

# *FY23-FY32 CIP Proposed Budget*



# FY23-FY32 Capital Improvement Program (CIP)

## Proposed Budget

### Environmental Quality & Operations Committee

January 19, 2023



David Parker, VP of Engineering



# DC Water Budget Overview

FY2023-2032 Proposed Capital Investments of \$6.95 billion

\$963 million



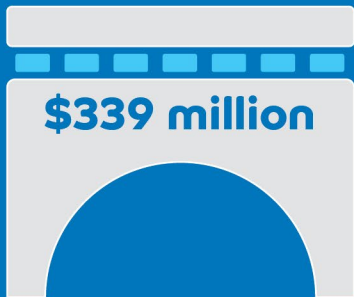
Fully funds DC Clean Rivers projects to meet Consent Decree requirements



\$347 million

Invests in process equipment, specialized vehicles, and information technology infrastructure; establishes funding for the innovation program

Invests in the Aqueduct's capital infrastructure



\$339 million



\$612M

to remove all lead service lines by 2030

Continues investment in Water & Sewer infrastructure



\$1.4 billion

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



\$1.8 billion

Ramps up to 1.0% rehabilitation for small sewer lines per year



\$72 million

Improves stormwater pump stations to relieve local flooding

\$141 million



Constructs the new Fleet and Sewer Facilities, renovates the Historic Main Pump Station, and restores the Main & O campus seawall

\$1.18 billion



Funds rehabilitation and upgrades at Blue Plains



# The Capital Improvement Program

**New CIP requests were proposed** to increase the 10-yr CIP by \$889M.

Collaboration between Engineering, Operations, Finance resulted in **reduced request for \$531M increase**

**The proposed ten-year CIP budget is \$6.95B**, and includes:

- \$616M increase for Water and Sewer Infrastructure
- \$85M increase, to \$338.5M, for the **Washington Aqueduct's** capital projects

(Cash Disbursements \$ in thousands)	FY 2023 - FY 2032 CIP Disbursement Plan (Run 3C)											Approved/ Proposed	Lifetime
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10-yr Total	10-yr Delta	Budget
NON PROCESS FACILITIES	22,104	24,614	25,247	32,462	24,646	3,879	2,293	2,000	2,000	2,000	141,246	39,038	269,010
WASTEWATER TREATMENT	71,907	84,442	117,684	137,739	145,555	143,319	140,299	132,166	123,098	84,671	1,180,881	(33,783)	3,535,160
COMBINED SEWER OVERFLOW	108,031	110,256	148,064	188,379	149,410	157,261	138,385	46,029	12,465	4,593	1,062,875	(154,291)	3,216,072
STORMWATER	7,509	12,839	8,319	7,571	5,837	3,812	4,305	7,162	8,682	6,205	72,241	7,005	216,779
SANITARY SEWER	68,031	118,457	185,109	168,564	222,916	277,735	271,002	222,140	143,246	118,914	1,796,116	433,991	2,727,733
WATER	108,909	188,371	238,506	242,278	247,009	242,826	221,357	203,725	154,341	164,479	2,011,801	182,371	3,572,035
<b>CAPITAL PROJECTS</b>	<b>386,492</b>	<b>538,981</b>	<b>722,930</b>	<b>776,993</b>	<b>795,374</b>	<b>828,832</b>	<b>777,640</b>	<b>613,222</b>	<b>443,833</b>	<b>380,862</b>	<b>6,265,159</b>	<b>474,330</b>	<b>13,536,789</b>
CAPITAL EQUIPMENT	47,421	30,535	31,654	31,776	34,334	34,334	34,334	34,334	34,334	34,334	347,390	(27,912)	347,390
WASHINGTON AQUEDUCT	67,523	35,155	29,480	29,480	29,480	29,480	29,480	29,480	29,480	29,480	338,518	84,750	338,518
<b>ADDITIONAL CAPITAL PROJECTS</b>	<b>114,944</b>	<b>65,690</b>	<b>61,134</b>	<b>61,256</b>	<b>63,814</b>	<b>63,814</b>	<b>63,814</b>	<b>63,814</b>	<b>63,814</b>	<b>63,814</b>	<b>685,909</b>	<b>56,839</b>	<b>685,909</b>
LABOR													404,476
<b>TOTAL CAPITAL BUDGETS</b>	<b>501,437</b>	<b>604,671</b>	<b>784,064</b>	<b>838,249</b>	<b>859,188</b>	<b>892,646</b>	<b>841,454</b>	<b>677,036</b>	<b>507,647</b>	<b>444,676</b>	<b>6,951,067</b>	<b>531,169</b>	<b>14,627,174</b>



# Proposed Changes to 10-year CIP by Service Area

## Program Increases

- Sewer and CSO – increasing by \$434 M to \$1.9 B
- Water (excluding LFDC) – increasing by \$200 M to \$1.4 B
- Non-Process – increasing by \$39 M to \$141 M
- Stormwater – increasing by \$7 M to \$72 M
- Washington Aqueduct – increasing by \$85 M to \$339 M



