



DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Board of Directors

Meeting of the
Environmental Quality and Operations Committee

Thursday, February 16, 2022
9:30 a.m.

Microsoft Teams meeting
Join on your computer, mobile app

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Or call in (audio only)

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Phone Conference ID: 243 184 6#

- | | | | |
|------------|------|--|-----------------------------------|
| 9:30 a.m. | I. | Call to Order | Sarah Motsch
Chair |
| | II. | Roll Call | Michelle Rhodd
Board Secretary |
| 9:35 a.m. | III. | BPAWTP Performance Update | Aklile Tesfaye |
| | | 1. Innovative Nitrogen Removal Process | Haydee De Clippeleir |
| 10:05 a.m. | IV. | Proposed FY2023 – FY2032 Capital Improvement Program | |
| | | 1. Action Item: Recommendation for Approval
FY2023 – FY 2032 – Proposed Capital Improvement Program
(10-Year Disbursement Plan and Lifetime Budget) | Matt Brown |
| 10:20 a.m. | V. | Action Items | Joel Grosser/David Parker |
| | | <u>Joint Use</u> | |
| | | <i>Fleet Maintenance Strategy Presentation</i> | Maureen Holman |
| | | 1. Contract No.: 10331 - Fleet Maintenance and Repair Service, First Vehicle Services | |
| | | <i>Process Control System (PCS) Presentation</i> | Elkin Hernandez |
| | | 2. Contract No.: WAS-10-051-AA-CE - Process Control System (PCS) Maintenance and Major Upgrades, Emerson Process Management Power and Water Solutions, Inc. | |
| | | 3. Contract No.: N/A - Integrated Supplier Services Program for Pipes, Valves, Fittings and Associated Materials, Ferguson Enterprises, LLC, and Core & Main LP | |
| | | <u>Non-Joint Use</u> | |
| | | 1. None. | |

- 10:35 a.m. VI. CIP Quarterly Update David Parker/Paul Guttridge
- 10:50 a.m. VII. Other Business / Emerging Issues
- 10:55 a.m. VIII. Executive Session*
- 11:00 a.m. IX. Adjournment Sarah Motsch

Follow-up Items from Prior Meetings:

1. David Parker (VP, Engineering): To arrange a presentation to the Committee on DC Water's approach to incorporating equity considerations in the prioritization of CIP infrastructure projects. **[Presentation to be delivered at a future meeting of the Committee].**

¹The 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

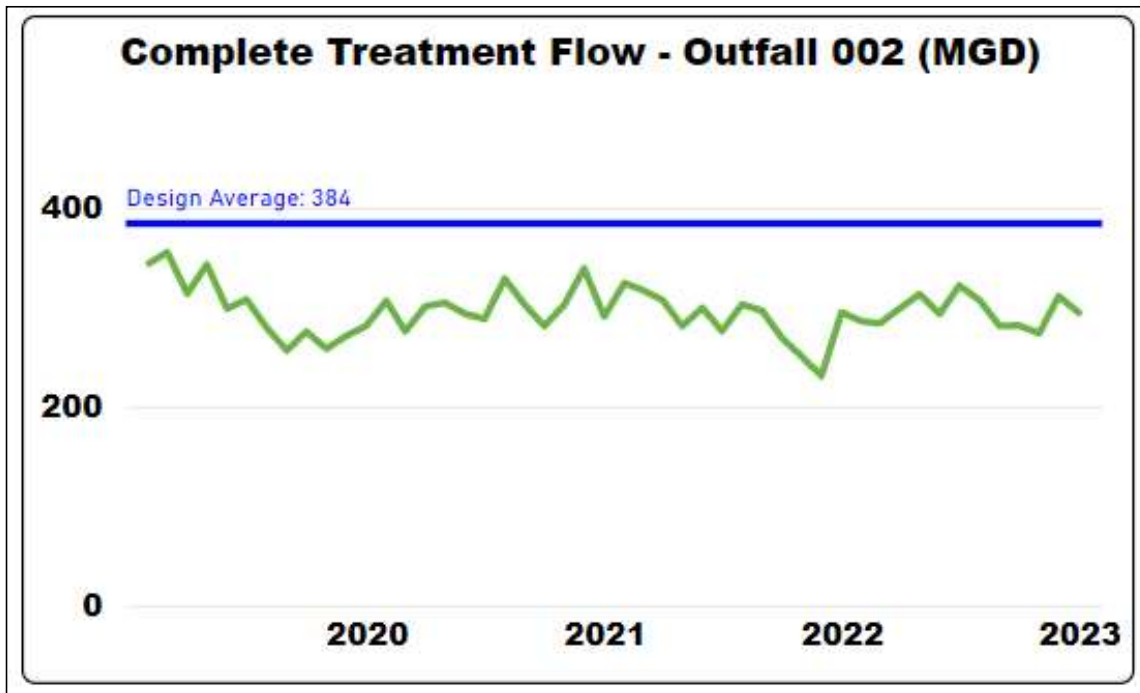


Blue Plains Complete Treatment Performance Environmental Quality & Operations Committee February 16, 2023



Aklile Tesfaye, Vice President Wastewater Treatment Operations
Haydee De Clippeleir, Director, DCW Clean Water and Technology

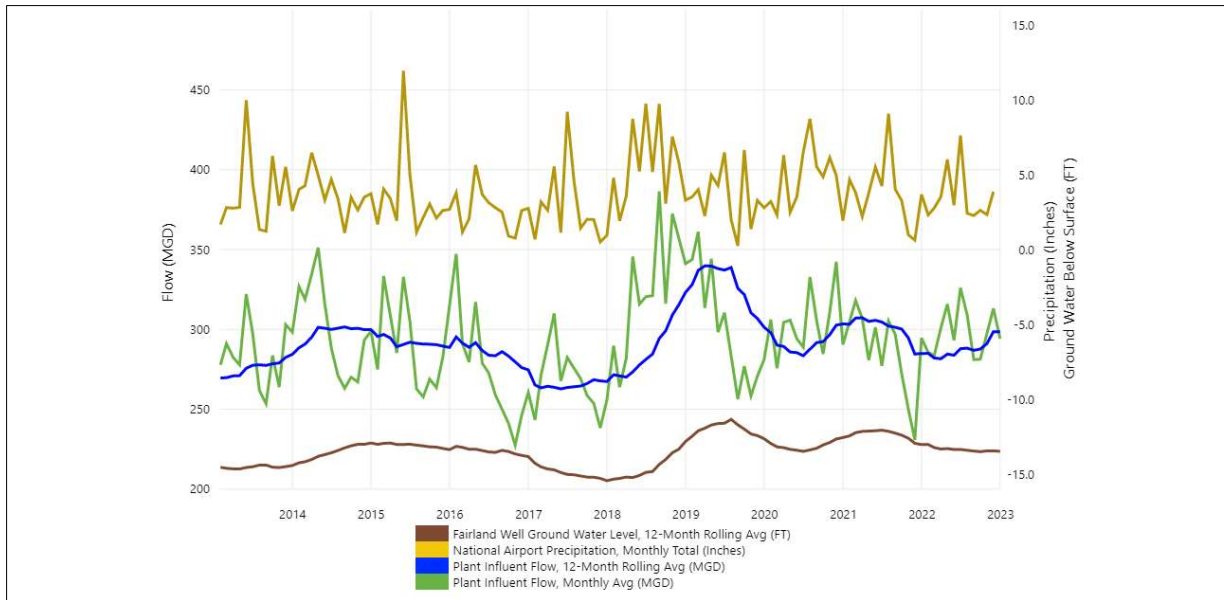
Monthly Average Flow Trend to Complete Treatment (MGD) January 2023



Summary

- ☐ Performance was excellent
- ☐ All effluent and biosolids qualities were within NPDES and Class A Biosolid Exceptional Quality requirements
- ☐ Average Outfall 002 flow was 294 MGD

Long Term Trend of Plant Influent Flow (January 2013 – December 2022)



Summary

- ❑ 12-month rolling average ranged between 263 MGD and 340 MGD, below the annual average design flow of 384 MGD
- ❑ 12-month rolling average tracks with hydrological factors/ground water level

Wet Weather Treatment Facility Performance January 2023

	January 2023*
Total Precipitation, inches	1.7
Total Volume Captured in the Anacostia Tunnel, MG	13
Measured Overflow, MG	0
Percent Captured	100%
Screenings and Grit Capture, tons	37

*Based on preliminary data

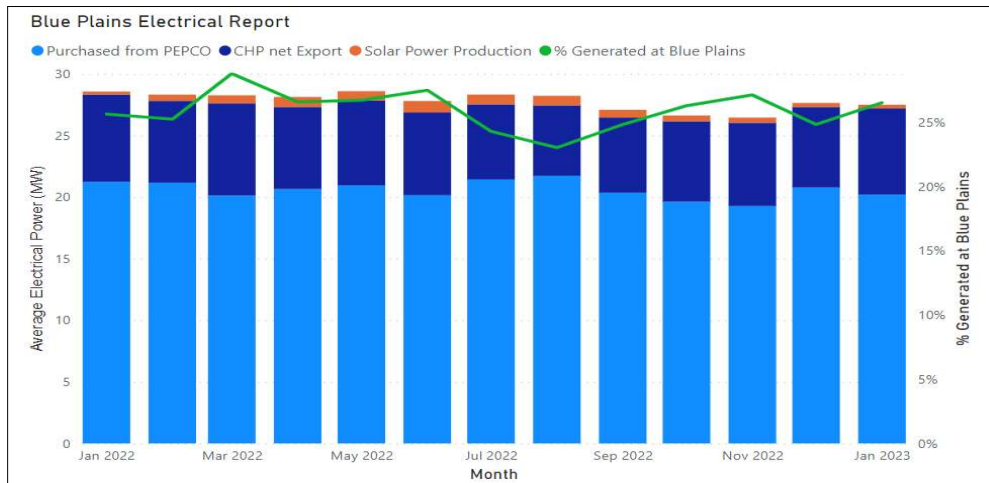
Summary

- ❑ Total of 13 MG of combined wet weather flow was captured in the tunnel and treated through the plant
- ❑ Preliminary data showed no overflows from CSOs associated with the existing Anacostia Tunnel System



Operational Performance Electrical Energy Use and Generation

Blue Plains Electrical Energy Use and Generation January 2023



Summary

- 27% of electricity was generated onsite
- Combined Heat and Power (CHP) produced an average of 8.3 megawatts (MW), with 7.0 MW net to Blue Plains grid
- Solar System produced an average of 0.3 MW of power
- Total electricity consumption at Blue Plains averaged 27.5 MW
- DC Water purchased an average of 20.2 MW of electricity from PEPCO

Phase I Solar Pannels (performance through December 2023)

- Generated 9,260 MWh since it became operational
- Estimated net savings is \$770,000

Nitrogen Removal Process

Innovative Nitrogen Removal

How adventurous are you?



