

### **Budget Calendar**

	Timeline	Activity	Status
	January 13	Budget Workshop with Board of Directors	
		Stakeholder Briefings, Committee Discussions & Reviews	
<	January 16	Environmental Quality & Operations	
	January 22	Wholesale Customer Briefing	
	January 24	Office of People's Counsel Briefing	
	January 28	Joint DC Retail Water & Sewer Rates and Finance & Budget Committee	
	February 6	Board Meeting (No Board Action Required)	
		Committee Reviews, Recommendations & Actions	
	February 20	Environmental Quality & Operations	
	February 28	DC Retail Water & Sewer Rates	
	February 28	Finance & Budget	
	March 6	Board Adoption of Budgets	
	April	Submit Budget via the District to U.S. Congress	
	October 1	Fiscal Year 2026 Begins	

### **The Proposed FY 2026 Budget**

- Proposed Operating Expenditure Budget of \$838.1 million
  - Operations and Maintenance (O&M) \$468.6 million for personnel and non-personnel
  - Debt Service \$271.5 million and Cash Financed Capital Improvements (CFCI) of \$73.9 million
  - PILOT & ROW payments to the District of \$24.2 million
- Capital Budget of \$913.4 million and 10-year CIP of \$9.62 billion
  - **Capital Projects** \$8.77 billion for mandated projects, Lead Free DC program, rehabilitation of the Potomac Interceptor, equipment upgrades and rehabilitation at Blue Plains, and continued investments in the aging water and sewer infrastructure
  - **Capital Equipment** \$350.8 million equipment including pumps, motors, meters, backhoes, jet-vacs, catch basin trucks and other aged vehicles to meet operational needs
  - Washington Aqueduct (WAD) \$500.8 million for DC Water's share of WAD's capital program
- Proposed Financial Plan
  - Includes previously approved FY 2026 rates and fees
  - Forecasts annual rate adjustments to fund the forecasted operating budget and ten-year CIP
  - Meets Board financial policy requirements



### **The Capital Improvement Program**

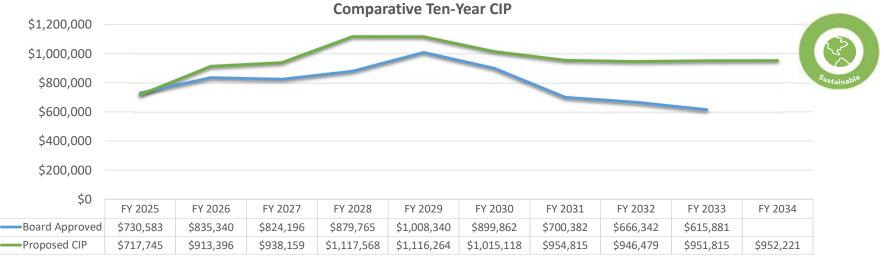
- The **proposed ten-year CIP budget of \$9.62 billion** includes annual spending estimates for capital construction, capital equipment and DC Water's share of the Aqueduct's capital projects
  - This is a \$1.88 billion increase over the Board-approved CIP for the ten-year period
- The **proposed lifetime budget is \$17.8 billion** and covers total commitments, including labor, for active projects prior to, during, and beyond the ten-year window