**Approved 10-yr FY 2022-2031 vs  
Proposed 10-yr FY 2023-2032**

**Overall 8% increase across the  
10-year window**

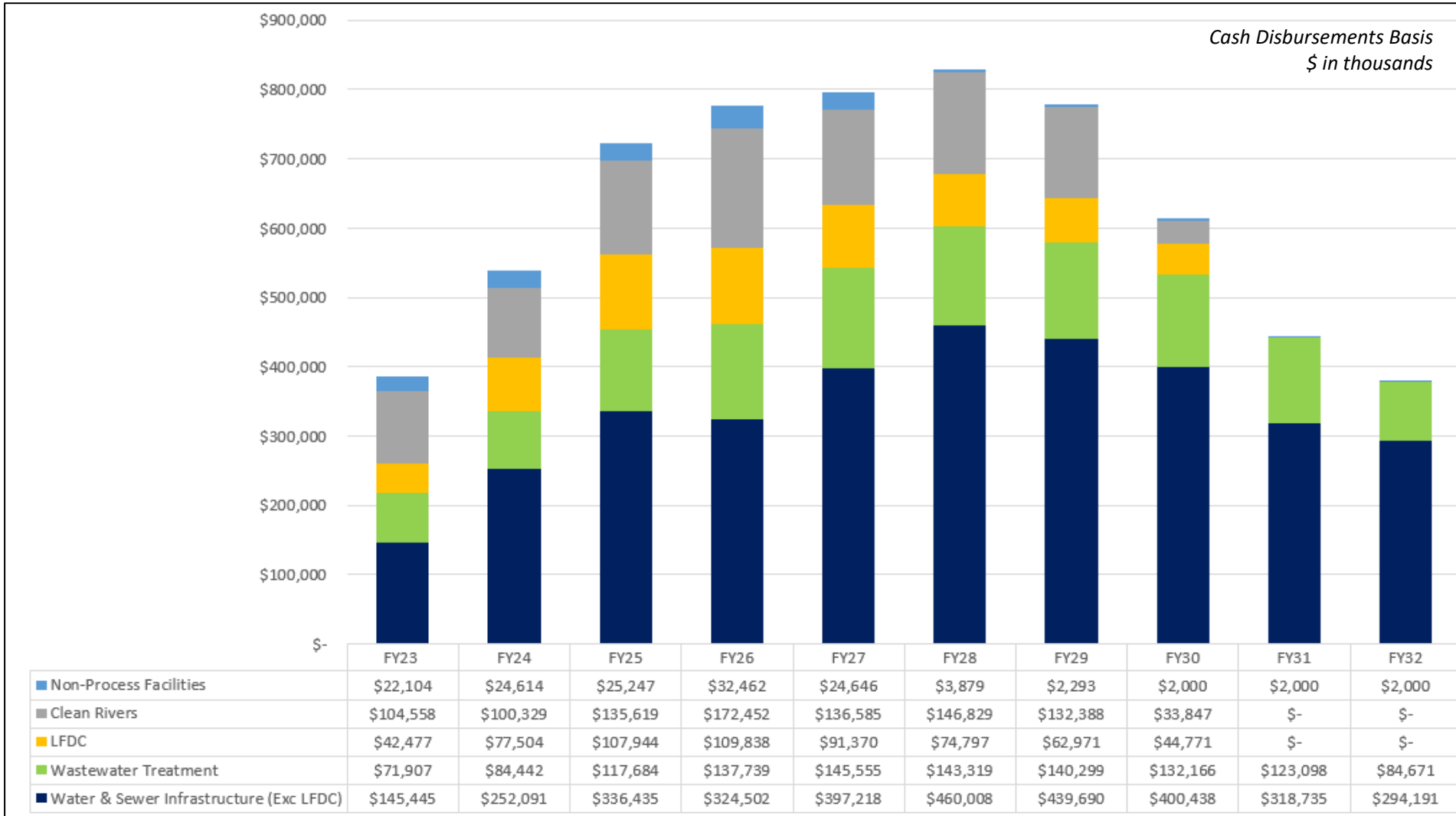
## Program Decreases

- Wastewater – decreasing by \$34 M to \$1.18 B
- DCCR (excluding other CSO) – decreasing by \$154 M to \$963 M
- LFDC – decreasing by \$17 M to \$612 M (\$17 M spent last year)
- Capital Equipment – decreasing by \$28 M to \$347 M



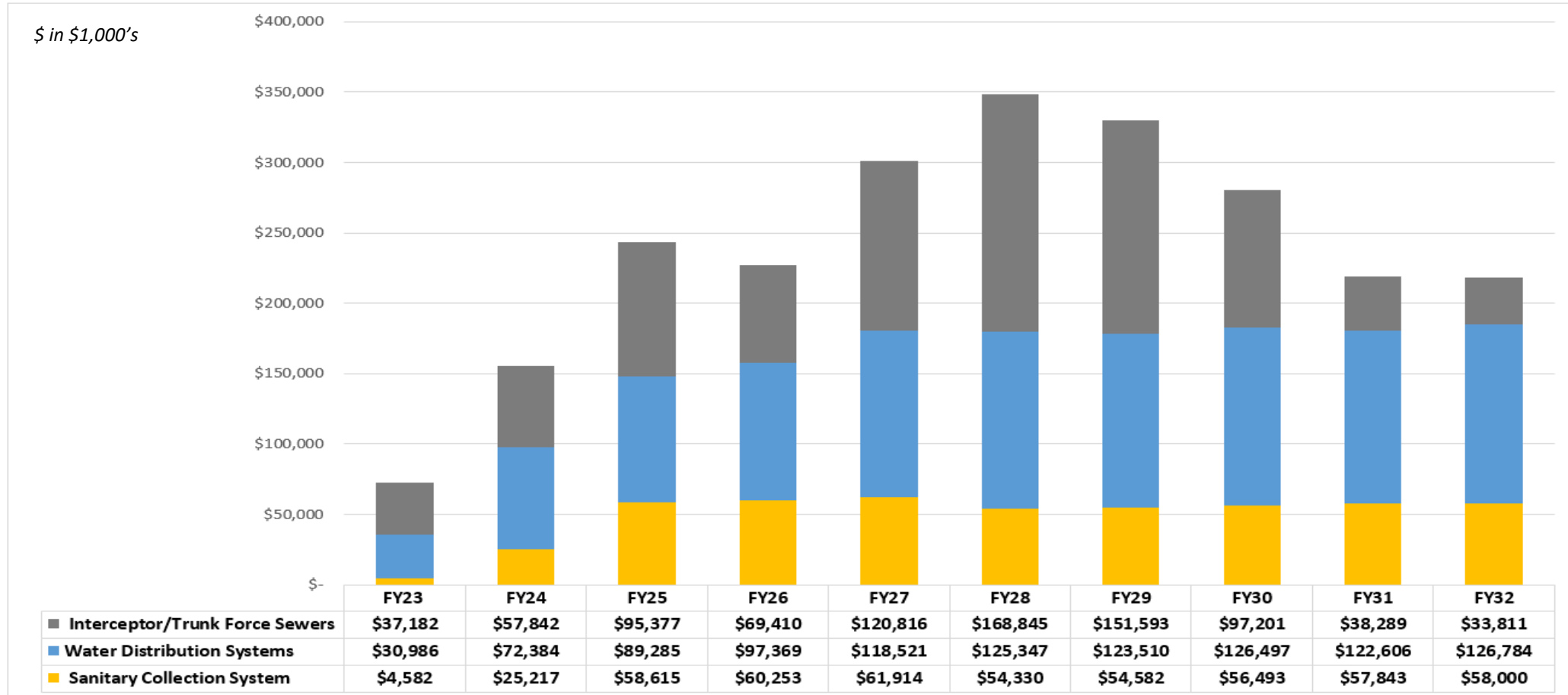


# DC Water 10-Year Capital Projects Spending Projection



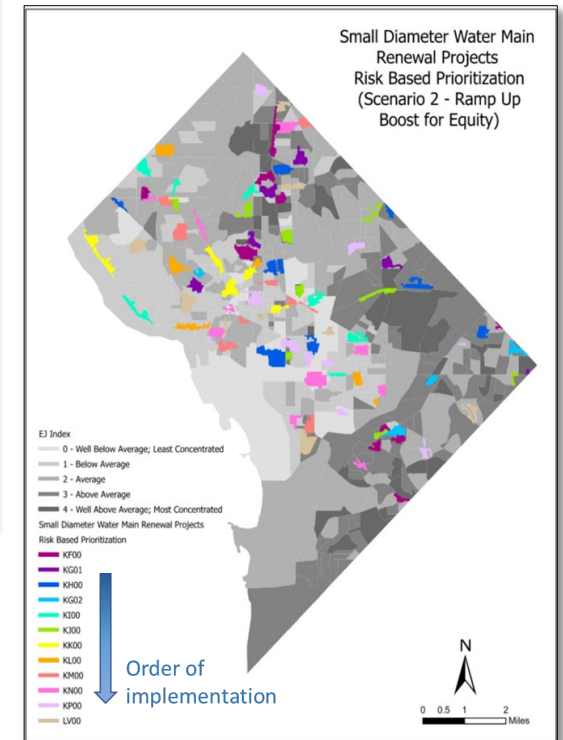
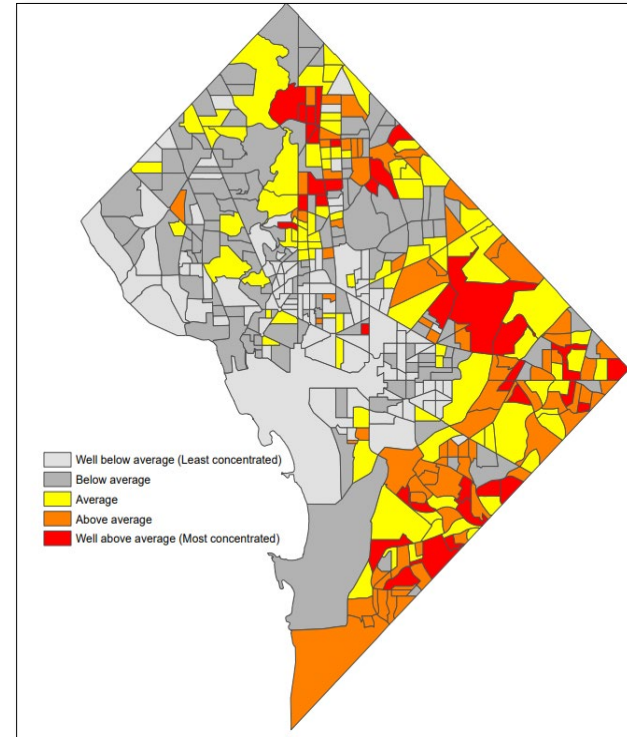
- Water & Sewer Infrastructure includes the following Service Areas: Water, Sanitary Sewer, Stormwater, and non-Clean Rivers portion of Combined Sewer Overflow, it excludes LFDC shown separately
- Capital Projects only – excludes Capital Equipment and Washington Aqueduct spending forecast

