DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Board of Directors

Meeting of the
Environmental Quality and Operations Committee

Thursday, May 19, 2022
9:30 a.m.

Microsoft Teams
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Or call in (audio only)
+1 202-753-6714,,142812080#
Phone Conference ID: 142 812 080#

9:30 a.m.	**I.**	**Call to Order**	Sarah Motsch Chair
	II.	**Roll Call**	Linda Manley Board Secretary
9:35 a.m.	**III.**	**AWTP Status Update**	Aklile Tesfaye
		1. BPAWTP Performance	
9:50 a.m.	**IV.**	**CIP Quarterly Update**	Paul Guttridge
10:05 a.m.	**V.**	**Engineering In-Sourcing Plan**	David Parker
10:20 a.m.	**VI.**	**Action Items**	Steve Boemerman

Joint Use

1. Contract No.: 18-PR-DIT-59, Maximo IT Prof Services, Infosys
2. Contract No.: 10128 Annual Maintenance & Repair of Electrical Distribution Equipment, MC Dean
3. Contract No.: 19-PR-DWT-14 - Belt Press Dewatering Polymer, Polydyne
4. Contract No.: 19-PR-DWT-15 – Centrifuge Pre-Dewatering Polymer, Polydyne

Non-Joint Use

Presentation: VertexOne Extension

1. Contract No.: 15-PR-CCO-59, Customer Information System (CIS), VertexOne

10:35 a.m.	**VII.**	**DC Clean Rivers Update**	Moussa Wone

10:50 a.m.	**VIII.**	**Other Business / Emerging Issues**	
10:55 a.m.	**IX.**	**Executive Session***	Sarah Motsch
11:00 a.m.	**X.**	**Adjournment**	Sarah Motsch

Follow-up Items from Prior Meetings:

1. None.

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

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District of Columbia Water and Sewer Authority

Briefing on:

Blue Plains Complete Treatment Performance

Briefing for:

Environmental Quality and Operations Committee

May 19, 2022

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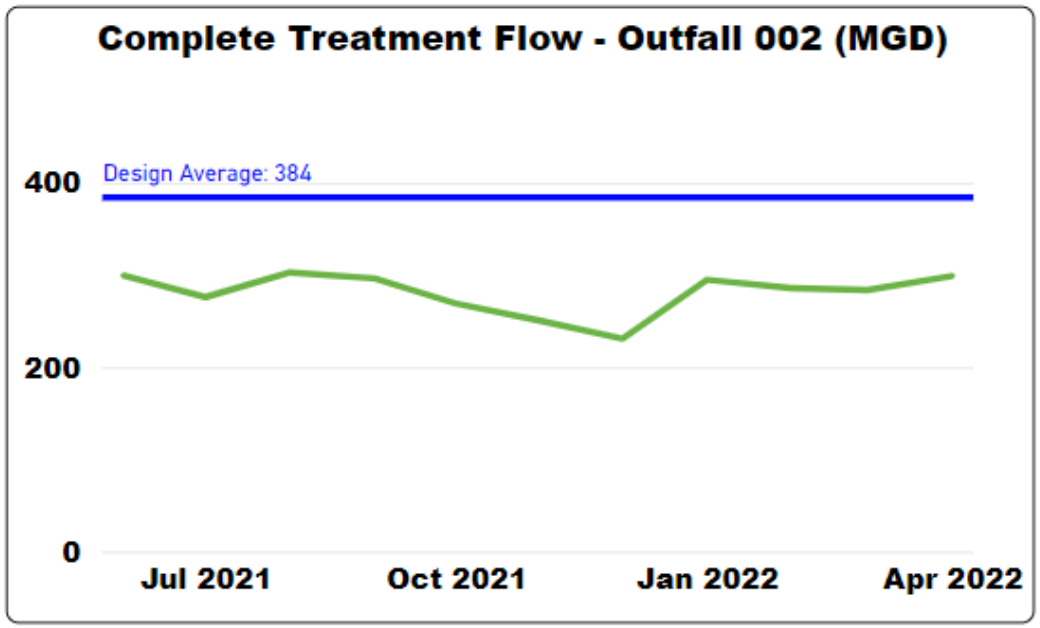
Operational Performance

Blue Plains Complete Treatment Performance



Monthly Average Influent Flow Trend to Complete Treatment (MGD)

- All weekly and monthly NPDES permit requirements met
- Average Outfall 002 flow: 299 MGD
- 63 MG CCF treated at WWTF and directed to Outfall 001

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Operational Performance

Wet Weather Treatment Facility (WWTF) Performance

	April 2022*	Calendar Year 2022 (Through April)
Total Precipitation, inches (DCA gauge)	3.52	12.27
Total Volume Captured in the Anacostia Tunnel, MG	207	552
Measured Overflow, MG	0	0
Percent Captured**	100%	100%
Screenings and Grit Capture, tons	68	200

Note: *Based on preliminary data.

- Total of 207 MG of combined wet weather flow, captured in the tunnel system, was treated through the plant
- No measured overflow

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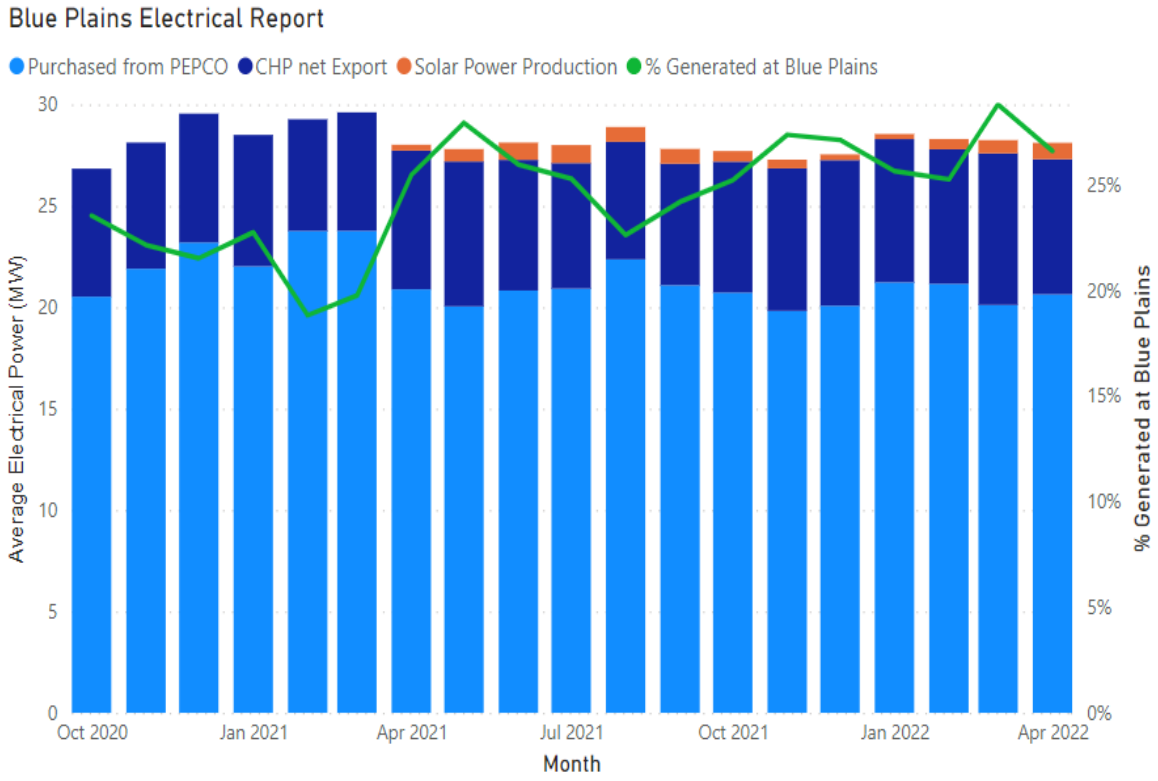
Operational Performance

Blue Plains Electrical Energy Use and Generation



- 27% of electricity was generated onsite
- Combined Heat and Power (CHP) facility produced an average of 7.9 megawatts (MW), with 6.7 MW net to Blue Plains grid
- Solar System produced an additional 0.8 MW of power on average
- Total electricity consumption at Blue Plains averaged 28.1 MW
- DC Water purchased an average of 20.6 MW of electricity from PEPCO

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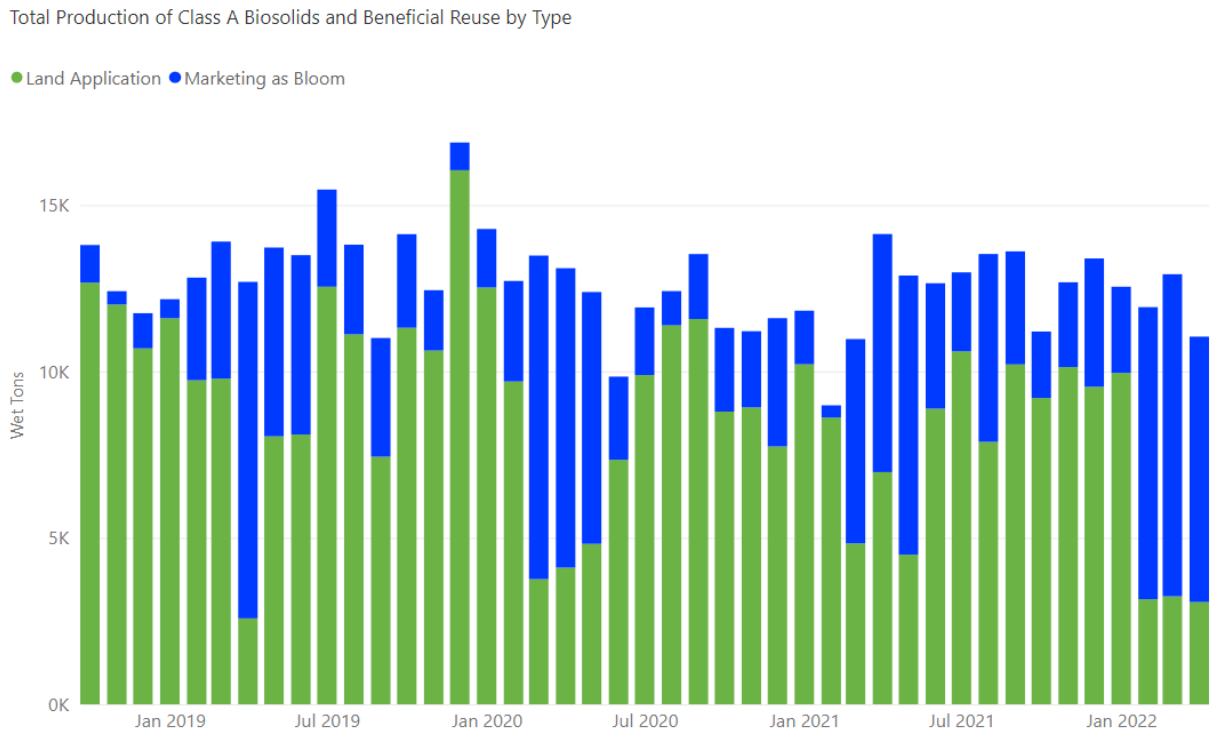
Operational Performance

Class A Biosolids Production & Bloom Marketing



- Biosolids hauling averaged 368 wet tons per day (wtpd) all meeting Class A Exceptional Quality (EQ)
- 7974 wet tons of Bloom Sold – Record Amount for one Month
- 3072 wet tons not sold were land applied through WSSC contracts

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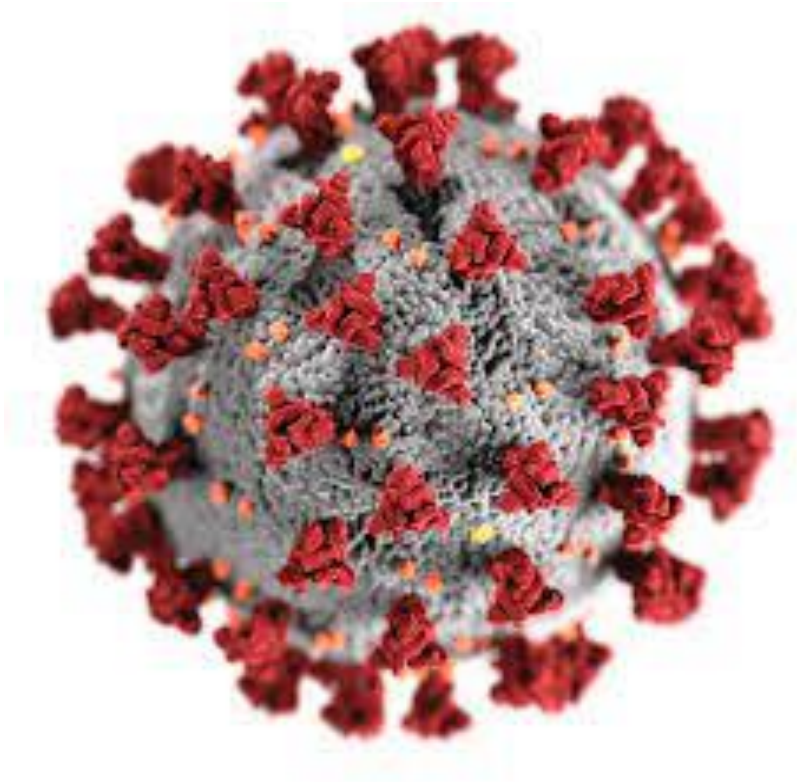
National Wastewater Surveillance System (NWSS)



COVID-19 = disease

SARS-CoV-2:

- viral RNA = genetic material from the virus
- This is what we track and measure in sewage

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Value of Wastewater Surveillance

Wastewater surveillance captures presence of SARS-CoV-2 shed by people with and without symptoms. By measuring SARS-CoV-2 levels in untreated wastewater over time, public health officials can determine if infections are increasing or decreasing in a sewershed.

Wastewater surveillance can be an early indicator that the number of people with COVID-19 in a community is increasing or decreasing.

Unlike other types of COVID-19 surveillance, wastewater surveillance does not depend on people having access to healthcare, people seeking healthcare when sick, or availability of COVID-19 testing.

Wastewater surveillance can be implemented in many communities since nearly 80 percent of U.S. households are served by municipal wastewater collection systems

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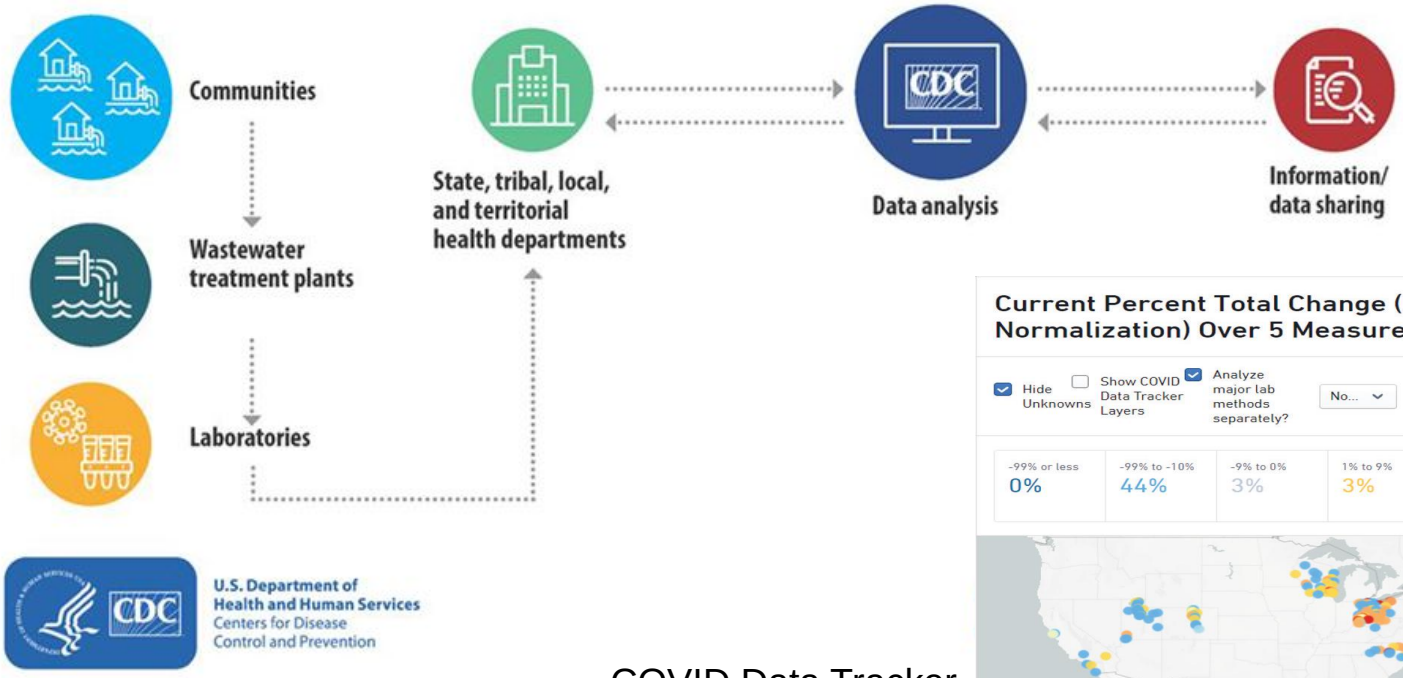
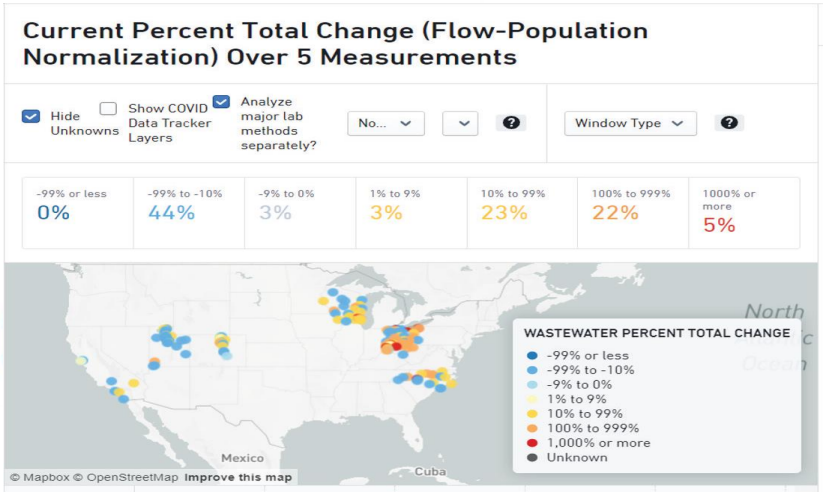
Building COVID-19 Wastewater Surveillance with the NWSS

- CDC's National Wastewater Surveillance System (NWSS) works with health departments to track SARS-CoV-2 levels in wastewater so communities can act quickly to prevent the spread of COVID-19.



