



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

Meeting of the
Environmental Quality and Operations Committee

**Thursday, September 15, 2022
9:30 a.m.**

Microsoft Teams meeting

Join on your computer or mobile app

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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.	BPAWTP Status Update	Aklile Tesfaye
		1. BPAWTP Performance	
9:50 a.m.	IV.	CIP Quarterly Update	Paul Guttridge
10:10 a.m.	V.	BP Power Reliability and MICROGRID	Duncan Mukira
10:20 a.m.	VI.	Action Items	Joel Grosser/David Parker

Joint Use

1. [Contract No.: 10126 - Document Management Services, Page After Page Business Systems, Inc.](#)
2. [Contract No.: 10279 – Security Systems, Enterprise Security Solutions](#)
3. [Contract No.: DCFA 480- Electrical Improvements and Microgrid Implementation at Blue Plains, Jacobs Engineering Group, Inc.](#)

Non-Joint Use

1. [Contract No.: 180040 - Small Diameter Water Main Replacement - 15D, Capitol Paving of D.C.](#)
2. [Contract No.: N/A - South Capitol Street Circulator Facility \(MOA\), District Department of Transportation](#)
3. [Contract No.: N/A - S St Revitalization from 7th St NW to Florida Ave NW \(MOA\), District Department of Transportation](#)

10:35 a.m.	VII.	DC Clean Rivers Update	Moussa Wone/Jeff Peterson/Seth Charde
10:50 a.m.	VIII.	Other Business / Emerging Issues	
10:55 a.m.	IX.	Executive Session*	
11:30 a.m.	X.	Adjournment	Sarah Motsch

Follow-up Items from Prior Meetings:

1. Meena Gowda (Deputy General Counsel, Legal Affairs): To provide an update to the EQ&Ops Committee on the due diligence (related to soil conditions and prior use of the site) that was completed ahead of the purchase of the site of the new fleet headquarters. **[Target: September EQ&Ops Meeting]**
2. Nija Ali (Acting Director, Fleet): In response to questions about infrastructure for electrification of fleet, the Committee requested a briefing at a future meeting about plans across the Authority to comply with District government initiatives to achieve carbon neutrality. **[Target: October EQ&Ops Meeting]**
3. Kishia Powell (COO): Add "PFAS Liability and Indemnification" as an agenda item in a future executive session. **[Target: October EQ&Ops Meeting]**
4. Ivelisse Cassas (Director, Security): To provide a brief summary to EQ&Ops Committee on the kinds of fire systems used by DC Water. **[Forwarded to BOD Secretary, July 28, 2022]**
5. Kisha Powell (COO): Public Communication team to consider including more specific information to the public about what aspects of PFAS elimination are being supported by DC Water. **[Forwarded to BOD Secretary, August 2, 2022]**
6. John Deignan (Program Manager, Lead Services): To follow up to confirm statistics for Wards 2 & 3 for the table in the meeting package on page 18. **[Forwarded to BOD Secretary, August 3, 2022]**