# Sewer and Water Linear Infrastructure Spending



Small Diameter Water Mains and Large Diameter Water Mains (WDS) combined spending is comparatively level – SDWM ramping to 1.5% FY28 onwards  
 Trunk Sewers (STS) spending peaks in FY27-29 due to larger PI projects – expecting some realignment in future budget cycle  
 Local Sewer (SCS) level spending after near-term ramp-up

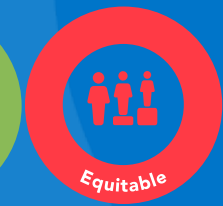
- Equality approach being refined to an Equity approach
- Risk and equity scores being used in project prioritization for linear infrastructure – Lead Service Line Replacements, Small Diameter Water Mains, and Local Sewers
- Other projects would be considered for equity in the future as applicable
- High risk and system wide projects may have to be addressed without equity considerations







# Sewer and Water (\$3.81 B)



## Sewer Service Area total = \$1.80B, increase of \$434M

- Increase in Sanitary Collection Systems, including Local Sewer Projects
  - 1% per year rehabilitation goal
- Increase in Interceptor/Trunk Force Sewers
  - New projects on Potomac Interceptor

## Water Service Area total = \$2.01B, increase of \$182M

- Increase in Water Distribution Systems, including Small Diameter Water Mains
  - 1% replacement per year, ramping up to 1.5%
- Lead Free program funding remains the same, with reduction due to amount completed in FY '21
  - Replace all lead service lines by 2030

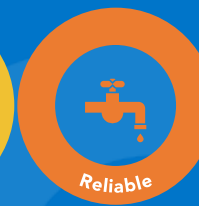
	10-Year Proposed	10-year Approved	10-year Delta
<b>SANITARY SEWER</b>			
Sanitary Collection System	491,829	325,762	166,067
Sanitary On-Going Projects	155,610	143,702	11,908
Sanitary Pumping Facilities	201,000	170,349	30,652
Sanitary Program Management	77,313	83,462	(6,149)
Interceptor/Trunk Force Sewers	870,364	638,851	231,514
<b>Subtotal</b>	<b>1,796,116</b>	<b>1,362,125</b>	<b>433,991</b>
<b>WATER</b>			
Water Distribution Systems	1,033,289	879,719	153,569
Lead Free DC Program	611,672	628,951	(17,280)
Water On-Going Projects	194,235	176,668	17,567
Water Pumping Facilities	57,295	41,711	15,584
Water Storage Facilities	59,899	51,475	8,423
Water Service Program Management	55,412	50,904	4,508
<b>Subtotal</b>	<b>2,011,801</b>	<b>1,829,430</b>	<b>182,371</b>







# Sewer (\$1.80 B)



## Sanitary interceptor/trunk/ force mains sewers \$870 M total 10-yr program

- Inventory is 170 miles
- Inspection & Assessment of ~12 mi/yr
- Rehabilitation of major sewers
- National Environmental Policy Act (NEPA) Compliance

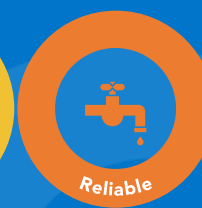


## \$232 M increase will fund

- Potomac Interceptor (PI) (\$139 M)
- Major Sewer Assessment (\$51 M)







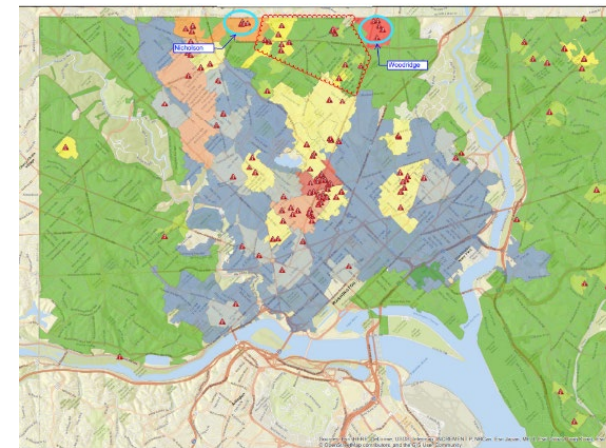
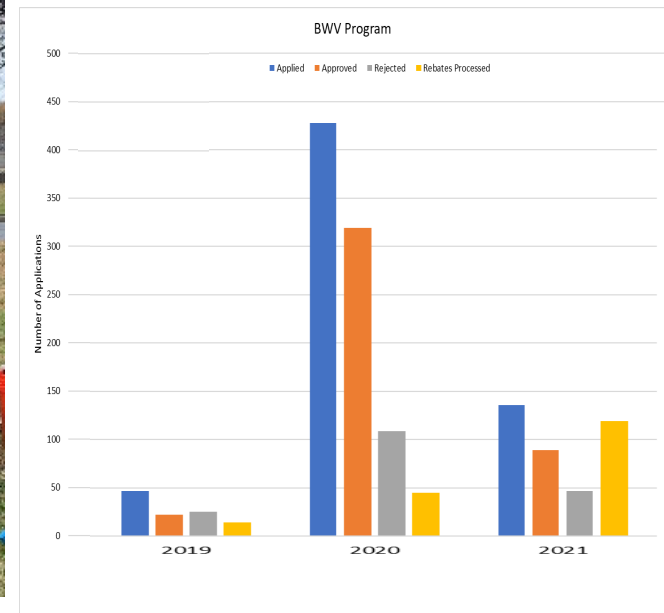
## Sanitary Ongoing \$156 M (\$12M 10-year increase)

- 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 \$77 M

- Flooding Studies and Back Water Valve Program
- Sanitary Sewer Evaluation Surveys: (Smoke testing, Flow testing CCTV Inspection)
- Facilities Planning, feasibility studies
- Planning and Program Strategy support





## Sanitary Pumping Facilities \$201 M (\$31M increase for 10-yr)

- 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



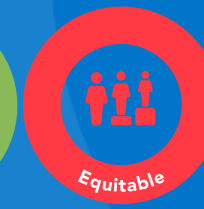
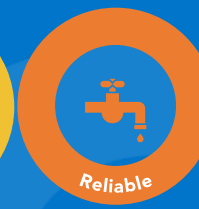
Rock Creek Pump Station