COVID Data Tracker



Different Sampling Phases at Blue Plains

Period	Sample	Laboratory	Funded by	DOH involved
04/2020-8/2020	BP influent + primary sludge	Howard University	NSF/WRF	No
1/2021-2/2021	BP influent	Aquavitas	HSS phase I	no
7/2021-8/2021	BP influent	Biobot*	HSS phase II	no
1/2022-4/2022	BP influent	LuminUltra	HSS phase III	Yes, NWSS
3/2022-7/2022	BP influent	DSF*	HSS phase III	Yes, directly +NWSS
TBD	Oxon Run sewer	DSF	HSS phase III	Yes, directly + NWSS
TBD (9 month)	BP influent	Biobot	HSS phase IV	Yes, NWSS

*data not received yet

Health departments can partner with CDC NWSS, laboratories, and local wastewater utilities to get high-quality, community-level data they can use to protect public health

- Collaboration between Department of Health, Department of forensic science, DC Water for sampling virus levels in Blue Plains influent (started in March 2022), Oxon Run sewer (TBD), St Elizabeth hospital (TBD), Department of corrections (TBD)
- Role of DC Water: sampling at Blue Plains, train staff to do sampling at hospital and prison

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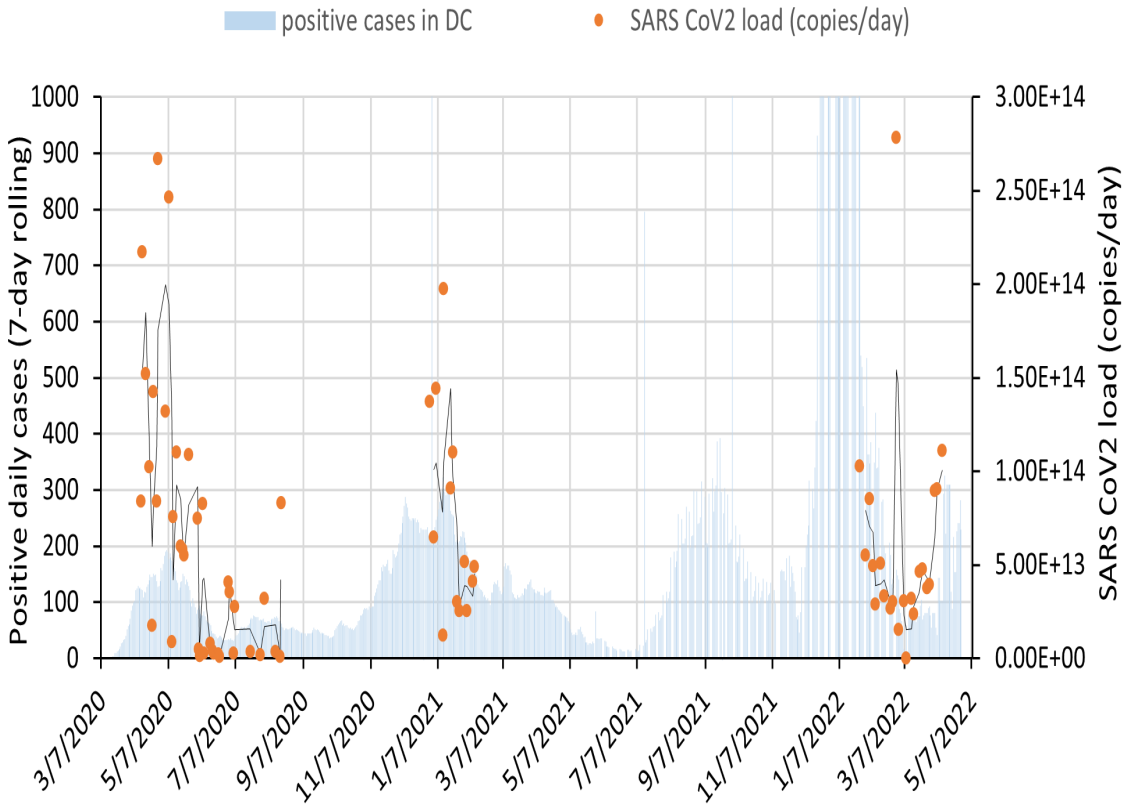
Initial Tracking Between Positive Cases and Virus Loads



Three campaigns are shown for which we had the raw data available (we miss access to raw data from Biobot which covers some of gab between 2nd and last campaign)

Methods between campaigns are different so comparison between campaigns is not feasible in this representation (we will need to work on normalization of data to do so)

Virus levels in sewage have trended quite well with # positive cases in DC area and could be used a potential indicator for community spread

Especially in April, it seems that ww levels detected jump in cases earlier than seen by # positive cases

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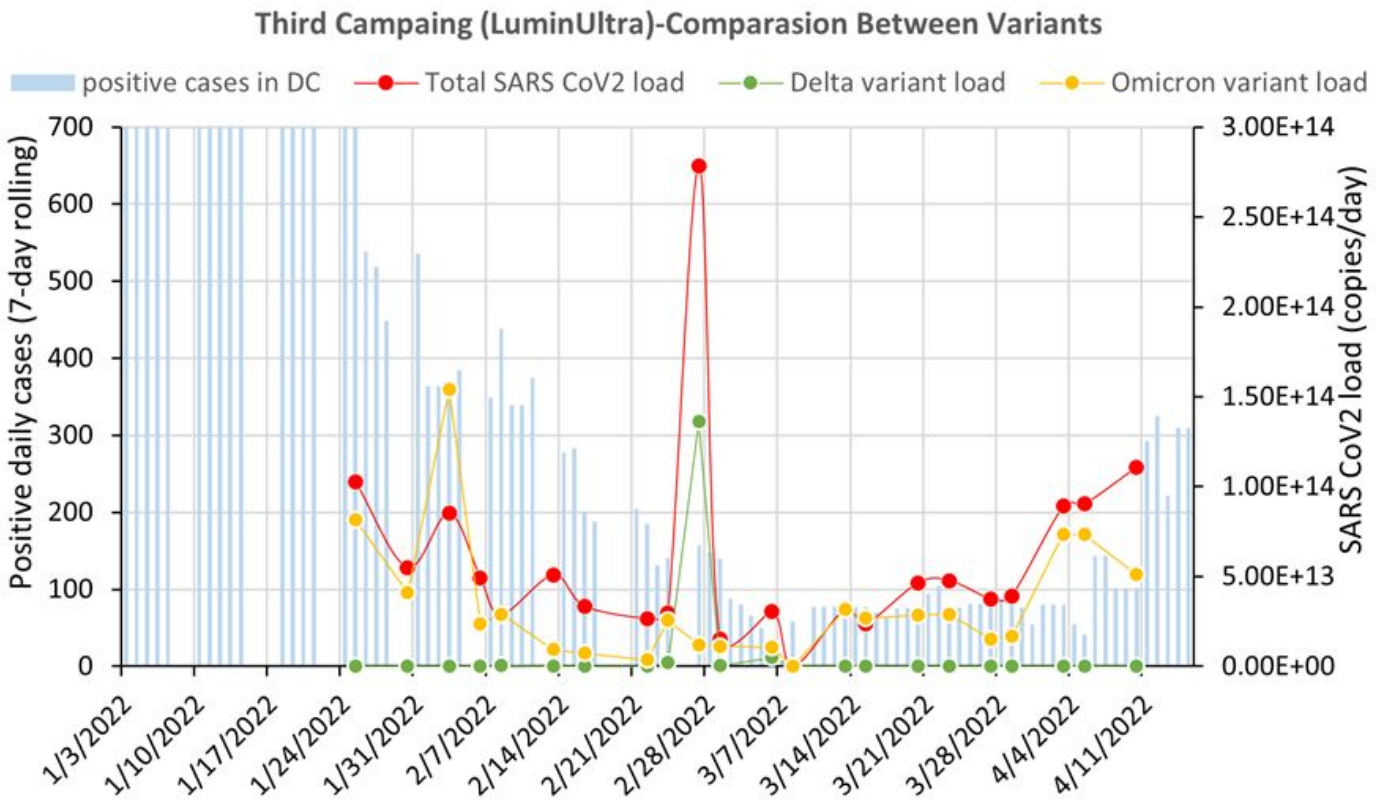
Initial Tracking Between Positive Cases and Virus Loads



- Most of the detected SARS CoV-2 has been identified as Omicron variant for the past period
- The gap between variant loads and overall virus loads indicate the unknown types present

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Next Steps

Work with Department of Health and Department of forensic science:

- To evaluate their data compared to LuminUltra and fill data gaps
- To normalize data from different campaigns
- To discuss how the data will be used and communicated
- Start new campaign with Biobot and work out data sharing/normalization

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District of Columbia Water and Sewer Authority

Capital Improvement Program Report

FY-2022 2nd Quarter
January 1st through March 31st, 2022

Board of Directors
Environmental Quality and Operations Committee

David L. Gadis, CEO and General Manager
Kishia L. Powell, Chief Operating Officer

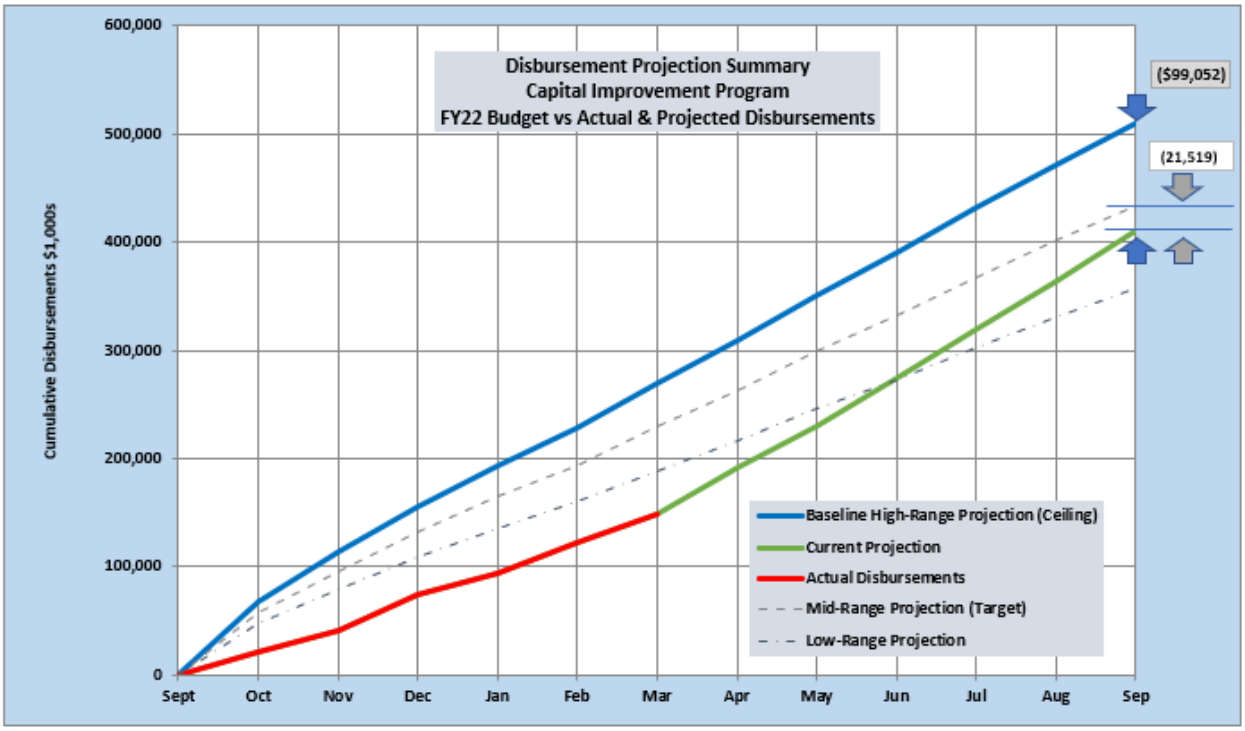
May 2022

Capital Improvement Program Report
2nd Quarter FY2022

CIP Disbursement Performance

Current projected program disbursements through the end of the fiscal year compared with the proposed FY22 baseline budget ceiling are shown in the chart below:

Disbursement Summary



The current projected fiscal year 2022 CIP disbursements are $411,061,000 through the end of September 2022, which is $99M under the approved baseline ceiling of $510,112,000. The current forecast is $21M below the mid-range projection which represents 95% of the mid-range projection.

Current disbursement projections within the service areas are as follows:

Non-Process Facilities
Baseline Disbursements $31,439,000
Projected Disbursements $25,089,000 ($6.4M below baseline projection)

Significant project variances are listed below:

- *Facility Land Use Program Area:*
  - The forecast disbursements for Project HH – Main & O Redevelopment Efforts are $1.4M below baseline due to delays installing power transformers at both the Sewer Headquarters and Fleet Facility partially due to supply chain issues.

– The forecast disbursements for Project HJ – COF Renovations are $1.6M below baseline. This project was initially put on hold in response to COVID-19 revenue restrictions. The team will likely start on a design concept in FY22 after transitioning the work to the new program manager.

Wastewater Treatment Service Area
Baseline Disbursements $85,979,000
Projected Disbursements $79,878,000 ($6.1M below baseline projection)

Significant project variances are listed below:

- *Liquid Processing Program Area – ($3.1M below baseline)*
  - The forecast disbursements for Project IY – Effluent Filter Upgrade are $2.2M below baseline due to later than anticipated award of the Miscellaneous Facilities Upgrade Contract 7 (MFU7) construction contract and design finalizations.
  - The forecast disbursements for Project IZ – Replace/Upgrade Influent Screens are $1.9M above baseline due to invoices paid in first quarter FY2022 that were anticipated to be paid in the last quarter of FY2021.

- *Plantwide Projects Program Area – ($3.5M below baseline)*
  - The forecast disbursements for Project TZ – 504I6 - Elec Power Sys - Switchgear are $1.3M below baseline due to an initial scope change necessitating a change order that impacted the start of the construction contract.

For clarity, the Combined Sewer Overflow (CSO) Service Area comments are addressed separately by the CSO and DC Clean Rivers Program Areas:

CSO Program Area
Baseline Disbursements $4,919,000
Projected Disbursements $4,197,000 ($0.7M below baseline projection)

There are no significant project variances for this service area currently projected over the fiscal year

DC Clean Rivers Program Area
Baseline Disbursements $147,347,000
Actual Disbursements $126,693,000 ($20.7M below baseline projection)

The Northeast Boundary Tunnel (NEBT) is the primary driver for Clean Rivers spending and we project Fiscal Year 2022 disbursement to come in below the planned disbursement.
The reason for this underspending is an uptick of COVID-19 infections (30% of the laborers were infected in December 2021 – January 2022) on the NEBT, forcing the design-builder to prioritize construction activities. In addition, at the Florida Avenue construction site, the design-

builder chose ground freeze to improve the ground for excavation of the adit that connects the NEBT tunnel to the drop shaft. This ground improvement technique was selected over more invasive techniques to minimize traffic and neighborhood impacts during construction. However, the freeze growth has caused heave of some of the local road utilities and imposed pressures on some of the permanent works. As a result, the design-builder has implemented mitigation measures. This situation has impacted the ability to progress some of the work at the Florida Avenue site and has, therefore, impacted spending.
Projected place-in-operation timeframe remains mid-2023, ahead of the March 23, 2025, Consent Decree deadline.