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

September 15, 2022

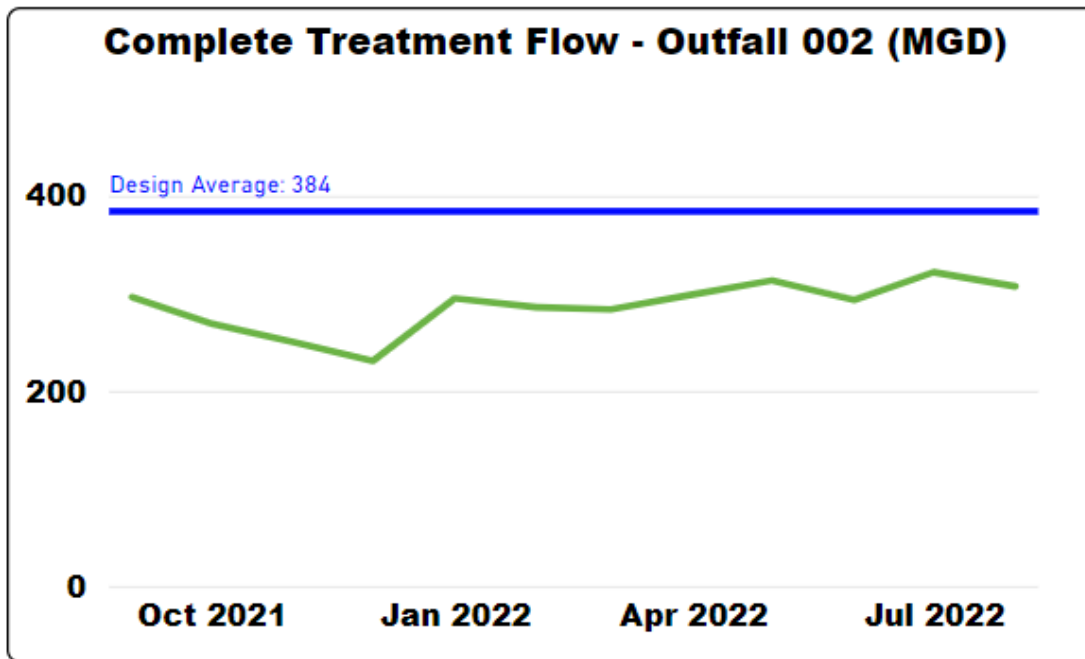


Aklile Tesfaye, Vice President, Wastewater Treatment Operations



Operational Performance Complete Treatment

Monthly Average Flow Trend to Complete Treatment (MGD)



- All weekly and monthly NPDES permit requirements met
- Average Outfall 002 flow: 307 MGD



Operational Performance Wet Weather Treatment Facility

Wet Weather Treatment Facility Performance

	August 2022*	Calendar Year 2022 (Through August)
Total Precipitation, inches (DCA gauge)	5.1	33.8
Total Volume Captured in the Anacostia Tunnel, MG	420	1858
Measured Overflow, MG	27	72
Percent Captured	94%	96%
Screenings and Grit Capture, tons	188	869

August 2022 Performance*

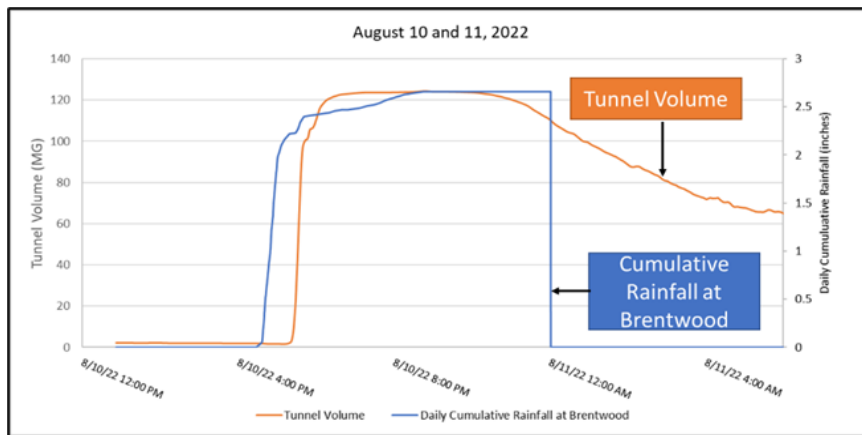
- Total of 420 MG of combined wet weather flow was captured in the tunnel and treated through the plant
- Preliminary data showed approximately 27 MG of overflows from CSOs associated with the existing Anacostia Tunnel System