Poplar Point Pump Station



# Lead Free DC (\$612 M)

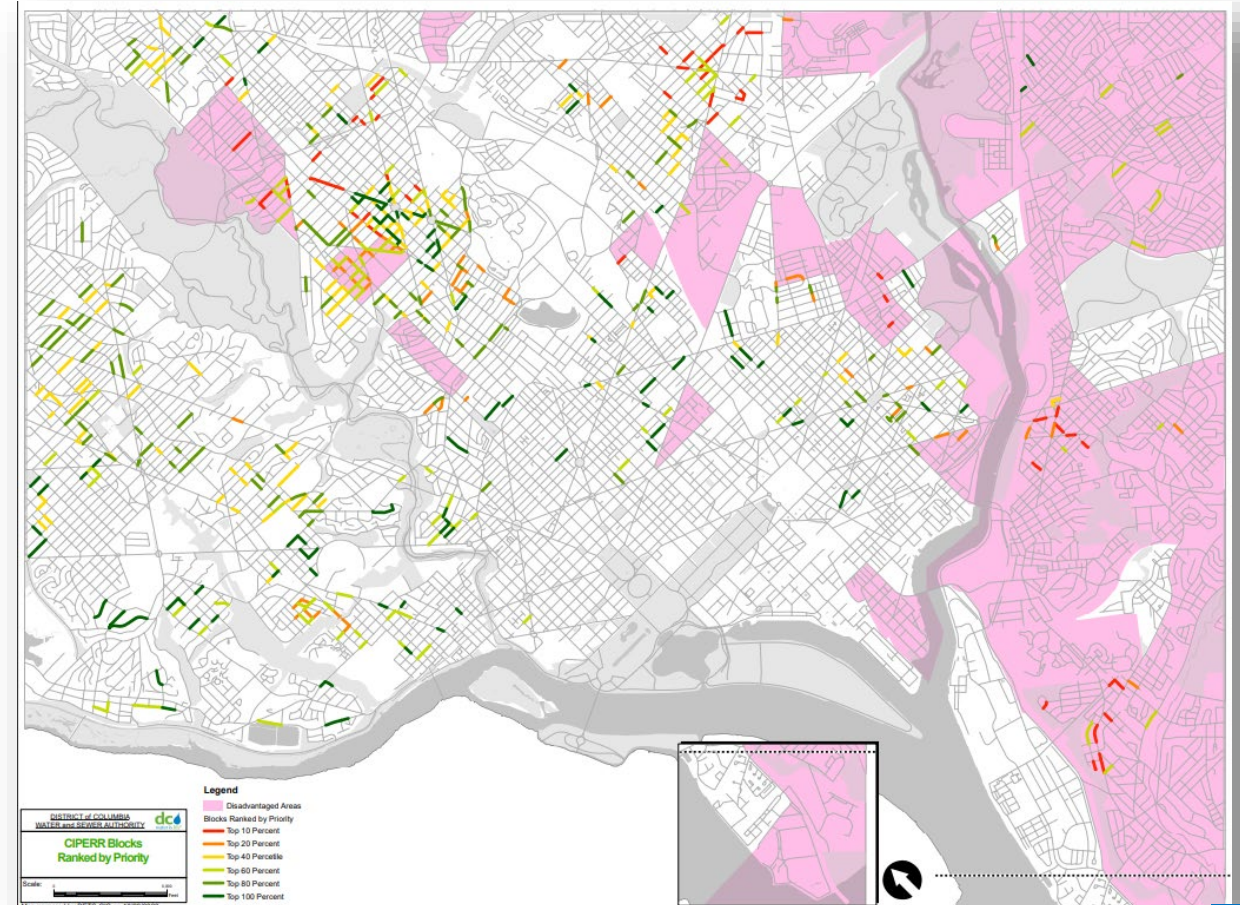


## LFDC \$612 M – decrease by \$17 M

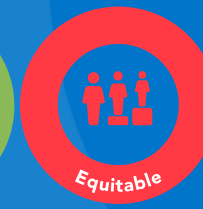
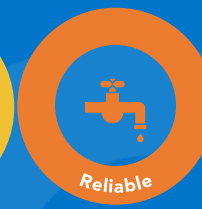
- \$42 M forecast spending in FY 2023
- Replace all lead services by 2030

## Project Scope Areas

- Confirm material of 48,000 services
- Replace ~28,000 lead services
- Obtain permits (DDOT and other)
- Conduct community outreach
- Inspect construction of services
- Update data inventory
- Promote equity
- Pursue funding sources & grants







## Water Distribution Systems (WDS) – \$1.03 B

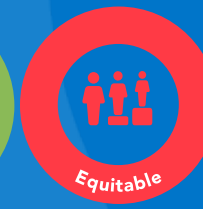
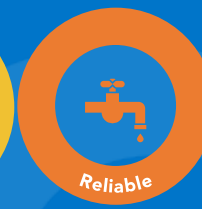
- Fire hydrant replacement
- Valve replacement
- Replacement of distribution mains with Water Quality issues
- Small diameter water mains replacements



## \$154 M increase will fund

- Adjusted short-term costs to account for inflation
- Increase to meet 1.5% per year replacement goal
- New support for Traffic Control Plans



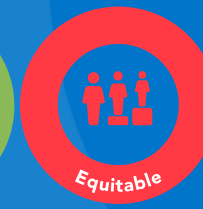
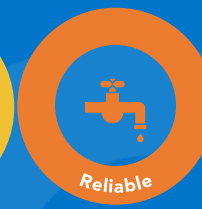


## Water Storage Facilities \$60 M

- 7 active storage facilities
- 5 storage facilities scheduled for upgrades
- Evaluate new storage facility in 2nd High
- Study for Water Supply and storage needs

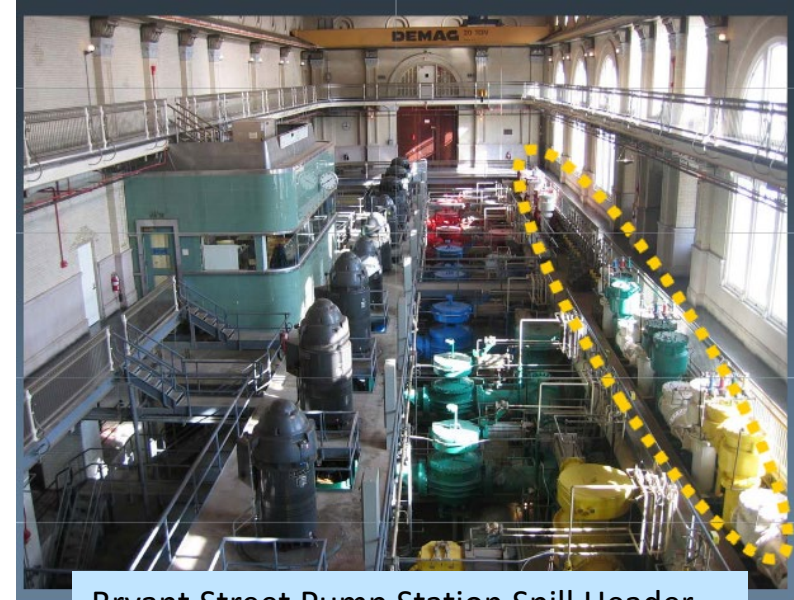






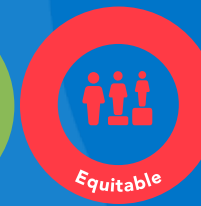
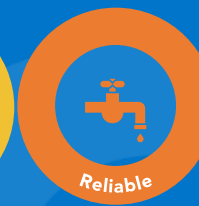
## Water Pumping Facilities (\$57M, \$16M increase)

- Accelerate Bryant Street PS Spill Header
- Accelerate Ft. Reno PS
- New project for 16th & Alaska (\$3M)
  - Building Information Management (BIM) pilot
- Pumps rehab/replacement
- Variable Frequency Drives
- Valves
- Improvements to Backup Power Systems



Bryant Street Pump Station Spill Header



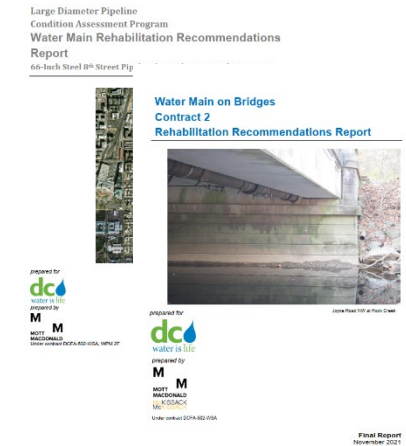
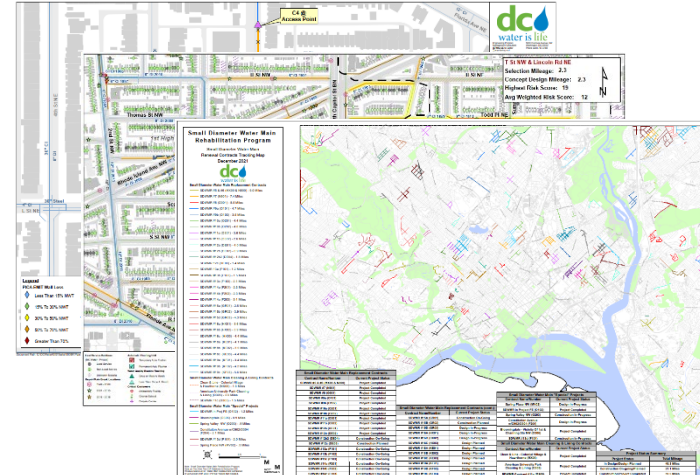