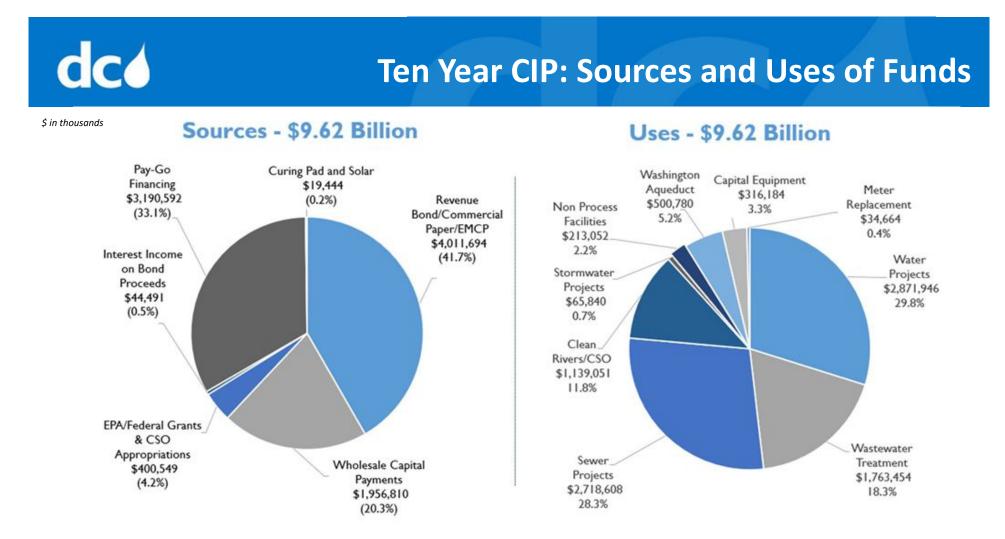
Cash Disbursements (\$000's)			F١	2025 - FY 2034	CAPITAL IM	IPROVEMENT	PROGRAM					Last Year's	(Increase)	Lifetime
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	10-yr Total	l0-yr	Decrease	Budget
NON PROCESS FACILITIES	\$ 18,181	\$ 51,570	\$ 36,149	\$ 16,630	\$ 13,006	\$ 12,169	\$ 16,339	\$ 16,393	\$ 16,616	\$ 16,000	\$ 213,052	\$ 197,518	\$ (15,534)	\$ 414,629
WASTEWATER TREATMENT	68,282	106,353	111,659	195,570	188,694	221,431	222,997	215,925	217,553	214,990	1,763,454	1,333,603	(429,851)	3,871,705
COMBINED SEWER OVERFLOW	223,832	250,386	237,349	197,096	138,525	85,911	5,953	-	-	-	1,139,051	1,230,093	91,042	3,421,865
STORMWATER	8,209	17,360	16,440	6,955	3,540	5,131	1,738	2,311	2,554	1,602	65,840	68,551	2,711	151,699
SANITARY SEWER	146,901	148,796	170,931	345,603	399,157	303,342	301,698	302,597	299,314	300,268	2,718,608	1,855,580	(863,028)	3,745,688
WATER	185,094	270,680	297,810	288,118	300,403	314,195	297,381	300,544	307,069	310,652	2,871,946	2,353,028	(518,918)	4,968,489
CAPITAL PROJECTS	650,499	845,145	870,337	1,049,973	1,043,325	942,179	846,106	837,770	843,106	843,512	8,771,952	7,038,373	(1,733,579)	16,574,075
CAPITAL EQUIPMENT	31,477	32,481	32,052	31,825	37,169	37,169	37,169	37,169	37,169	37,169	350,848	347,390	(3,458)	350,848
WASHINGTON AQUEDUCT	35,770	35,770	35,770	35,770	35,770	35,770	71,540	71,540	71,540	71,540	500,780	357,472	(143,308)	500,780
ADDITIONAL CAPITAL PROJECTS	67,247	68,25 I	67,822	67,595	72,939	72,939	108,709	108,709	108,709	108,709	851,628	704,862	(146,766)	851,628
LABOR														383,495
TOTAL CAPITAL BUDGETS	\$ 717,745	\$ 913,396	\$ 938,159	\$ 1,117,568	\$ 1,116,264	\$ 1,015,118	\$ 954,815	\$ 946,479	\$951,815	\$ 952,221	\$ 9,623,580	\$7,743,235	\$(1,880,345)	\$17,809,199
Board Approved 10yr- CIP	732,139	841,815	829,232	888,890	1,017,465	908,987	709,507	675,467	625,006		7,743,235			
Delta (inc)/dec	14,394	(71,581)	(108,927)	(228,678)	(98,799)	(106,131)	(245,308)	(271,012)	(326,809)	(437,494)	(1,880,345)			

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### **Comparative CIP by Year**

- The proposed ten-year CIP budget of \$9.6 billion reflects management's commitment to continue to invest in our aging water and sewer infrastructure after the completion of the mandated Clean Rivers program in 2030
- The chart below shows a sustainable CIP with projected annual spending trends that is consistent with the rate sustainability goals outlined in the Blueprint 2.0 and DC Water's rate-setting policies requiring "reliable" revenues





Acronyms: Environmental Protection Agency (EPA); Combined Sewer Overflow (CSO); Extendable Municipal Commercial Paper (EMCP)



## Proposed CIP



### **DC Water** Budget Overview

FY2025-2034 Proposed Capital Investments of \$9.6 billion



Ramps up to 1% rehabilitation for small/local sewer lines per year and invests in high risk trunk sewers.

LEAD



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



Blue Plains \$1.76 billion

Funds rehabilitation and upgrades including Filters, Primary treatment, and process innovations.



PROJECT requirements

dceclean \$1.07 billion RIVERS Fully funds DC Water Clean Rivers projects to meet Consent Decree



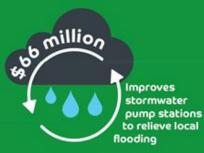
Invests in the Aqueduct's capital infrastructure



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



**Renovates Non-Process** Facilities including at Blue Plains, Main Pump Station, and Bryant Street Pump Station.



## The 10-Year \$9.62 billion 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 \$1.1 billion for the Lead-Free DC program
- Funds more than 150 miles of small diameter water main replacement
- Invests \$4.5 billion in the aging water and sewer system infrastructure including full rehabilitation of Potomac Interceptor
- Directs \$1.8 billion for major rehabilitation and upgrades at Blue Plains
- Allocates \$500.8 million for DC Water's share of the Aqueduct's infrastructure program
- Provides \$350.8 million for the purchase/replacement of vehicles, heavyduty equipment, mechanical equipment, operational facilities, meters, office renovations, and IT projects

### **The Proposed Budget**



DCCR Potomac Tunnel Mining Shaft Construction

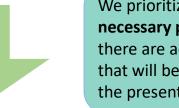
# **dCó** Proposed Changes to 10-year CIP by Service Area

#### Increases

Service Area	Increase	10-yr Total
Non-Process	\$15M	\$213M
Wastewater	\$430M	\$1.8B
Sewer	\$870M	\$2.8B
Water (excluding LFDC)	\$152M	\$1.8B
LFDC	\$367M	\$1.1B

#### Decreases

Service Area	Decrease	10-yr Total
Stormwater	\$3M	\$66M
DCCR (ending 2030)	\$98M	\$1.1B

