER (w/ non-DCCR CSO)	85,479	101,610	134,787	122,671	173,731	295,469	264,115	231,811	269,312	236,846	<b>1,915,829</b>
LEAD FREE DC PROGRAM	62,339	83,333	93,925	98,921	99,443	101,674	104,867	42,753	22,166	22,166	<b>731,587</b>
WATER (w/o LFDC)	96,398	139,161	158,469	151,357	166,813	166,917	174,317	164,482	197,714	205,813	<b>1,621,441</b>
<b>CAPITAL PROJECTS</b>	<b>448,646</b>	<b>664,893</b>	<b>774,206</b>	<b>762,940</b>	<b>815,951</b>	<b>944,526</b>	<b>836,048</b>	<b>636,568</b>	<b>602,528</b>	<b>552,067</b>	<b>7,038,373</b>





## Non-Process Facilities (\$197M)

### **New Combined Water & Wastewater Lab:**

\$48.7M, replace existing, aging labs at Ft Reno and Blue Plains & provide state-of-the-art showcase



### **Electric Vehicle Infrastructure:**

\$1.4M, add needed infrastructure to support DC Water's electric fleet



### **New Operations Training Center:**

\$9M, provide vital in-house training venue, support safe operations & maintenance





# Wastewater Blue Plains (\$1.33B)

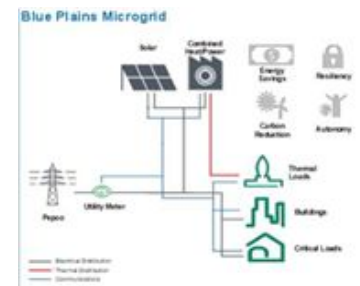
**Overall Increase - \$153M**

**Liquid Processing - \$744M**

384 MGD Average; 780 MGD Peak



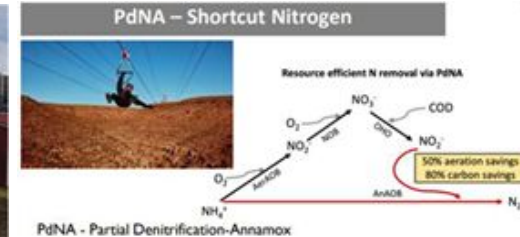
**Plantwide - \$292M**



**Solids Processing - \$246M**



**Enhanced Nitrogen Removal Facilities - \$52M**

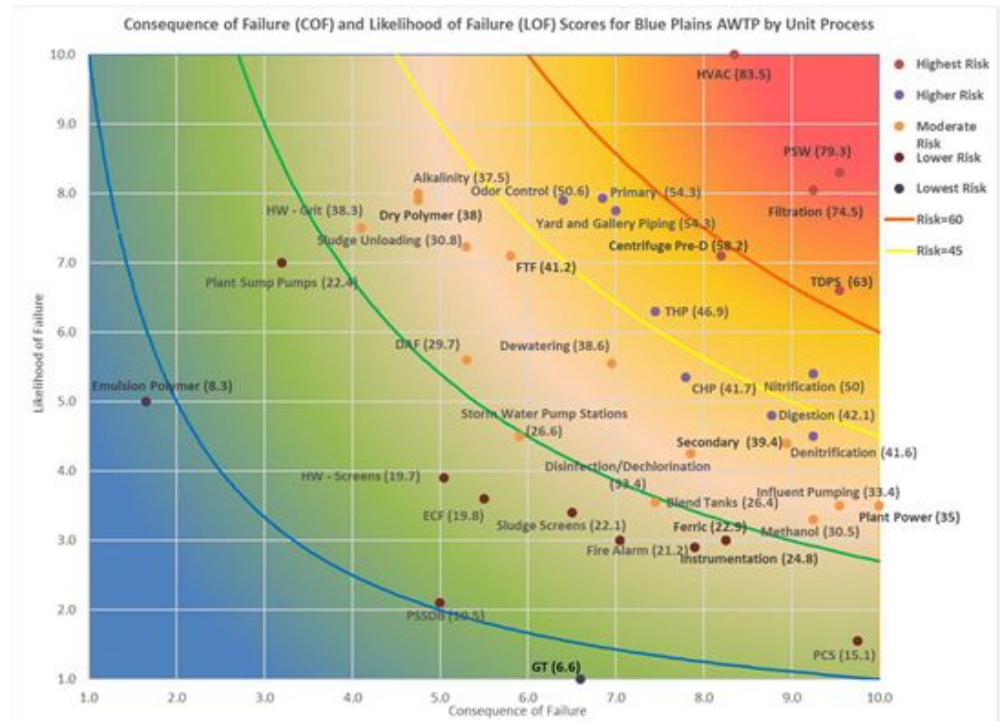




# dc Blue Plains Major Projects – Investments for Reliability

- Asset management best practices
- Project prioritization based on risk ranking
- Rehabilitation and replacement of aging infrastructure
- Data driven decision making

36 Projects Underway this Fiscal Year, 12 in Planning, 11 in Design and 13 in Construction

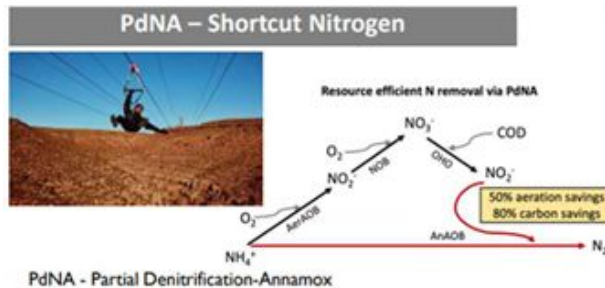






# Investments for Sustainability and Resilience

## Process Intensification – Secondary and Nitrification



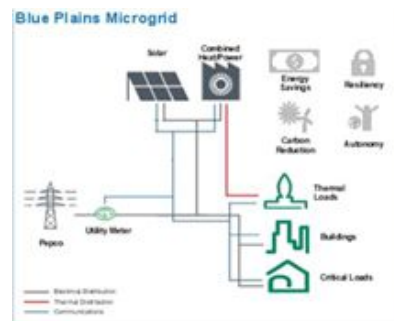
- Innovative research to meet nitrogen discharge permit limit with future load
- Reduced dependence on methanol
- Design complete for PdNA full scale pilot

## Biosolids Curing Pad & Solar Project



- Biosolids Curing Pad to produce cured product and diversify product market.
- Solar Panels to be installed on roof of Curing Pad