## Water Ongoing \$194M (\$18M increase)

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



## Water Program Engineering Support \$55M (\$5M increase)



- Vulnerability assessment and emergency response support
- District Metering
- Asset Management of water mains
- Master Plan / Facilities Plan support
- Water assets feasibility studies
- Planning support, project development for CIP projects
- Water System Program strategy development support



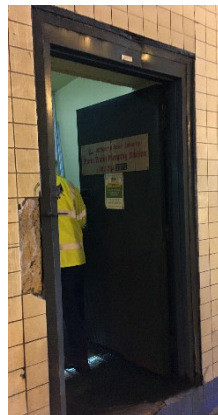
- Maintain compliance with consent decree for firm capacity at CSO pump stations
- Address reliability and resiliency for climate change and flood hazards

## Combined Sewer Overflow (CSO) without Clean Rivers \$100 M



- Main Pump Station
- Potomac Pump Station
- Inflatable Dams at CSO Outfalls
- Pump Variable Frequency Drives, valves, electrical gear, code compliance, odor control

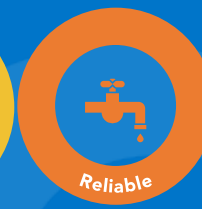
## 16 Stormwater Pumping Facilities \$72 M, increased by \$7 M



- Pumps, Electrical, and code compliance upgrades
- SCADA monitoring and control
- Safety and security



# Wastewater Blue Plains (\$1.18 B)



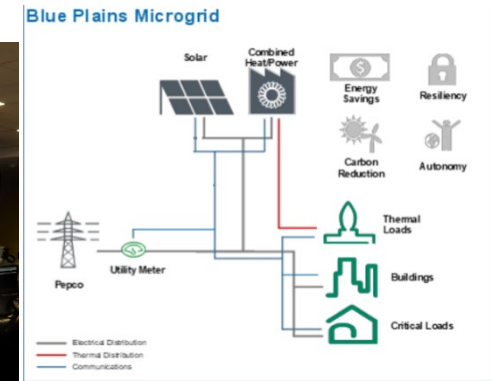
**Overall Decrease - \$34 M**

**Liquid Processing - \$625 M**

384 MGD Average; 780 MGD Peak



**Plantwide - \$302 M**

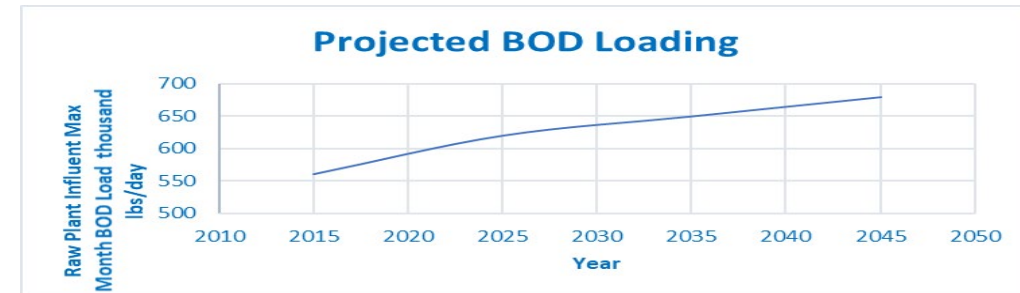


**Solids Processing - \$204 M**



**Enhanced Nitrogen Removal Facilities - \$50 M**

>90% complete; Expansion of secondary treatment to meet nitrogen discharge permit limit with future load





A high performing network of systems and assets is critical to reliability, using real-time monitoring to inform better decision making. Our aim is to continue to deliver an excellent service for customers and ensure we minimize service disruption. This is enabled by ensuring we adopt an integrated and enterprise-wide approach in order to deliver services efficiently

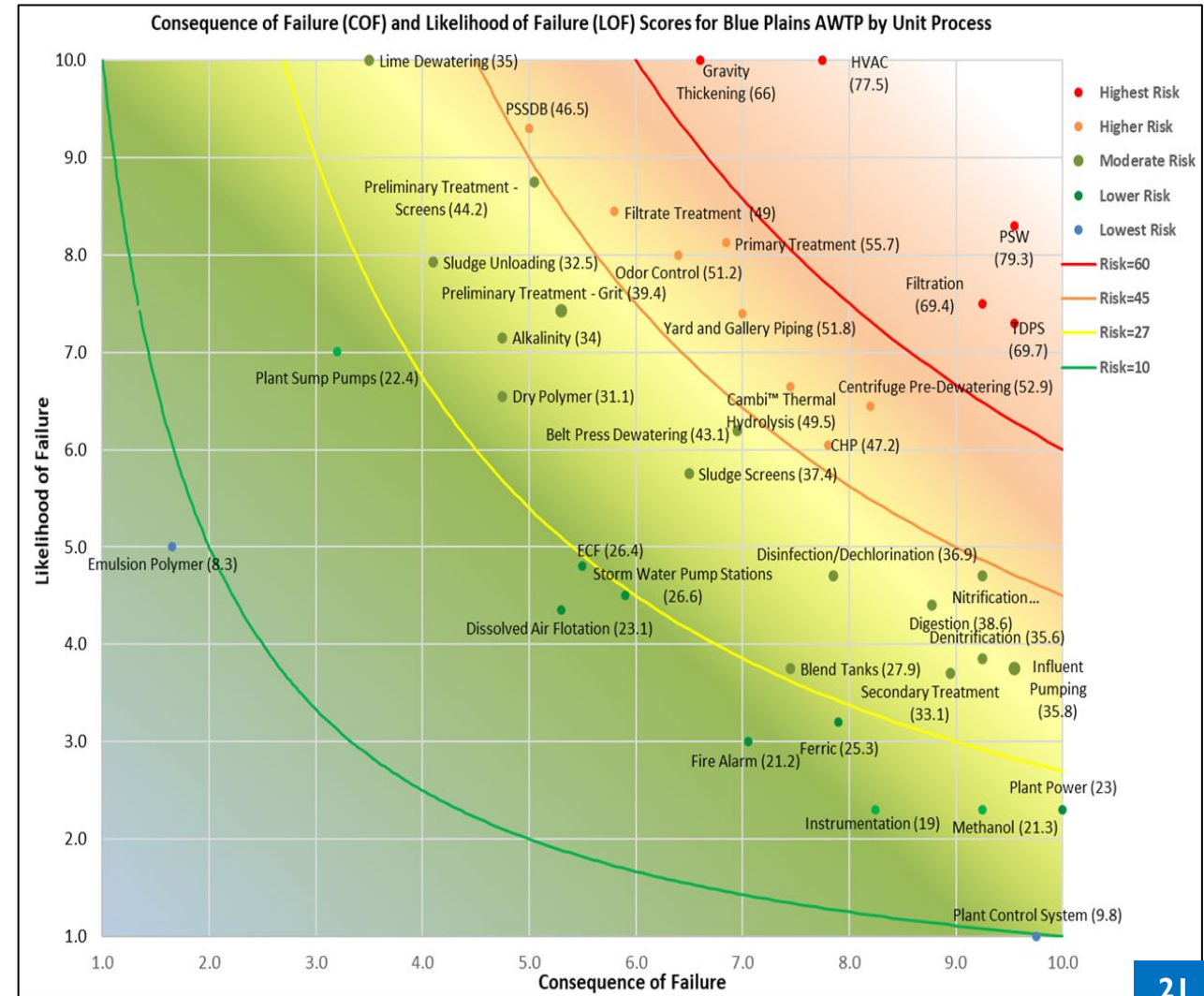
## 68 Planned projects to address plant reliability



Replacing/Upgrading Influent Screens



Filtrate Influent Pump Project





## Blue Plains Floodwall

- Design-Build Project to install floodwall to protect Blue Plains from 500-year frequency event.
- The first segment of the wall was constructed as part of the construction of the Enhanced Nitrogen Removal Project.
- Construction of the second segment of the wall, identified as Segment C, was completed in July 2021 and DC Water obtained \$2.4M from FEMA toward installation of that wall.
- Three segments (Segments A, B and D) remain to be constructed.