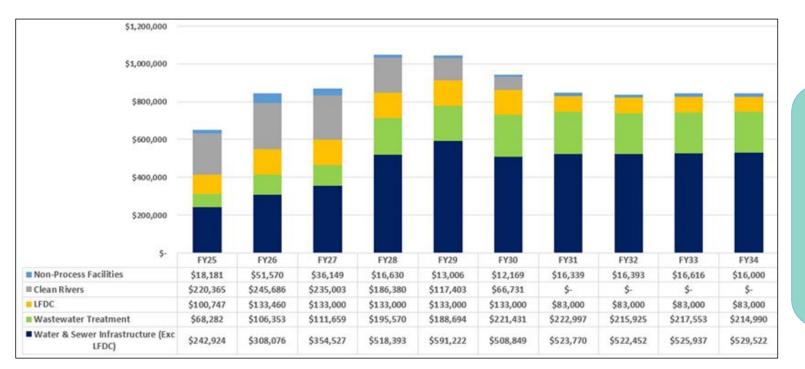


We prioritized and only added **necessary projects** this year, there are additional needs that will be discussed later in the presentation

### **Major Proposed Changes in the 10-Year CIP**

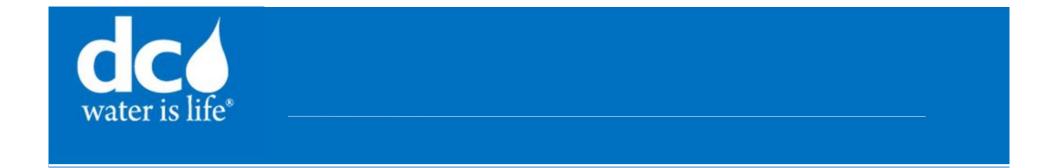
Service Area	Project/Cost Driver	10-Year Increase	Cost Allocation
Lead Free DC Program	Brass	\$220M	DC
Lead Free DC Program	DDOT Permits	\$85M	DC
Wastewater	Odor Control & Second Source	\$429M	DC & Wholesale Customers
Sewer & CSO	Potomac Interceptor	\$441M	Wholesale Customers
Sewer & CSO	Sewer Rehab (IR & R)	\$250M	DC & Wholesale Customers
Sewer & CSO	Small/Local Sewers	\$92M	DC
Water	Water Distribution	\$61M	DC
Water	Water Storage	\$57M	DC
Washington Aqueduct	Future Needs	\$143M	DC

### **Proposed 10-year CIP for Capital Projects**



DCCR spending peaks in FY26/27 and tapers out by 2030

The spending plan for the outer years FY30 and beyond has been levelled out.



## Service Area Details of Proposed CIP

#### Main Pump Station Building Restoration:

\$21.2M upgrade the condition of the architectural, structural, mechanical and electrical systems.



#### Bryant Street Pump Station Envelope Upgrades:

\$21.5M, structural, roof and external envelope rehabilitation and upgrades.



#### **Blue Plains Enhancements:**

**Non-Process Facilities (\$213M)** 

\$4.5M, enhance employee and visitor experience; create space for additional treatment processing capacity.



### **Overall Increase - \$429M**

Liquid Processing - \$1,050M 384 MGD Average; 780 MGD Peak

## Wastewater Blue Plains (\$1.76B)

#### Plantwide - \$402M

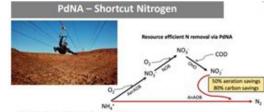


#### Solids Processing - \$309M

#### **Enhanced Nitrogen Removal Facilities - \$0.7M**







PdNA - Partial Denitrification-Annamox



### Blue Plains Major Projects – Investments for Reliability

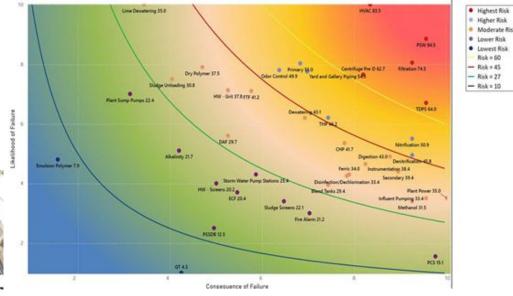
- Asset management best practices
- Project prioritization based on risk ranking
- Rehabilitation and replacement of aging infrastructure
- Data driven decision making

## 38 Projects Underway this Fiscal Year, 8 in Planning, 9 in Design and 21 in Construction





Consequence of Failure (COF) and Likelihood of Failure (LOF) Scores for Blue Plains AWTP by Unit Process

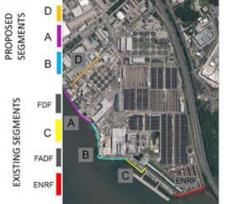


## **Investments for Sustainability and Resilience**

#### **Process Intensification – Secondary and Nitrification**



#### **Flood Wall ABD Project**

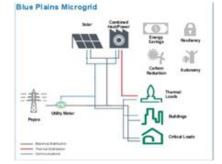


### 

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

### 3,350 LF total

Reviewing statement of qualifications and proposals



**Microgrid Study Project** 

- Microgrid roadmap study completed
- Roadmap provides recommendations for addressing electrical system reliability and resiliency improvements