Stormwater Service Area
Baseline Disbursements $7,029,000
Projected Disbursements $3,481,000 ($3.6M below baseline projection)

Significant project variances for the second quarter are listed below:

- *Storm Pumping Facilities Program Area ($3.4M below baseline)*
  - The disbursements for Project NG – Stormwater Pump Stations Rehabilitation are $3.4M below the baseline. Later than anticipated award of MFU7 & issues getting designs completed and turned over to construction. In addition the DDOT Contract under this project was delayed consequently impacting disbursements.

Sanitary Sewer Service Area
Baseline Disbursements $68,086,000
Projected Disbursements $51,318,000 ($16.8M below baseline projection)

Significant project variances for the second quarter are listed below:

- *Interceptor/ Trunk Force Sewers Program Area ($12.4M below baseline)*
  - The disbursements for Project LZ – Potomac Interceptor Projects – Rehab Phase II are $7.0M below the baseline. Permitting and contract negotiations of Phase II design-build contract for Potomac Interceptor Phase 5 Pipe Rehab took longer than anticipated. Contract negotiations are complete and remaining permit issues are expected to be resolved next month.
  - The disbursements for Project RA – Major Sewer Assessment and Heavy Cleaning are $1.1M below the baseline due to a longer than expected procurement period. The work is being repackaged and readvertised.

- *Sanitary On-Going Projects ($1.4M below baseline)*
  - The disbursements for Project M9 – FY2022 - DSS Sanitary Sewer Projects are currently $2.5M below baseline. This is within the limits of forecasting accuracy for this program area as the number and size of emergency work is difficult to predict year-on-year.

- *Sanitary Program Management ($1.5M below baseline)*
  - The disbursements for Project AU – Sanitary Sewer Program Manager are currently $1.1M below the baseline due to a slower ramp up of work than expected.

- *Sanitary Pumping Facilities ($1.5M below baseline)*
  - There are no significant project variances for this program area currently projected over the fiscal year.

Water Service Area
Baseline Disbursements $165,313,000
Projected Disbursements $120,421,000 ($44.9M below baseline projection)

Significant project variances for the second quarter are listed below:

- *Water Distribution System Program ($18.9 M below baseline)*
  - The disbursements for Project F1 – Small Diameter Water Main (SDWM) Rehab 13 are currently projected to be $3.3M below the baseline due to multiple SDWM contracts being impacted by DDOT permit issues.
  - The disbursements for Project F2 – Small Diameter Water Main Rehab 14 are currently projected to be $3.9M below the baseline due to contract issues including delay in reissuance of permits that were put on hold during COVID-19 and SDWM Contracts progress impacted by DDOT restrictions.
  - The disbursements for Project FT –Water Mains Phase II are currently projected to be $3.8M below the baseline. This is due to inoperable valves needed to isolate the flow in order to execute condition assessment activities. Efforts to fix the valves are ongoing.
  - The disbursements for Project GR - Small Diameter Water Main Rehab 15 are currently projected to be $3.3M due to DDOT permit issues.

- *Water Pumping Facilities ($1.4M below baseline)*
  - There are no significant project variances for this program area currently projected over the fiscal year

- *Water Storage Facilities ($2.9M above baseline)*
  - The disbursements for Project FA – Water Storage Facilities are expected to be $1.1M higher than anticipated due to several change orders not included in the baseline, and disbursements for Project HW – Rehab of Elevated Water Tanks are expected to be $1.5M higher than anticipated due to emergency work performed on Anacostia Tank No. 2.

- *Water On-Going Projects ($5.4M below baseline)*
  - The disbursements for Project KX – FY2022 - DWS Water Projects, are currently $5.4M below the baseline. This is within the limits of forecasting accuracy for this program area as the number and size of emergency work is difficult to predict year-on-year.

- *Water Lead Free DC Program Area ($21.4M below baseline)*
  - The disbursements for the Lead Free DC (LFDC) program are currently projected to be $21.4M below the baseline. This underspending is directly due to the lower than anticipated participation rates on the Capital Improvement Project and Emergency Repair Replacement (CIPERR) Contracts reducing the corresponding construction spending. The baseline forecast assumed a 90% participation rate, presently the LFDC team is seeing an average of 70% participation per block under construction. Note, the percentage of properties participating is closely aligned with percentage of properties where the homeowner is the occupant. The final street restoration (paving) of blocks has also been delayed due to efforts to maximize homeowner participation which consequently impacts spending.
  - Additionally, there has been a decline in the voluntary program, most likely attributed to the District/DC Water subsidized LSR programs.

Priority 1 Projects (Court Ordered, Stipulated Agreements, etc.)

All priority 1 projects are on schedule and within budget.

Contract Actions Anticipated – 6 Month Look-Ahead

Project	Name	Contract Type	Joint Use?	Cost Range	Committee	BOD
GR00	Small Diameter Watermain Rehab 15D	Construction	No	$10M-$15M	EQ & Ops Jun	Jul
ST00	Lead Service Line Replacement Contract (Voluntary Program) FY23-FY25	Construction	Yes	$5M-$10M	EQ & Ops Jun	Jul
Multiple	Heavy Cleaning of Major Sewers (220090)	Construction	Yes	$5M-$10M	EQ & Ops Jun	Jul
Multiple	Major Sewer Assessments (220080)	Construction	Yes	$10M-$15M	EQ & Ops Jun	Jul
Multiple	Water Emergency Infrastructure Repair & Replacement FY23-FY25	Construction	No	$15M-$25M	EQ & Ops Jun	Jul
Multiple	Sanitary Sewer Lateral Contract FY23-FY25	Construction	No	$15M-$20M	EQ & Ops Jul	Sep

Capital Improvement Program Report
2nd Quarter FY2022

Schedule - Key Performance Indicators
Capital Improvement Program

Summary of Key Performance Indicators (KPIs) through the 2nd Quarter:

	Performance
7	KPIs completed within threshold
1	KPIs completed outside threshold (>90)
1	KPIs will be completed outside threshold (>90)
35	Total KPIs due this year

Reasons for KPIs not meeting the 90-day threshold this fiscal year:

Job	Delta	Comment
DE04	-183	Delay due to additional design & construction needed to address water quality issue.
LZ07	-113	Negotiation for the Phase 2 contract took longer than expected. NTP issued at the beginning of April.

The table below provides a detailed breakdown of each KPI due date grouped by Quarter:

Quarter	Job Code	Job Name	Activity Name	Due Date (Baseline)	Estimated/ Completed Date	Actual Completed Date	Variance (positive is early)	Met within 90 days
Q1	GR01	Small Diameter Water Main Rehab. 15A	Construction Start Milestone	15-Dec-21	20-Dec-21	20-Dec-21	-5	✓
Q1	DE04	Small Dia Water Main Repl 12B2 (Colonial Village & Bunker Hill)	Construction Substantial Completion	31-Oct-21	1-May-22		-183	
Q1	LZ07	PI Phase 5 Pipe Rehab between MH31 and MH30	Phase II Design-Build NTP	15-Dec-21	7-Apr-22	07-Apr-22	-113	×

Capital Improvement Program Report
2nd Quarter FY2022

Quarter	Job Code	Job Name	Activity Name	Due Date (Baseline)	Estimated/ Completed Date	Actual Completed Date	Variance (positive is early)	Met within 90 days
Q1	LZ16	Potomac Interceptor - Rt 7 Crossing	Construction Substantial Completion	31-Dec-21	8-Feb-22		-40	
Q2	IL10	Creekbed Sewer Rehabilitation Rock Creek Oregon Avenue	Construction Substantial Completion	31-Mar-22	30-Jun-22		-90	
Q2	F204	Constitution Avenue w/C902/O304	Construction Start Milestone	13-Jan-22	20-Dec-21	20-Dec-21	24	✓
Q2	GR02	Small Diameter Water Main Rehab 15B	Construction Start Milestone	20-Jan-22	1-Apr-22		-71	
Q2	SC01	Main & O Seawall Restoration (Phase 2 HQO)	KPI Design Start Milestone	29-Jan-22	30-Jul-22		-182	
Q2	SD01	Main PS Building Modifications - Historic Restoration	KPI Design Start Milestone	29-Jan-22	30-Jul-22		-182	
Q2	IY10	Filter Underdrain and Backwash System Upgrade (FUBS)	Design Start Milestone	7-Mar-22	23-Mar-22	23-Mar-22	-16	✓
Q2	DZ05	RC-B Rock Creek GI Project B	Construction Start Milestone (KPI)	23-Jan-22	8-Dec-21	08-Dec-21	46	✓
Q2	HH02	New Sewer Services Headquarters	Construction Substantial Completion	28-Feb-22	20-Oct-21		132	
Q2	HE03	200 Bryant St. Building A & B Demolition	Design Start Milestone	31-Mar-22	30-Jun-22		-91	
Q2	QG03	Ft. Stanton Reservoir No. 1 Rehabilitation	Design Start Milestone	1-Feb-22	1-Jun-22		-120	
Q3	F201	Small Diameter Water Main Repl 14A	Construction Substantial Completion	2-May-22	2-May-22		0	

Capital Improvement Program Report
2nd Quarter FY2022

Quarter	Job Code	Job Name	Activity Name	Due Date (Baseline)	Estimated/ Completed Date	Actual Completed Date	Variance (positive is early)	Met within 90 days
Q3	IM05	Creekbed Sewer Rehabilitation Oregon Ave. @ St. Johns	Design Start Milestone	1-May-22	28-Feb-22	28-Feb-22	62	✓
Q3	IN02	Rehab of Upper Eastside Interceptor Phase 1	Design Start Milestone	14-May-22	2-Jun-22		-19	
Q3	OB01	Inflatable Dams Replacement	KPI Design Start Milestone	31-May-22	31-May-22		181	
Q3	F103	Small Diameter Water Main Repl 13C	Construction Substantial Completion	30-Jun-22	30-Jun-22		0	
Q3	IL06	Creekbed Sewer Rehabilitation Fenwick Branch E Beach Dr & Red Bud Lane	Design Start KPI Milestone	1-Apr-22	1-Apr-22		0	
Q3	GR03	Small Diameter Water Main Rehab 15D	Construction Start Milestone	13-Jun-22	27-Jun-22		-14	
Q3	RC01	Rehabilitation of RCMI & Beach Drive Sewers	Design Start Milestone Phase II	4-Jun-22	4-Jun-22		0	
Q3	DE03	Small Dia Water Main Repl 12C (was C&L)	Construction Start KPI	30-Jun-22	30-Jun-22		0	
Q3	I302	Solar PV Over Biosolids Curing	Design Start Milestone	2-Jun-22	21-Mar-22	21-Mar-22	73	✓
Q3	U502	4th High Reno WSSC Interconnection	KPI Design Start Milestone	1-Jun-22	15-Jul-22		-45	
Q4	I801	Large Valve Replacements 11R	Construction Substantial Completion	30-Sep-22	30-Sep-22		0	
Q4	MC01	Sewer System SCADA	Construction Start Milestone	30-Sep-22	30-Sep-22		0	

Capital Improvement Program Report
2nd Quarter FY2022

Quarter	Job Code	Job Name	Activity Name	Due Date (Baseline)	Estimated/ Completed Date	Actual Completed Date	Variance (positive is early)	Met within 90 days
Q4	F104	Small Diameter Water Main Repl 13D	Construction Substantial Completion	21-Aug-22	21-Aug-22		0	
Q4	FQ03	Main PS Miscellaneous Upgrades	Construction Start Milestone	30-Sep-22	29-Mar-23		-180	
Q4	NG05	Stormwater Pump Station Rehab - 1st and D	Construction Start Milestone	3-Aug-22	3-Feb-22	3-Feb-22	181	✓
Q4	HX02	SDWM Renewal 16B	Construction Start Milestone	23-Sep-22	23-Sep-22		0	
Q4	QS03	Local Sewer Rehab Project 5-3	Design Start Milestone	16-Jul-22	1-Jul-22		15	
Q4	OE01	FY15 - Plantwide Storm Drainage Improvements	Construction Start Milestone	8-Sep-22	29-Mar-23		-202	
Q4	JZ02	LDWM Replacement 3b	Design Start Milestone	30-Sep-22	30-Sep-22		0	
Q4	HH01	New Fleet Management Facility	Construction Substantial Completion	30-Jul-22	30-Apr-22		91	

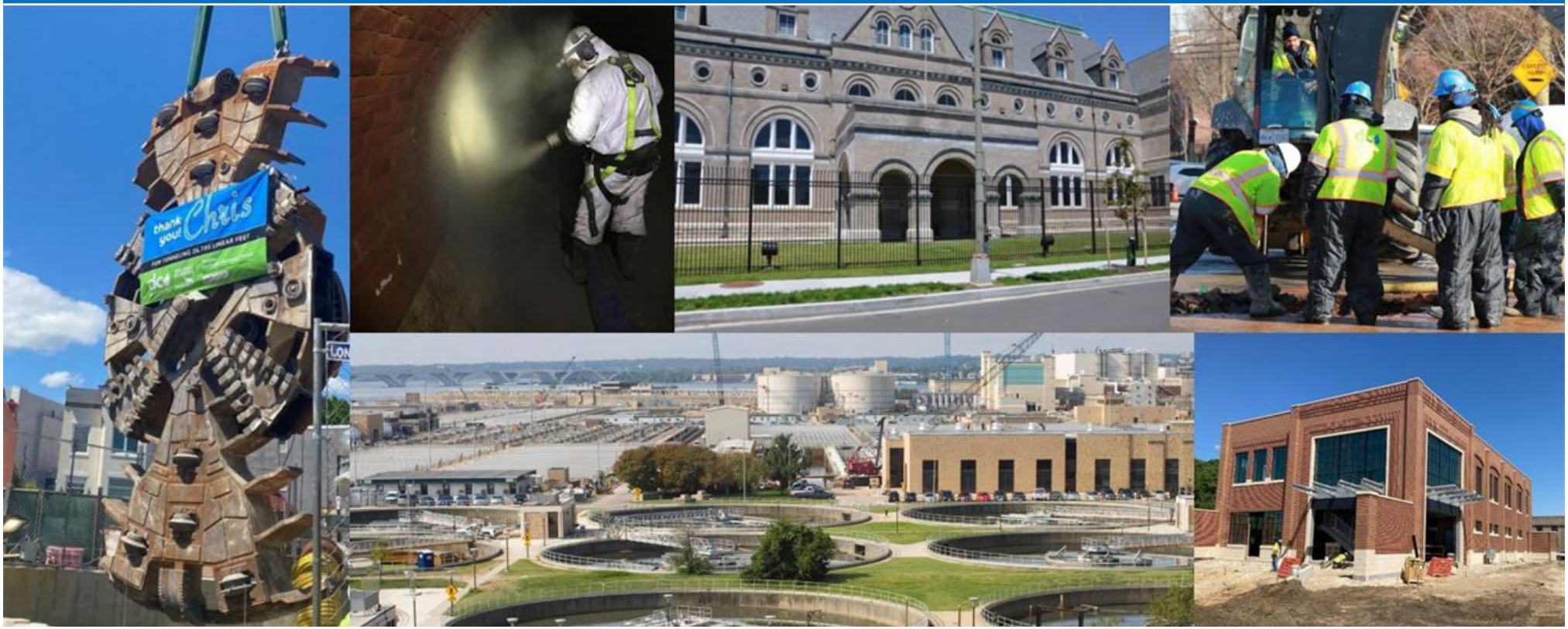
Table Key: Positive variance = Finishing earlier than baseline plan Bold = Actual Date achieved