## 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

**Additional Solar Projects** upcoming at Bryant St, Fort Stanton, Fort Reno, Anacostia & Potomac Pump Stations





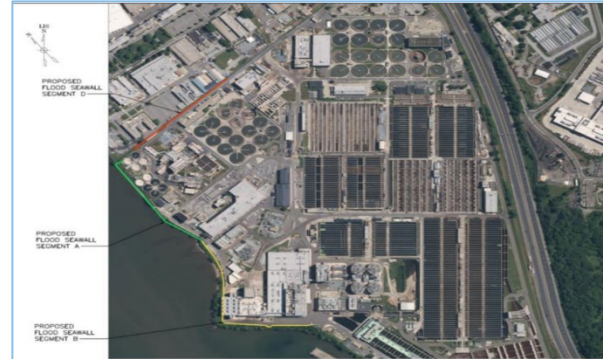
# Major Blue Plains Projects Long-term/Near-term

Project Name	10-yr Total
Grit and Screenings and Primary	\$64M
Primary Treatment - 20 year Rebuild	\$43M
Effluent Filter Upgrade	\$45M
Replace/Upgrade Influent Screens	\$50M
Secondary East and West - 20 year rebuild	\$50M
Long-term Concrete Rehabilitation Projects	\$70M
Control Systems Replacement	\$53M
Electrical Power System Upgrades and Microgrid Studies	\$31M
Biosolids Rehabilitation	\$45M
DAF Facility 20yr Upgrade	\$66M
Secondary Treatment Upgrades for TN	\$44M



## BQ02 - Screens, Grit and Primary Facilities Upgrades

- FY 2023 – FY 2025 Planned Disbursements - \$16.1M
- Total Estimated Project Cost - \$52.0M



## JF01 Construction of Flood Seawall Segments A, B & D

- FY 2023 – FY 2025 Planned Disbursements - \$19.1M
- Total Estimated Project Cost - \$30M

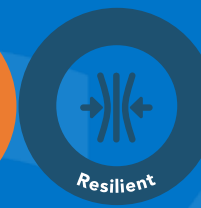
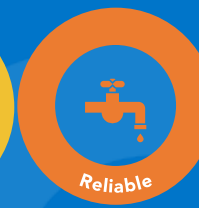


## IY03– High and Low Pressure Reclaimed Final Effluent Pumping System Upgrade

- FY 2023 – FY 2025 Planned Disbursements - \$15.8M
- Total Estimated Project Cost - \$24M



# DC Clean Rivers (\$963 M)

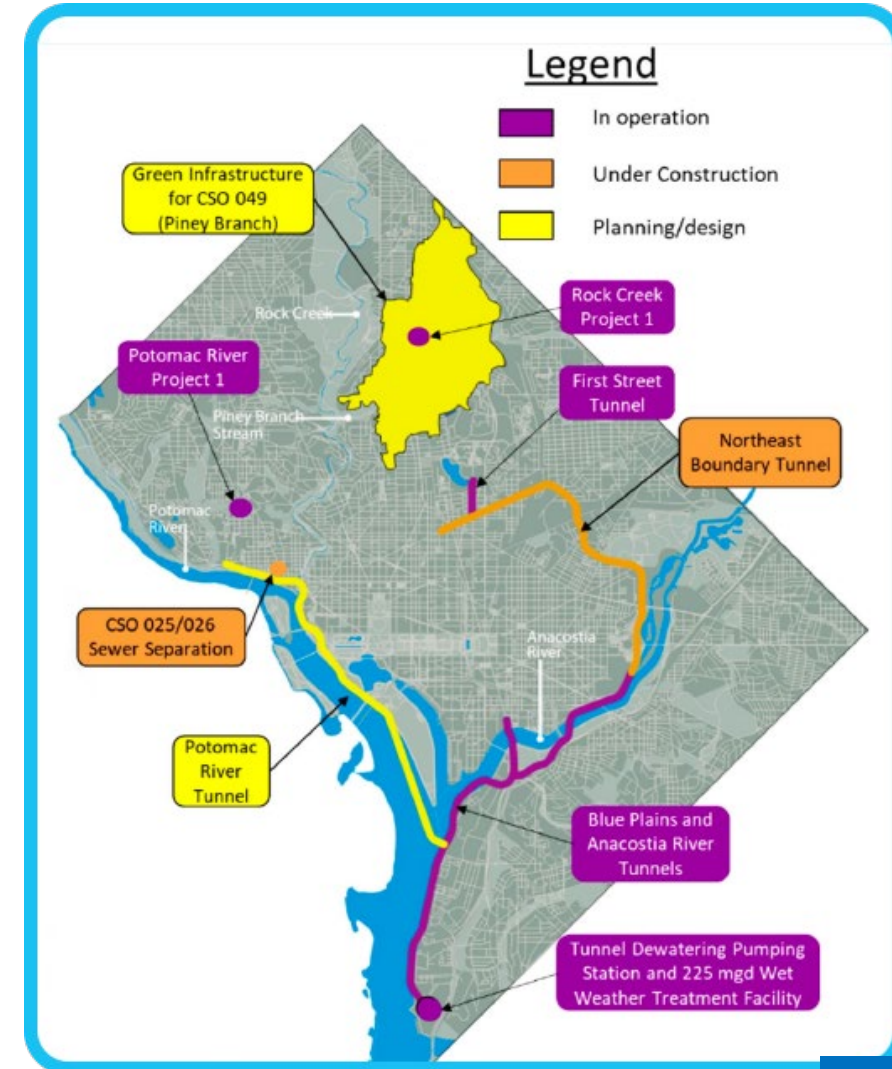


**Overall decrease - \$154 M**

Anacostia LTCP Projects (\$82 M)

Potomac LTCP Projects (\$740 M)

Rock Creek LTCP Projects (\$141 M)







# Clean Rivers – What Has Been Achieved?

Receiving Water	CSO Volume Reduction (mg/avg yr)	
	Current	Ultimate Target
Anacostia <ul style="list-style-type: none"><li>Anacostia Tunnel</li><li>Sewer separation</li><li>Rehab pump stations and inflatable dams</li></ul>	90%	98%
Potomac <ul style="list-style-type: none"><li>Rehab pump stations and inflatable dams</li></ul>	40%	93%
Rock Creek <ul style="list-style-type: none"><li>GI, sewer separation and diversion improvements</li></ul>	13%	90%
Total System	67%	96%

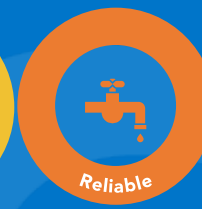


Anacostia Tunnel from Mar 2018 – Dec 2022:

- Over **14.7 B gallons** and **9,151 tons of trash**, debris, and other solids captured
- 90% capture (80% planned)



# Clean Rivers – What Will Remaining Projects Achieve?



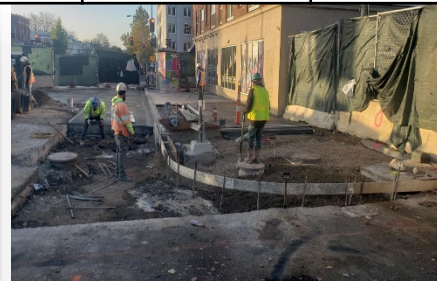
Area	Description	Status as of Jan 2022	Construction Timeframe	Approx. Remaining Cost (\$M)
CY - Anacostia				
Northeast Boundary Tunnel	90 mg tunnel	Construction	2017-2023	\$82
CZ – Potomac				
CSO 025/026 Separation	Separate 2 CSO areas	Construction	2021-2022	\$740
Potomac Tunnel – Advance Utility Construction	Electric services & utility relocation	Construction	2021-2023	
Potomac Tunnel Construction	29,000’ of 18’ ID tunnel	Design	2023-2030	
DZ - Rock Creek				
Rock Creek GI Project B	22 ac of GI	Construction	2022-2024	\$141
Rock Creek GI Project C	25 ac of GI	No activity	2025-2027	
Rock Creek GI Project D	25 ac of GI	No activity	2028-2030	
Piney Branch Storage	4.2 mg storage facility	NEPA	2026-2029	

## Project Performance

- Increase CSO capture from 90% to 98%
- Flooding relief in Northeast Boundary

- Increase CSO capture from 40% to 93%

- Increase CSO capture from 13% to 90%







# Clean Rivers – Project Benefits

- CSO reduction – meets District Water Quality Standards
- Flooding Mitigation – in Northeast Boundary
- Provides equalization enabling nutrient reduction at Blue Plains to meet Chesapeake Bay TMDL
- Resiliency - provides redundancy when Blue Plains or pumping stations out of service
- Equity – highest degree of CSO control targeted to underserved Anacostia River





## Clean Rivers – Project Benefits

- Eliminates five (5) inflatable dams
  - Three (3) on Anacostia River (completed)
  - Two (2) on Potomac River (upcoming as part of Potomac Tunnel)
- Eliminates Swirl Facility near RFK Stadium (completed)
- Benefits
  - Reduces risk of flooding
  - Reduces system complexity and costs
  - Reduces O&M costs – estimated savings of \$1 million/yr.