Project Name	10-yr Total
Headworks Electrical Upgrades	\$72M
Headworks Influent and Effluent Structures Rehabilitation	\$34M
Primary Treatment - 20 year Rebuild	\$140M
Filters Underdrain and Backwash Systems Upgrade	\$144M
20 yr Influent Screens Building Upgrade	\$65M
Secondary East and West - 20 year rebuild	\$96M
Long-term Concrete Rehabilitation Projects	\$68M
Control Systems Replacement	\$37M
Electrical Power System Upgrades and Microgrid Studies	\$26M
Biosolids Rehabilitation	\$80M
DAF Facility 20yr Upgrade	\$50M



#### Headworks Electrical Upgrades

• FY 2025 – FY 2027 Planned Disbursements - \$23M

**Major Blue Plains Projects** 

• Total Estimated Project Cost - \$72M

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

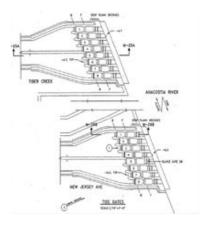
- FY 2025 FY 2027 Planned Disbursements - \$15.6M
- Total Estimated Project Cost \$34M

High and Low Pressure Reclaimed Final Effluent Pumping System Upgrade

- FY 2025 FY 2027 Planned Disbursements - \$3.8M
- Total Estimated Project Cost \$20M

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

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





- 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





- 8 stations under design or construction to upgrades that include: Pumps, Electrical, HVAC and code compliance, SCADA, Safety and security.
- 4 stations are partially funded by FEMA grants.
- Major construction upgrades completed at 2 stations



## Clean Rivers Project and Potomac Interceptor

## Long-Term Control Plan (\$1.07B)

#### Clean Rivers LTCP 10 -year CIP decreased by \$98M

- Remaining 10-year Budget
  - Anacostia LTCP Projects (\$16.8M)
  - Potomac LTCP Projects (\$930.2M)
  - Rock Creek LTCP Projects (\$124.6M)









Aerial View of West Potomac Park (WPP) Construction

## **Long-Term Control Plan - Continued**

#### **Projects in Closeout:**

Div J, Northeast Boundary Tunnel

#### **Projects in Construction:**

Div PRT-B, Potomac River Tunnel

- NTP issued on Nov. 9, 2023
- Consent Decree Place in Operation Date February 9, 2030

#### **Upcoming Projects:**

#### Div RC-C, Green Infrastructure

- Delivery method Construction Manager At Risk (CMAR)
- Preconstruction Services Awarded on September 27, 2024
- Guaranteed Maximum Price (GMP) Amendment February 2025

#### Div RC-T, Piney Branch Tunnel

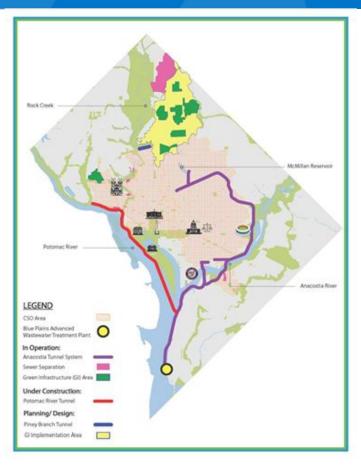
- Delivery method CMAR
- Preconstruction Awarded on November 12, 2024
- GMP Amendment December 2025

#### Div RC-D, Green Infrastructure

Procurement 2027

Acronyms: CMAR – Construction Manager at Risk

GMP – Guaranteed Maximum Price



# 10 -year CIP - \$667M, which is a \$435M increase compared to the Approved Budget

### **High Priority Project**

- PI-00: MH 18 MH 19
  - Completed CCTV
  - Finalizing design repair for 800LF of pipe
  - Developing a procurement approach
  - Repair work scheduled for February/Mar 2025

### **Upcoming Projects**

- PI01: Anglers Inn/Cabin John
  - Delivery method CMAR
  - RFQ/P for CMAR- February 2025
- PDB Projects
  - RFQ/P for PDB Projects July 2025

#### Acronyms:

CCTV – Closed-Circuit Television PDB – Progressive Design Build RFQ/P – Request for Qualifications/Proposal LF – Linear Feet RFP – Request for Proposal

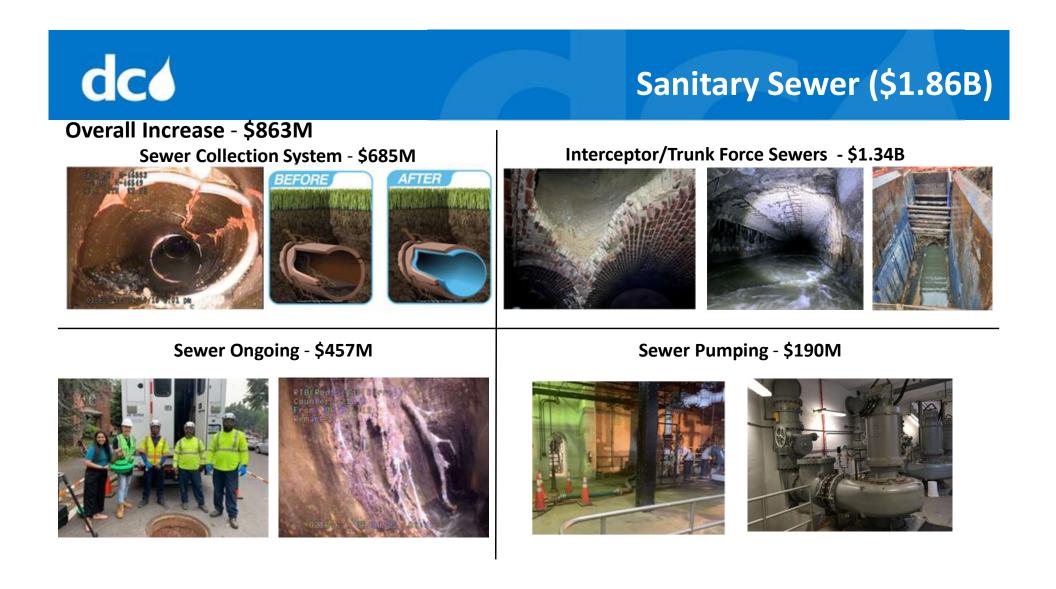
## Potomac Interceptor (~\$667M)