1



2

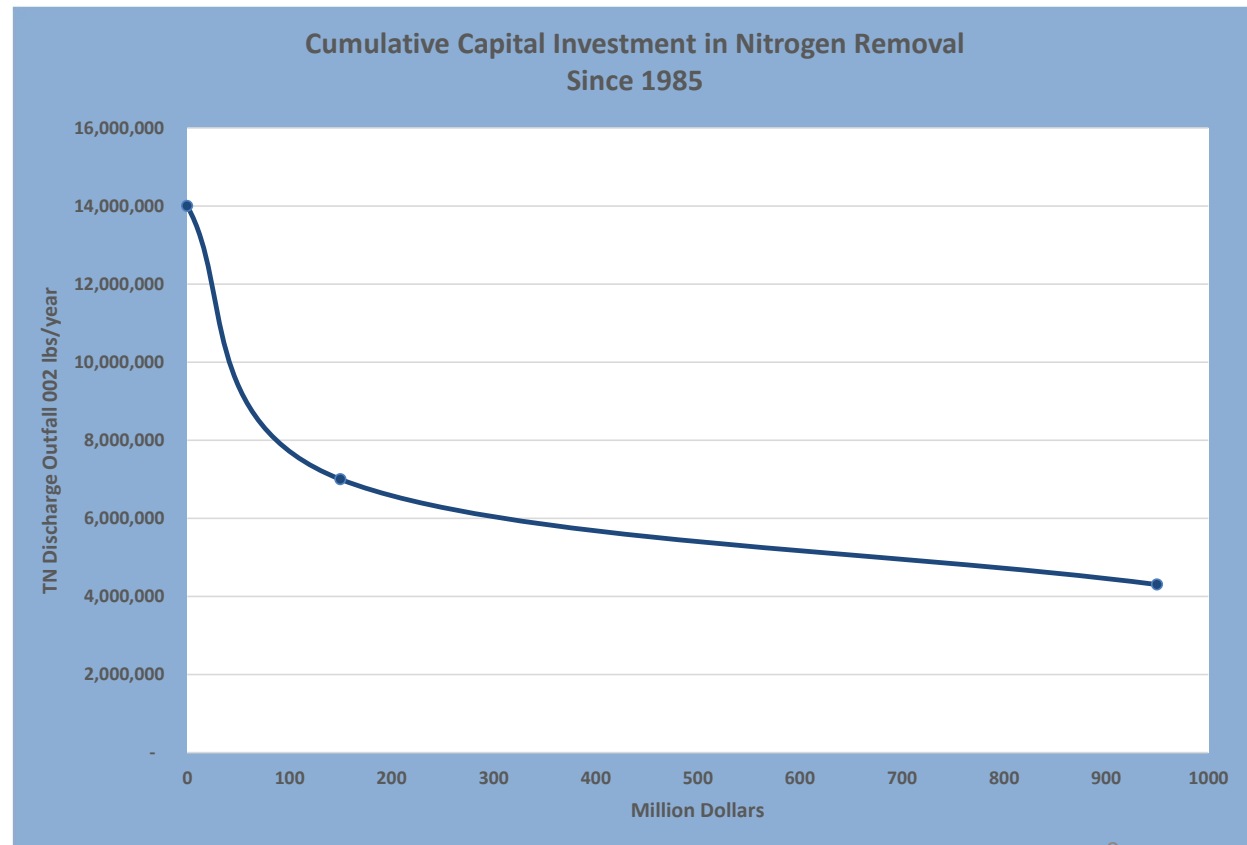
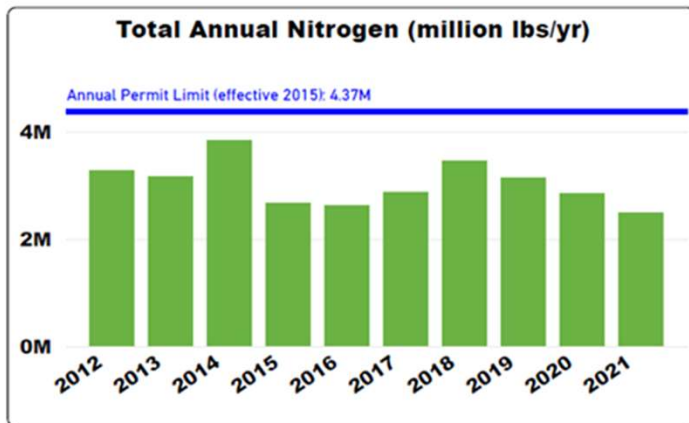


3



Innovative Nitrogen Removal Blue Plains Nutrient Removal Capital Cost

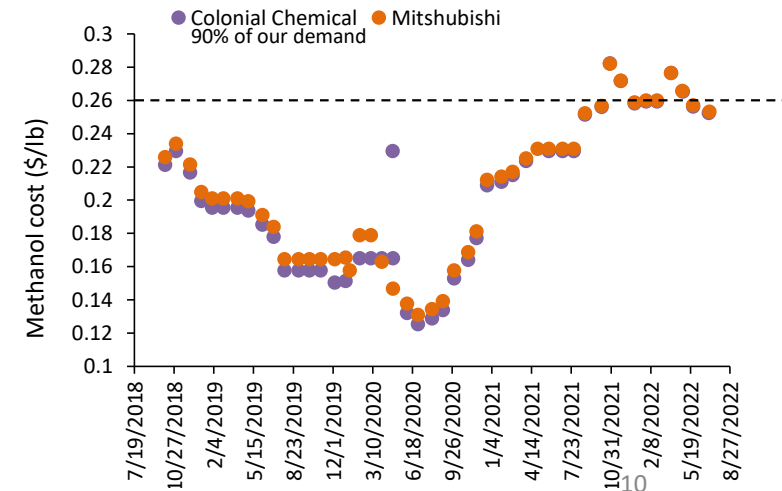
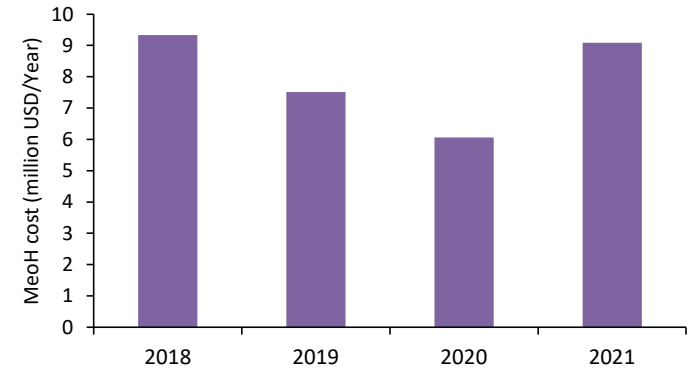
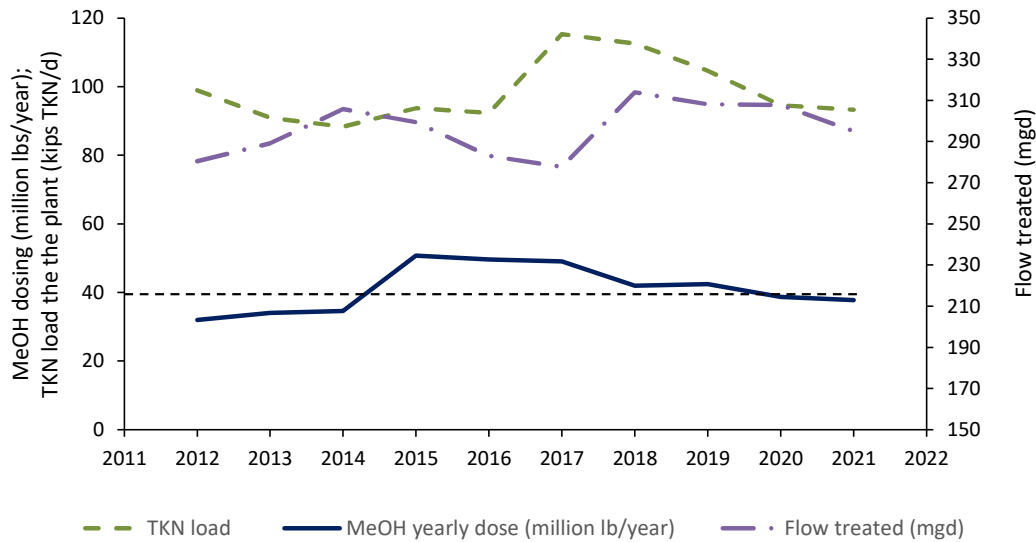
- Law of diminishing returns
- Steps taken:
 - Nitrification → denitrification
 - ENR facility
 - Wet weather treatment (CSO)





Innovative Nitrogen Removal Blue Plains Nutrient Removal Operational Cost

- We use ~40 million lb of methanol (MeOH) per year
- Accounts for almost 10 million dollar
- Methanol market price volatility



Innovative Nitrogen Removal Benefits of Current System



Robust process



Well understood kinetics



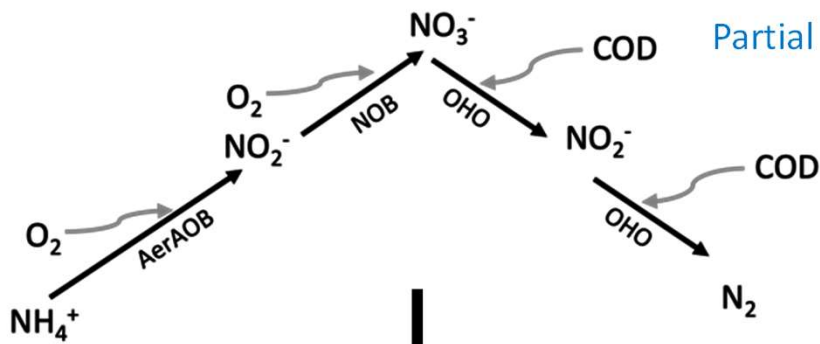
Process controls implemented
and work for purpose



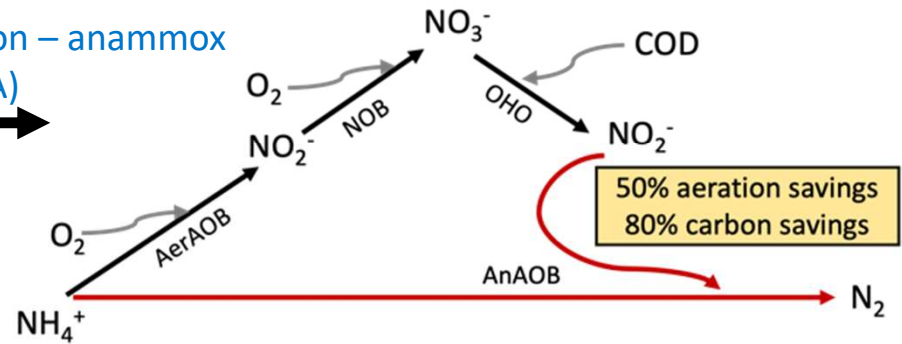
Safety factors built into
infrastructure (volume)



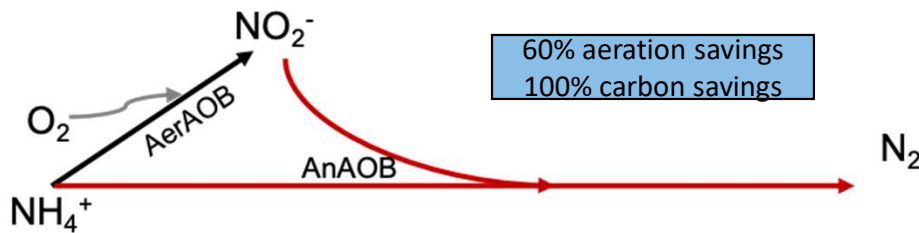
Resource intensive N removal (Current)