*Based on preliminary data

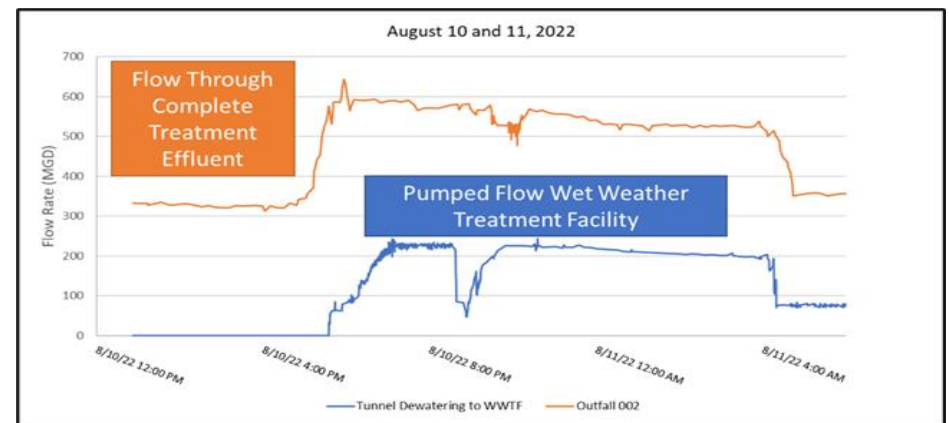


Operational Performance Wet Weather Treatment- August 10 Event

Anacostia Tunnel System Performance*



Flows to Complete Treatment/Wet Weather Treatment*



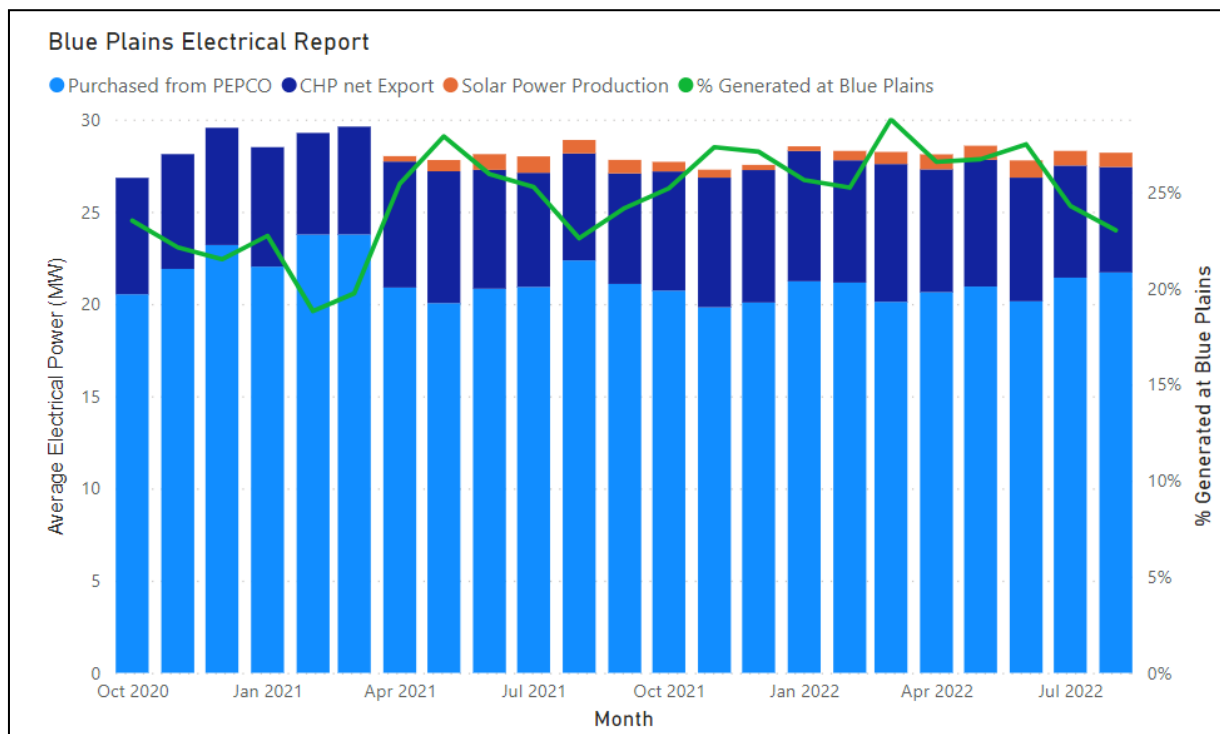
*Based on preliminary data

- Event resulted in intense rainfall in areas of the District of Columbia including Brentwood where a total precipitation of 2.66 inches was measured (blue trend line) and 2 inches occurred within first 30 minutes of the event
- The Anacostia River Tunnel, with a storage capacity of 120 million gallons was filled in less than half hour
- The total volume captured by the tunnel was 165 MG
- Approximately 20 MG of overflows were measured at tunnel overflow structures
- All effluent quality and operating parameters were within NPDES permit requirements