Potomac Interceptor Corrosion Resulting in Loss and Exposure of Reinforcing



## Sanitary Sewer



## Sanitary Sewer System– Investment for Reliability

### **Risk Based Prioritization**

#### **Inspections Performed:**

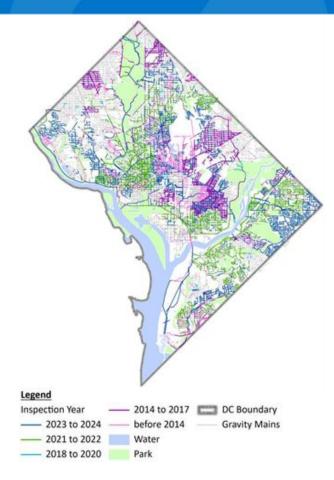
- 42% of entire sewer system Local and Large (incl. storm sewers; excl. DCCR tunnel, UPIRS, and Potomac Interceptor)
- 58% of the combined sewer area and sanitary sewer area (excl. DCCR tunnel, UPIRS, and Potomac Interceptor)

### **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

### **Local Sanitary Sewer Projects**

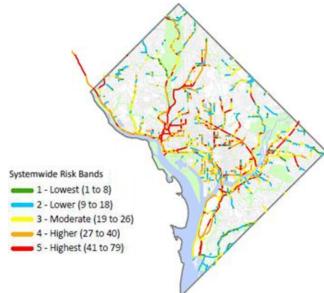
• Current goal is 1% rehabilitation per year prioritized based on results of annual 40 miles of local sewer inspections.



## Sanitary interceptor/trunk/ force mains sewers – current approved budget

38 miles of major sewer rehabilitation

 including Anacostia Main Interceptor, East
 and West Outfall Relief Sewers, and others.
 .



## **Sanitary Sewer continued**

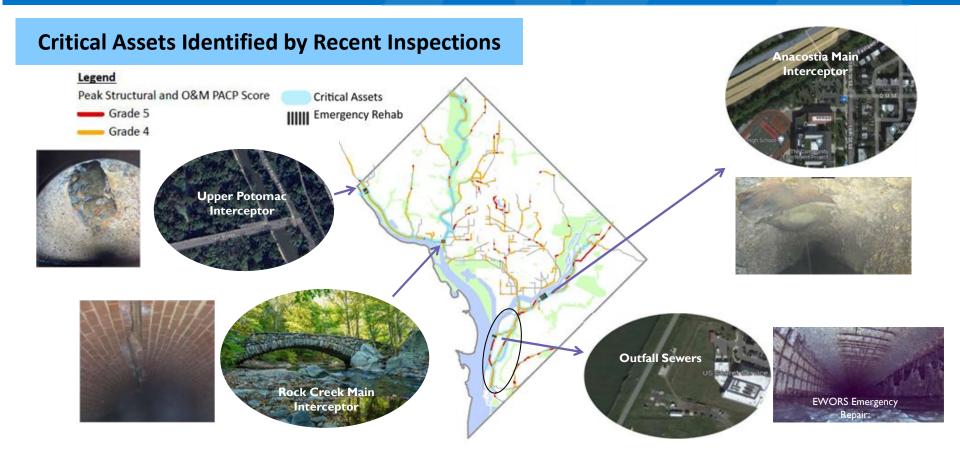
#### New projects added & requested budget increases:

- New Emergency Sewer Rehab funding (\$45 million)
- New Capital Project Allowance under Sanitary On-Going (\$229 million)
- Identification of additional needs is ongoing and will be further addressed in upcoming CIP cycles

### Address risks:

- Provide emergency response contracts
- Discharge of untreated wastewater to the environment
- Interceptors carrying high flows have high consequence of failure impacting large number of customers
- National Pollutant Discharge Elimination System permit violations

### **Sanitary Sewer continued**



### Sanitary Ongoing \$456M

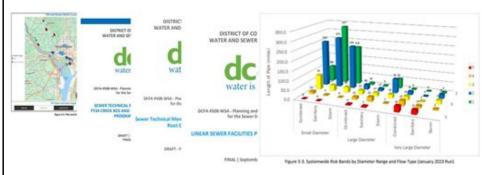
- Cleaning and root control
- Emergency repair of collapsed and broken sewers
- Additional funding for Local sewer rehabilitation from FY31 onwards



### **Sanitary Sewer continued**

#### Sewer Program Engineering Support \$42M

- 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
- Owner's Agent



### Sanitary Pumping Facilities \$190M

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

### **Sanitary Sewer continued**



### Overall Increase - \$519M

Water Distribution System - \$1.21B





Water Pumping Facilities - \$43M







Water (\$2.87B)

Water Storage Facilities- \$251M









#### Water Distribution System Program Area -Summary

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

### Benefits:

Impacts of performance or physical failure of assets to customers are minimized.