Insourcing Program and Construction Management

Environmental Quality and Operations Committee

Chair – Sarah Motsch

May 19, 2022

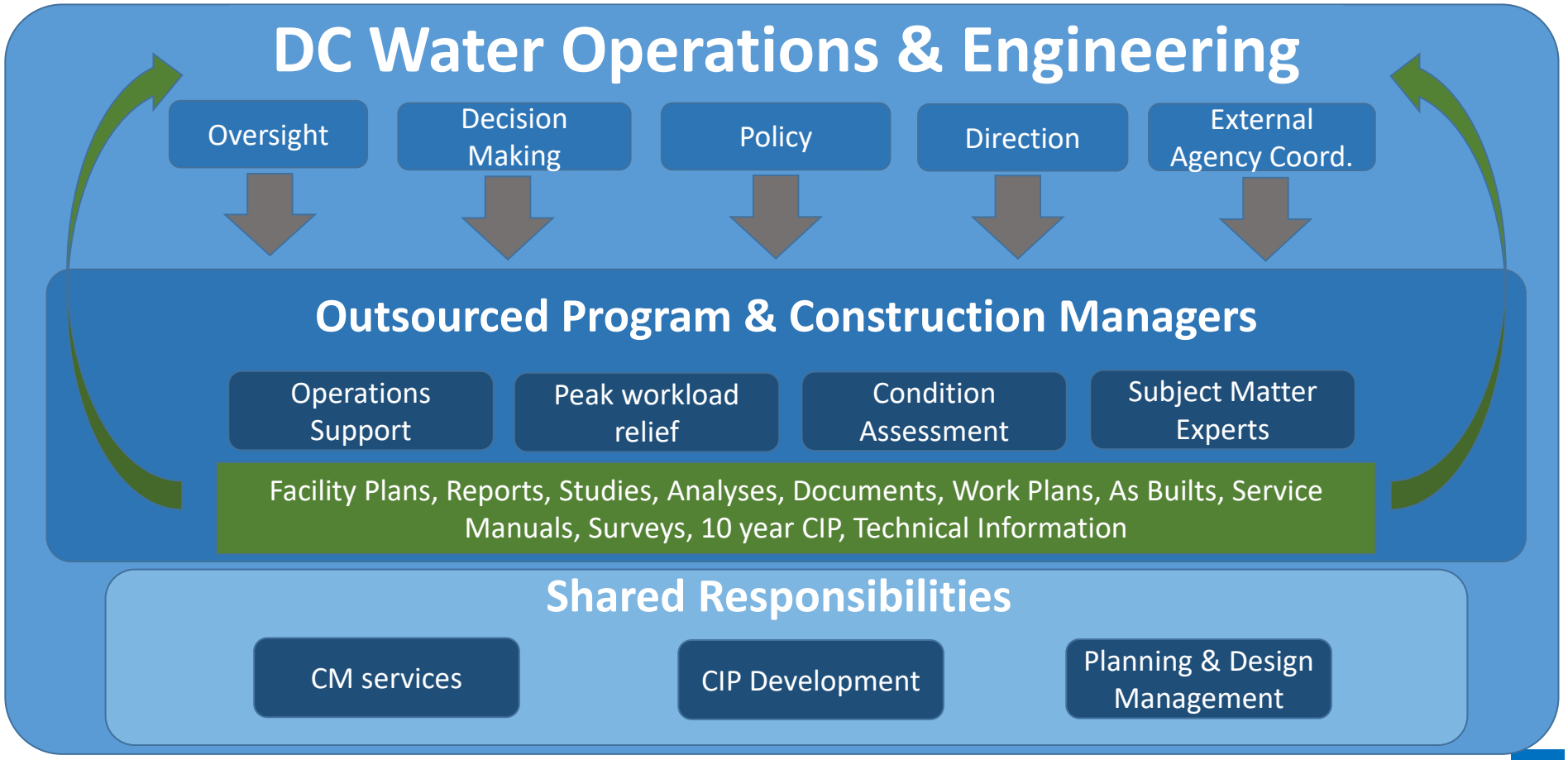


Presentation Objective

Objective: Present an update to information from July 2021 EQ & Ops meeting. Presentation was focused on recently approved Program Management and Construction Management contracts, DC Water's intentions for in-sourcing portions of these services, and concerns regarding retention of institutional knowledge.

This presentation will describe further plans for in-sourcing Engineering services, including identifying types of work suitable for in-sourcing, other types of work that will continue to be out-sourced, and what this means for future staffing, contracting, and management of both.

Responsibilities



3

In-sourcing vs Out-sourcing

Reasons for out-sourcing

1. Specialized Skills
   - ❑ Consultants are better equipped to retain staff with specialized skill sets since the application in a utility is sporadic. It is difficult to remain on the cutting edge in expertise for unusual topics.
2. Peak Workload shaving
   - ❑ Staffing is most effective for a defined baseload of work with consultants utilized for peak workload
3. Developing a Local Certified Business Community
   - ❑ Execution of DC Water's Business Development Plan (TCPs, public outreach, permitting, as example tasks)

4

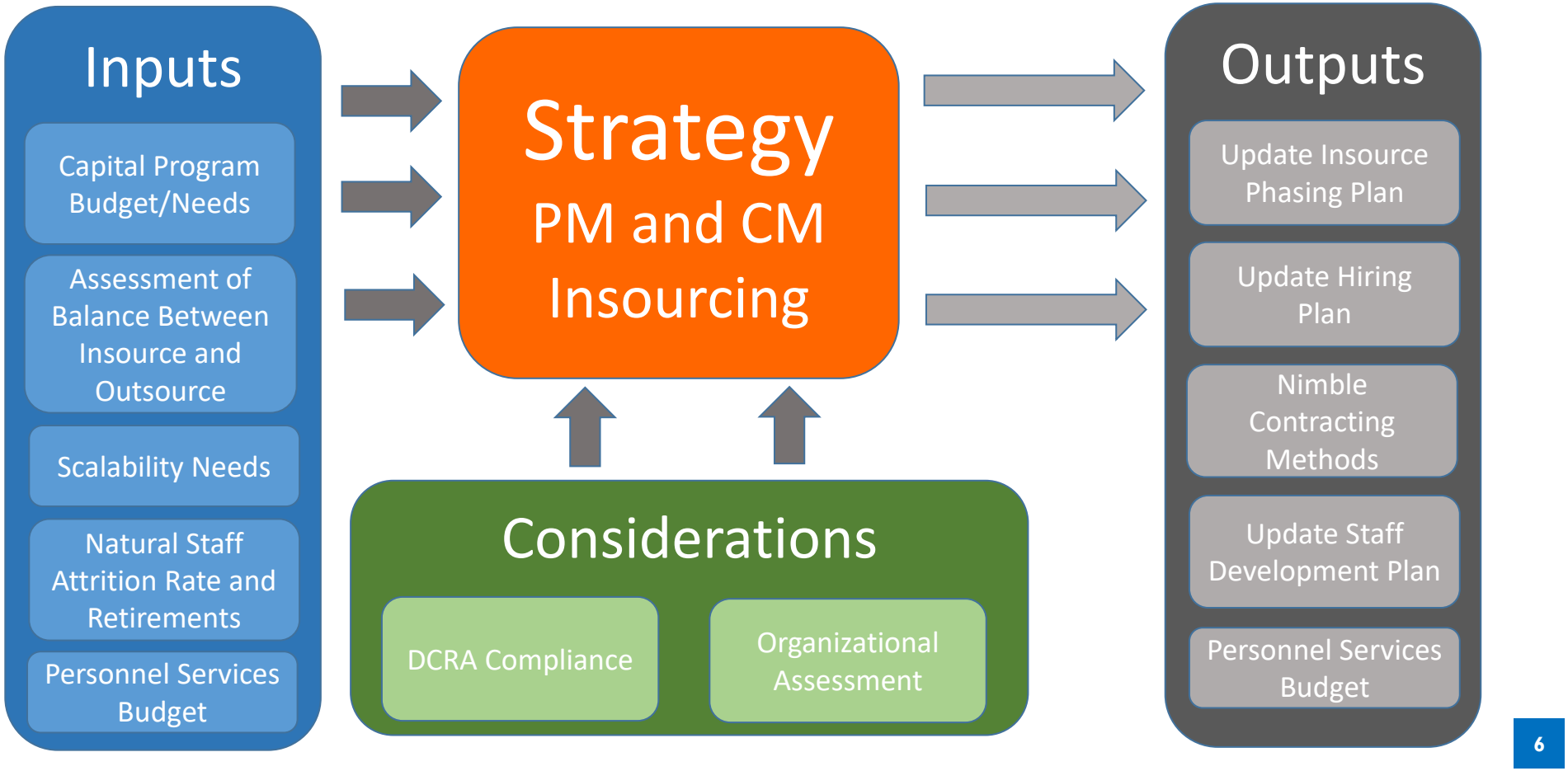
In-sourcing vs Out-sourcing

Benefits of in-sourcing

1. Retention of Institutional Knowledge
   - ❑ In-house staff must have implicit knowledge of facilities and systems for successful operations, maintenance, and planning
   - ❑ Increase Effectiveness of in-house staff in providing proven solutions
   - ❑ Knowledge Transfer from consultants must be achieved (strategy will include period of overlap)
2. Responsiveness to urgent needs
   - ❑ In-house expertise can be applied across all of DC Water operations
3. Succession Planning and Employer of Choice for Knowledge Workers
   - ❑ To attract motivated knowledge workers, the work must be interesting and there must be an opportunity to advance their knowledge
4. Cost Savings for a defined recurring baseload of repeated work type
   - ❑ Take advantage of the opportunity to standardize systems and reduce costs on projects that are repetitious (mostly linear assets)
   - ❑ 1:1 insourcing of staff from consultants will reduce costs by an estimated 43% per FTE

5

Strategy


Inputs
Capital Program Budget/Needs
Assessment of Balance Between Insource and Outsource
Scalability Needs
Natural Staff Attrition Rate and Retirements
Personnel Services Budget
Strategy
PM and CM Insourcing
Considerations
DCRA Compliance
Organizational Assessment
Outputs
Update Insource Phasing Plan
Update Hiring Plan
Nimble Contracting Methods
Update Staff Development Plan
Personnel Services Budget

In-Sourcing: Hiring and Staff Development Plan

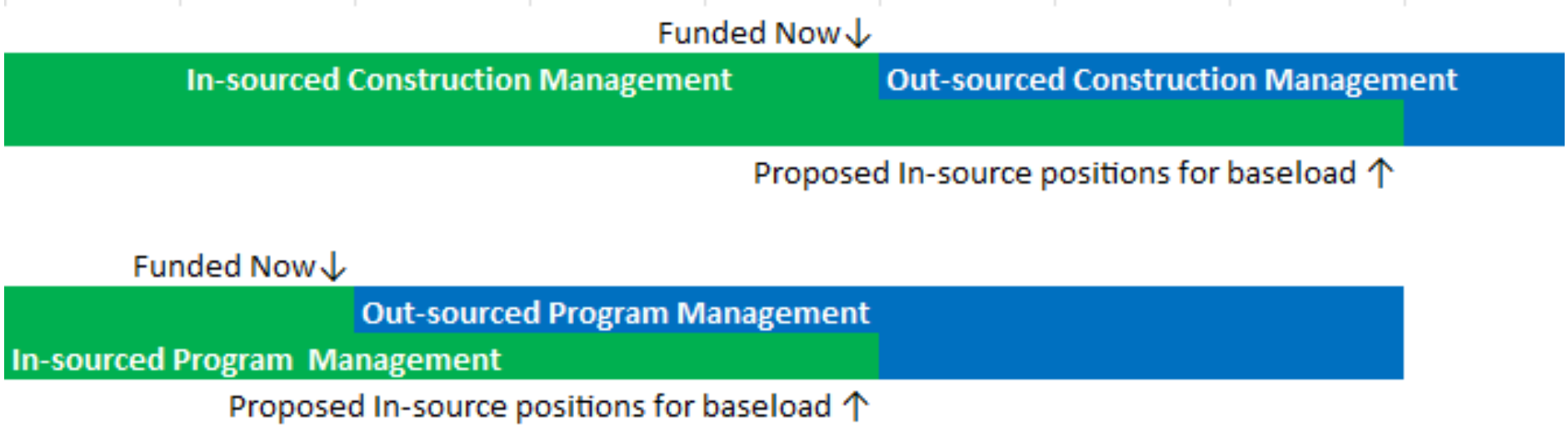
Restore/Assure Current Capacity	Initiate first round of in-sourcing hires Build In-house Leadership	Implement Transition from Consultants to In-House

• Hire and backfill existing positions to restore capacity and offset attrition
  • Project Managers
  • Program Managers
  • Construction Inspectors
  • Construction Managers
  • Staff Engineers
• Develop hiring, on-boarding, and training plans
• Develop knowledge transfer plan
	• Recruit, hire, and train key staff to in-source staff augmentation roles, including project management and construction management
	• Execute consultant transitioning plan for consultants who will be replaced with in-house talent – hiring phase
	• Develop Knowledge Transfer Strategy to transition from consultants to DC Water staff
	• Establish adequate supervision and management for next phases of hiring
		• Review KPIs and adjust In-Sourcing effort to meet goals
		• In-Sourcing Effort to be complete with knowledge transfer, staff trained, and operating on planned base load staffing with as required consultants' assistance for peak loads and specialties by end of FY 2027

FY22 – FY23	FY23 – FY25	FY25 – FY27

7

Positions In-sourced vs Out-sourced

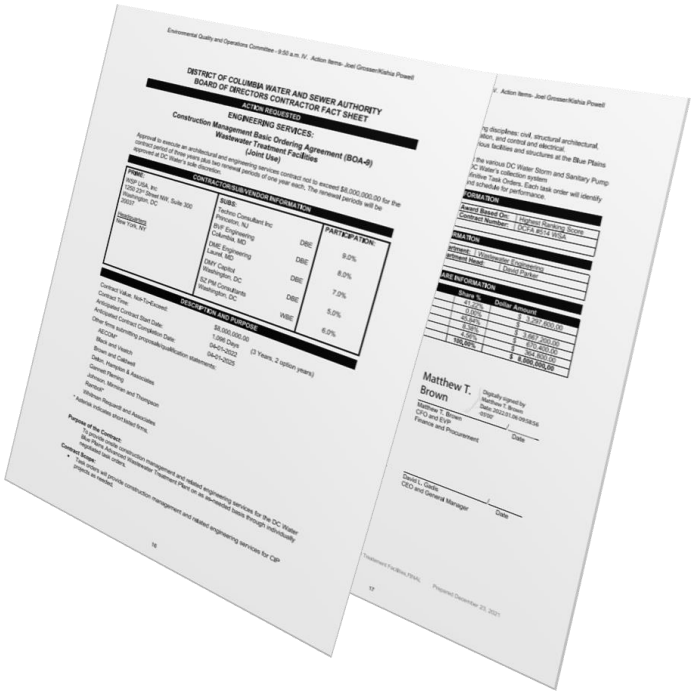


Program Management/ Construction Management for Clean Rivers, LFDC & Peak load will be outsourced

8

Next Steps

- Implement Hiring Plans, On-boarding & Training
- Continue to solicit engineering services in accordance with this plan



dc water is life

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT OPTION YEAR

IT SOFTWARE MANAGED SERVICES RENEWAL
(Joint Use)

Approval to exercise Option Year 3 and Option Year 4 for Maximo Managed Services in the amount of $968,720.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Infosys Public Service, Inc. 800 King Farm Blvd, Rockville, MD 20850	N/A	N/A

DESCRIPTION AND PURPOSE

Base Year Contract Value:	$434,000.00
Base Year Contract Dates:	06-07-2019 – 06-06-2020
No. of Option Years in Contract:	4
Modification 1 Values:	$85,000.00
Modification 1 Dates:	12-9-2019 – 06-06-2020
Option Year 1 Value:	$434,000.00
Option Year 1 Dates:	06-07-2020 – 06-06-2021
Option Year 2 Value:	$451,533.60
Option Year 2 Dates:	06-07-2021 – 06-06-2022
Modification 2 Values:	$0.00
Modification 2 Date:	06-07-2022 – 07-06-2022
Option Year 3 & 4 Value:	**$968,720.00**
Option Year 3 & 4 Dates:	**07-07-2022 – 07-06-2024**

Purpose of the Contract:

DC Water's Department of Information Technology has a need to maintain and support the Maximo enterprise system. The Maximo enterprise system provides asset management capabilities and needs managed services for improvements and custom updates.

Contract Scope:

The scope of Maximo Managed Services is to manage, monitor, configure, review, update and optimize the Maximo enterprise system. Configure customized report and features and maintain search functions and service applications for system maintenance.