Operational Performance Electrical Energy Use and Generation

Blue Plains Electrical Energy Use and Generation



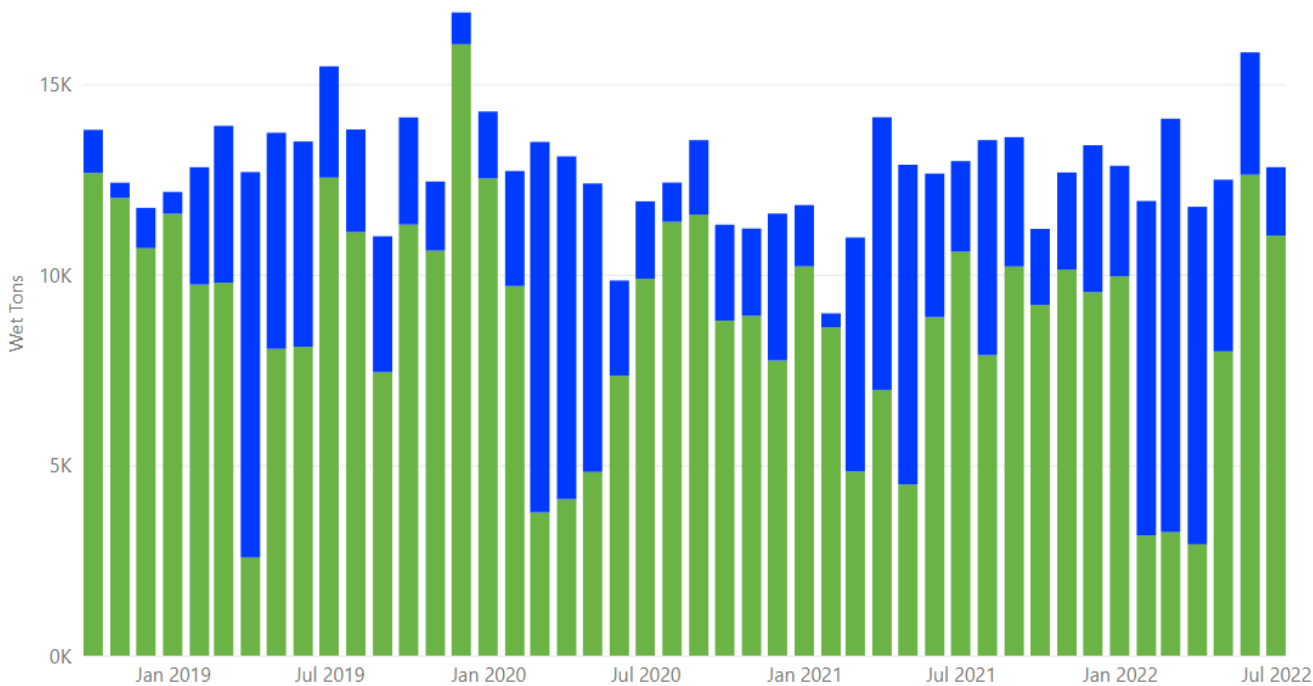
- 23% of electricity was generated onsite
- Combined Heat and Power (CHP) facility produced an average of 7.0 megawatts (MW), with 5.7 MW net to Blue Plains grid
- Solar System produced an additional 0.8 MW of power on average
- Total electricity consumption at Blue Plains averaged 28.2 MW
- DC Water purchased an average of 21.7 MW of electricity from PEPCO



Operational Performance Class A Biosolids Production

Total Production of Class A Biosolids and Beneficial Reuse by Type

● Land Application ● Marketing as Bloom



- In August, Blue Drop sold approximately 3,150 tons of Bloom, keeping us on track to meet our goal of 55,000 tons sold in FY22.
- Blue Drop has sold through the end of August 52,485 tons of Bloom.
- Matching our August sales in September will put us above our goal for FY22.