## Water – Investment For Reliability

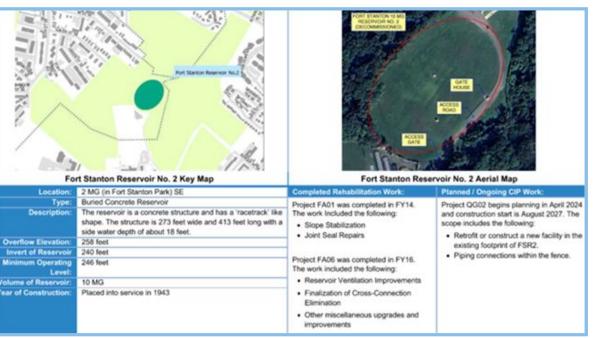


### Water Storage Facilities \$250.9M

- 7 active storage facilities
- 6 storage facilities scheduled for construction or upgrades
- Increase reservoir storage capacity (\$80 million)
- Many structures have exceeded useful life (50-years). Therefore, these projects will address:
  - Regular inspections and upgrades
  - o EPA Sanitary Survey requirements

#### Project QG02: Ft Stanton Reservoir No. 2 Rebuild

Water continued



### Water Pumping Facilities \$43.2M

- Bryant Street PS Spill Header continues construction
- 4<sup>th</sup> High Reno Booster Pump Station
- Anacostia and Ft. Reno Pump Stations Electrical, Mechanical & Instrumentation Upgrades

Anacostia PS



Main findings:

Water continued

Aging and wear of assets

Main activity:

Replace aging systems Inspection and overhaul of pumps

#### Bryant Street PS

Ft. Reno PS



#### Main findings:

- Pump hydraulics, suction heade
- Aging and wear of assets

Main activity:

Replace aging systems



#### Main findings:

- Aging and wear of assets
- Pumps 4, 5, and 6 (Low zone)
- Pumps 7 and 8 (2H zone)

Main activity:

- Replace aging system
- Inspection and overhaul of pumps and casings
- Address Pumps 4, 5, and 6

### Water Ongoing \$183M

- 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 \$84M

Water continued

- Program management and administration
- Enterprise Asset Management
- Delivery of the CIP in the Water Service Area
- Planning, and project development for CIP projects
- Planning and execution of inspection and condition assessment programs for linear and vertical assets
- Digital Transformation
- Secondary water source study
- Staff Augmentation for operations support and coordination
- Provide emergency response support



## Lead Free DC \$1.1B

### Overall Increase \$367M

- \$101M forecast spending in FY 2025
- Replace all lead services
- Confirm material of all services and update inventory
- Conduct community outreach
- Pursue funding sources & grants









# Collaborative Project Delivery

## **Collaborative Project Delivery**



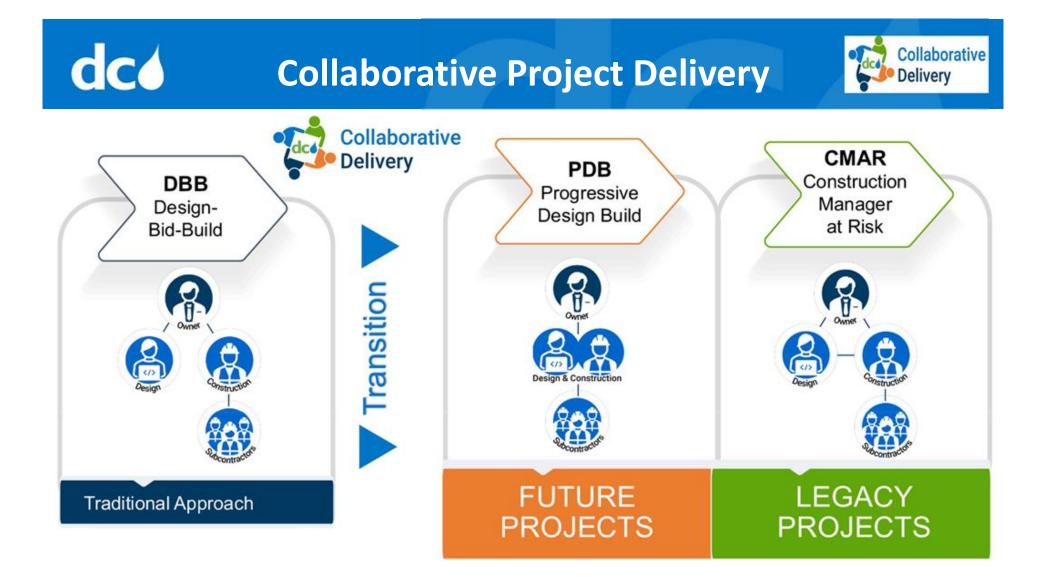
### **Collaborative Delivery as preferred project delivery method**