## Microgrid Study Project



- Microgrid roadmap study is ongoing
- Roadmap addresses electrical system reliability and resiliency improvements
- Received battery energy storage system (BESS) and potential funding recommendation reports
- Roadmap is expected to be completed by May 2024



# Major Blue Plains Projects

Project Name	10-yr Total
Headworks Electrical Upgrades	\$54M
Headworks Influent and Effluent Structures Rehabilitation	\$17M
Primary Treatment - 20 year Rebuild	\$127M
Effluent Filter Upgrade	\$117M
20 yr Influent Screens Building Upgrade	\$61M
Secondary East and West - 20 year rebuild	\$77M
Long-term Concrete Rehabilitation Projects	\$59M
Control Systems Replacement	\$33M
Electrical Power System Upgrades and Microgrid Studies	\$53M
Biosolids Rehabilitation	\$71M
DAF Facility 20yr Upgrade	\$49M
Secondary Treatment Upgrades for TN	\$48M



### Headworks Electrical Upgrades

- FY 2024 – FY 2026 Planned Disbursements - \$11.9M
- Total Estimated Project Cost - \$70M



### Construction of Flood Seawall Segments A, B & D

- FY 2024 – FY 2026 Planned Disbursements - \$20.2M
- Total Estimated Project Cost - \$32M



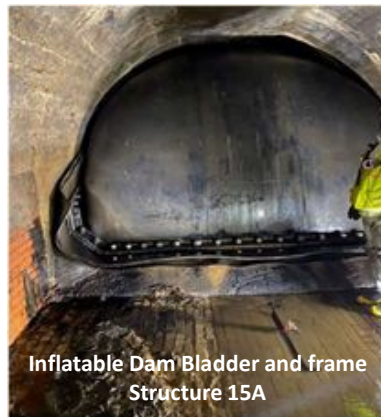
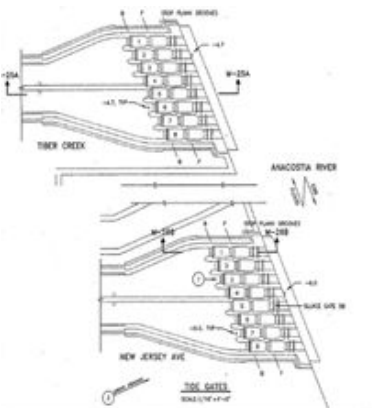
### High and Low Pressure Reclaimed Final Effluent Pumping System Upgrade

- FY 2024 – FY 2026 Planned Disbursements - \$7.9M
- Total Estimated Project Cost - \$23M



# Combined Sewer System and Stormwater Pump Stations (\$105M)

## Combined Sewer System (CSS) \$60M



Inflatable Dam Bladder and frame Structure 15A

- Inflatable Dams at CSS Outfalls.
- Tide Gates rehabilitations.
- Main and O street Pump Station long term upgrades.
- Maintain compliance with consent decree for firm capacity at CSS pump stations
- Address reliability and resiliency for climate change and flood hazards

## 16 Stormwater Pumping Facilities \$45M



New pumps being installed at Portland St PS



Upgraded SCADA Panel at Eastern Ave. PS

- 8 Projects under design or construction to upgrade: Pumps, Electrical, HVAC and code compliance, SCADA, Safety and security.
- 4 projects are partially funded by FEMA grants.



## DC Clean Rivers (\$1.17B)

### Overall increase - \$207M

- Reflects Potomac Tunnel Contract awarded in November 2023
- Market conditions have resulted in significantly higher bid proposals/construction costs for Potomac Tunnel since 2020/2021

### Remaining 10-year Budget

- Anacostia LTCP Projects (\$30.8M)
- Potomac LTCP Projects (\$995.6M)
- Rock Creek LTCP Projects (\$143.4M)







# DC Clean Rivers continued

## Projects in Construction:

Div PRT-B, Potomac River Tunnel (NTP 11/9/2023)

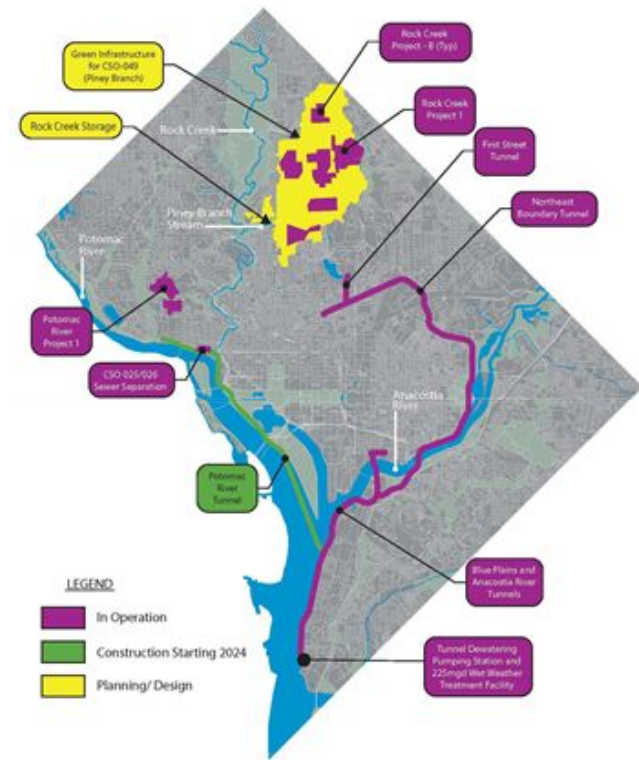
Div J, Northeast Boundary Tunnel (Site Restoration)

## Upcoming Projects:

Div RC-C, Green Infrastructure (Procurement 2024)

Div RC-T, Piney Branch Tunnel (Procurement 2025)

Div RC-D, Green Infrastructure (Procurement 2027)







## Sewer and Water Linear Infrastructure

**Goal:** Achieve a balance between asset age and remaining useful life

- Higher replacement rate needed to address historical under investment
- Target value: median remaining service life is 40-60% of expected service life

Replacement or Rehab Rate (Full Replacement/Rehab Duration)	Target Value reached in Year ...	
	Water	Sewer
1% (100 years)	2113	2117*
1.5% (67 Years)	2066*	2073
2.5% (40 Years)	2042	2046

\* Proposed budget includes ramping up to 1.5% and 1% per year, respectively, for small diameter water main and small local sewers