Partial denitrification – anammox (PdNA)



Partial nitritation – anammox (PNA)



Similar overall operational cost benefits



Different operational control requirements



Similar concept as filtrate treatment (DEMON)



Significant cost savings when successful



Recipe for NOB out-selection known but complex



Can not be implemented in stepwise manner



Does not work under sub-optimal conditions (=reality) – no reliable NOB out-selection





Short-cut N via Partial Denitrification – Anammox (PdNA)



Significant operational cost savings



Recipe for PdN selection is simple



PdNA can be implemented in stepwise manner



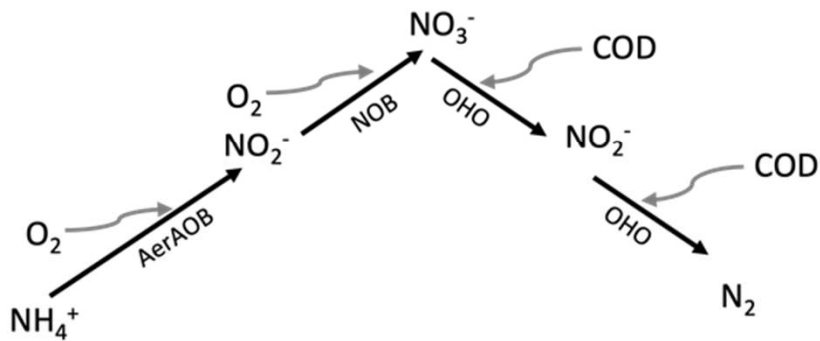
Variety of implementation options



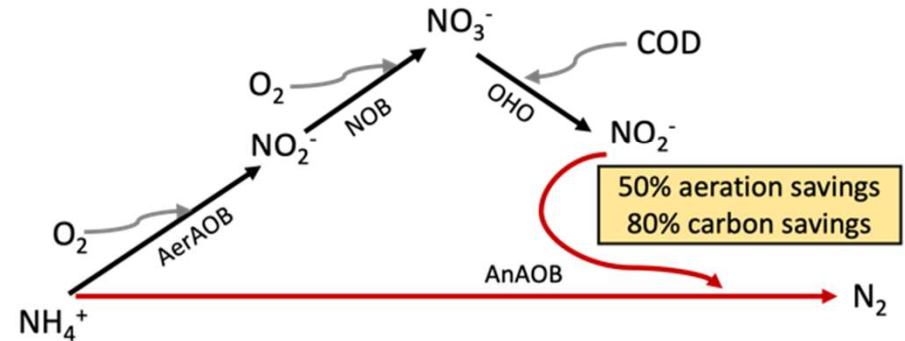
Synergy with future innovations



Resource intensive N removal (Current)



Resource efficient N removal via PdNA



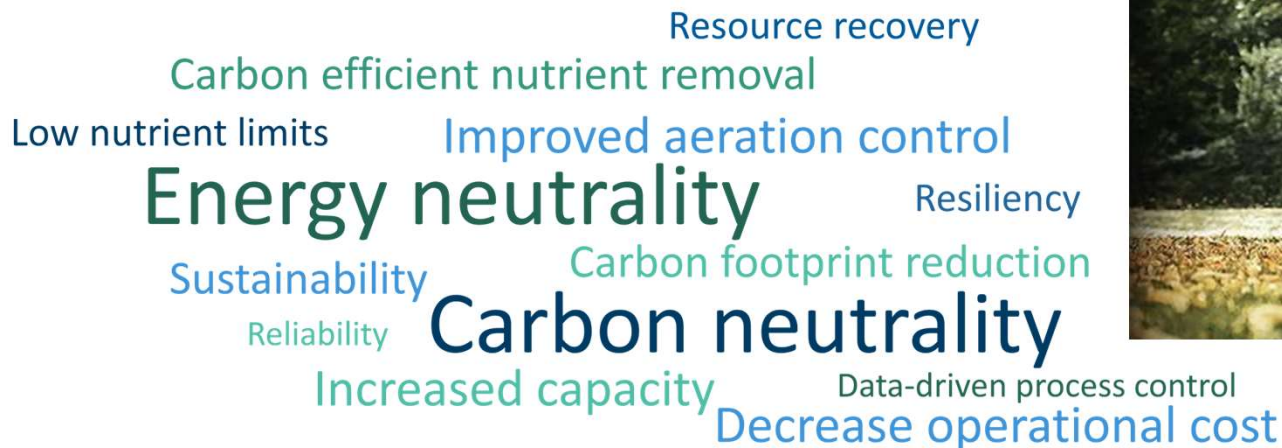
Benefits of PdNA:

- Decrease dependency on methanol for nutrient removal:
 - 30-42% MeOH savings or 14-17 million lbs per year or 3.4-7 million dollar per year
- Increased sustainability: decreased carbon footprint
 - 6,862-8,477 metric tons of CO2 equivalents per year
- Capacity enhancement



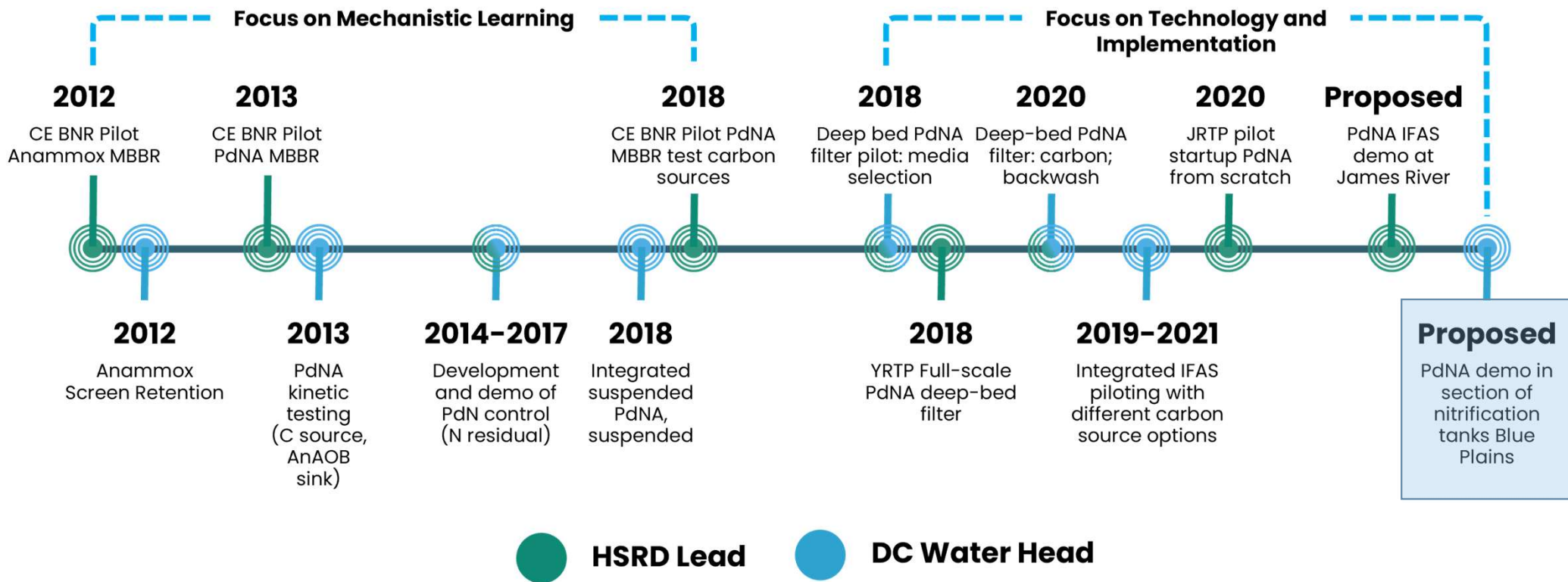
Innovative Nitrogen Removal PdNA Aligns with Long Term Needs and Direction

- PdNA amplifies future improvement opportunities – does not limit us
- PdNA sets us up for improved sustainability, resiliency, reliability and energy efficiency



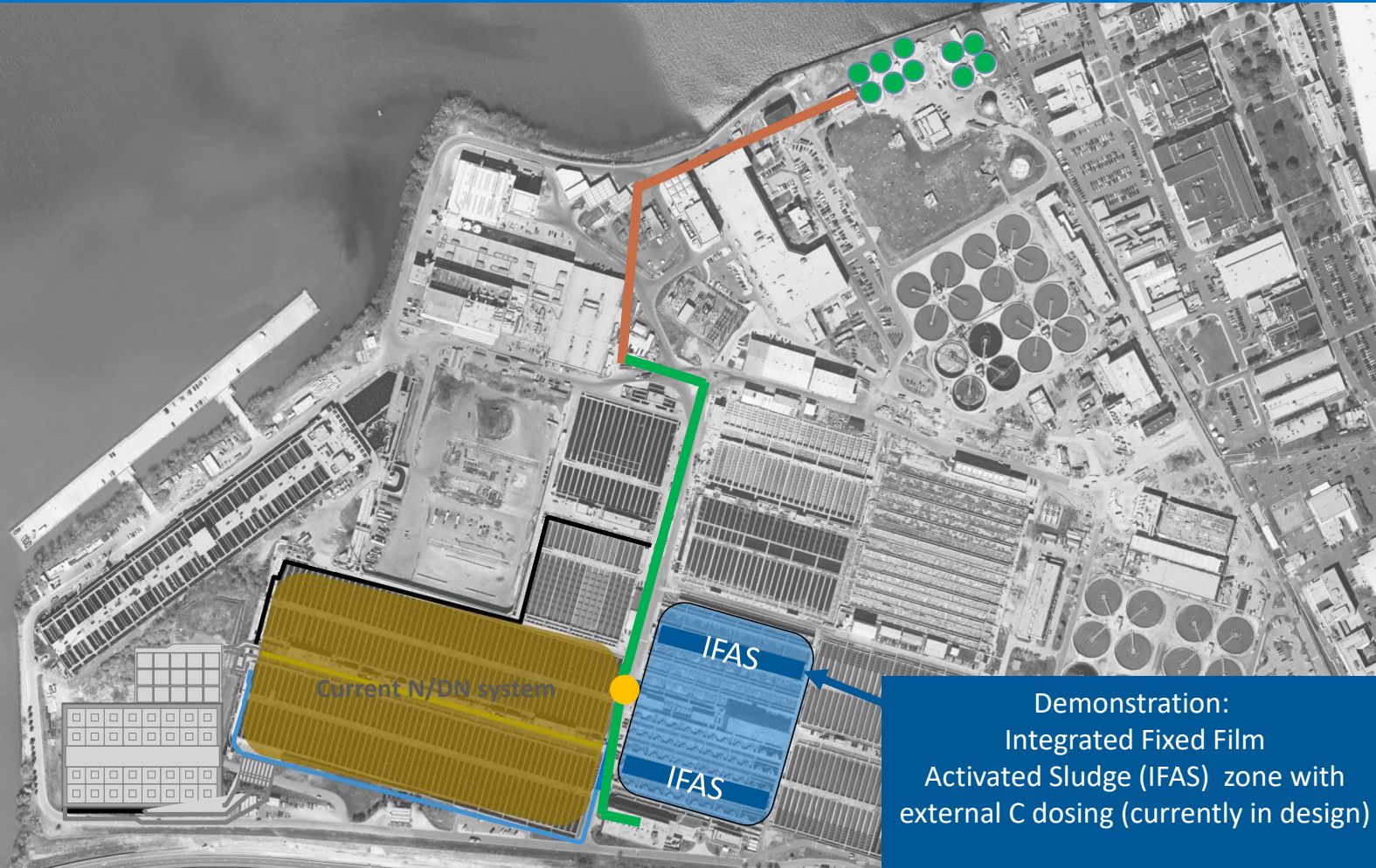


Collaborative Research Timeline on PdNA





Innovative Nitrogen Removal PdNA Integration



- Nitrification tanks
- Denitrification tanks
- Settling basins
- PdNA IFAS zone
- Operational change in existing gravity thickeners
- Existing pipes
- New flow diversion
- Initial dosing point (before PdNA)