Spending Previous Years:

Cumulative Contract Value:	06-07-2019 – 07-06-2022: $1,404,533.60
Cumulative Contract Spending:	06-07-2019 – 04-06-2022: $1,198,770.00

Contractor's Past Performance:

According to the COTR, the Contractor's quality of product 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 & Services	**Award Based On:**	Best Value
Commodity:	Maximo Managed Services	**Contract Number:**	18-PR-DIT-59
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Operating	**Department:**	Information Technology
Project Area:	DC Water Wide	**Department Head:**	Thomas Kuczynski

ESTIMATED USER SHARE INFORMATION

User – Operating	Share %	Dollar Amount
District of Columbia	70.05%	$678,588.36
Washington Suburban Sanitary Commission	21.95%	$212,634.04
Fairfax County	5.15%	$49,889.08
Loudoun County	2.54%	$24,605.49
Potomac Interceptor	0.31%	$3,003.03
TOTAL ESTIMATED DOLLAR AMOUNT	**100.00%**	**$968,720.00**

Thomas L. Kuczynski
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Date: 2022.04.28 07:25:15 -04'00'
_____/_____
Thomas Kuczynski Date
VP of Information Technology

Dan Bae
C=US, E=dan.bae@dcwater.com, O=District of Columbia Water and Sewer Authority, OU=VP of Procurement & Compliance, CN=Dan Bae
2022.04.28 09:04:30 -04'00'
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Dan Bae Date
VP of Procurement

Matthew T. Brown
Digitally signed by Matthew T. Brown
Date: 2022.04.28 10:17:59 -04'00'
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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 AWARD

ANNUAL MAINTENANCE AND REPAIR OF ELECTRICAL POWER DISTRIBUTION EQUIPMENT

(Joint Use)

Approval to award and fund the base year contract for the Annual Maintenance of Electrical Power Distribution Equipment (High Voltage) in the amount of $1,930,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	**SUBS:**	**PARTICIPATION:**
M.C. Dean Inc. 1765 Greensboro Station Place Tysons, VA 22102	District System (DBE) Chinook Systems (WBE)	11% 2%

DESCRIPTION AND PURPOSE

Award Period Contract Value:	$1,930,000.00
Award Period Contract Dates:	07-01-2022
Award Period Contact End Dates:	06-30-2023
No. of Option Years in Contract:	2
Proposal Closing Date	10-18-2021
Total Number of Proposals:	1

Purpose of the Contract:

DC Water's Department of Maintenance Services (DMS) and Department of Pumping and Sewer Operation (DPSO) have a continuing need for annual maintenance of high voltage switchgear (power distribution) equipment throughout DC Water facilities. Switchgear is the combination of electrical disconnect switches, fuses, or circuit breakers used to control, protect and isolate electrical equipment. Switchgear is used both to de-energize equipment to allow work to be done and to clear faults downstream. The contract will have a base and two one-year option periods.

Contract Scope:

DMS and DPSO require a qualified contractor to provide ten (10) experienced power distribution test technicians and one (1) supervisor, along with replacement parts for repair, calibration, and annual maintenance of high voltage switchgear equipment and other associated devices at various DC Water facilities under the direction of DC Water's Contracting Officer's Technical Representative (COTR). Two (2) of the test technicians provided shall be capable of making modifications to the switchgear drawings using CAD technology at various DC Water facilities.

Supplier Selection:

This was an open market solicitation; thirteen suppliers were invited to participate including six certified firms. MC Dean was the only supplier to respond to the RFP for Annual Maintenance of Electrical Power Distribution Equipment (High Voltage). MC Dean is incumbent on the current High Voltage contract to DC water.

PROCUREMENT INFORMATION

Contract Type:	Good and Services	**Award Based On:**	Best Value
Commodity:	Maintenance Services	**Contract Number:**	10128
Contractor Market:	Open Market with goals for DBE/WBE		

BUDGET INFORMATION

Funding:	Operating	**Department:**	DMS
Project Area:	Blue Plains	**Department Head:**	Elkin Hernandez

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	42.79%	$660,677.60
Washington Suburban Sanitary Commission	41.94%	$647,553.60
Fairfax County	9.83%	$151,775.20
Loudoun Water	4.85%	$74,884.00
Potomac Interceptor	0.59%	$9,109.60
TOTAL ESTIMATED DOLLAR AMOUNT	**100.00%**	**$1,544,000.00**

BUDGET INFORMATION

Funding:	Operating	**Department:**	DPSO
Service Area:	Other	**Department Head:**	Kenrick StLouis

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	72.62%	$280,313.20
Washington Suburban Sanitary Commission	13.32%	$51,415.20
Fairfax County	7.99%	$30,841.40
Loudoun Water	5.36%	$20,689.60
Other (PI)	0.71%	$2,740.60
TOTAL ESTIMATED DOLLAR AMOUNT	**100.00**	**$386,000.00**

5/4/22
Aklile Tesfaye / Date
VP, Wastewater Operations

Kenrick St. Louis 05/04/2022
Kenrick StLouis / Date
VP, Pumping and Sewer Operations

Dan Bae
C=US, E=dan.bae@dcwater.com, O=District of Columbia Water and Sewer Authority, OU=VP of Procurement & Compliance, CN=Dan Bae
2022.05.05 11:33:33-04'00'
Dan Bae / Date
VP, Procurement

Matthew T. Brown
Digitally signed by Matthew T. Brown
Date: 2022.05.10 18:06:09 -04'00'
Matthew T. Brown / Date
CFO and EVP, 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 OPTION YEAR

BELT PRESS DEWATERING POLYMER
(Joint Use)

Approval to exercise option year3 for the Belt Press Dewatering Polymer in the amount of $2,830,000 for the option year 3.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Polydyne, Inc. One Chemical Plant Road Riceboro, GA 31323	N/A	N/A

DESCRIPTION AND PURPOSE

Base Year Contract Value:	$1,781,700.00
Base Year Contract Dates:	05-01-2019 – 04-30-2020
Option Year 1 Value:	1,803,000.00
Option Year 1 Date:	05-01-2020 – 04-30-2021
Option Year 2 Value:	2,101,000.00
Option Year 2 Date:	05-01-2021 – 04-30-2022
Prior Modifications Value:	$965,000.00
Prior Modifications Date:	01-18-2020 – 06-30-2022
Option Year 3 Value:	**2,830,000.00**
Option Year 3 Date:	**07-01-2022 – 06-30-2023**

Purpose of the Contract:

This contract is to supply and deliver belt press dewatering polymer. This polymer conditions biosolids to help remove water in the Final Dewatering Facility at Blue Plains.

Contract Scope:

In the belt press dewatering operations, the polymer is used to help remove water from biosolids after the digestion process. Dewatering biosolids improves the quality of this important co-product by removing water to concentrate the solids and reduce its volume, which also reduces the cost to transport biosolids to application sites.

Polydyne is the only municipal wastewater polymer manufacturer in U.S. capable of meeting DC Water's needs. Procurement conducts market research for new suppliers annually and will issue a new competitive solicitation when appropriate.

Spending Previous Year:

Cumulative Contract Value:	05-01-2019 to 06-30-2022: $6,650,700.00
Cumulative Contract Spending:	05-01-2019 to 03-07-2022: $6,169,585.00

Contractor's Past Performance:

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

No LBE/LSBE participation

PROCUREMENT INFORMATION

Contract Type:	Good and Services	**Award Based On:**	Best Value
Commodity:	Dewatering Polymer	**Contract Number:**	19-PR-DWT-14
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Operating	**Department:**	Wastewater Treatment
Project Area:	Blue Plains	**Department Head:**	Aklile Tesfaye

ESTIMATED USER SHARE INFORMATION

User - Operating	Share %	Dollar Amount
District of Columbia	42.79%	$1,210,957.00
Washington Suburban Sanitary Commission	41.94%	$1,186,902.00
Fairfax County	9.83%	$278,189.00
Loudoun Water	4.85%	$137,255.00
Other (PI)	0.59%	$16,697.00
TOTAL ESTIMATED DOLLAR AMOUNT	**100.00%**	**$2,830,000.00**

5/6/22

Aklile Tesfaye Date
VP of Wastewater Operations

Dan Bae
C=US, E=dan.bae@dcwater.com, O=District of Columbia Water and Sewer Authority, OU=VP of Procurement & Compliance, CN=Dan Bae
2022.05.06 14:00:13-04'00'

Dan Bae Date
VP of Procurement

Matthew T. Brown
Digitally signed by Matthew T. Brown
Date: 2022.05.11 17:53:33 -04'00'

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 OPTION YEAR

CENTRIFUGE PRE-DEWATERING POLYMER
(Joint Use)

This contract action is to add $400,000 in funds to option year 2 and execute option year 3 in the amount of $2,610,000.00. For the combined total of $3,010,000.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Polydyne, Inc. One Chemical Plant Road Riceboro, GA 31323	N/A	N/A

DESCRIPTION AND PURPOSE

Base Year Contract Value:	$1,384,900.00
Base Year Contract Dates:	05-01-2019 – 04-30-2020
Option Year 1 Value:	1,600,000.00
Option Year 1 Date:	05-01-2020 – 04-30-2021
Option Year 2 Value:	1,800,000.00
Option Year 2 Date:	05-01-2021 – 04-30-2022
Prior Modifications Value:	$965,000.00
Prior Modifications Date:	01-18-2020 – 06-30-2022
Option Year 2 Modifications Value:	**$400,000.00**
Option Year 2 Modifications Date:	**04-01-2022 – 06-30-2022**
Option Year 3 Value:	**2,610,000.00**
Option Year 3 Date:	**07-01-2022 – 06-30-2023**

Purpose of the Contract:

This contract is to supply and deliver centrifuge pre-dewatering polymer to DC Water's Blue Plains Advanced Wastewater Treatment Facility. This polymer conditions biosolids to help remove water in the centrifuge process.

Contract Scope:

The centrifuge polymer helps remove water from the biosolids before digestion. Dewatering help reduce water content and increase the solids content in the feed to Thermal Hydrolysis (THP). This conditioning improves the performance of the THP and digestion processes, leading to exceptional-quality Bloom that can be applied for beneficial use.

Polydyne is the only municipal wastewater polymer manufacturer in U.S. capable of meeting DC Water's needs. Procurement conducts market research for new suppliers annually and will issue a new competitive solicitation when appropriate.

Spending Previous Year:

Cumulative Contract Value:	05-01-2019 to 06-30-2022: $5,749,900.00
Cumulative Contract Spending:	05-01-2019 to 03-15-2022: $5,257,406.00

Contractor's Past Performance:

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

No LBE/LSBE participation

PROCUREMENT INFORMATION

Contract Type:	Good and Services	**Award Based On:**	Best Value
Commodity:	Pre-Dewatering Polymer	**Contract Number:**	19-PR-DWT-15
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Operating	**Department:**	Wastewater Treatment
Project Area:	Blue Plains	**Department Head:**	Aklile Tesfaye

ESTIMATED USER SHARE INFORMATION

User - Operating	Share %	Dollar Amount
District of Columbia	42.79%	$1,287,979.00
Washington Suburban Sanitary Commission	41.94%	$1,262,394.00
Fairfax County	9.83%	$295,883.00
Loudoun Water	4.85%	$145,985.00
Other (PI)	0.59%	$17,759.00
TOTAL ESTIMATED DOLLAR AMOUNT	**100.00%**	**$3,010,000.00**

5/6/22

Aklile Tesfaye Date
VP of Wastewater Operations

Dan Bae
C=US, E=dan.bae@dcwater.com, O=District of Columbia Water and Sewer Authority, OU=VP of Procurement & Compliance, CN=Dan Bae
2022.05.06 13:59:49-04'00'

Dan Bae Date
VP of Procurement

Matthew T. Brown
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Date: 2022.05.11 17:53:03 -04'00'

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

David L. Gadis Date
CEO and General Manager


dc
VertexOne Extension
Customer Information System (CIS)

Background

- Implemented CIS in December 2016 in 12 months on-time and on-budget
- No erroneous bills issued and no major service disruptions post implementation
- SLA performance since inception has been 99.5%
- Just under 2 years remain on the existing agreement
- Kona (mobile work management) was purchased by Xylem in 2019
  - Has performed well but we've experienced challenges when changes/upgrades are needed
  - Vendor support has been challenging since Xylem purchase
  - Potential price and/or technology risk if we wait to renew (negotiation would be with Xylem not VertexOne)
  - System runs on a separate private cloud adding complexity to the integration
- Current system meets our needs and provides sufficient functionality well into the future
- DC Water's original RFP objective was for a useful life of at least 20 years
- Timeline to transition to a new system would extend beyond end of existing contract
- DC Water cost per customer is $1.50 per month of which $0.24 is for bill production and storage
- Any replacement solution would be more expensive
- Current agreement provides 2 options of 3 years each first can be exercised in November 2023

VertexOne Proposal

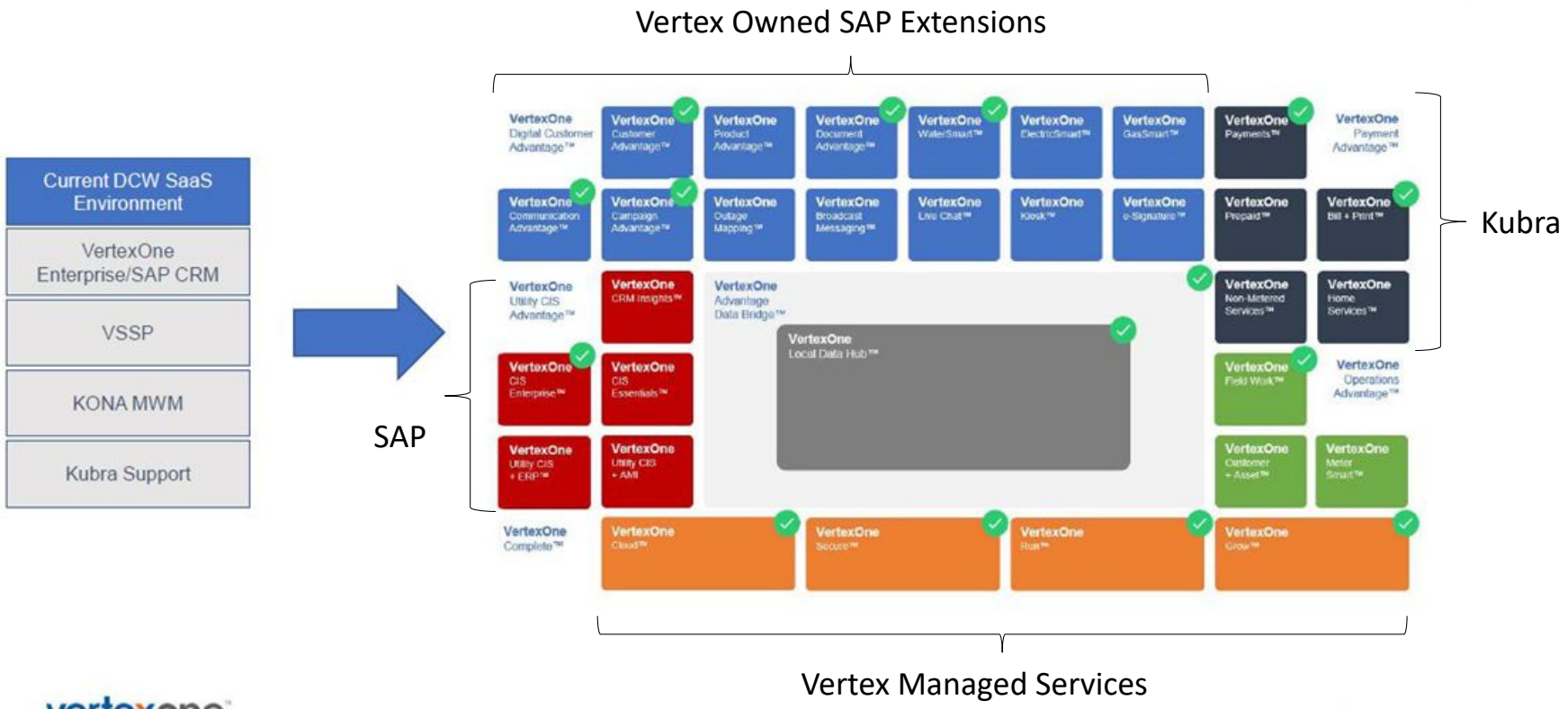
Proposal

- Extend new agreement until 2029 at current terms
- Replace Kona with VxField at **no cost** to DC Water
- Upgrade current customer portal to Digital Customer Engagement (DCE)
- Implement WaterSmart customer analytics at **no cost** to DC Water
- Implement Communications and Campaign Management solutions to support customer engagement at **no cost** to DC Water
- Replace Kubra bill payment and presentment platform at **no cost** to DC Water

Benefits

- No capital outlay by DC Water
- Estimated value of new solutions is $1-1.5 million in avoided license fees
- No change in annual operating budget
  - current contract escalators would apply and/or an increase in customer count could increase cost
- No price, technical or operational risk by waiting to end of current contract term

Final Solution Set



vertexone™

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT MODIFICATION

CUSTOMER INFORMATION SYSTEM (CIS) SOLUTION (NON-JOINT USE)

Approval to exercise two 3-year options (total 6 years) in the amount of $13,000,000.00 to continue licensing the Customer Information System (CIS) Solution under Contract No. 15-PR-CCO-59 with additional software upgrades at no cost to DC Water.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
VertexOne Software LLC 501 W. President George Bush Highway, Suite 350 Richardson, TX 75080	N/A	N/A

DESCRIPTION AND PURPOSE

Base Year Contract Value:	$19,338,768.00
Base Year Contract Dates:	12-08-2016 – 12-07-2023
No. of Option Years in Contract:	6 (two 3-year options)
No. of Modification in Contract:	4
Modification 1 Value:	$248,792.00
Modification 1 Dates:	12-10-2018 – 12-07-2023
Modification 2 Value:	$419,257.00
Modification 2 Dates:	03-22-2019 – 12-07-2023
Modification 3 Value:	$253,150.00
Modification 3 Dates:	05-17-2019 – 12-07-2023
Modification 4 Values (this action):	$13,000,000.00
Modification 4 Date:	12-08-2023 – 12-07-2029
Total Contract Value:	$33,259,967.00

Purpose of the Contract:

DC Water's Department of Customer Care has a need to manage and support the Customer Information System (CIS). The CIS provides billing and mobile work management capabilities to ensure customer satisfaction. This contract includes the license, hosting, maintenance and support of the CIS.