Age (years)	Water	Sewer
Median age	79	89
Expected service life	115	110



# Sanitary Sewer (\$1.86B)

**Overall Increase - \$59M**

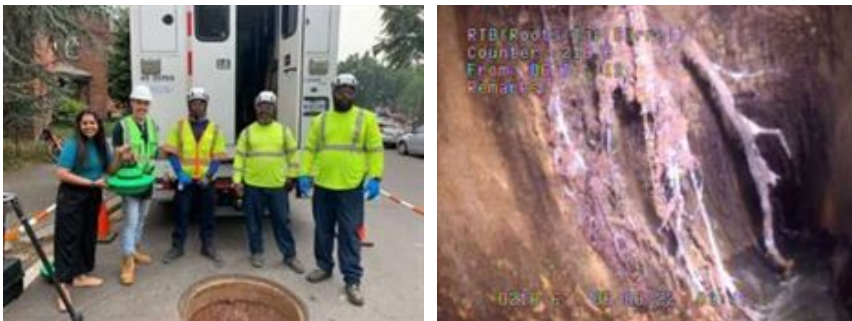
**Sewer Collection System - \$593M**



**Interceptor/Trunk Force Sewers - \$853M**



**Sewer Ongoing - \$207M**



**Sewer Pumping - \$153M**





## Sanitary Sewer System— investment for reliability

### Risk based prioritization incorporating equity considerations

#### Inspections Performed:

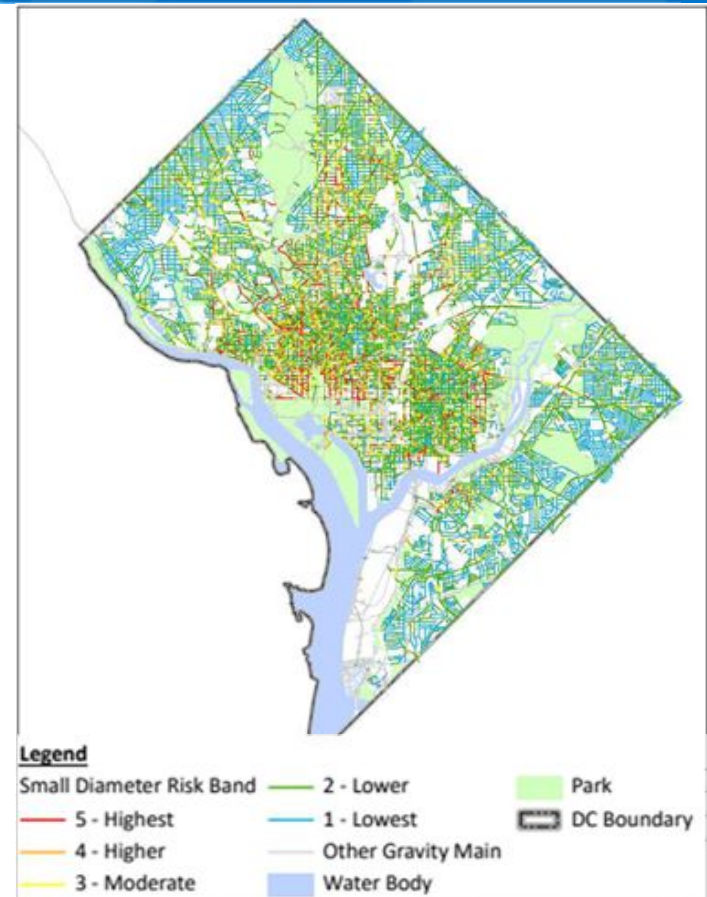
- 35% of system (incl. storm system)
- 48% of the sewer system only

#### Benefits:

- Impacts of performance or physical failure of assets to vulnerable communities are minimized.
- Improve/maintain level of service to customers
- Enhances overall resiliency of the system

#### New Local Sewer Projects

- (Inspection, Assessment, Design, and Rehabilitation) are added in the plan.

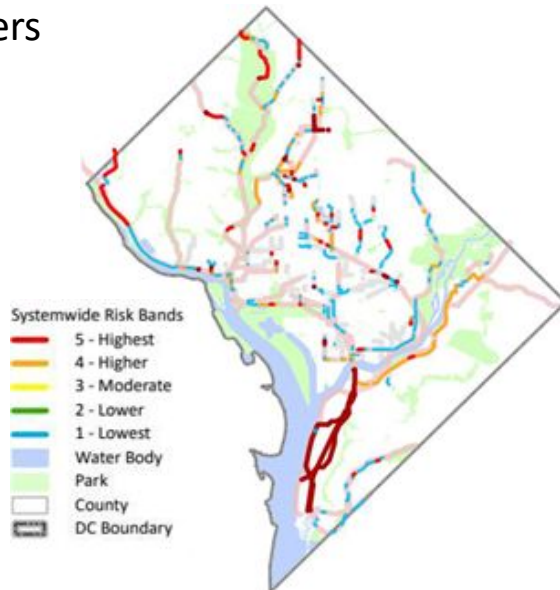




## Sanitary Sewer continued

### Sanitary interceptor/trunk/ force mains sewers

- Rehabilitation of major sewers such as Anacostia Force Main, Potomac Interceptor, Rock Creek Main Interceptor, and others



### New projects added & increased budgets:

- Increase Anacostia Force Main (AFM) Project (\$98 million)
- Increase North and South Interconnecting Branch Sewers Project (\$20 million)
- New Upper Potomac Interceptor Relief Sewer, Little Falls & Anacostia Main Interceptor Projects (\$87 million)