Innovative Nitrogen Removal PdNA Integration



1. No Major additional construction
2. Integration of IFAS in existing reactor zones
3. Changing operational strategy in gravity thickeners
4. Diverting fermentate to nitrification
5. Provide (potentially) odor mitigation at gravity thickeners (TBD)



Innovative Nitrogen Removal Rough Preliminary Business Case

1. Fermentate diversion, even without PdNA has fast return on investment and makes sense
2. PdNA implementation has payback period in ~10-year range, much less if methanol unit price escalation will continue
3. Added benefits: potential energy savings (only when blower upgrades happen); carbon footprint driver is clear

Operational cost savings***			
MeOH savings before PdNA	TOTAL	1.5-2.5	Million USD
MeOH savings with PdNA	TOTAL	3.4-7	Million USD
Carbon footprint reduction	TOTAL	6,862-8,477	Metric tons CO2 eq.
Capital costs		35-39	Million USD
Integrated Fixed Film Activated Sludge (IFAS) system*	TOTAL	31-34	Million USD
Fermentate diversion**	TOTAL	4.5	Million USD

*plastic media is major cost (19-22 million dollar) → need some more market analysis (exploration of Chinese market ongoing)

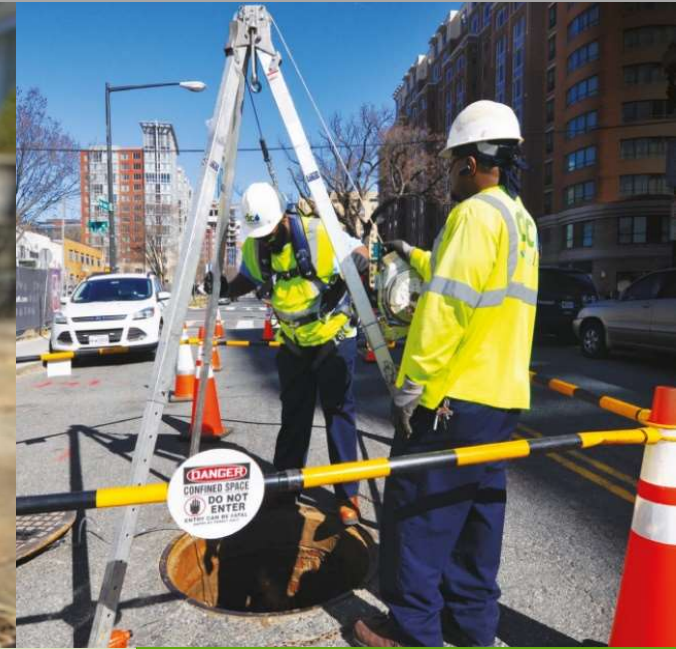
** estimate is for new piping while we believe we can designate existing piping; odor mitigation might be needed, pending modeling results; odor treatment needs are being evaluated and may increase investment need

*** Methanol costs of 0.25 - 0.41 USD per lb were considered

***Proposed FY 2023 – FY 2032
- Capital Improvement
Program***



FY23-FY32 Capital Improvement Program (CIP) Proposed Budget Environmental Quality & Operations Committee February 16, 2023



Matt Brown, Chief Financial Officer (CFO)

- Review the management's budget proposal
- Obtain committee's recommendation to the Board on the following:
 - Proposed FY 2023 – FY 2032 Capital Improvement Program (disbursements and lifetime), including amendments to the FY 2023 Capital Disbursements budget

- 💧 Preparation of Proposed Budget ✓✓
- 💧 Wholesale customer briefing ✓✓
- 💧 Board review of proposals
 - Two months of committee review by Finance and Budget, Environmental Quality and Operations, and Retail Rates Committees
- 💧 Office of People’s Counsel Budget Briefing ✓
- 💧 Budget Adoption by the full Board on March 2, 2023
- 💧 Fiscal year begins October 1, 2023



Timeline (2023)	Activity	Status
January 5	Budget Workshop with Board of Directors	✓
January 10	Office of People's Counsel Briefing	✓
January 13	Wholesale Customer Briefing	✓
	Committee Discussions & Reviews	✓
January 19	Environmental Quality & Operations	✓
January 24	Joint DC Retail Water & Sewer Rates and Finance & Budget Committee	✓
February 2	Board Meeting (No Board Action Required)	✓
	Committee Reviews, Recommendations & Actions	✓
February 16	Environmental Quality & Operations	✓
February 23	Finance & Budget	
February 28	DC Retail Water & Sewer Rates	
March 2	Board Adoption	
April	Submit Budget via the District to U.S. Congress	
October 1	Fiscal Year 2024 Begins	

- The Board of Directors has the sole authority to adopt DC Water's budget
- When DC Council established DC Water, they emphasized the importance of need for independent financial control in DC Code § 34-2201.01:
 - **(3)** The **financing requirements** for water distribution and sewage collection, treatment, and disposal systems, including the ability to fund capital programs without undue reliance on the general obligation credit of the District, are substantial and **require financial resources independent of other District funds**
 - **(4)** Creation of an **independent authority** with secure funding **separated** from the District's General Fund to oversee water and sewer operations for the District and surrounding jurisdictions will **enhance the financial viability of water distribution and sewage collection, treatment, and disposal systems in the District and enhance the District's ability to meet its statutory obligation to provide sanitary sewer services to the surrounding jurisdictions**
 - **(7)** It is in the **best interest** of the District, its citizens, and the surrounding jurisdictions that the Council establish an **independent water and sewer authority** to achieve the following goals and objectives
 - **(B)** To expedite the repair, replacement, rehabilitation, modernization, and extension of existing water distribution and sewage collection, treatment, and disposal systems **including the financing, on a self-sustaining basis, of capital and operating expenses** relating thereto

- DC Council and the U.S. Congress enacted legal requirements for DC Water's budget:
 - **7 affirmative [Board member] votes shall be required for approval of the Authority's budget.** See D.C. Law 11-111; D.C. Code § 34-2202.04(b)(4)(j)
 - The District of Columbia Water and Sewer Authority established pursuant to Chapter 22 of Title 34 shall prepare and annually submit to the Mayor, for inclusion in the annual budget, annual estimates of the expenditures and appropriations necessary for the operation of the Authority for the year. All such estimates shall be forwarded by the Mayor to the Council for its action pursuant to §§ 1-204.46 and 1-206.03(c), **without revision but subject to his recommendations.** Notwithstanding any other provision of this chapter, the **Council may comment or make recommendations** concerning such annual estimates but **shall have no authority under this chapter to revise such estimates.** See Pub. L. 104-184, § 4(a); D.C. Code § 1-204.45a(a)

💧 Proposed Operating Expenditure Budget of \$737.6 million

- Operations and Maintenance (O&M) budget of \$433.9 million for personnel and non-personnel
- Debt Service budget of \$232 million and Cash Financed Capital Improvements budget of \$48.3 million
- PILOT & ROW payments to the District of \$23.4 million or an increase of \$0.4 million

💧 Proposed 10-year Capital Budget of \$6.95 billion

- Capital Projects – \$6.27 billion for mandated projects, equipment upgrades and rehabilitation at Blue Plains, and continued investments in the aging water and sewer infrastructure
- Capital Equipment – \$347.4 million equipment including pumps, motors, meters, backhoes, jet-vacs, catch basin trucks and other aged vehicles to meet operational needs
- Washington Aqueduct (WAD) – \$338.5 million for DC Water’s share of WAD’s capital program

💧 Proposed Financial Plan

- Includes previously approved FY 2024 rates and fees
- Revenue requirements support the forecasted operating expenditures and ten-year CIP
- Meets Board financial policy requirements



DC Water Budget Overview

FY 2024 Operating Budget of \$737.6 million

\$201.6 million

Pays the salaries, benefits and overtime of 1342 employees, including **17 new positions** (to maintain our increased assets, provide customer engagement, and support recruitment, and Diversity, Equity & Inclusion efforts), 17 apprentices, and Summer Internship Program



\$1.3 million

Expands various initiatives to improve customer engagement and stakeholder communication and provide support for the Building Information Management (BIM), Per- and Polyfluoroalkyl Substances (PFAS) monitoring, innovation, and strategic programs



\$23.4 million

PILOT & ROW payments to the District



\$91.0 million

Funds core operations including critical infrastructure and Facilities maintenance and repairs, software technology, legal, compliance, insurance, credit card fees, audit services, biosolids hauling services, government affairs, and workforce development



\$0.9 million

Continues the Leak Assistance Program for customers to repair property side leaks impacting water bills and expands the Backwater Valve Program to install backwater valves on private properties impacted by storm events in the District



\$280.2 million

Other non-operational needs for debt service and Paygo for the capital program

paygo



\$1.4 million

Funds the maintenance of the Green Infrastructure (GI) facilities to manage stormwater

\$137.8 million



Funds fixed and nondiscretionary costs for chemicals & supplies, water purchase, and utilities



The Capital Improvement Program

- 💧 The **proposed ten-year CIP budget is \$6.95 billion**. This is a **\$531 million increase** over the board approved CIP
- 💧 The **proposed lifetime budget is \$14.63 billion** and covers total commitments, including labor, for active projects prior to, during and beyond the ten-year window.

(Cash Disbursements \$ in thousands)	FY 2023 - FY 2032 CIP Disbursement Plan (Run 3C)										Approved/ Proposed	Lifetime Budget	
	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	
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
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	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	(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
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	56,839	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	531,169	14,627,174

DC Water Budget Overview

FY2023-2032 Proposed Capital Investments of \$6.95 billion



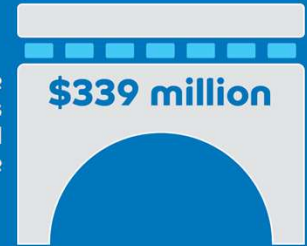
Fully funds DC Clean Rivers projects to meet Consent Decree requirements



\$347 million

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

Invests in the Aqueduct's capital infrastructure



Continues investment in Water & Sewer infrastructure



\$612M to remove all lead service lines by **2030**



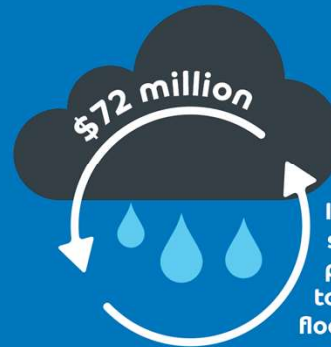
\$1.4 billion

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



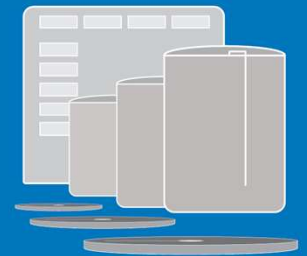
Improves stormwater pump stations to relieve local flooding



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



***Recommendation for Approval
FY 2023 – FY 2032
Proposed CIP***

**ENVIRONMENTAL QUALITY AND OPERATIONS COMMITTEE
FISCAL YEAR 2023 – FY 2032
PROPOSED CAPITAL IMPROVEMENT PROGRAM
ACTION ITEM**

**ACTION ITEM: FY 2023 – FY 2032 Proposed Capital Improvement Program
(Ten-Year Disbursement Plan and Lifetime Budget)**

DC Water presents its capital improvement program on two different bases:

- a. **Ten-Year Disbursement Plan** – The cash disbursement-based capital plan is utilized to forecast the timing and amount of capital financing, which is the primary basis for projected retail rate increases.
- b. **Lifetime Budget** – The project lifetime budget reflects the total costs of each project active during the ten-year planning period. These costs include historical and projected spending, project contingencies, and labor (listed as separate line item).