Inflatable Dam

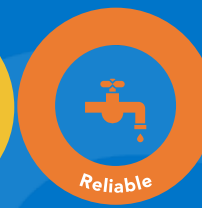


Swirl Facility Tank





# Non-Process Facilities (\$141 M)



**\$39 M increase will fund  
COF/CMF Renovations:  
\$12.5 M**



**Bryant St PS Modifications:  
\$15.9 M**



**Solar Improvements  
\$24 M**



**Roof and HVAC Replacements:  
\$22 M**



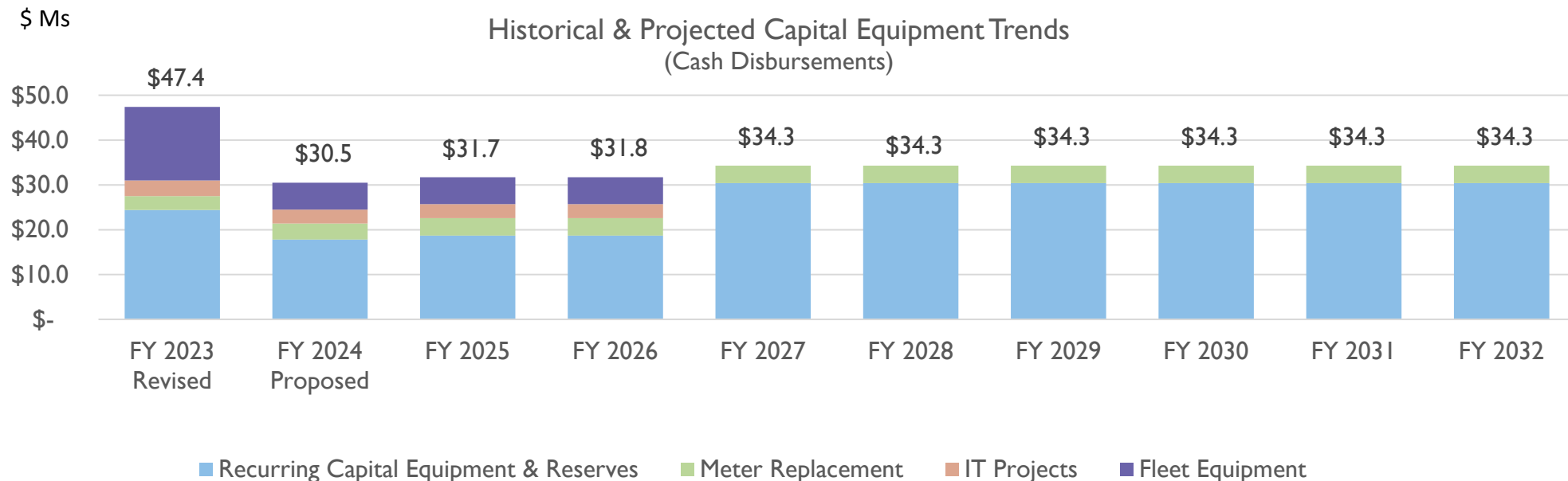
**Main & O Seawall Restoration:  
\$12 M**



**Historic Restoration, Main PS  
\$15 M (Built 1904)**



- 💧 The overall FY 2023 budget is \$47.4 M and reflects the Board-approved carry-over of \$10.4 M from FY 2022 for the purchase of vehicles (anticipated for delivery in FY 2023) and \$7.2 M for the Aqueduct
- 💧 Ten-year disbursements of \$375.3 M for capital equipment include:
  - **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 \$28.4 M from FY 2023 through FY 2025 to reduce vehicle backlog and help ensure that crews have the required equipment such as backhoes, jet-vacs, small and large dump trucks to meet operational needs







# Federal/Infrastructure Funding Safe Drinking and Clean Water



Source	Anticipated DC Water 2023 to 2027 Total	Prospective Eligible Projects	DC Match
Clean Water Baseline (Current Grants)	\$17.8M	Wastewater Treatment, Sewer System	45%
Clean Water Supplemental	\$54.2M*	Wastewater Treatment, Sewer System, Green Infrastructure	10% years 1 and 2 20% years 3 to 5
Clean Water Emerging Contaminants	\$4.6M*	Wastewater treatment research projects	0%
Drinking Water Baseline (Current Grants)	\$70.1M	Small Diameter Water mains, Water Storage Facilities, Water pump stations	20%
Drinking Water Supplemental	\$106.2M	Small Diameter Water mains, Water Storage Facilities, Water pump stations	10% years 1 and 2 20% years 3 to 5
Drinking Water Lead Service Lines	\$141.5M	Lead Free DC Program. Public and Private side eligible	0%
Drinking Water Emerging Contaminants	\$37.7M	Emerging contaminant projects	0%

\* \$'s are DC Total, DC Water anticipated undetermined. Based on competing Clean Water projects and administrative costs the DC Dept. of Energy & Environment (DOEE) determines allocations to DC Water.

Build America Buy America (BABA) and Justice 40 requirements must be met for all federal funding



# Opportunities - Optimization and Revenue

- 💧 Programmatic Access to capture Federal and Industry Funding Opportunities
- 💧 Blue Plains Process Intensification with Granulated Sludge (Increasing sludge density) Technologies to Reduce Cost of Future Capacity
- 💧 Blue Plains Full Plant Deammonification (nitrogen removal with Annamox) to Reduce Cost and Dependence on Chemicals
- 💧 Enhance/Expand Class A Biosolids Processing Facilities to Increase Biogas Production for Fats, Oils, Grease
- 💧 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 - Optimal Renewable Energy Distribution
- 💧 Diversify Bloom Products and Marketing

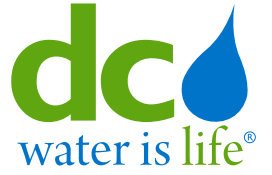




## Risks We are Monitoring

- 💧 Stormwater System Rehabilitation and Replacement
  - Cost of service study for stormwater is currently underway
- 💧 Supply Chain Disruption and Inflation
- 💧 Water Supply (Source & Storage Volume; Reliability and Resilience)
- 💧 Increase in chemical and power purchase costs
- 💧 Major Sewers
  - Ongoing assessments will likely uncover conditions that need repair, rehabilitation, or replacement
- 💧 Regulatory
  - Total Maximum Daily Load (TMDL) – Trash, Bacteria, PCBs, Nutrients, Sediments
  - Contaminants of Emerging Concern, including PFAS and microplastics
  - Permitting – New NPDES Permit Conditions, including new water quality standards for ammonia
  - Biosolids Land Application – PFAS, Phosphorus
- 💧 Climate Change – Seawall, Facility Hardening, CSO Program, Stormwater Capacity
- 💧 Proposed DC Nuisance Odor Requirements – Blue Plains, Sewage Pump Stations, Collection System
- 💧 Washington Aqueduct Capital Program Uncertainties (PFAS & Future Capital Expenses)

# Washington Aqueduct CIP







# Washington Aqueduct FY2023 and FY2024 CIP Budgets



**FY2023 \$81.8M, FY2024 \$47.7M**

Budget:

DC Water's share (FY2023 ~\$59.55M, FY2024 ~\$34.73M)

- Budgets reflect costs of total project vs. costs of partial repairs to aging infrastructure
- Cost Drivers
  - Underfunded projects due to increased project costs
  - Partial repairs prolonged total project completion creating increased future costs for customers
  - Stalled/delayed projects now require additional funding



# Washington Aqueduct Asset Management Strategy



## Path Forward:

Asset management driven capital planning

FEM Database – assessing efficiency

Assess aging infrastructure

Revise 10-year CIP/CIP prioritization

Acquisition strategy







# Washington Aqueduct WRDA 2022 – 15 December 2022



Section 8146: Washington Aqueduct

Capital Improvement Authority

Borrowing Authority

Section 8201: Authorization of proposed feasibility studies item (14): Washington Metropolitan Area, Washington District of Columbia, Maryland, and Virginia.