### Address risks:

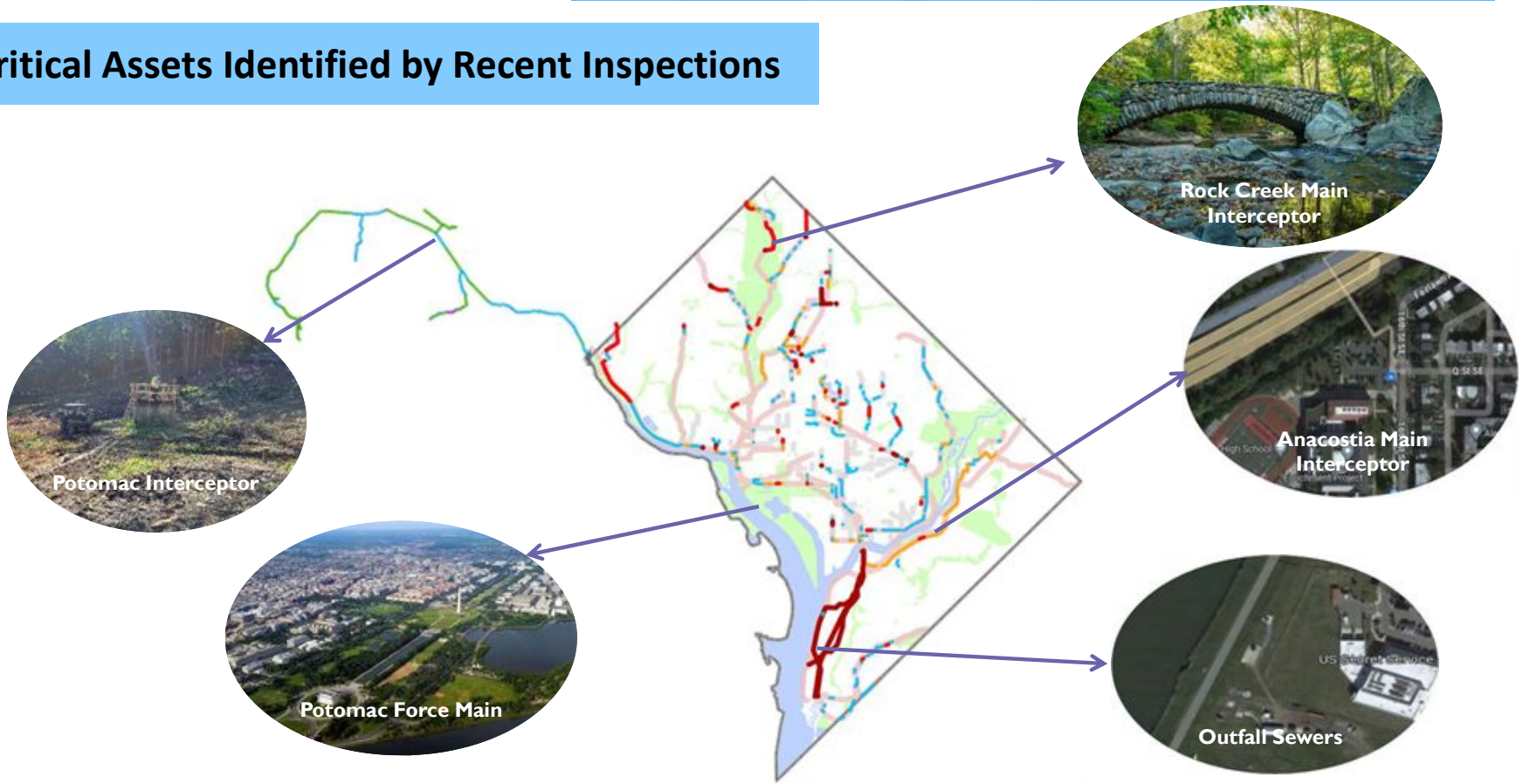
- Discharge of untreated wastewater to the environment
- Interceptors carrying high flows have high consequence of failure impacting large number of customers
- High cost of fixing broken pipes and cleanup
- National Pollutant Discharge Elimination System permit violations





# Sanitary Sewer continued

## Critical Assets Identified by Recent Inspections





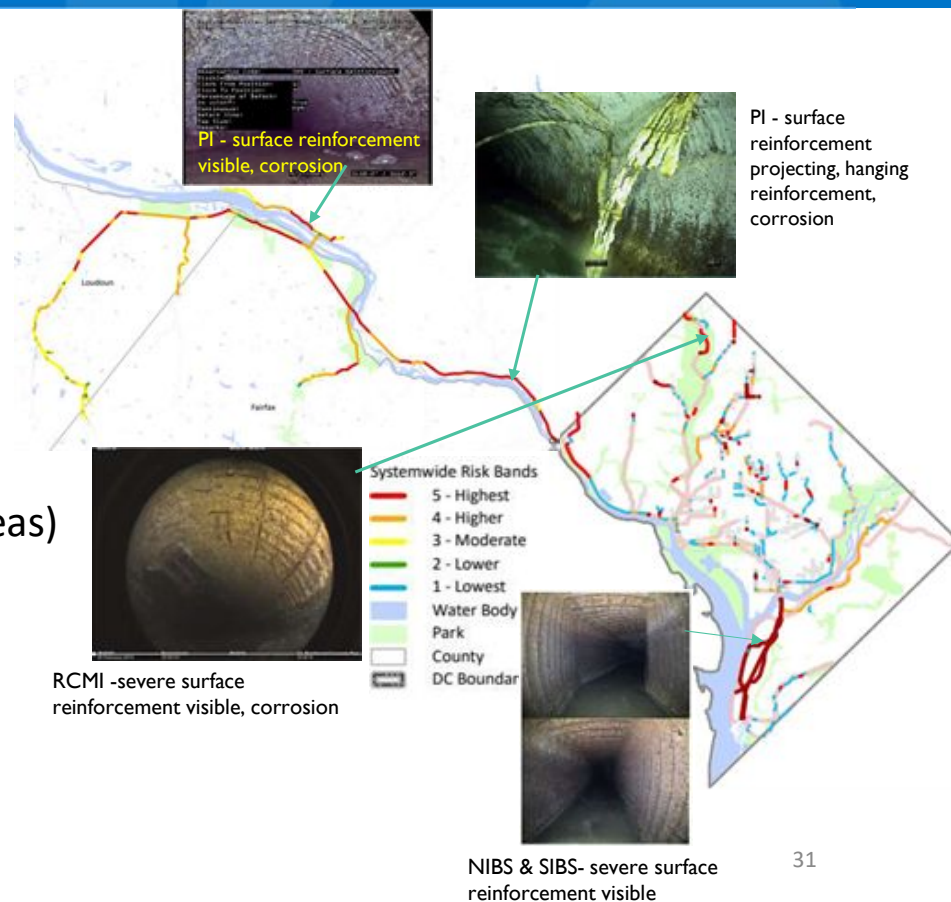


# Sanitary Sewer Continued

## Very large sewers (>=60" diameter)

	Very Large Sewers	PI
Next 5 years	22 miles	5.5 miles
Years 6 to 10	6 miles	3.3 miles
Beyond the next 10 years	10 miles	3.4 miles

- Total grade 4 & 5 pipes is 49 miles
- 37 miles (~30% of system, Includes all grade 5 areas) planned for rehabilitation in the 10 years.
- Challenges
  - Location (parks and sensitive areas)
  - Local community engagement
  - Permitting
  - Access