As shown in Attachment A-1, the Board of Directors will be asked to approve the following:

- a. **FY 2023 – FY 2032 Disbursement Plan** – \$6.95 billion, including the Proposed Revised FY 2023 budget of \$501.4 million
- b. **Lifetime Budget** – \$14.63 billion



Action Item

(Cash Disbursements \$ in thousands)	FY 2023 - FY 2032 CIP Disbursement Plan (Run 3C)											Last Years 10-yr	(Increase/ Decrease)	Lifetime		
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10-yr Total					
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	60,502	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 Management	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)	121,242		
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																
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	647,004	668,633	619,913	735,924	822,910	783,185	669,154	496,528	409,140	-	6,419,899	-	-	13,377,458		
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	-	-	-	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)		

Fleet Maintenance Strategy



Information to Support the Fleet Maintenance Contract Fact Sheet Environmental Quality & Operations Committee February 16, 2023



Maureen Holman, VP Shared Services
Joel Grosser, Procurement

- 💧 Strategic Context – Reliable Imperative
- 💧 Current Maintenance and Repair Activities
- 💧 Fleet Strategy for FY23 and FY24

Reliable Imperative Strategic Context



Minimizing service disruptions for customers by improving Fleet availability.

Reliable

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 integrate and enterprise-wide approach in order to deliver services efficiently.



- Temporary staffing contract provides maintenance and repair technicians and support staff for scheduling, etc.
 - Difficulty maintaining staffing expertise, high turnover
 - No performance standards
- Separate contracts for parts and tires
- Separate contracts for significant repairs and body work

Significant ratepayer investment without getting the required performance and vehicle availability for operating departments and customers.

- Professional Maintenance Services Contract
 - Master Tech required onsite for heavy duty and light duty vehicles
 - Certified Maintenance Technicians and Quality Assurance staff ensure quality work is performed timely
 - Professional scheduling and coordination of preventative maintenance
 - High performance standards linked to key performance metrics with penalties
- Includes parts and tires
- Includes significant repairs and body work
- Includes towing and mobile services

New approach to ensuring fleet performance and quality service levels for operating departments and customers.

Process Control System (PCS)



Information to Support the PCS
Fact Sheet
Environmental Quality & Operations Committee
February 16, 2023



Elkin Hernandez, Director, Maintenance Services
Joel Grosser, Procurement

- After competitive bidding, in 2002 Emerson was awarded a 10 years PCS implementation contract that was completed in 2012.
- In 2010 DC Water approved sole-source procurement of future PCS products and services from Emerson.
- A \$10M PCS Maintenance Contract was approved in 2012. The current request is to extent this contract by 5 years and \$11M to continue to provide process control system maintenance, upgrades and associated cybersecurity tools and services.
- Since 2002 DC Water has a very large investment on Emerson equipment, programming services, training, spare parts and other services.
- PCS monitors over 50,000 signals throughout the plant that allows efficient operation of the plant to meet the NPDES permit.



**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

GOODS AND SERVICES CONTRACT AWARD

**Fleet Maintenance and Repair Service
(Joint Use)**

Approval to award a contract to provide fleet maintenance services and fund the two-year base term for \$7,977,679.00. Purchase Orders will be issued based on availability funds, requirements and vendor performance.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
First Vehicle Services 600 Vine Street Cincinnati, OH 45202	K. Neal International Trucks, Inc. 5000 Tuxedo Road Hyattsville, MD 20781	DBE 9.9%
	Service Properties, LLC. (DBA Mac's Tire Service) 423 Florida Ave, NE. Washington, DC 20002	WBE 3.8%
	John John, Inc. T/A ANT Towing 2209 Channing Street NE, Washington, DC 20018	DBE 2.0%
	Unitec Distribution Systems 289 East Green Street Westminster, MD 21157	WBE 0.3%
	AAG Solutions, Inc. (DBA Affordable Auto Glass, Inc.) 7315 Webster Turn Fort Washington, MD 20744	DBE .3%

DESCRIPTION AND PURPOSE

Base Period Contract Value: \$7,977,679.00
 Base Period Contract Date: 03-27-2023 – 03-26-2025
 Number of Option Years: 3

Purpose of the Contract:

DC Water requires a qualified contractor to provide fleet maintenance and repair service at two locations, a central maintenance garage facility located at 6020 Walker Mill Rd. Capital Heights, MD and the small equipment shop located at 5000 Overlook Ave, SW, Washington, DC 20032.

Contract Scope:

To provide fleet maintenance and repair services, parts, tires, and towing for approximately 610 fleet vehicles and 750 units of small equipment. The inspection and maintenance services must be carried out to meet the prescribed preventive maintenance schedules and the prescribed performance standards. These schedules and standards are designed to keep the fleet vehicles in safe operating condition, ensure maximum availability to the user departments, and to achieve the optimum life of the vehicle in terms of operating efficiency. All work done and reports generated are to be done through DC Water's Automated Fleet Management System (AFMS).

Supplier Selection:

DC Water will ride Loudon County’s contract. This is allowed per DC Water’s Procurement Regulations as Loudon County made their award based on a competitive procurement using selection criteria similar to what DC Water would use. First Vehicle Services satisfactorily performed maintenance and repair services for DC Water from 2002 to 2012.

PROCUREMENT INFORMATION

Contract Type:	Good and Services	Award Based On:	Best Value
Commodity:	Maintenance and Repair	Contract Number:	10331
Contractor Market:	Competitively sourced awards with riders permissible		


BUDGET INFORMATION

Funding:	Operating	Department:	Shared Services
Project Area:	DC Water Wide	Department Head:	Maureen Holman

ESTIMATED USER SHARE INFORMATION

User - Operating	Share %	Dollar Amount
District of Columbia	70.33%	\$5,610,701.64
WSSC	22.20%	\$1,771,044.74
Fairfax County	4.75%	\$378,939.75
Loudoun Water	2.35%	\$187,475.46
Other (PI)	0.037%	\$29,517.41
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$7,977,679.00

 Esq. / 02/07/2023
 Maureen Holman Date
 VP of Shared Services


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 DN: C=US,
 E=dan.bae@dcwater.com,
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 Sewer Authority, OU=VP of
 Procurement & Compliance,
 CN=Dan Bae
 Date: 2023.02.08 11:24:56-05'00'
 Dan Bae Date
 VP of Procurement

Matthew T. Brown
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 Date: 2023.02.08 17:40:17 -05'00'
 Matthew T. Brown Date
 CFO and EVP of Finance and Procurement

 David L. Gadis Date
 CEO and General Manager

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

GOODS AND SERVICES CONTRACT:

**Process Control System (PCS) Maintenance and Major Upgrades
(Joint Use)**

Approval to extend maintenance and upgrade contract for five years in the amount of \$11,503,791.00. Purchase Orders will be issued each Fiscal Year based on Budget availability.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Emerson Process Management Power and Water Solutions, Inc. 200 Beta Drive Pittsburgh, PA 15238	N/A	N/A

DESCRIPTION AND PURPOSE

Contract Value:	\$10,548,141.00
Contract Dates:	10-01-2013 – 09-30-2018
Additional Funding:	\$387,920.00
Additional Funding Date:	04-02-2014 – 09-30-2018
Previous Contract Extensions:	10-01-2018 – 04-30-2023
Additional Funding:	\$350,000.00
Five Year Extension Value:	\$11,503,791.00
Five Year Extension Dates:	05-01-2023 – 04-30-2028

Purpose of the Contract:

Provide major hardware & software upgrades, on-site support, preventive maintenance, and emergency repair services for the Process Control System (PCS).

Contract Scope:

Provide labor, materials and equipment for inspection, repair, modifications, adjustments and major upgrades of equipment and components associated with the PCS equipment to keep the system operational and performing in an efficient manner.

Background; by competitive negotiations, Contract 000090 Process Control and Computer System was awarded to Westinghouse Process Control (now Emerson) August 12 2002, to provide the furnishing and installation of monitoring and control system for wastewater facilities at Blue Plains AWTP. This is an extension of the system maintenance and upgrade Sole Source Contract. The Sole Source exemption is based on Procurement Regulation 5332.3 (b) Equipment upgrade and repair, repair services or parts unavailable from any other source except the original equipment manufacturer or its designated service provider.

Spending Previous Years:

Cumulative Contract Value:	10-01-2013 to 03-31-2023: \$11,286,061.00
Cumulative Contract Spending:	10-01-2013 to 01-06-2023: \$11,017,108.00

Contractor's Past Performance:

According to the COTR, the Contractor's quality of products and services, timeliness of deliverables; conformance to DC Water's policies, procedures and contract terms; and invoicing, all meet expectations and requirements.

PROCUREMENT INFORMATION

Contract Type:	Goods and Services	Award Based On:	Negotiated Sole Source
Commodity:	Service	Contract Number:	WAS-10-051-AA-CE
Contractor Market:	Sole Source Exemption - Procurement Regulation 5332.3 (b)		

BUDGET INFORMATION

Funding:	Operating	Department:	Process Engineering
Service Area:	Blue Plains AWTP	Department Head:	Nicholas Passarelli

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	42.74%	\$1,412,040.27
Washington Suburban Sanitary Commission	42.85%	\$1,415,674.44
Fairfax County	9.16%	\$302,627.26
Loudoun County	4.53%	\$149,661.73
Other (PI)	0.72%	\$23,787.30
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$3,303,791.00

BUDGET INFORMATION


Funding:	Capital Equipment	Department:	Process Engineering
Service Area:	Blue Plains AWTP	Department Head:	Nicholas Passarelli

ESTIMATED USER SHARE INFORMATION


User	Share %	Dollar Amount
District of Columbia	43.57%	\$3,572,740.00
Washington Suburban Sanitary Commission	42.12%	\$3,453,840.00
Fairfax County	9.02%	\$739,640.00
Loudoun County	4.50%	\$369,000.00
Other (PI)	0.79%	\$64,780.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$8,200,000.00

Aklile Tesfaye / 02/06/2023

 Aklile Tesfaye Date
 VP of Wastewater Operations

 Digitally signed by Dan Bae
 DN: C=US, E=dan.bae@dowater.com,
 O=District of Columbia Water and Sewer
 Authority, OU=VP of Procurement &
 Compliance, CN=Dan Bae
 Date: 2023.02.07 13:55:06-05'00'

 Dan Bae Date
 VP of Procurement

Matthew T. Brown
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 Date: 2023.02.08 17:44:00 -05'00'

 Matthew T. Brown Date
 CFO and EVP of Finance and Procurement

 David L. Gadis Date
 CEO and General Manager

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

MASTER SUPPLY AGREEMENT AND PURCHASE ORDER AWARD

**Integrated Supplier Services Program for
Pipes, Valves, Fittings and Associated Materials
(Joint Use)**

Approval to award Master Supply Agreements to issue Purchase Orders for supplier services, pipes, valves, fittings, and associated materials not to exceed \$85,000,000.00 for a base term of three (3) years and two (2) option years.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Multiple Suppliers Ferguson Enterprises, LLC 12500 Jefferson Ave . Newport News, VA 23602 Core & Main LP 1830 Craig Park Court St. Louis, MO 63146	SUBS: TBD	PARTICIPATION: See note below*
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* The overall utilization goals for the Master Supply Agreement are 25% DBE and 10% WBE, respectively. The two firms that were qualified to participate on this Integrated Supplier Services Program, demonstrated a history of successfully meeting established goals for DBE/ WBE utilization. Additionally, the qualified firms are required to work with DC Water to actively engage the certified business community and meet/exceed DC Water’s business diversity, equity, and inclusion goals established for each task order they are awarded.