- Construction Manager at Risk
- Progressive Design-Build

## **Drivers for DC Water**

- Attract high caliber contractors, increase available pool of contractors
- Reduce risks and achieve better project outcomes including quality, schedule, and budget







## **Trained Staff**





#### **Design-Build Institute of America**

(DBIA) principles are driven by the core belief that design-build projects are best executed within the context of an integrated, collaborative team grounded in an atmosphere of mutual trust, transparency, respect, and open, candid communication. 47 DBIA Trained DC Water Staff

>20 DBIA Certified DC Water Staff

## **Project Consolidation**



Project No.	Job Name(s)	Budget
1	Anacostia Pump Station Major Upgrades	\$13.6M
2	Phase 1 Fort Stanton Reservoir #2 Replacement	\$40M
3	Phase 2 Fort Stanton Reservoirs #1	\$20M
4	Bryant Street Pumping Station Improvements Phase III	\$10M
5	Anacostia 3rd High Pressure Zone Improvement	\$41M
6	Anacostia Pump Station Major Upgrades	\$13.6M

One Progressive Design Build Contract – Water Pumping and Storage Reservoirs

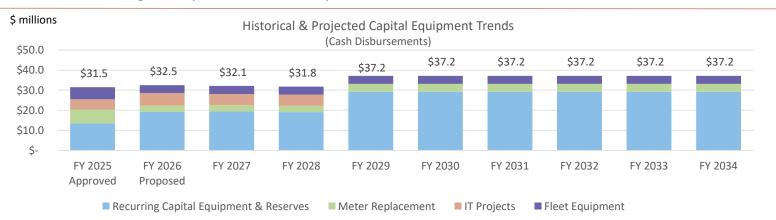
- Streamline procurement timeline.
- Optimize resource management.
- Consider multiple GMPs/Work Packages and independent schedules.
- Flexibility based on material availability, project criticality and permitting challenges.



# The Proposed CIP Cap Equipment and WAD

## **Capital Equipment**

- The Proposed FY 2026 budget is \$32.5 million, a net increase of \$1 million compared to the FY 2025 budget
- Ten-year disbursements of \$350.8 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, jetvacs, small and large dump trucks to meet operational needs





## Washington Aqueduct



- DC Water's share of the Washington Aqueduct (WAD) 10-year capital program budget is \$500.1 million, which includes:
  - The proposed FY 2025 budget is \$35.8 million
  - Annual CIP estimates for FY 2025 beyond range from \$35.5 to \$71.5 million per year
  - This proposed budget includes funding for projects such as: Dalecarlia filtration building upgrades, renovations, roof replacements, HVAC upgrades, and emerging projects

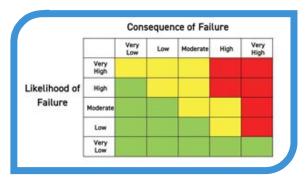
(Cash Disbursements \$ in thousands)	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	10-yr Total
WASHINGTON AQUEDUCT	35,770	35,770	35,770	35,770	35,770	35,770	71,540	71,540	71,540	71,540	500,780



## Needs Beyond the Proposed CIP

## Path to Future: More Sustainable CIP

- Proposed CIP of \$9.6B addresses many of DC Water's critical assets but there is more to do
- Future ten-year CIP will consider needs which may be \$5B to \$10B more than current proposal
  - Rehabilitate large trunk sewers with high consequence of failure
  - Assess and address high risk Large Diameter Water Main defects
  - Address the local sewers backlog 50 years sooner by rehabilitating at 2.5% per year
  - Address small diameter water main backlog 20 years sooner by replacing 27 miles per year vs current 17 miles
- Path Forward: Lay the groundwork for the next year's ten-year CIP budget and two-year rate proposal
  - Continue with condition assessments and collecting operational priorities to further define CIP needs
  - Evaluate customer affordability including required retail rate adjustments and wholesale contributions
  - Confirm inflationary increases are included and Work to identify additional funding sources
  - Deliver presentations throughout 2025 to the various Board Committees and Stakeholders
  - Incorporate findings and feedback into the future (FY26-35) CIP proposal





## **Critical Customers and Aging Infrastructure**









#### High Consequence of Failure

We have an old system serving our residents and government





## **Accelerated Need for Investment**

## We are at Risk – Recent Large Sewer

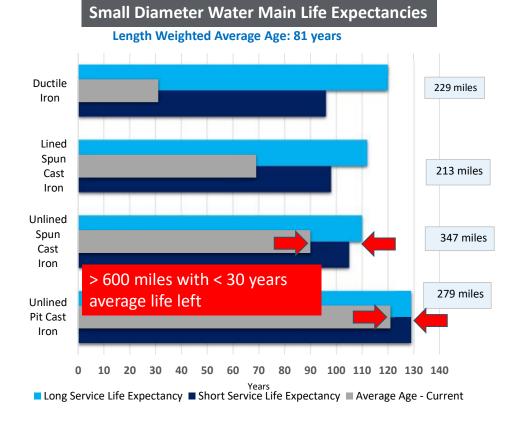
Ellieigencies					
Project Location	Failure (year)	Est. Cost (\$)			
East/West Outfall Relief Sewer	2023	\$25M			
Glover Park	2023	\$1.8M			
Anacostia Main Interceptor	2023	\$10M			
Potomac Interceptor MH-31	2024	\$10M			
NW Boundary Trunk Sewer *Phase 1 repair only	2024	\$2M*			
Tiber Creek Manhole	2024	\$0.8M			