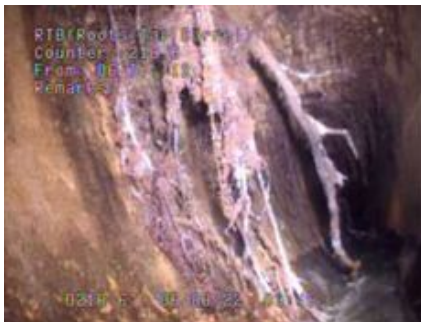




## Sanitary Sewer continued

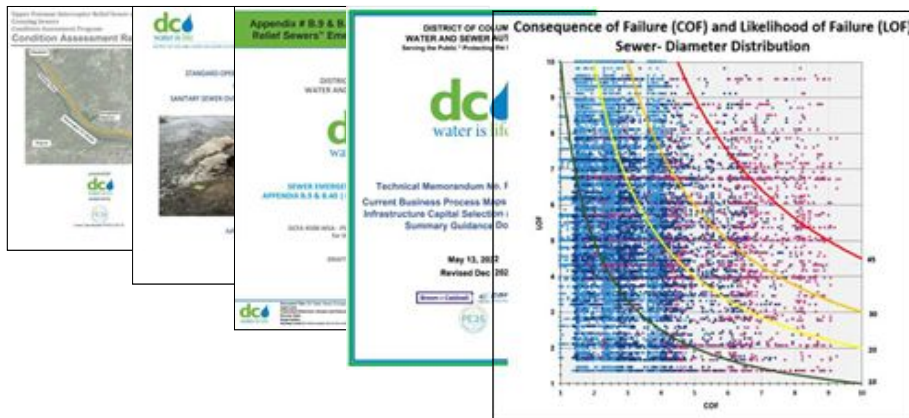
### Sanitary Ongoing \$207M

- Addition of \$78M for new cleanouts
- Inspection of 1,400 miles <12-inch diameter local sewers.
- Cleaning and root control
- Emergency repair of collapsed and broken sewers.



### Sewer Program Engineering Support \$50M

- Staff Augmentation.
- Programmatic Support for: Asset Management, Annual CIP Updates, Creek Bed and MS4 Outfall Program, Third-Party Design Review, Condition Assessment/Inspection Support for Linear assets.
- Prepare Concept Design Reports (CDR)
- Operations support include during sewer emergencies





## Sanitary Sewer continued

### Sanitary Pumping Facilities \$153M

- Maintain compliance with consent decree for firm capacity
- Address reliability and resiliency for climate change and flood hazards
- SCADA, Electrical, Mechanical
- Code Compliance, Safety
- Upgrades for Odor Control systems and HVAC
- Security Upgrades
- Solids handling improvements
- Variable Speed Drives upgrades







# Water (\$2.35B)

**Overall Increase - \$341M**

**Water Distribution System - \$1.15B**



**Lead Free DC - \$732M**



**Water Pumping Facilities - \$48M**



**Water Storage Facilities- \$194M**





# Water – Investment For Reliability

## Risk based prioritization incorporating equity considerations

### Water Service Area - Summary

- Ramp up to 1.5% replacement rate per year for small diameter water mains.
- Anacostia 3rd high Pressure improvements (direct investment benefiting vulnerable communities)
- Upgrades to Interconnections with WSSC water system
- Replacement of distribution mains with Water Quality issues
- Critical Valve Replacement Program based on Operations' needs and Water Main Criticality

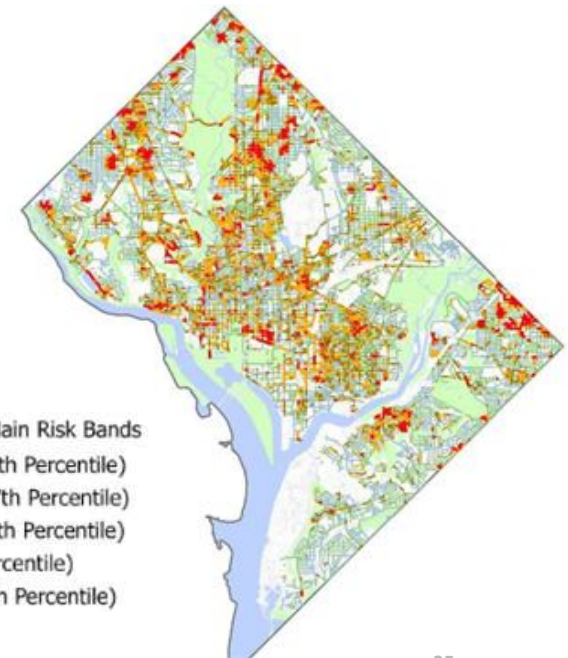
### Benefits:

Impacts of performance or physical failure of assets to vulnerable communities are minimized.

#### Legend

Small Diameter Water Main Risk Bands

- Extreme (98-100th Percentile)
- High (Next 90-97th Percentile)
- Moderate (80-89th Percentile)
- Low (45-79th Percentile)
- Negligible (0-44th Percentile)







## Water continued

### Water Storage Facilities \$193M

- 7 active storage facilities
- 6 storage facilities scheduled for construction or upgrades
- Evaluate new storage facility in 2nd High
- Per the study for Water Supply and storage needs, increase Ft. Stanton Reservoirs Project (\$84 million)
- Many structures have exceeded useful life (50-years). Therefore, these projects are for
  - Regular inspections and upgrades
  - EPA Sanitary Survey requirements





## Water continued

### Water Pumping Facilities \$48M

- Bryant Street PS Spill Header continues construction
- 4<sup>th</sup> High Reno Booster Pump Station
- Anacostia Pump Station Electrical, Mechanical & Instrumentation Upgrades
- Many structures have exceeded useful life (50-years). Therefore, these projects are for regular inspections and upgrades

Figure C.13: Cone Valve – Typical Control Panel



Figure C.14: Cone Valve at P12 – Packing Leak



#### Anacostia Pump Station

Figure C.25: Pump Packing, Typical



Figure C.26: Sump Pump SP-1 and SP-2

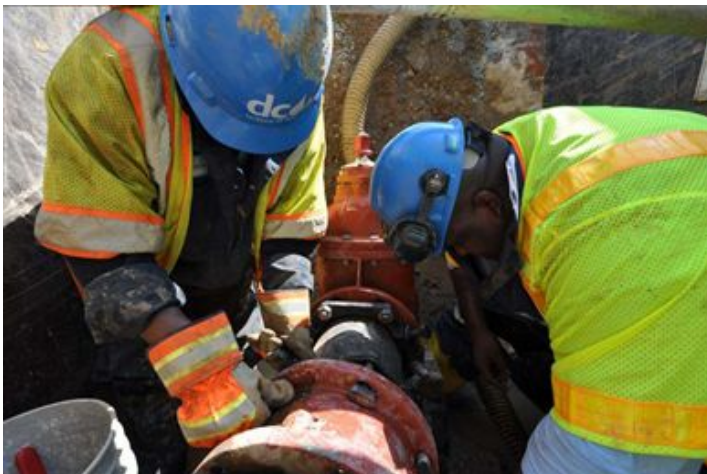




# Water continued

## Water Ongoing \$182M

- Fire hydrant replacement
- Valve replacement
- Replacement of distribution mains with Water Quality issues
- Flushing of the water distribution system
- Repair pipe breaks