DESCRIPTION AND PURPOSE

Program Value:	\$85,000,000.00
Master Supply Agreement Term:	3 years
Number of Option Years:	2
Anticipated Contract Start Date:	03/15/2023
Anticipated Contract Completion Date:	03/14/2028

Purpose of the Expenditures:

DC Water seeks to acquire supply chain management services for pipes, valves, fittings, and related materials required to support capital improvement projects. In addition to providing materials, the suppliers will provide supply risk management services that will assure the availability of materials for Lead Free DC and for Small Diameter Water Main Replacement in a timely and cost-effective manner.

Results and Benefits:

By assuming supply chain management for pipes, valves, and related materials, DC Water will shorten procurement lead times, increase our ability to meet spending objectives, and improve the ability of contractors and subcontractors to successfully perform on DC Water critical infrastructure projects. Additionally, reduces bonding and working capital needs to allow firms more opportunity to participate in DC Water projects.

Scope of Purchases:

Suppliers’ services to DC Water will include identifying and mitigating/managing supply chain risks. Suppliers will be integrated into DC Water’s project delivery process, working with DC Water during project planning

and design to assist in forecasting material needs, securing availability from manufacturers, and delivering materials to the jobsite in a just-in-time manner.

Materials provided will include pipes, valves, fittings, and associated materials for capital improvement projects including Lead Free DC and Small Diameter Replacements, Large Diameter Replacement, Lead Service Line Replacement, Critical Valve Replacements, and other projects outlined in DC Water's Capital Improvement Plan. Specific Purchase orders will be competed among qualified suppliers based on availability, price, and performance during the term of the contract.

PROCUREMENT INFORMATION

Contract Type:	Good and Services (MSA)	Award Based On:	Best Value
Commodity:	Services, Pipes, Valves, and Fittings	Contract Number:	N/A
Contractor Market:	Limited Market		

BUDGET INFORMATION

Funding:	Capital	Department:	Shared Services
Project Area:	Water, Sewer	Department Head:	Dave Parker

****ESTIMATED USER SHARE INFORMATION**

JX, JZ, QS - Allocation (Integrated Supplier Service Program)

User	Share %	Dollar Amount
District of Columbia	100.00%	\$19,863,000.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$19,863,000.00

ST - Allocation (Lead Free DC MSA)

User	Share %	Dollar Amount
District of Columbia	100.00%	\$20,000,000.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$20,000,000.00

HX, KE, KF, KG, KH - Allocation (Small Diameter Water Main MSA)

User	Share %	Dollar Amount
District of Columbia	100.00%	\$45,137,000.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$45,137,000.00

Total Combined Allocation

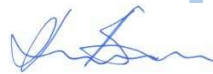
User	Share %	Dollar Amount
District of Columbia	100.00%	\$85,000,000.00
WSSC	0.00%	\$
Fairfax County	0.00%	\$
Loudoun Water	0.00%	\$
Other (PI)	0.00%	\$
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$85,000,000.00

**It is anticipated that as materials are ordered to support capital improvement projects, the individual users will be notified and billed accordingly.

**wayne
Griffith**

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wayne Griffith
Date: 2023.02.02
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Wayne Griffith _____ Date
Acting COO, Executive Vice President



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DN: C=US, E=dan.bae@dcwater.com,
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Authority, OU=VP of Procurement &
Compliance, CN=Dan Bae
Date: 2023.02.02 13:36:03 -05'00'

Dan Bae _____ Date
VP of Procurement

**Matthew T.
Brown**

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Matthew T. Brown
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Matthew T. Brown _____ Date
CFO and EVP of Finance and Procurement

David L. Gadis _____ Date
CEO and General Manager

CIP Quarterly Update



CIP Quarterly Update
Environmental Quality & Operations Committee
February 16, 2023



David Parker, Vice President of Engineering
Paul Guttridge, Director, CIP Infrastructure Management 2

- FY23 Quarter 1 CIP Progress by Service Area
 - Non-Process
 - DCCR
 - Blue Plains
 - Water
 - CSO/Storm/Sewer
 - LFDC
- FY23 CIP Q1 Quarterly Budget Update

FY2023 Progress

Planning

- a) Roofing & HVAC Assessments: Phase 1 complete, starting Phase 2
- b) Main & O Seawall existing conditions study – Spring 2023
- c) Concept Design Underway – Bryant St and Main PS Upgrades, COF Renovations

Procurement

Request for Proposal Documents Underway (In Collaboration with Procurement) For The Following Projects:

- a. Floatable Debris Docks Design-Build – RFP March 2023
- b. Bryant Street Parking Design – RFP February 2023
- c. Anacostia Pump Station Design – RFP March 2023
- d. Fort Reno Watchman’s Lodge Design – RFP August 2023
- e. Blue Plains SB-1 Warehouse Reno – RFP August 2023

Construction

- a) HVAC Replacements at Blue Plains Facilities - \$900K
- b) Sidewalk Installation at Main PS - \$100K

Floatable Debris Docks



Main & O Seawall



Roofing & HVAC, various locations



Projects in Construction: (see next 2 slides)

Div. J, Northeast Boundary Tunnel

Div. PR-C, CSO 025/026 Separation

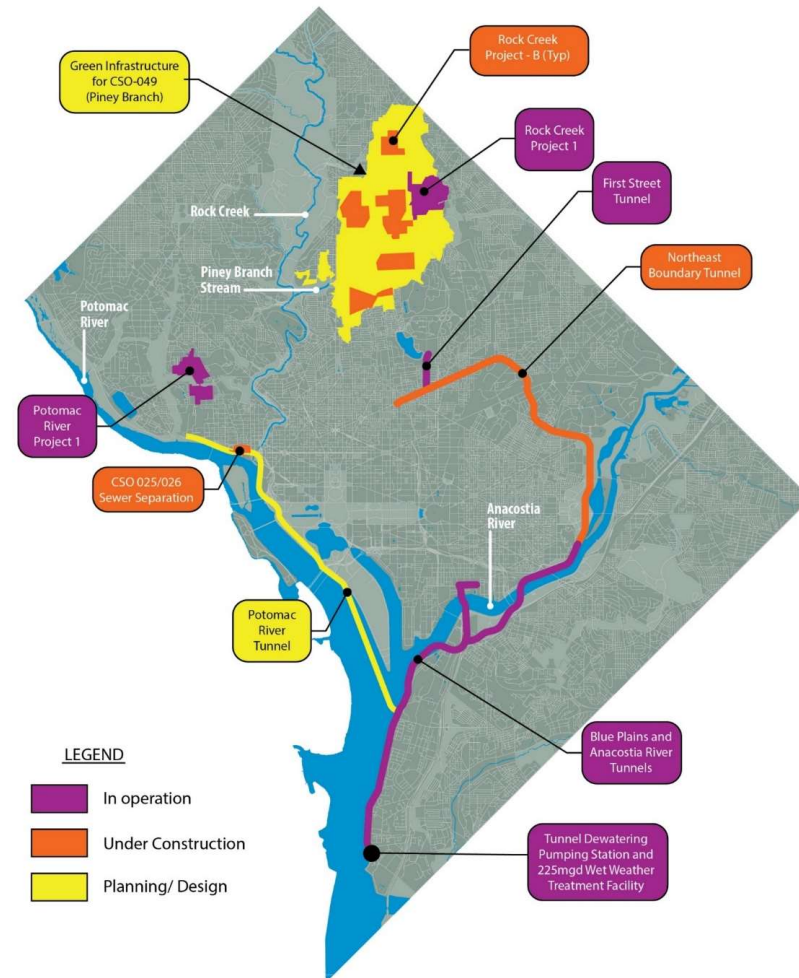
Div. PRT-A, Potomac Tunnel Advance Utility

Div. RC-B, Green Infrastructure Project B

Upcoming Project:

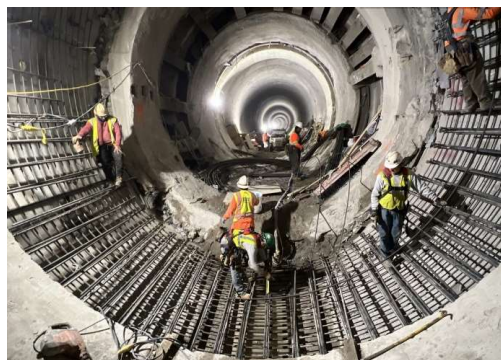
Potomac River Tunnel:

- Project is in procurement
- Collaboration meetings with 4 design-build teams to be completed: Feb 2023
- Technical and cost proposals due: April 2023
- NTP: Nov 2023
- Construction: 2024 – 2030



Div J Northeast Boundary Tunnel	
Purpose	CSO control & flood mitigation in NEB Area
Scope	5.5 miles of 23' dia. tunnel, shafts and diversions
Phase	Construction
Contract Value	\$ 579,975,000
% Complete	95%
Schedule	Summer 2023, ahead of 3/23/2025 Consent Decree deadline
Progress	First St Tunnel out of service for work in advance of commissioning, return to service end of Feb '23±

Div PR-C, CSO 025/026 Sewer Separation	
Purpose	Separate 2 CSOs in Georgetown
Scope	Construct new sanitary and storm sewers
Phase	Construction
Contract Value	\$ 7,799,988
% Complete	78%
Schedule	Consent Decree deadline 3/23/2023
Progress	Separation work completed, working on Structure 44 modifications



Liner at Florida Ave Adit



Rhode Island Ave Inlet #2



Str 44 Work at Wisconsin Ave

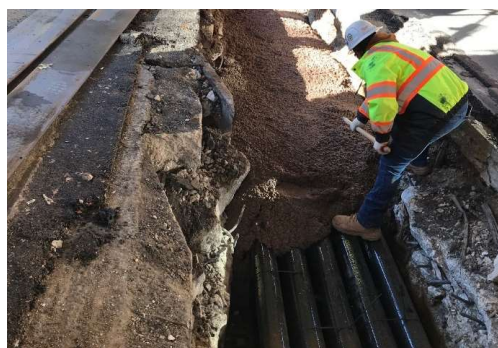


Pile #4 at Str 44

Clean Rivers Construction Projects (2 of 2)