Contract Scope:

This early exercise of option periods is in response to a **no cost** upgrade offer from VertexOne that includes:

- Upgrade the customer portal to Digital Customer Engagement with new Web services
- Replace the Kona mobile work management system with VxField
- Implement WaterSmart and enhanced analytics solution
- Implement Communications and Campaign Management solution to support customer engagement and outreach
- Replacing Kubra services, bill payment and presentment, with no termination fees

The estimated value of these upgrade is $1-1.5 million in avoided implementation and license fees. These upgrades will add additional features and capacities to the CIS that will:

- Increase support responsiveness;
- Improve communications with customers;
- Provide a more robust mobile work management platform with real-time updates;
- Configure a new WaterSmart Application for customers to monitor water usages and gain insightful analytics, reporting, and customer management tools to better serve evolving customer needs.

The budget will be approved annually and a PO will be issued annually within the approved budget.

Spending Previous Years:

Cumulative Contract Value: 12-01-2016 – 11-30-2023: $20,259,967.00
Cumulative Contract Spending: 12-01-2016 – 04-01-2022: $16,966,284.00

Contractor's Past Performance:

According to the COTR, the Contractor's quality of product 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 & Services	**Award Based On:**	Best Value
Commodity:	Customer Information System (CIS) Solution	**Contract Number:**	15-PR-CCO-59
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Operating	**Department:**	Customer Care
Project Area:	DC Water Wide	**Department Head:**	Meisha D. Lorick

ESTIMATED USER SHARE INFORMATION

User – Operating	Share %	Dollar Amount
District of Columbia	100.00%	$13,000,000.00
Washington Suburban Sanitary Commission	0.00%	$0.00
Fairfax County	0.00%	$0.00
Loudoun County	0.00%	$0.00
Potomac Interceptor	0.00%	$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	**100.00%**	$13,000,000.00

Meisha D. Lorick Digitally signed by Meisha D. Lorick Date: 2022.05.06 17:24:29 -04'00'
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Meisha D. Lorick Date
Acting Director of Customer Care

Dan Bae C=US, E=dan.bae@dcwater.com, O=District of Columbia Water and Sewer Authority, OU=VP of Procurement & Compliance, CN=Dan Bae 2022.05.07 16:22:25-04'00'
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Dan Bae Date
VP of Procurement

Matthew T. Brown Digitally signed by Matthew T. Brown Date: 2022.05.10 09:27:46 -04'00'
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Matthew T. Brown Date
CFO and EVP of Finance and Procurement

_____/_____
David L. Gadis Date
CEO and General Manager

DC Clean Rivers Project Quarterly Update

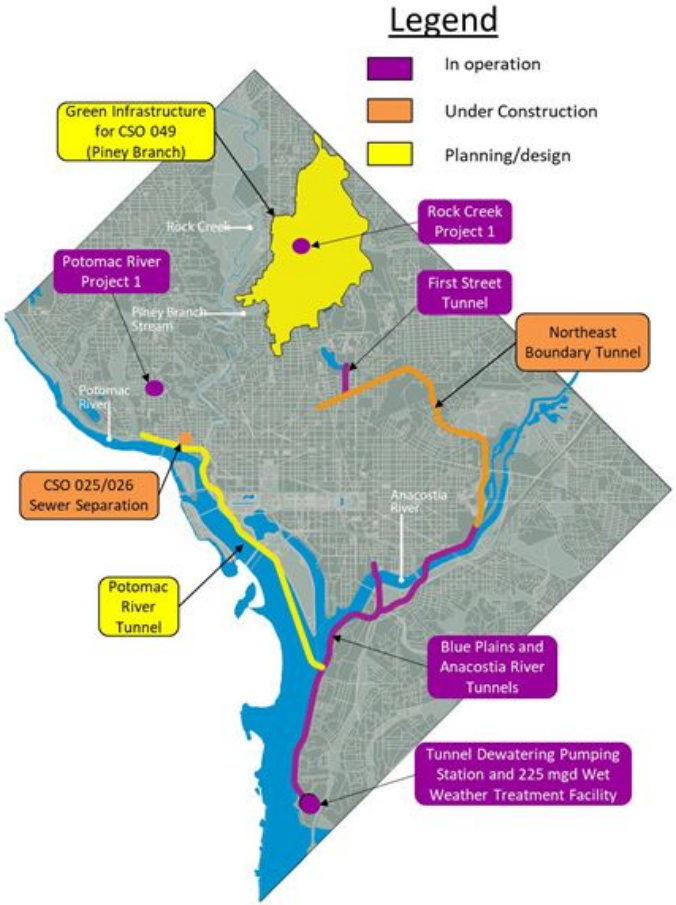
Briefing for:

Environmental Quality and Operations Subcommittee

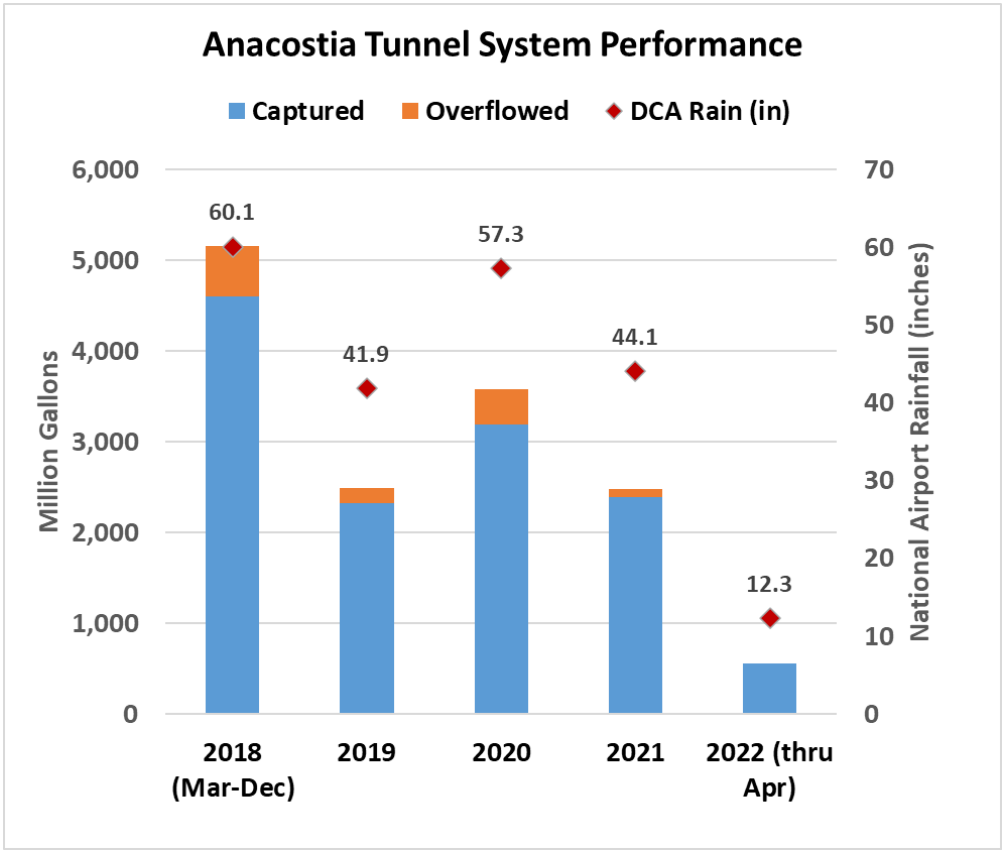
May 19, 2022

DC Clean Rivers Project Snapshot

Area	Status
Anacostia	
Anacostia Tunnel System	• More than 13.0 billion gallons captured • More than 8,111 tons of trash/debris removed
Northeast Boundary Tunnel	• Construction at drop shaft sites continues
Potomac	
CSO 025/026 Separation	• Started restoration work east side of 31st St and planning to start remaining work west of 31st St before end of May.
Potomac Tunnel Advance Utility Construction	• Work ongoing on Independence Avenue, CSO-028 and CSO-020.
Potomac Tunnel Construction	• 100% RFP complete and under review by DC Water.
Rock Creek	
Green Infrastructure (GI) Project B	• Two Alley Permeable Pavement and one Planter Bioretention currently under construction.



Anacostia Tunnel System Performance

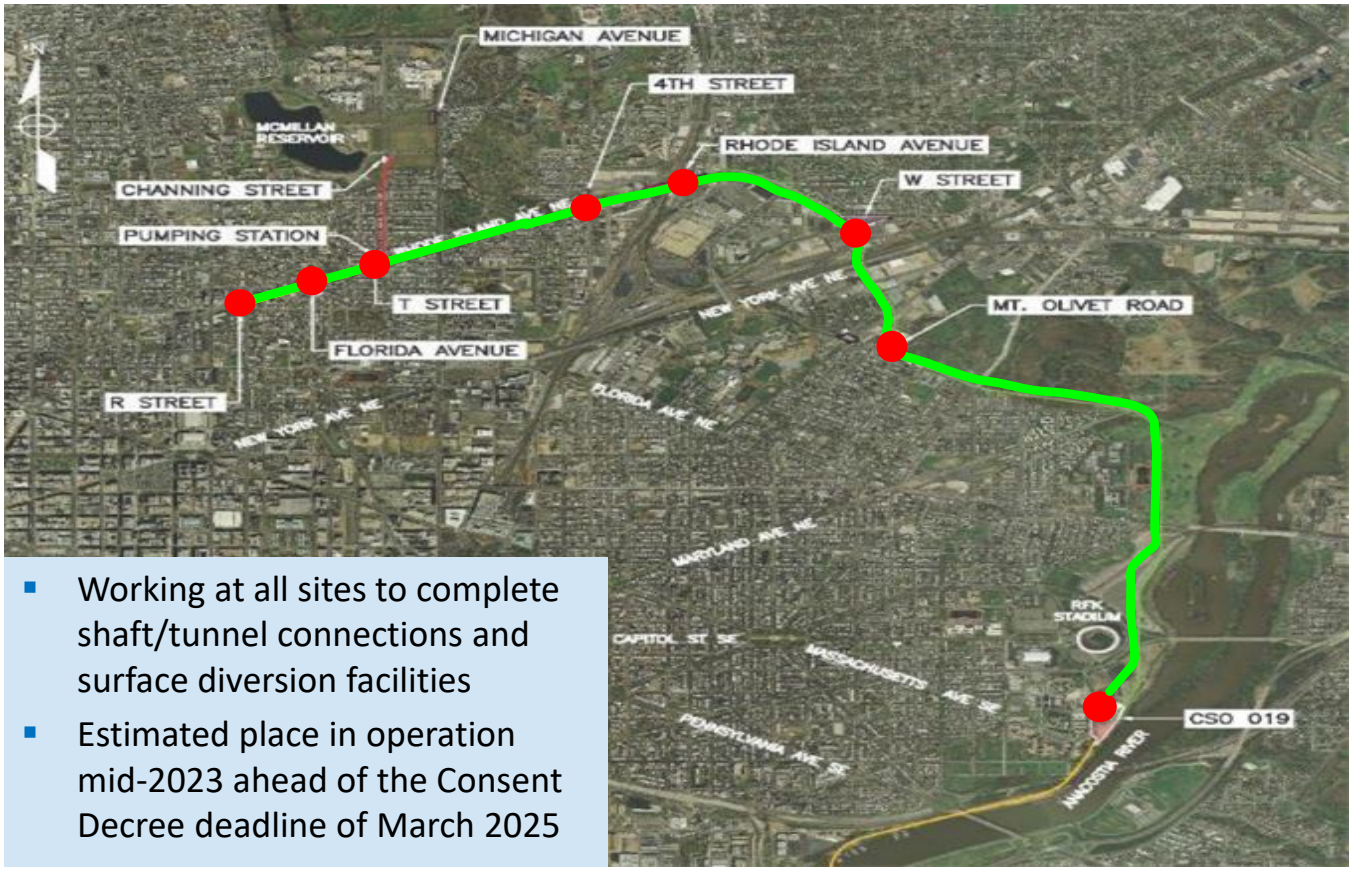


- Over **13.0 billion gallons** captured Mar 2018 – April 2022
- Over **8,111 tons of trash**, debris, and other solids captured
- Exceeding predicted capture rate (90%>80%)

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

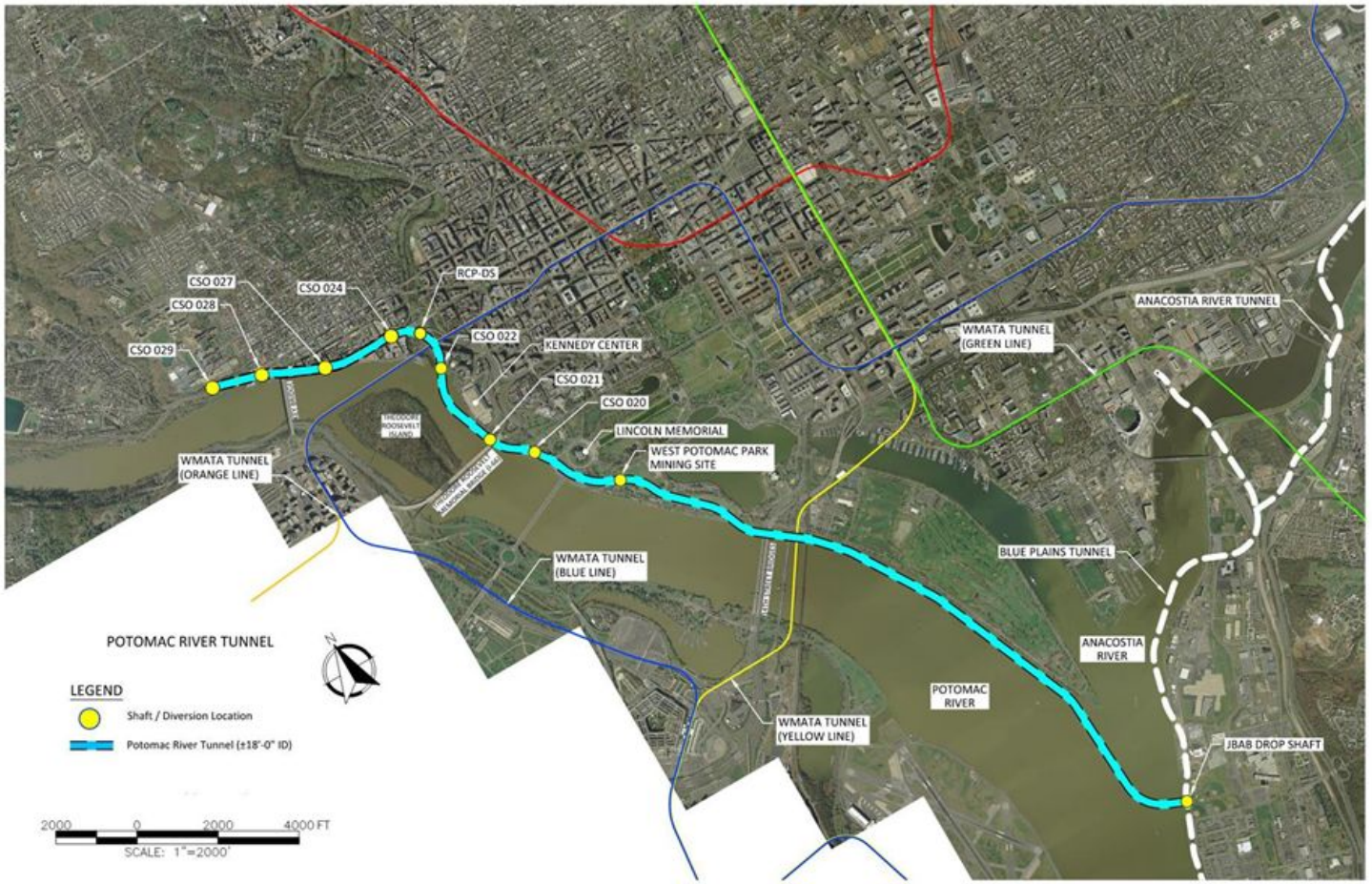
3

Division J – Northeast Boundary Tunnel Construction Progress



- Working at all sites to complete shaft/tunnel connections and surface diversion facilities
- Estimated place in operation mid-2023 ahead of the Consent Decree deadline of March 2025

Potomac River Tunnel



Tunnel Contract (Best Value Design-Build):