## Water Program Engineering Support \$46M

- Asset Management of water mains
- Master Plan / Facilities Plan support
- Water assets feasibility studies
- Planning support, project development for CIP projects
- Provides technical support for planned inspection and condition assessment programs
- Provide subject matter expertise in hydraulic modeling and advise DC Water on additional needs
- Provides staff augmentation
- Provides operations support







## Lead Free DC (\$732M)

### Lead Free DC \$732M

- \$62M forecast spending in FY 2024
- Replace all lead services
- Confirm material of all services and update inventory
- Conduct community outreach
- Promote equity
- Pursue funding sources & grants

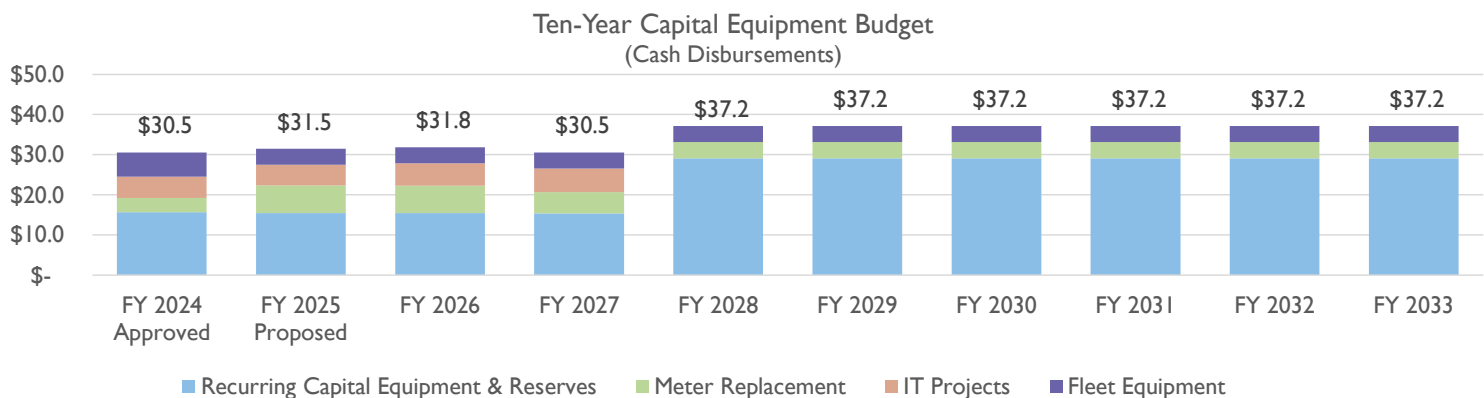




# Capital Equipment

- The Proposed FY 2025 budget is \$31.5 million, a net increase of \$1 million compared to the FY 2024 budget
- Ten-year disbursements of \$347.4 million for capital equipment includes :
  - **Recurring Capital Equipment and Reserves** – This covers the purchase/replacement of pumps, motors, HVACs, roof, renovations, laptops, computers, servers, fire hydrants and includes the Authority-wide reserves for new facilities and unplanned equipment needs
  - **Information Technology (IT) Projects** – Funds new projects and upgrades to various Authority-wide technology systems
  - **Fleet Equipment** – Earmarks funding to ensure that crews have the required equipment such as backhoes, jet-vacs, small and large dump trucks to meet operational needs

\$ millions







# Washington Aqueduct



- DC Water’s share of the Washington Aqueduct (WAD) 10-year capital program budget is \$357.5 million, which includes:
  - The proposed FY 2025 budget is \$35.8 million, which is an increase of \$223.6 thousand compared to the FY 2024 budget
  - Annual CIP estimates for FY 2025 beyond range from \$35.5 to \$35.8 million per year
  - This proposed budget includes funding for projects such as: Dalecarlia filtration building upgrades, renovations, roof replacements, HVAC upgrades, and emerging projects

	FY 2024 - FY 2033 Disbursement Plan											Last Years 10-yr	(Increase)/ Decrease	
	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-yr Total			
WASHINGTON AQUEDUCT	\$35,546,040	\$35,769,600	\$35,769,600	\$35,769,600	\$35,769,600	\$35,769,600	\$35,769,600	\$35,769,600	\$35,769,600	\$35,769,600	\$35,769,600	\$357,472,440	\$338,518,000	(\$18,954,440)



## Risks We Are Monitoring

- Washington Aqueduct Capital Program Uncertainties (PFAS & Future Capital Expenses)
- Stormwater System Performance
  - New MS4 permit requirements and Cost of service study for stormwater is currently underway
- Water Supply (Source & Storage Volume; Reliability and Resilience)
- Unfunded Major Buried Infrastructure Needs
- Regulatory
  - Per- and Polyfluoroalkyl Substances (PFAS) (Water and Biosolids)
  - New National Pollutant Discharge Elimination System (NPDES) Permit
  - New DOEE Odor Control Regulations
  - Sanitary Survey Results due January 2024
- Climate Change – Seawalls, Facility Hardening, CSO Program, Stormwater Capacity
- Anacostia river sediment contamination (PCBs)
- Cured In Place Pipe curing methods



## Opportunities - Optimization and Revenue

- Programmatic Approach to capture Federal and Industry Funding Opportunities
- Blue Plains Process Pilot for Intensification with Granulated Sludge (Increasing sludge density) Technologies to Reduce Cost of Future Capacity
- Blue Plains PdNA (Partial Denitrification-Annamox) Pilot to Reduce Cost and Dependence on Chemicals
- Implement Resource Recovery Options
  - Opportunities for Additional biogas utilization
  - Expansion of Solar Power Generation
  - Heat Recovery Options at Blue Plains / Sewer Heat Recovery for District Heating
- Implement a Microgrid within Blue Plains - Optimal Renewable Energy Distribution
- Diversify Bloom Products Marketing and storage for optimum sales
- CIP execution Improvements – Move from Design Bid Build to Collaborative Delivery and Project Consolidation.