Div PRT-A, Pot Tunnel Advance Utility Construction	
Purpose	Bring power to future Potomac Tunnel work sites
Scope	Electrical duct banks, manholes and appurtenances
Phase	Construction
Contract Value	\$13,943,834
% Complete	92%
Schedule	Fall 2023, in advance of Potomac Tunnel (no Consent Decree deadline)
Progress	Completed Independence Ave and CSO 024, working at Georgetown University (CSO 029)

Div RC-B, Rock Creek Green Infrastructure Project B	
Purpose	CSO control for Rock Creek
Scope	Alley permeable pavement and bioretention facilities
Phase	Construction
Contract Value	\$ 15,856,873
% Complete	43%
Schedule	Consent Decree deadline 1/23/2024
Progress	16 alleys completed, 6 under construction 9 bioretention completed, 4 under construction



Conduit Encasement at CSO 024



Restoration at CSO 024



Alley Permeable Pavement



Planter Bioretention

FY2023 Progress

Planning

- Over **60** Tasks including planning studies at various stages of completion
- Flood Wall Sections AB&D – Preparing solicitation documents

Design

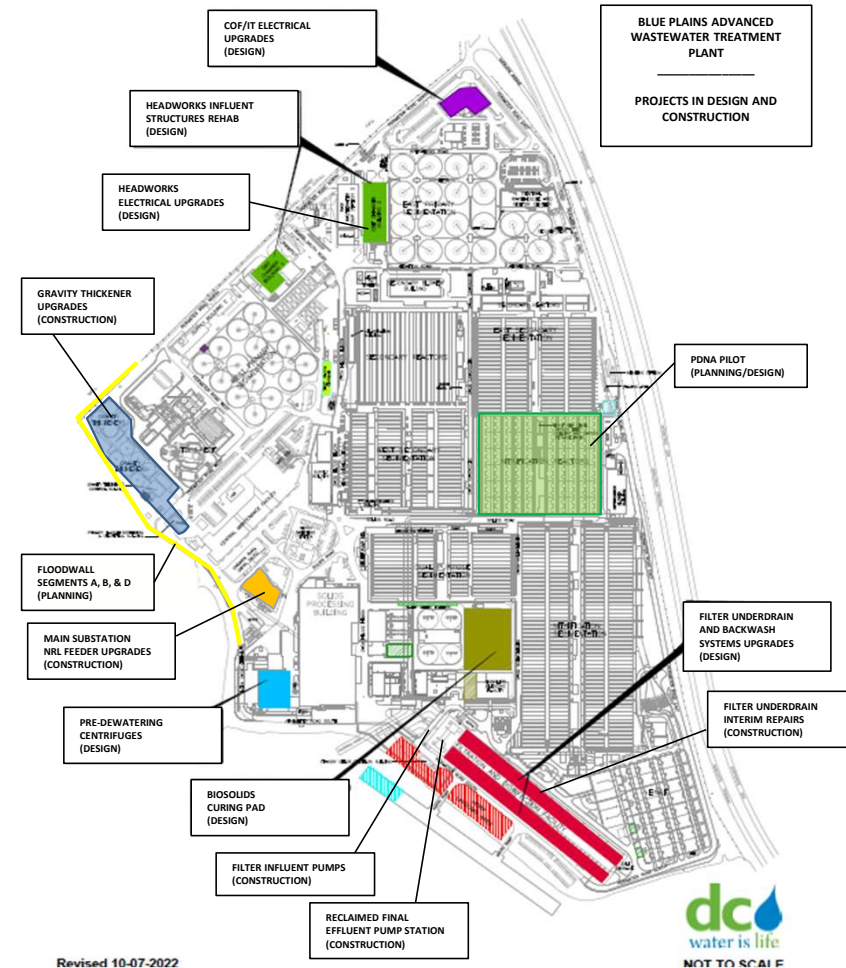
- 9 projects under design with total construction value of \$160M

Procurement

- Advertised Basic Order Engineering Agreement for Design Services
- Awarded Electrical Improvements and Microgrid Implementation Engineering BOA and MFU Construction Contracts

Construction

- Gravity Thickener Upgrades Phase 2 on track for Substantial Completion
- Installation and start-up of all ten (10) Filter Influent Pumps
- Reclaimed Final Effluent Pump System
- Interim Filter Underdrain Repairs
- NRL Feeder Upgrades – Transfer Trip and Stuck Breaker work completed, ready for Pepco to complete upgrades



Blue Plains Ongoing Construction Projects

**Gravity Thickener Upgrades
GT-1 through GT-10**



**Filter Influent Pumps 1-10
Replacement Project**



NRL Feeder Upgrades



**Process Basin
Concrete Repairs**



Interim Filter Rebuild Project



**Reclaimed Final Effluent Pump
Station Upgrades**



FY2023 Progress

Design

- Main PS stormwater pumps and Low Area Trunk Sewer Pump Station – Pre-final Design submitted
- Variable Frequency Drive Replacements for Potomac PS, Main PS and O St PS – on track
- 12th and Maine Stormwater PS – Prefinal Design submitted
- O St sluice gates and Potomac discharge gates valve actuators-completed

Construction

- Potomac PS: Screen Room lighting, Actuator platforms, and seal water tank rehabilitation - Started
- Portland, 1st&D and Kenilworth Stormwater pump stations – ongoing (equipment procurement and permitting)
- O St. PS HVAC improvements - ongoing
- Inflatable Dams – ongoing (equipment procurement and permitting)

Low Area Trunk Sewer PS



Potomac PS VFDs



O St. PS HVAC Improvements



12th & Maine SW PS



FY2023 Progress

Inspection and Assessment

- Inspected 20 miles of small local sewers (12-60")
- Initiated inspection for 12 miles of major sewers (≥60-in)
- Started heavy cleaning for Lower East Side Interceptor (~100 tons debris removed)

Planning

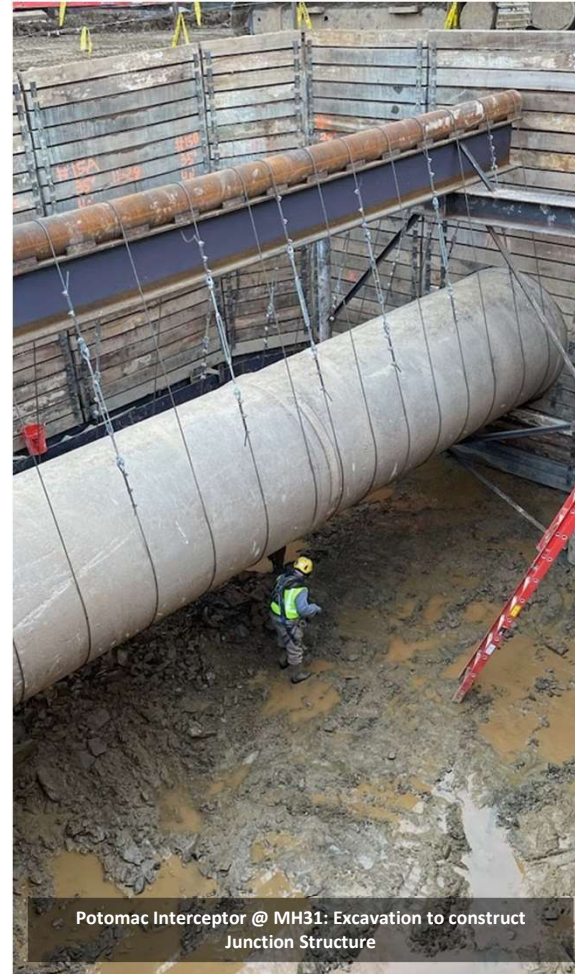
- Preparing Concept Design Report (CDR) for five projects. Completed one CDR.
- Started updates to Facilities Plan for linear water and sewer
- Continuing work on adding equity to CIP prioritization
- Continuing evaluation of risk scores for major sewers
- Updating PI Renewal Report

Design

- Completed design for Piney Branch Sewer Rehab
- Nearing completion of Northeast Boundary Trunk Sewer
- Started work on preliminary design (30%) and environmental permit for Upper East Side Interceptor, Potomac Interceptor @ Clara Barton (Phase 1 & 2)
- Finalizing design for seven different local sewer rehab projects

Construction

- Completed of access paths and stream restoration 75% complete on Soapstone
- Obtained permits & permissions to install cured-in-place pipe (CIPP) at Soapstone
- Executed contract with Water Research Foundation (WRF) to study CIPP air emissions
- Completed temporary shoring for new MH31 (see photo to right)
- Completed site preparations (temporary power, erosion and sediment control, relocation of historic trail, etc)



Potomac Interceptor @ MH31: Excavation to construct Junction Structure



P-236-071-480-170
15" VCP



P-243-121-425-694
18" VCP



P-234-085-019-310
15" VCP



P-280-062-781-308
18" VCP

FY2023 Progress

Planning

- **Concept Design of 6 projects** are ongoing. Four projects have been transitioned to design.
- **Facilities Plan** update for Linear System is ongoing.
- Completed **critical valve prioritization**.
- On-going studies include District Metering and Water System Demand Evaluation.

Design

- Completed bid documents for Small Diameter Water Main (SDWMR) 16A & 16B
- Completed PreFinal (90%) design for SDWMR 16C thru 18C (represents ~14 miles); majority completed with inhouse resources
- Completed Preliminary (30%) design for SDWMR 19A – 21C (represents ~22 miles); majority completed with inhouse resources
- Designing three special projects for out of service watermains and watermains on bridges
- Started design for rehabilitation of 66" Steet 8th St. Low Service Main
- Started design for rehabilitation of Soldiers' Home Transmission Main

Construction

- Achieved Substantial Completion for two projects (SDWMR 13D & 14A)
- Near Substantial Completion on 14B (expect Substantial Completion in mid-Feb)
- Started construction on one project (SDWMR 16C)

Constitution Ave Area Water Main Replacement



SDWMR 14C: 8-inch Water Main Installation at Peabody St



SDWMR 12C: Water Service Replacement at Tuckerman St, NW



SDWMR 15A: PCC Base Repair at 23rd St & E St, NW



FY2023 Progress

Planning

- Inspected Ft. Stanton no. 1 Reservoir.
- Concept Design of 4 projects are ongoing. One project has been transitioned to design.
- On-going studies include Short Term Water Supply Resiliency, and Bryant St PS and Anacostia PS Cone Valves Operational Improvements
- Ft Reno Reservoir No. 1 Inspection Draft Report completed, 4th High Reno BCE completed, SHR final drawings for vault leak repair and combination air/vacuum valve completed , Ft. Reno Pump Station Preliminary Engineering Report completed.
- On-going studies include Anacostia 3rd High-Pressure Improvements and Systemwide Low-Pressure Evaluation.