Path Forward:

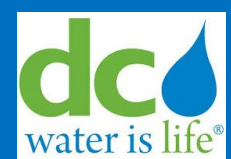
Establish agreement for with each customer

WRDA Borrowing Authority

Initiate study for secondary water source







# CIP by Program Area

(Cash Disbursements \$ in thousands)	FY 2023 - FY 2032 CIP Disbursement Plan (Run 3C)											Last Years	(Increase)/	Lifetime	
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10-yr Total	10-yr	Decrease		
NON PROCESS FACILITIES															
Facility Land Use	22,104	24,614	25,247	32,462	24,646	3,879	2,293	2,000	2,000	2,000	141,246	102,208	(39,038)	269,010	
Subtotal	22,104	24,614	25,247	32,462	24,646	3,879	2,293	2,000	2,000	2,000	141,246	102,208	(39,038)	269,010	
WASTEWATER TREATMENT															
Liquid Processing	41,050	28,977	47,726	83,307	75,562	77,488	89,520	59,692	61,829	60,116	625,266	657,512	32,247	1,272,081	
Plantwide	14,596	39,838	51,239	40,909	50,182	39,544	25,388	20,231	16,742	3,140	301,809	282,489	(19,320)	530,955	
Solids Processing	12,939	14,427	17,374	12,887	17,573	24,873	17,971	30,464	34,339	21,011	203,857	214,160	10,303	944,041	
Enhanced Nitrogen Removal Facilities	3,322	1,201	1,346	637	2,238	1,414	7,420	21,779	10,188	405	49,949	60,502	10,553	788,082	
Subtotal	71,907	84,442	117,684	137,739	145,555	143,319	140,299	132,166	123,098	84,671	1,180,881	1,214,664	33,783	3,535,160	
COMBINED SEWER OVERFLOW															
DC Clean Rivers Program	104,558	100,329	135,619	172,452	136,585	146,829	132,388	33,847	-	-	962,607	1,116,863	154,255	2,992,358	
Combined Sewer Overflow Program	3,473	9,927	12,445	15,927	12,825	10,432	5,997	12,182	12,465	4,593	100,267	100,303	36	223,714	
Subtotal	108,031	110,256	148,064	188,379	149,410	157,261	138,385	46,029	12,465	4,593	1,062,875	1,217,166	154,291	3,216,072	
STORMWATER															
Storm Local Drainage Program	654	1,686	1,905	735	977	965	1,163	1,067	916	853	10,921	10,455	(466)	82,760	
Storm On-Going Program	1,081	942	519	876	842	1,084	1,287	935	-	-	7,566	9,780	2,214	10,072	
Storm Pumping Facilities	4,829	8,692	4,161	4,126	3,732	1,417	1,579	4,948	7,642	4,957	46,083	42,918	(3,165)	64,227	
Stormwater Program Managemet	173	437	517	476	286	346	275	212	124	395	3,243	1,483	(1,759)	15,178	
Stormwater Trunk/Force Sewers	772	1,082	1,216	1,358	-	-	-	-	-	-	4,428	600	(3,828)	44,543	
Subtotal	7,509	12,839	8,319	7,571	5,837	3,812	4,305	7,162	8,682	6,205	72,241	65,236	(7,005)	216,779	
SANITARY SEWER															
Sanitary Collection System	4,582	25,217	58,615	60,253	61,914	54,330	54,582	56,493	57,843	58,000	491,829	325,762	(166,067)	728,214	
Sanitary On-Going Projects	14,096	17,352	14,667	15,091	15,542	16,020	16,500	15,297	15,289	15,756	155,610	143,702	(11,908)	233,439	
Sanitary Pumping Facilities	3,085	8,434	8,813	16,171	16,011	28,020	37,639	45,222	27,375	10,231	201,000	170,349	(30,652)	265,049	
Sanitary Program Management	9,087	9,612	7,638	7,640	8,634	10,520	10,688	7,927	4,451	1,116	77,313	83,462	6,149	191,900	
Interceptor/Trunk Force Sewers	37,182	57,842	95,377	69,410	120,816	168,845	151,593	97,201	38,289	33,811	870,364	638,851	(231,514)	1,309,131	
Subtotal	68,031	118,457	185,109	168,564	222,916	277,735	271,002	222,140	143,246	118,914	1,796,116	1,362,125	(433,991)	2,727,733	
WATER															
Water Distribution Systems	30,986	72,384	89,285	97,369	118,521	125,347	123,510	126,497	122,606	126,784	1,033,289	879,719	(153,569)	2,102,409	
Lead Free DC Program	42,477	77,504	107,944	109,838	91,370	74,797	62,971	44,771	-	-	611,672	628,951	17,280	816,318	
Water On-Going Projects	18,280	17,292	16,825	17,779	19,351	18,915	20,691	21,601	20,879	22,623	194,235	176,668	(17,567)	261,206	
Water Pumping Facilities	5,910	10,202	7,983	7,734	6,391	7,029	4,547	2,678	2,408	2,414	57,295	41,711	(15,584)	95,574	
Water Storage Facilities	6,447	6,811	11,754	4,438	3,834	9,658	4,997	3,536	3,328	5,096	59,899	51,475	(8,423)	175,104	
Water Service Program Management	4,809	4,179	4,716	5,120	7,542	7,080	4,641	4,641	5,120	7,563	55,412	50,904	(4,508)	121,424	
Subtotal	108,909	188,371	238,506	242,278	247,009	242,826	221,357	203,725	154,341	164,479	2,011,801	1,829,430	(182,371)	3,572,035	
CAPITAL PROJECTS	386,492	538,981	722,930	776,993	795,374	828,832	777,640	613,222	443,833	380,862	6,265,159	5,790,828	(474,330)	13,536,789	
CAPITAL EQUIPMENT	47,421	30,535	31,654	31,776	34,334	34,334	34,334	34,334	34,334	34,334	347,390	375,302	27,912	347,390	
WASHINGTON AQUEDUCT	67,523	35,155	29,480	29,480	29,480	29,480	29,480	29,480	29,480	29,480	338,518	253,768	(84,750)	338,518	
ADDITIONAL CAPITAL PROJECTS	114,944	65,690	61,134	61,256	63,814	63,814	63,814	63,814	63,814	63,814	685,909	629,070	(56,838)	685,909	
LABOR														404,476	
TOTAL CAPITAL BUDGETS	501,437	604,671	784,064	838,249	859,188	892,646	841,454	677,036	507,647	444,676	6,951,067	-	-	14,627,174	
FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10-yr Total				
Prior Year Board Approved CIP	567,507	647,004	668,633	619,913	735,924	822,910	783,185	669,154	496,528	409,140	-	6,419,899	-	-	13,377,458
Delta (inc)/dec	145,567	63,962	(164,150)	(102,325)	(36,277)	(109,461)	(172,300)	(180,508)	(98,507)	(444,676)	(531,168)	-	-	(1,249,716)	