Environmental Quality and Operations Committee - V. Ten-Year FY24 to FY33 Proposed CIP Budget (David Parker and Matthew Brown)

	FY 2024 - FY 2033 Disbursement Plan										10-yr Total	Last Years 10-yr	(Increase/ Decrease)	Lifetime Budget
	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033				
<b>NON PROCESS FACILITIES</b>														
Facility Land Use	\$13,074,148	\$19,899,722	\$25,189,941	\$27,460,830	\$17,774,560	\$35,413,360	\$23,100,090	\$13,282,590	\$14,977,360	\$7,345,430	\$197,518,032	\$141,245,733	(\$56,272,299)	\$362,044,066
	<b>\$13,074,148</b>	<b>\$19,899,722</b>	<b>\$25,189,941</b>	<b>\$27,460,830</b>	<b>\$17,774,560</b>	<b>\$35,413,360</b>	<b>\$23,100,090</b>	<b>\$13,282,590</b>	<b>\$14,977,360</b>	<b>\$7,345,430</b>	<b>\$197,518,032</b>	<b>\$141,245,733</b>	<b>(\$56,272,299)</b>	<b>\$362,044,066</b>
<b>WASTEWATER TREATMENT</b>														
Liquid Processing	\$31,048,728	\$37,484,373	\$62,214,984	\$82,863,496	\$90,298,000	\$109,684,150	\$99,566,930	\$106,730,770	\$64,331,770	\$59,904,400	\$744,127,601	\$625,265,688	(\$118,861,913)	\$1,383,302,353
Plantwide	\$21,440,084	\$35,956,649	\$43,146,688	\$49,890,832	\$43,836,600	\$45,110,650	\$27,192,330	\$18,601,890	\$3,488,790	\$3,152,650	\$291,817,163	\$301,808,762	\$9,991,599	\$542,511,511
Solids Processing	\$11,166,208	\$28,652,274	\$27,041,176	\$10,790,136	\$29,141,904	\$31,597,830	\$34,274,930	\$38,154,170	\$23,316,940	\$11,608,670	\$245,744,238	\$203,857,210	(\$41,887,028)	\$985,127,586
Enhanced Nitrogen Removal Facilities	\$1,495,382	\$1,198,170	\$1,084,272	\$2,598,760	\$1,324,256	\$8,244,470	\$24,198,440	\$11,320,200	\$449,580	\$0	\$51,913,531	\$49,948,854	(\$1,964,676)	\$437,837,932
	<b>\$65,150,402</b>	<b>\$103,291,467</b>	<b>\$133,487,120</b>	<b>\$146,143,224</b>	<b>\$164,600,760</b>	<b>\$194,637,100</b>	<b>\$185,232,630</b>	<b>\$174,807,030</b>	<b>\$91,587,080</b>	<b>\$74,665,720</b>	<b>\$1,333,602,533</b>	<b>\$1,180,880,515</b>	<b>(\$152,722,018)</b>	<b>\$3,348,779,382</b>
<b>COMBINED SEWER OVERFLOW</b>														
DC Clean Rivers Program	\$118,913,096	\$204,033,452	\$220,390,158	\$212,583,113	\$189,056,663	\$147,147,462	\$77,719,333	\$0	\$0	\$0	\$1,169,843,276	\$962,607,417	(\$207,235,859)	\$3,266,221,697
Combined Sewer Overflow Program	\$4,879,708	\$9,374,524	\$10,932,822	\$4,031,919	\$4,693,032	\$7,652,799	\$14,643,837	\$4,040,802	\$0	\$0	\$60,249,443	\$100,267,378	\$40,017,935	\$164,526,690
	<b>\$123,792,803</b>	<b>\$213,407,976</b>	<b>\$231,322,980</b>	<b>\$216,615,032</b>	<b>\$193,749,695</b>	<b>\$154,800,261</b>	<b>\$92,363,170</b>	<b>\$4,040,802</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,230,092,719</b>	<b>\$1,062,874,795</b>	<b>(\$167,217,924)</b>	<b>\$3,430,748,387</b>
<b>STORMWATER</b>														
Storm Local Drainage Program	\$491,379	\$3,461,292	\$2,886,366	\$430,646	\$424,035	\$226,443	\$264,562	\$302,681	\$324,394	\$302,681	\$9,114,479	\$10,920,503	\$1,806,024	\$38,639,859
Storm On-Going Program	\$224,568	\$574,996	\$642,534	\$846,220	\$1,083,740	\$1,287,260	\$935,100	\$500,000	\$500,000	\$500,000	\$7,094,418	\$7,566,163	\$471,745	\$11,553,151
Storm Pumping Facilities	\$4,847,323	\$8,068,698	\$2,692,739	\$1,050,183	\$3,024,225	\$1,754,650	\$5,497,260	\$8,490,700	\$5,507,390	\$3,747,260	\$44,680,428	\$46,083,172	\$1,402,744	\$64,226,628
Stormwater Program Management	\$1,287,865	\$851,352	\$337,770	\$0	\$0	\$0	\$0	\$138,240	\$439,760	\$680,880	\$3,735,867	\$3,242,574	(\$493,293)	\$13,678,204
Stormwater Trunk/Force Sewers	\$441,724	\$608,525	\$1,398,672	\$1,477,017	\$0	\$0	\$0	\$0	\$0	\$0	\$3,925,938	\$4,428,226	\$502,288	\$28,976,732
	<b>\$7,292,860</b>	<b>\$13,564,862</b>	<b>\$7,958,081</b>	<b>\$3,804,066</b>	<b>\$4,532,000</b>	<b>\$3,268,353</b>	<b>\$6,696,922</b>	<b>\$9,431,621</b>	<b>\$6,771,544</b>	<b>\$5,230,821</b>	<b>\$68,551,129</b>	<b>\$72,240,638</b>	<b>\$3,689,509</b>	<b>\$157,074,574</b>
<b>SANITARY SEWER</b>														
Sanitary Collection System	\$6,087,171	\$26,323,390	\$36,509,534	\$26,783,380	\$35,728,446	\$108,246,910	\$82,941,630	\$61,528,530	\$113,098,870	\$95,611,860	\$592,859,721	\$491,829,019	(\$101,030,702)	\$774,096,236
Sanitary On-Going Projects	\$13,397,969	\$14,489,438	\$13,643,343	\$13,383,880	\$16,037,200	\$29,818,230	\$26,474,270	\$26,465,890	\$26,963,810	\$26,176,970	\$206,851,000	\$155,609,676	(\$51,241,324)	\$292,096,297