- **RFQ process completed in early May, four teams have been shortlisted**
  - **CBNA**
  - **Frontier-Kemper Construction**
  - **The Lane Construction Corporation**
  - **Traylor/Skanska**
- 100% RFP: June 2022
- NTP: November 2023
- Place in Operation: February 2030

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Potomac River Tunnel Contract A Advanced Utility Construction

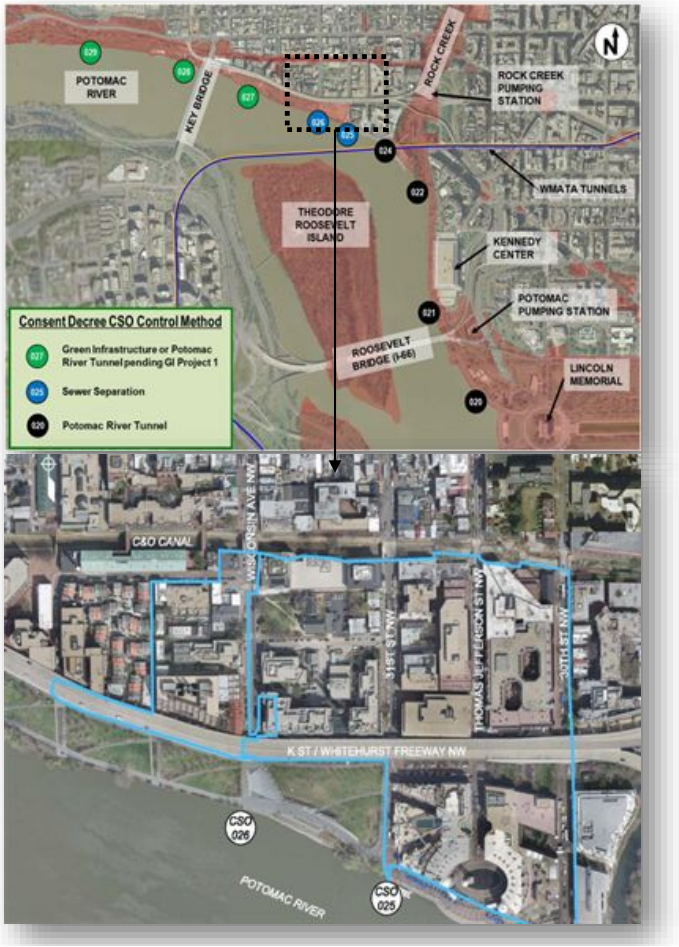
- Purpose: construct high voltage electric duct bank to power Potomac tunnel boring machine and construct power drops to shaft work sites for PRT-B.
- Estimated completion date is mid 2023.
- Working on Independence Avenue between 14th Street and Ohio Drive. Installing electrical manholes and duct bank.
- Completed 80% of Box Tunnel excavation under East Independence Avenue
- Typical manhole (right), 10 of 17 installed. Work done at night.
- CSO-028 PRT-A work nearly complete.

Electrical Manhole on Independence

CSO 028 Electrical Service

CSO 025/026 Sewer Separation

- Work underway on 31st Street
  - Work on east side of roadway complete, mobilizing to west side of roadway, work planned to be completed in May
  - Sewer installation work on South Street - ongoing
  - Upcoming work: water and sewer on Wisconsin Ave
- Continuing to coordinate with the community to minimize construction impacts
- Upcoming work planned for Structure 44 at the intersection of K Street and Potomac Street

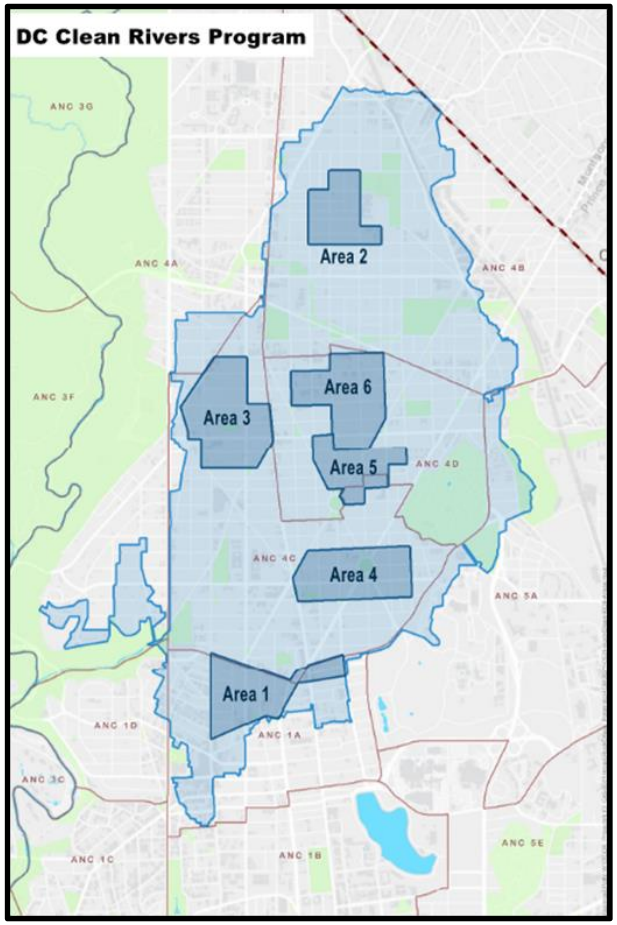


Preparing Trench Box for Sewer Installation at 31st Street

Green Infrastructure
Rock Creek Project B

- **Consent Decree Requirements**
  - Manage 22 impervious acres with GI
  - Award construction by January 23, 2022
  - Place in operation by January 23, 2024

- **Construction Status**
  - NTP issued December 8, 2021
  - Construction in field began March 2022
  - Area 1
    - One Alley Permeable Pavement (APP) completed
    - Two Alley Permeable Pavements under construction
  - Area 2
    - One Bioretention under construction



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Clean Rivers Public Outreach Efforts

Category	Activities
Community Partnerships	• Executed MOA Amendments extending the Business Impact Mitigation Plan in 2022 with the three Main Street partners. • Executed MOA Amendment with the DC Commission on the Arts and Humanities (CAH) and made payment for Cooper Gordon Park public art. • Made safety adjustments to construction areas for the Cherry Blossom 10 Mile Run held on April 3, and the Cherry Blossom Festival in March. • Working with Georgetown BID on issues such as business signage, storage of large property, business streetscapes, and replacement of Bike Corral.
Key Meetings & Approvals	• Held a NEBT Tunnel Forum for the R St., Florida Ave., T St., and First St. construction sites on March 31. (30 attendees). • ANCs approved after-hours work at the Florida Ave., Mt. Olivet Ave., and R St. construction sites. • Briefed ANC 2E on CSO 025/026 Sewer Separation and PRT – A on Jan. 31, and May 2. • Briefed ANC 6D on PRT – A on Feb. 14, and May 9.
Community Outreach Program	• Notified residents and media about the new T St. construction staging area in Rhode Island Ave. median area, and nighttime removal of a large crane from the R St. construction site. • PEPCO relocated power lines on Rhode Island Ave. at the T St. construction site requiring notices about temporary power shutoffs. • Provided Traffic Advisories for detours and road closures at CSO 020, South Street NW, and Independence Ave SW.

Rendering of Cooper Gordon Park Restoration Looking North.

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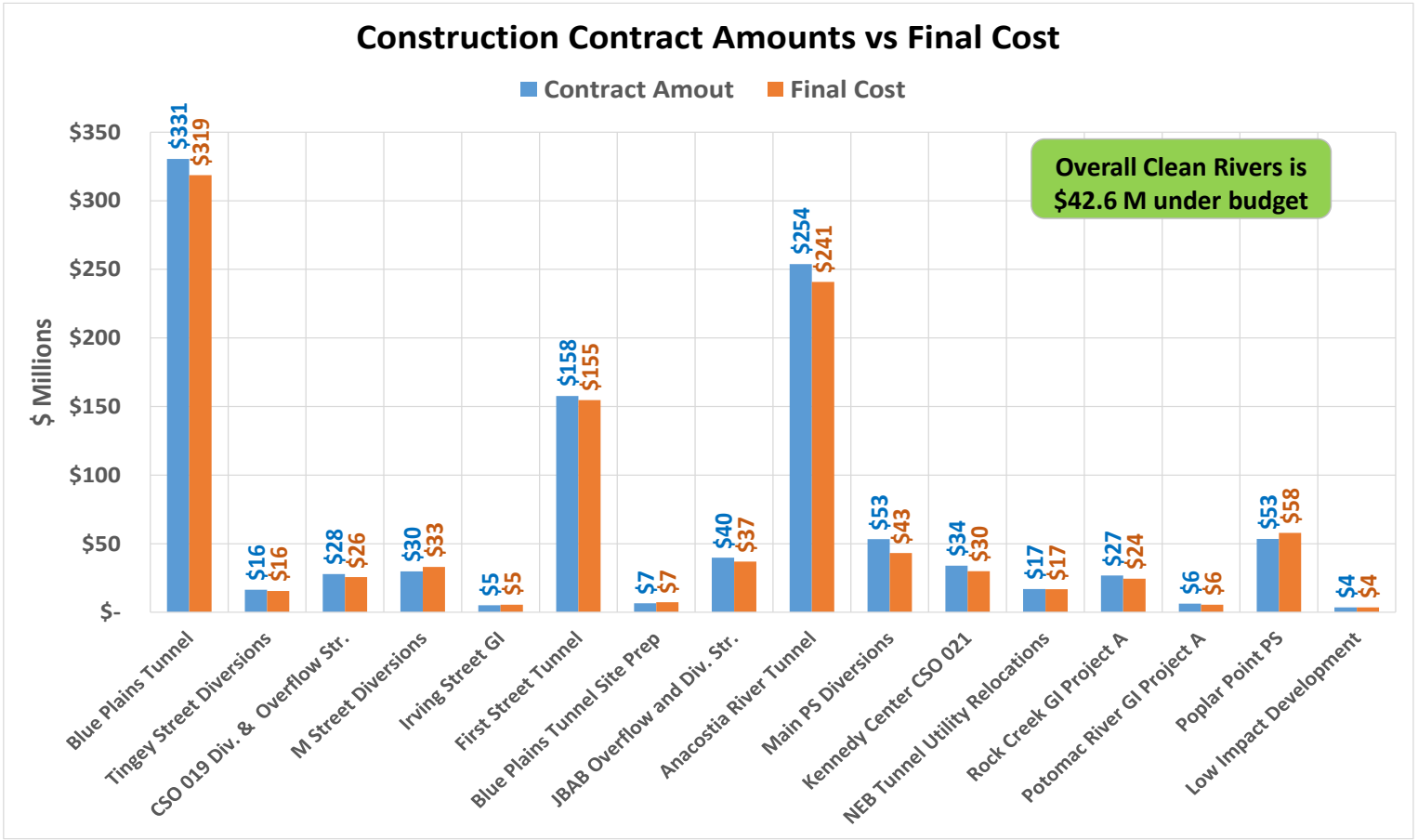
Clean Rivers Budget



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

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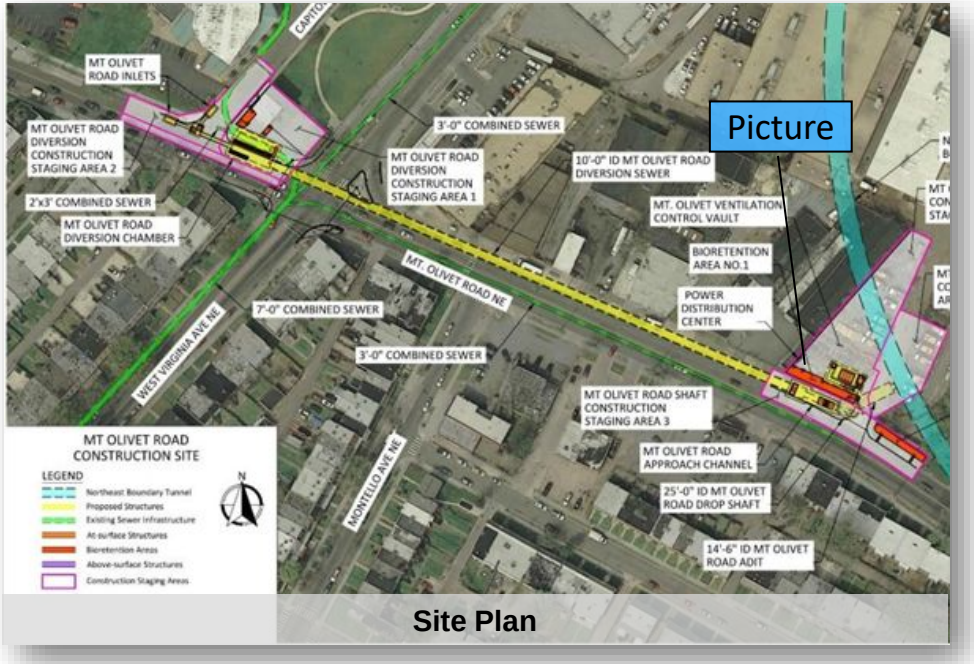
Appendix

Northeast Boundary Tunnel Surface Work Detailed Updates

Division J – Northeast Boundary Tunnel
Construction Progress: Mount Olivet Rd.



Site Plan


Approach Channel Concrete Work

Drop Shaft Site

- Concrete work for Ventilation Control Vault permanent structure (roof slab) is ongoing. Base slab, walls and access stairs are completed.
- Concrete work for Approach Channel permanent structure (walls) is ongoing.

Diversion Site

- Concrete work for Diversion Chamber permanent structure (walls) is ongoing.
- Excavation and lagging installation for inlet structures is ongoing. Completed excavation, lagging and mud mat placement at inlet IN1.

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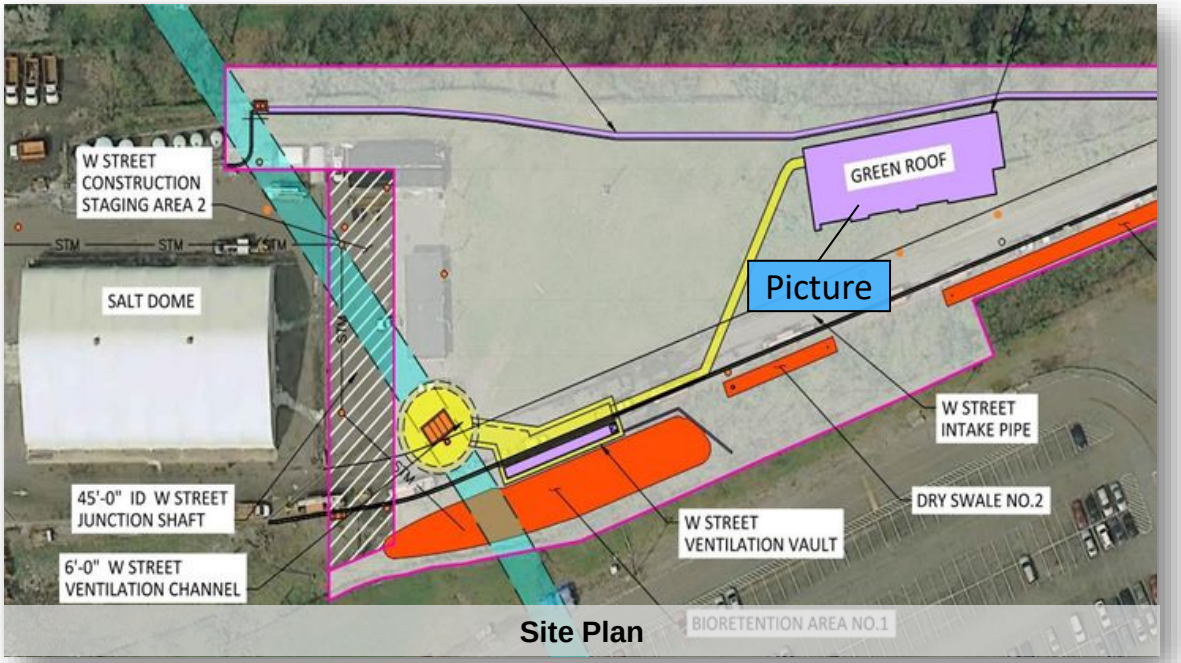
Division J – Northeast Boundary Tunnel
Construction Progress: W Street