Design

- Ongoing design for three elevated tank projects:
 - Ft Reno Elevated Tank No. 2
 - Ft Stanton Reservoir No. 2
 - Anacostia Elevated Tank No. 1 (Good Hope Tank) & Anacostia Elevated Tank No. 2 (Boulevard Tank)
- Ongoing design for one buried reservoir (Ft Stanton Reservoir No. 1)

Construction

- Emergency repair of Anacostia Tank No. 2 is 85% complete
- Bryant St Spill Header valve upgrades project will commence a physical start in Feb. '23
- Ft. Reno booster system interconnection project – initiated

Anacostia PS Cone Valve Improvements



Bryant St PS Venturi Meters Improvements



FY2023 Progress

Construction

- Completed replacement for daycares with suspected partials

Community Outreach

- Conducting initial outreach (mailers) for Packages 5 & 6

Program Mgmt

- Completed transition to new Program Manager

Construction Management

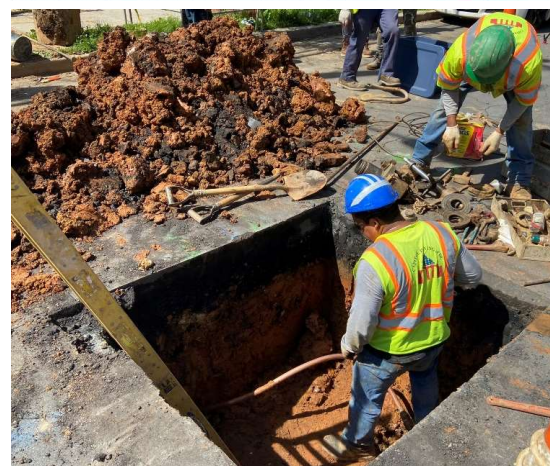
- Implementing Unifier forms for inspection

Permitting & Design

- Working with DDOT Leadership to obtain MOU
- Designing next blocks for Packages 7 & 8
- Designing small diameter water main projects for lead service removal

Procurement

- Master Service Agreement (MSA) contracts implemented, Integrated Supplier Services (ISS) ongoing to facilitate earlier construction starts and promote Compliance utilization goals
- Executed change orders to maintain momentum during transition to MSA contractors



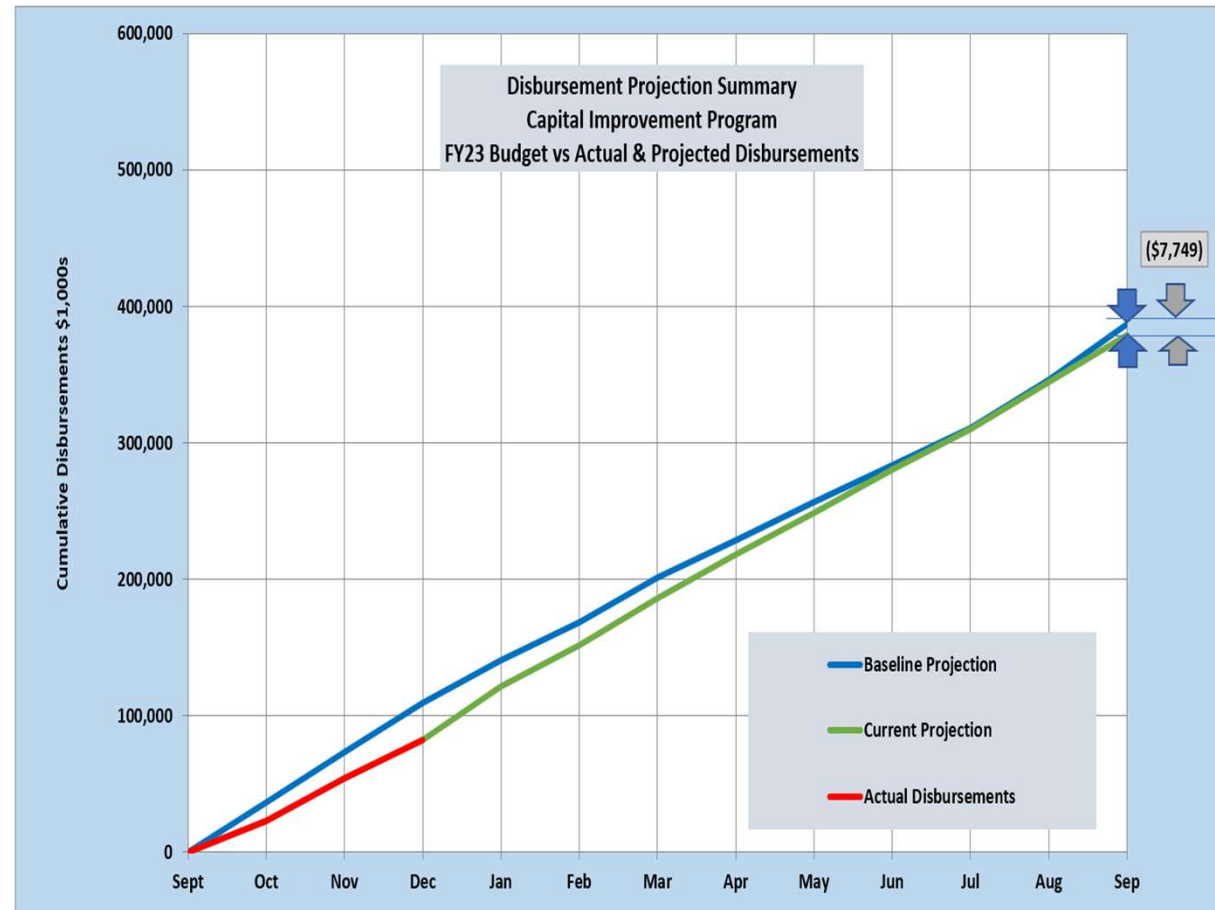
FY23 CIP Q1 Disbursements & KPIs Update

FY23 CIP Disbursement Performance

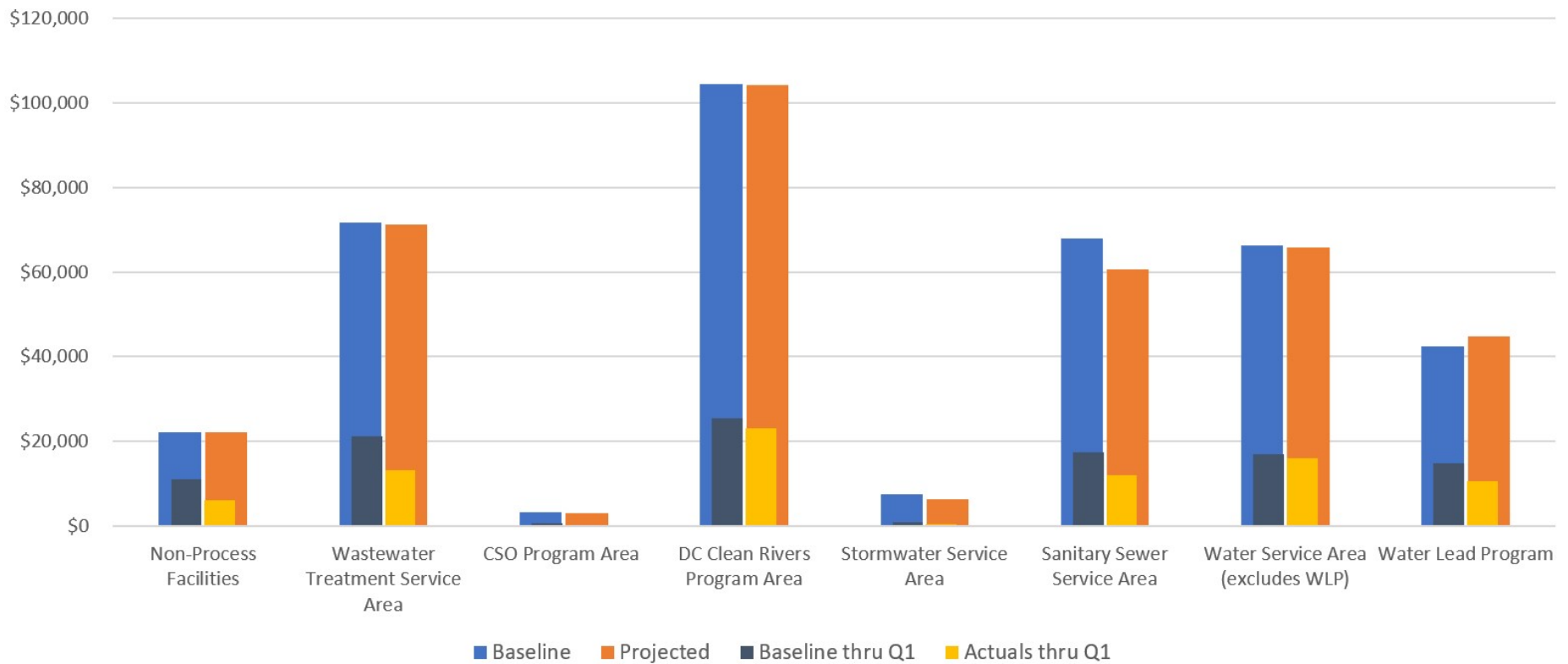
The Baseline projection for FY23 was developed to better align with the anticipated execution of the planned work.

The program disbursements through the end of the fiscal year compared with the FY23 baseline budget are shown in the chart (right).

The fiscal year 2023 thru Q1 CIP disbursements were **\$82M** through the end of the first Quarter.



Service Area Projected Year-End Performance



Non-Process Facilities – On target

- HH Main and O Relocation (Fleet and Sewer Facilities) – Projects near final completion pending resolution of dispute with contractor (Sewer) and occupancy permit for Fleet.

Wastewater Treatment Service Area – On target

- Delayed invoicing by Program Management lowered Q1 spending
- Gravity Thickener Upgrades on track for completion in FY23

CSO Program Area Achieved – On target

DC Clean Rivers Program Area – On target

- The place-in-operation timeframe remains mid-2023 for North East Boundary Tunnel, ahead of the March 23, 2025, Consent Decree deadline.

Stormwater Service Area Achieved – On target

Sanitary Sewer Service Area – current forecast underspending of \$7M (baseline \$68M, forecast \$61M):

- Current underspending on Potomac Interceptor @ MH31 contract is due to a lag in invoicing, anticipate recovery by year end
- Soapstone permit delays have been extensive; all permits and permissions are now in hand; Cured in Place Pipe installation anticipated to start February
- Sewer Ongoing program forecast anticipated to be slightly under by year-end

Water Service Area – On target

- Water Distribution program forecast to be over baseline by year-end, partially due to payment carry over from FY22 and better than anticipated performance.
- Water Ongoing program forecast anticipated to be slightly under by year-end

Summary of FY23 Key Performance Indicators (KPIs):

	Performance
32	Total KPIs due this year
4	KPIs completed within threshold
1	KPIs outside threshold (>90 days)

Q1 KPIs achieved within the 90-day threshold:

Job	Job Name	KPI type	Due Date (Baseline)	Actual Completion Date
JZ02	Rehab of the 66" Steel 8th St Low Service Main	Design Start Milestone	14-Oct-22	14-Oct-22
QS03	Local Sewer Rehab Project 5-3	Design Start Milestone	1-Dec-22	15-Dec-22
GR03	Small Diameter Water Main Rehab 15D	Construction Start Milestone	30-Jan-23	23-Nov-22
KH02	SDWM Renewal 21B	Design Start Milestone	1-Jun-23	7-Nov-22

Q1 KPIs not achieved within the 90-day threshold:

Job	Job Name	Delta	Comment	Due Date (Baseline)	Est. Completion Date
HH01	New Fleet Management Facility	-92	New Fleet Facility: Construction Substantial Completion is pending Final Occupancy Permit.	1-Oct-22	1-Jan-23