Sanitary Pumping Facilities	\$3,639,346	\$7,259,350	\$9,040,344	\$5,374,521	\$9,016,038	\$18,035,170	\$20,116,590	\$20,951,460	\$32,230,670	\$27,351,080	\$153,014,569	\$201,000,160	\$47,985,591	\$236,064,444
Sanitary Program Management	\$7,495,225	\$3,382,364	\$5,193,600	\$7,889,814	\$10,130,481	\$9,192,210	\$6,269,290	\$748,620	\$0	\$0	\$50,301,604	\$77,312,817	\$27,011,213	\$171,900,257
Interceptor/Trunk Force Sewers	\$49,979,621	\$40,780,436	\$59,467,004	\$65,207,396	\$98,125,320	\$122,523,184	\$113,669,300	\$118,076,130	\$97,018,750	\$87,705,880	\$852,553,020	\$870,364,234	\$17,811,215	\$1,423,347,320
	<b>\$80,599,332</b>	<b>\$92,234,977</b>	<b>\$123,853,825</b>	<b>\$118,638,991</b>	<b>\$169,037,485</b>	<b>\$287,815,704</b>	<b>\$249,471,080</b>	<b>\$227,770,630</b>	<b>\$269,312,100</b>	<b>\$236,845,790</b>	<b>\$1,855,579,913</b>	<b>\$1,796,115,906</b>	<b>(\$59,464,007)</b>	<b>\$2,897,504,554</b>
<b>WATER</b>														
Water Distribution Systems	\$59,596,455	\$99,259,710	\$117,420,426	\$96,830,370	\$106,484,688	\$113,946,380	\$130,215,120	\$133,780,750	\$141,443,600	\$152,827,460	\$1,151,804,959	\$1,033,288,738	(\$118,516,220)	\$2,152,848,712
Lead Free DC Program	\$62,338,564	\$83,332,632	\$93,925,392	\$98,920,812	\$99,443,200	\$101,674,367	\$104,866,870	\$42,753,261	\$22,166,058	\$22,166,058	\$731,587,214	\$611,671,598	(\$119,915,616)	\$1,827,131,910
Water On-Going Projects	\$14,106,682	\$15,339,404	\$15,041,104	\$16,157,640	\$15,132,392	\$20,691,000	\$21,601,000	\$20,878,810	\$22,622,770	\$20,403,590	\$181,974,392	\$194,234,952	\$12,260,560	\$280,813,438
Water Pumping Facilities	\$6,276,940	\$8,130,624	\$8,562,160	\$6,142,860	\$7,451,730	\$5,688,940	\$3,625,010	\$1,785,530	\$0	\$0	\$47,663,793	\$57,295,042	\$9,631,249	\$84,432,273
Water Storage Facilities	\$7,461,655	\$5,812,826	\$7,836,632	\$21,093,345	\$31,911,237	\$26,562,030	\$18,875,870	\$8,037,130	\$33,647,710	\$32,582,080	\$193,820,515	\$59,898,591	(\$133,921,925)	\$306,733,553
Water Service Program Management	\$8,955,788	\$10,618,571	\$9,608,800	\$11,132,559	\$5,833,053	\$28,750	\$0	\$0	\$0	\$0	\$46,177,521	\$55,412,240	\$9,234,719	\$86,144,167
	<b>\$158,736,084</b>	<b>\$222,493,766</b>	<b>\$252,394,514</b>	<b>\$250,277,586</b>	<b>\$266,256,300</b>	<b>\$268,591,467</b>	<b>\$279,183,870</b>	<b>\$207,235,481</b>	<b>\$219,880,138</b>	<b>\$227,979,188</b>	<b>\$2,353,028,393</b>	<b>\$2,011,801,161</b>	<b>-\$341,227,232</b>	<b>\$4,738,104,052</b>
<b>CAPITAL PROJECTS</b>														
METER REPLACEMENT	\$3,598,042	\$6,944,106	\$6,829,280	\$5,233,416	\$4,067,184	\$4,067,184	\$4,067,184	\$4,067,184	\$4,067,184	\$4,067,184	\$47,007,950	\$37,831,067	(\$9,176,883)	\$47,007,950
ERP System (Project Zeus)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$350,000	\$350,000	\$0
CAPITAL EQUIPMENT	\$26,937,000	\$24,532,395	\$25,009,725	\$25,289,725	\$33,102,229	\$33,102,229	\$33,102,229	\$33,102,229	\$33,102,229	\$33,102,229	\$300,382,217	\$309,209,100	\$8,826,883	\$300,382,217
WASHINGTON AQUEDUCT	\$35,546,040	\$35,769,600	\$35,769,600	\$35,769,600	\$35,769,600	\$35,769,600	\$35,769,600	\$35,769,600	\$35,769,600	\$35,769,600	\$357,472,440	\$338,518,000	(\$18,954,440)	\$357,472,440
	<b>\$66,081,082</b>	<b>\$67,246,101</b>	<b>\$67,608,605</b>	<b>\$66,292,741</b>	<b>\$72,939,013</b>	<b>\$72,939,013</b>	<b>\$72,939,013</b>	<b>\$72,939,013</b>	<b>\$72,939,013</b>	<b>\$72,939,013</b>	<b>\$704,862,607</b>	<b>\$685,908,167</b>	<b>-\$18,954,440</b>	<b>\$704,862,607</b>
<b>LABOR</b>														
<b>TOTAL CAPITAL BUDGETS</b>	<b>\$514,726,712</b>	<b>\$732,138,870</b>	<b>\$841,815,066</b>	<b>\$829,232,469</b>	<b>\$888,889,813</b>	<b>\$1,017,465,258</b>	<b>\$908,986,776</b>	<b>\$709,507,167</b>	<b>\$675,467,235</b>	<b>\$625,005,962</b>	<b>\$7,743,235,326</b>	<b>\$6,951,066,916</b>	<b>(\$792,168,410)</b>	<b>16,082,284,099</b>
Prior Year Board Approved CIP	\$604,670,700	\$784,063,681	\$838,249,154	\$859,187,756	\$892,646,051	\$841,454,213	\$677,036,073	\$507,646,685	\$444,676,243	\$0	\$6,951,066,916			
Delta (inc)/dec	\$89,943,988	\$51,924,811	(\$3,565,912)	\$29,955,287	\$3,756,238	(\$176,011,045)	(\$231,950,703)	(\$201,860,482)	(\$230,790,992)	(\$625,005,962)	(\$792,168,410)			44