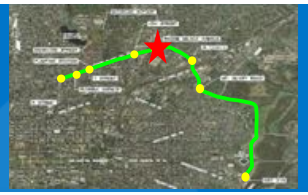


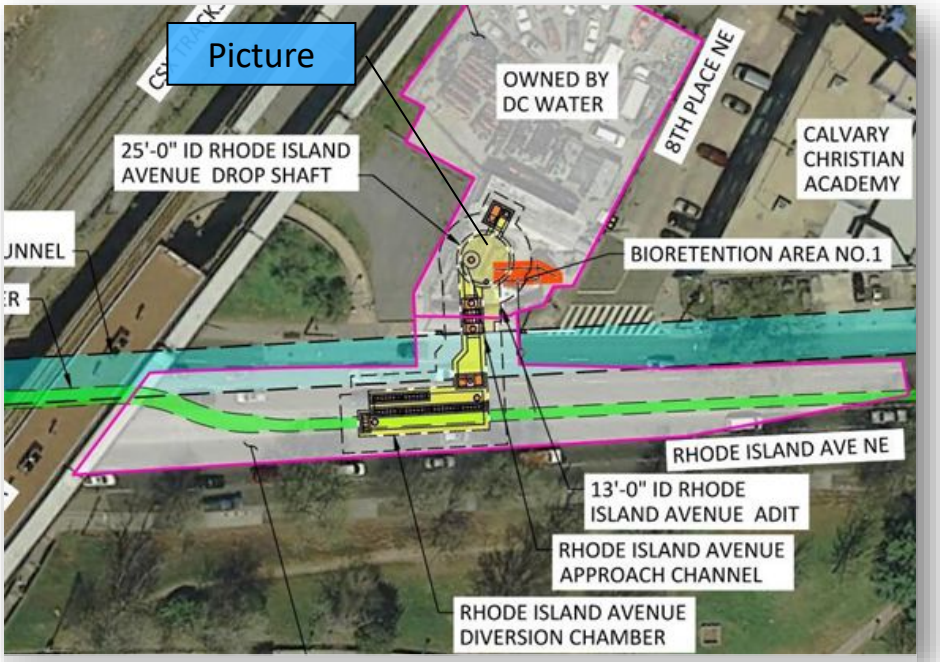
Site Plan

Ventilation Control Building

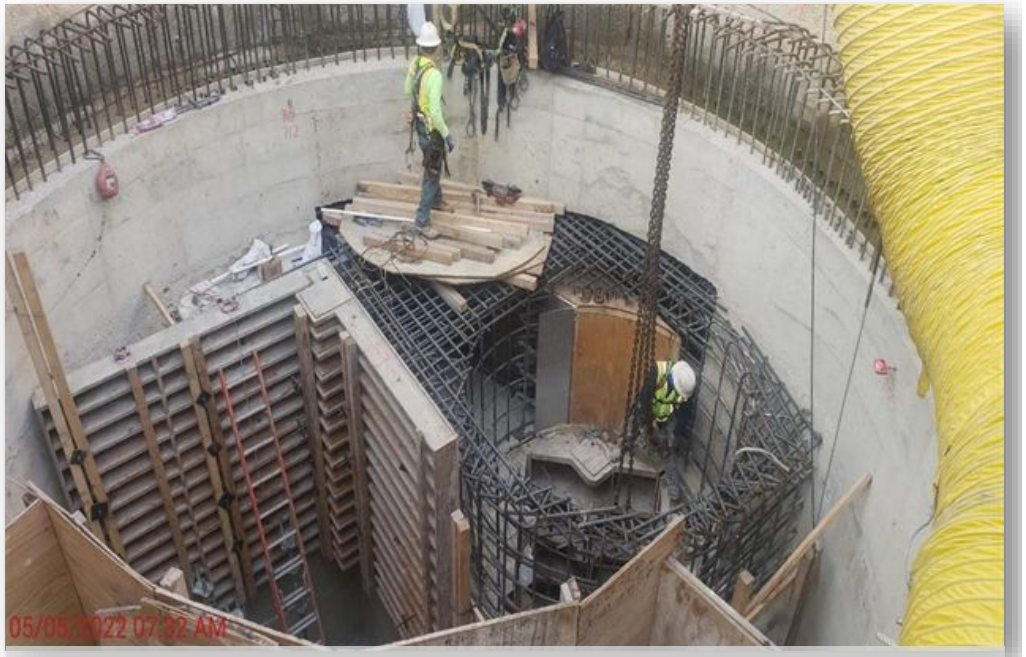
- Completed the retaining wall adjacent to the Ventilation Control Facility (VCF)
- Completed the VCF below grade foundation
- Started VCF Masonry Work

Division J – Northeast Boundary Tunnel
Construction Progress: Rhode Island Ave





Site Plan



Drop Shaft Internals

- Concrete work for Diversion Chamber permanent structure is ongoing. Base slab, perimeter walls, and internal walls are all completed.
- Completed Drop Shaft internal concrete
- Completed the Ventilation Vault concrete

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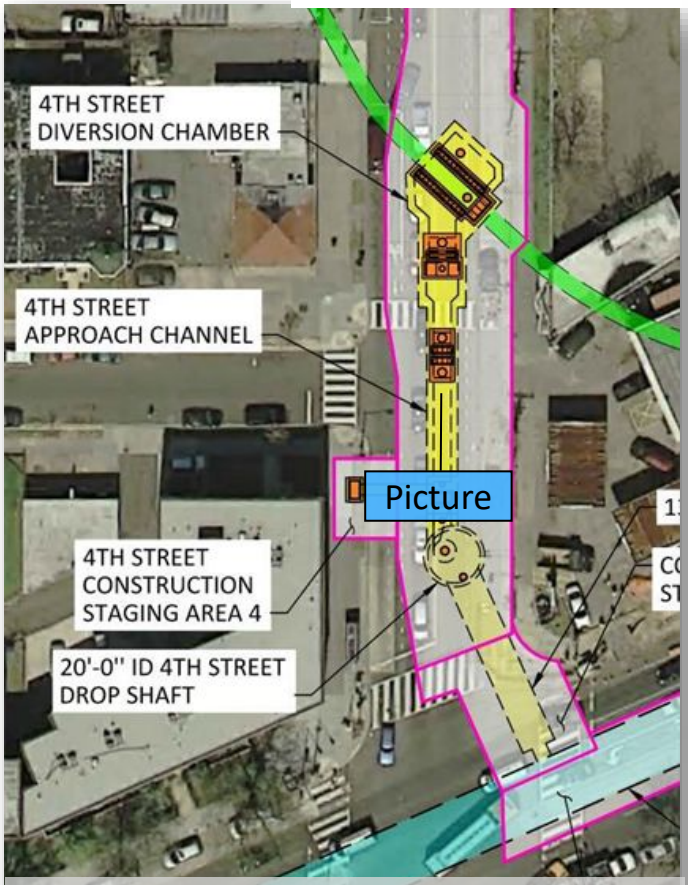
Division J – Northeast Boundary Tunnel
Construction Progress: 4th Street

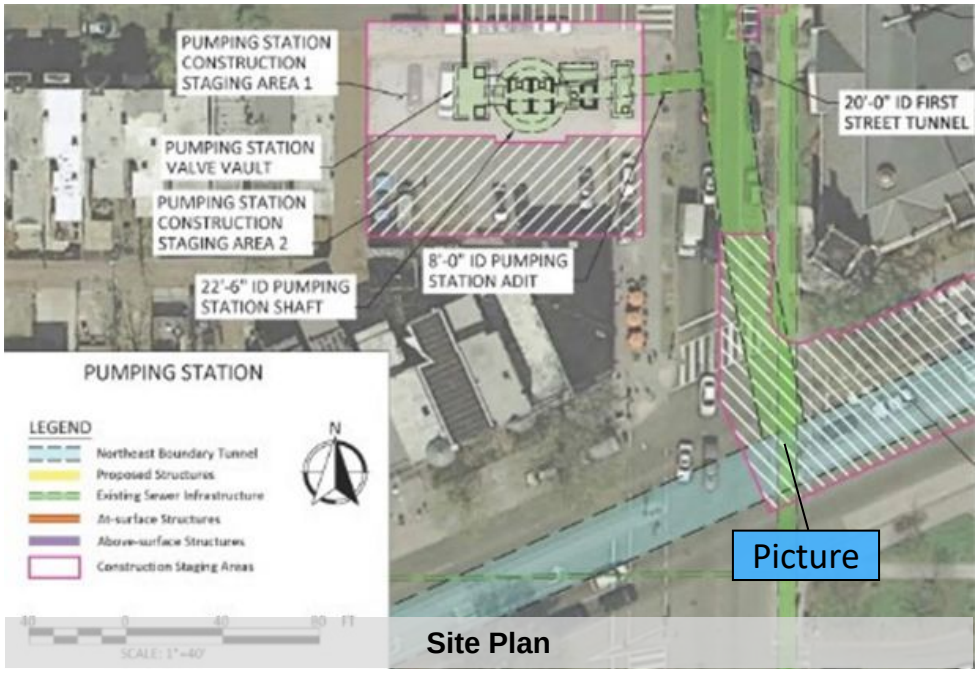


Site Plan

Road Restoration

- Performed restoration and completed sidewalk
- Completed storm line, water line, and ductbank work
- Roadway restoration is ongoing

Division J – Northeast Boundary Tunnel
Construction Progress: First Street Tunnel Connection



Site Plan

First Street TBM "Lucy" Uncovered

- Completed the cast-in-place concrete liner in the Northeast Boundary Tunnel at the First Street Connector Tunnel (FSCT)
- Started excavation of the FSCT and exposed the abandoned TBM "Lucy"

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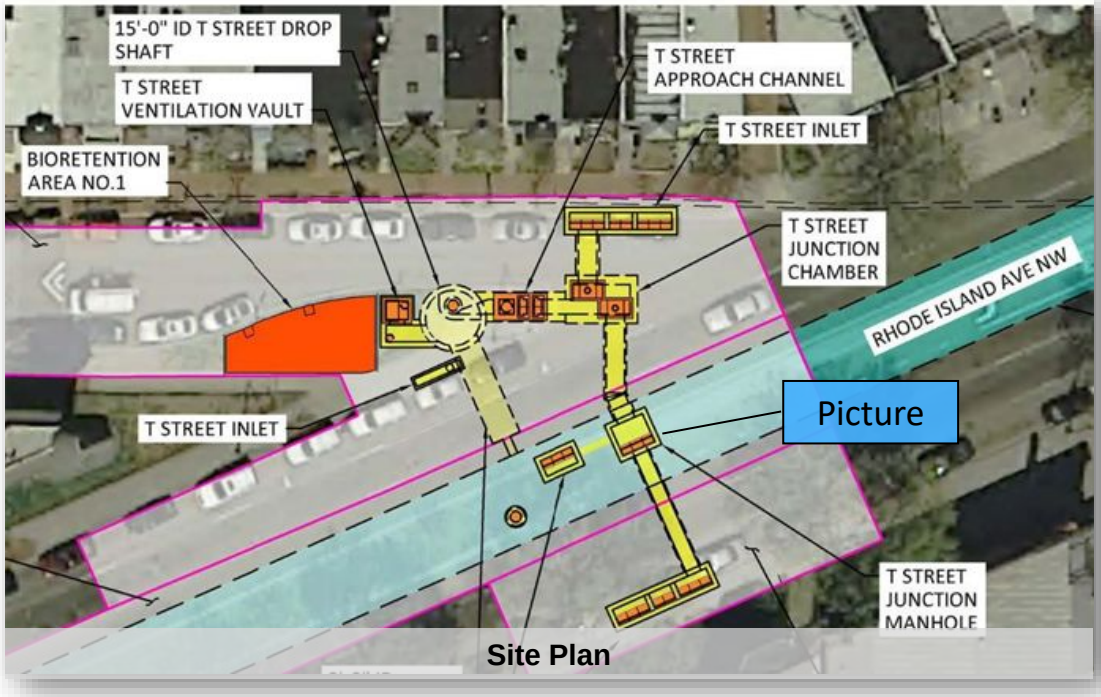
Division J – Northeast Boundary Tunnel
Construction Progress: T Street



Site Plan

Junction Manhole Construction

- Completed shaft internal and approach channel concrete work
- Occupy Construction Staging Area 2 and install soldier piles for inlet #2 and junction manhole
- Excavation completed for the ventilation vault

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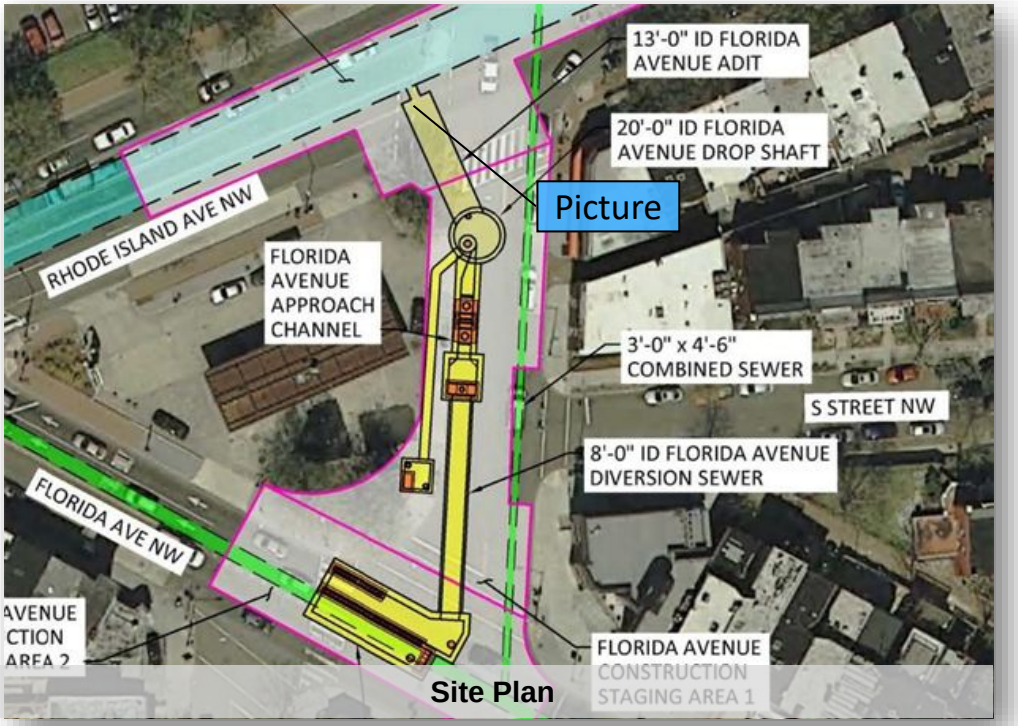
Division J – Northeast Boundary Tunnel
Construction Progress: Florida Ave

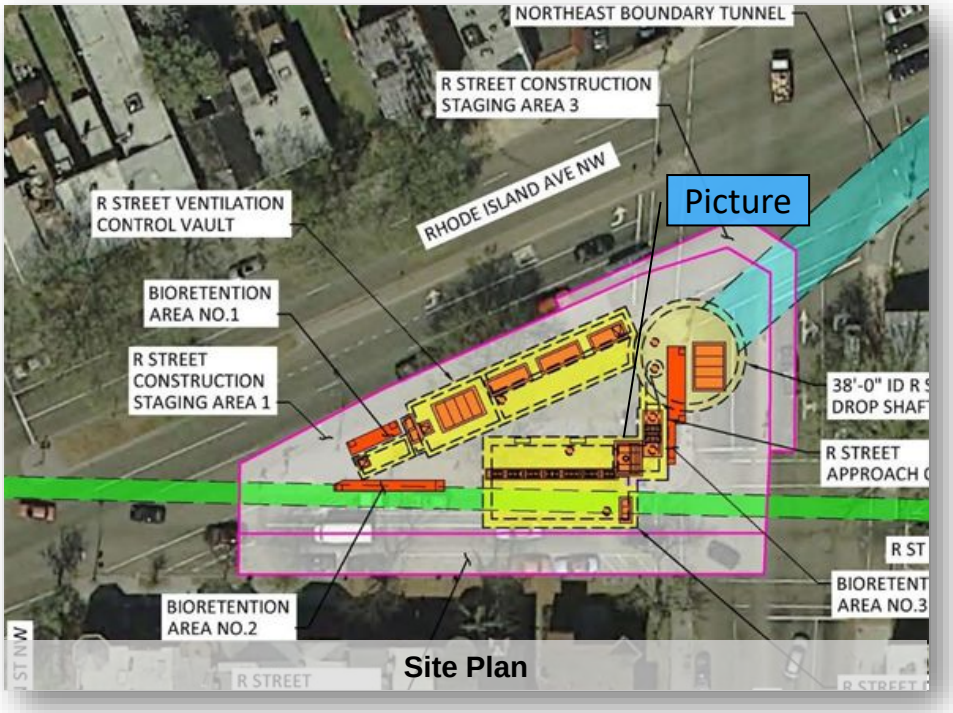


Site Plan

Complete Adit Excavation

- Ground improvement (freezing) ongoing in preparation for Adit liner installation
- Completed Adit excavation
- Site restoration for Florida Ave ongoing

Division J – Northeast Boundary Tunnel
Construction Progress: R Street



Site Plan


Diversion Chamber Roof Leak Test

- Completed Approach Channel and Diversion Chamber concrete roof slab
- Completed Shaft internal concrete
- Started Ventilation Control Vault excavation

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