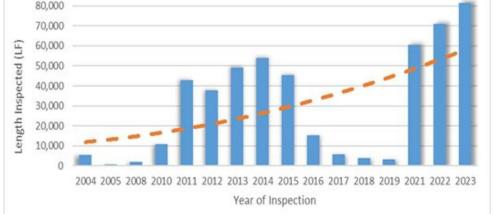


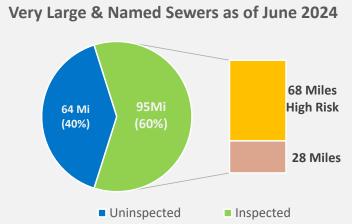
NW Boundary Trunk Sewer

Anacostia Main Interceptor Sinkhole



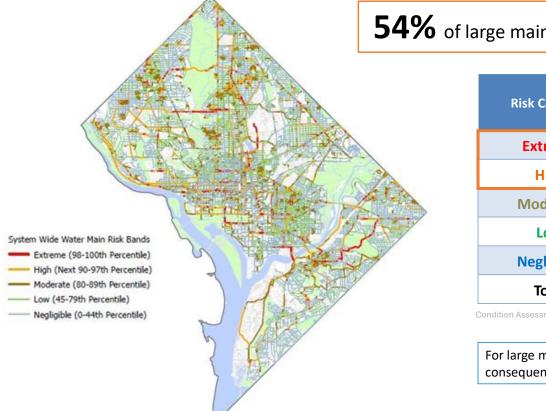
# Large Sewer Risk Assessment Inspection supports rehabilitation and reliability





72% (68 mi) of inspected high-risk assets show signs of corrosion or have very severe defects.

## Large Diameter Water Mains Risk Banding



**54%** of large mains Fall into "Extreme" or "High" Risk

Risk Category	Percent of Large Diameter WMs	FY2023 Large Diameter Mileage
Extreme	18%	41.5
High	36%	81.1
Moderate	32%	71
Low	10%	22.9
Negligible	4%	8.3
Total	100%	224.8

Condition Assessments are not factored into the risk category - except for a small portion of LDWM

For large mains, material, detailed condition results, and consequence of failure are the primary indicators of risk.

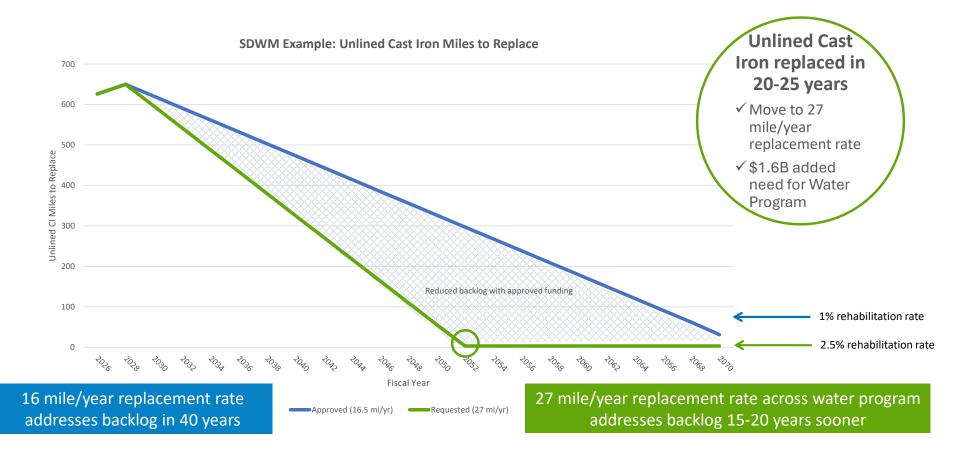
## **Local Sewer Optimal Rehab Rate**



Grade 5 pipe defects by 2097

66

# Achieve a balance between asset age and remaining useful life





# Known and Unknown Risks and Opportunities



#### Risks we are monitoring:

- Regulatory
  - Per- and Polyfluoroalkyl Substances (PFAS) (Water and Biosolids)
  - New National Pollutant Discharge Elimination System (NPDES) Permit
  - New DOEE Odor Control Regulations
- Climate Change Seawalls, Facility Hardening, CSO Program, Stormwater Capacity
- Washington Aqueduct Capital Program Uncertainties (PFAS & Future Capital Expenses)
- Anacostia river sediment contamination (PCBs)

#### **Risk mitigation underway:**

- Water Supply (Source & Storage Volume; Reliability and Resilience)
- Major Linear Infrastructure Needs with high consequence of failure
- New Lead and Copper Rule Improvements
- Cured In Place Pipe curing methods

## **CIP Opportunities - Optimization and Revenue**

- Programmatic Approach to capture Federal and Industry Funding Opportunities
- Blue Plains Process Research and Development:
  - Pilot for Intensification with Granulated Sludge 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 Renewable Natural Gas (RNG)
  - Expansion of Solar Power Generation
  - Heat Recovery Options at Blue Plains / Sewer Heat Recovery for District Heating
- Implement a Microgrid within Blue Plains Optimize Renewable Energy Distribution
- Diversify Bloom Products Marketing and storage for optimum sales
- CIP execution Improvements Move from Design-Bid-Build to Collaborative Delivery