Operational Performance Bloom Revenue Sales Milestone

Bloom Sales Revenue Summary

Year	Bloom Sales Revenue
FY17	\$ 15,607
FY18	\$ 46,908
FY19	\$ 161,362
FY20	\$ 220,534
FY21	\$ 296,818
FY22	\$ 259,582
Totals	\$ 1,000,811

- This past month (through July), our cumulative sales for Bloom, since the beginning of our sales efforts in FY17, topped \$1,000,000.
- This number continues to grow as Blue Drop expands our market and sells more Bloom.



Operational Performance Siloxane Removal and Flaring

Siloxanes & Removal From Digester Gas

- Common contaminant in digester gas, originate in consumer products such as shampoo and cosmetics
- Readily volatilize into the gas phase during the anaerobic digestion. If left untreated, combustion of gas containing these compounds leads to fouling of equipment, as glass like particles are formed and deposited on internal equipment components
- DC Water uses a proprietary adsorption bed media system provided by Venture Engineering & Construction, Inc. (Venture) to remove the siloxanes from the digester gas
- The media is regenerated on site and the waste gas is sent to the siloxane flare for destruction
- The Emissions Limits for the Siloxane Flare are part of the Ch. 2 Air Permit No. 6372-C2/O





Operational Performance Siloxane Flare Air Permit Requirements and Testing Results

- The average emissions for SO_x (lb/hr) and NO_x (lb/hr and lb/MMBtu) during permit testing were in excess of the existing permit limits

Parameter/Units	Feb 2021 Avg Results	Nov. 2021 Avg Results	Emissions Limits
Filterable Particulate Matter (FPM)			
lb/MMBtu	0.014	NA	0.114
Total Particulate Matter (TPM)			
lb/hr	0.16	NA	0.21
Sulfur Dioxide (SO ₂) as surrogate for SO _x			
lb/hr	0.43	0.27	0.16
%	0.002	NA	0.05
Nitrogen Oxides (NO _x as NO ₂)			
lb/hr	0.45	0.29	0.37
lb/MMBtu	0.02	0.065	0.06
Carbon Monoxide (CO)			
lb/hr	0.08	NA	1.25
Total Non-Methane Hydrocarbons, as Methane (VOC)			
lb/hr	<0.007	NA	0.53
Opacity			
%	0	NA	40



DOEE Administrative Order Siloxane Flare Emission Exceedance

Failure to meet an emission limit established in the permit is considered a violation of Operating Permit Number 6372-C2/O, and therefore DC Water is currently out of compliance. This violation qualifies as a High Priority Violation per EPA policy. Through this Administrative Order, AQD is establishing an enforceable schedule for the facility to return to compliance.

Authority	Required Action(s)	Complete by Date
20 DCMR § 202.2 / 16 DCMR § 4001.5(c)	Submit to DOEE a Technical Memorandum outlining DC Water's technical evaluation of the reason for stack test failure. Submit report by email to air.quality@dc.gov .	9/16/2022
20 DCMR § 202.2 / 16 DCMR § 4001.5(c)	Implement corrective actions, including performing any maintenance activities, required to meet emission limits for the siloxane flare.	12/2/2022
20 DCMR § 202.2 / 16 DCMR § 4001.5(c)	Submit to AQD a protocol for emissions testing for the siloxane flare.	1/6/2023
20 DCMR § 202.2 / 16 DCMR § 4001.5(c)	Complete re-testing for the siloxane flare	2/6/2023



Compliance Workplan Action Items

Action Item	Due Date	Status
1. Submit to DOEE a Technical Memorandum outlining DC Water's technical evaluation of the reason for stack test failure. Submit report by email to air.quality@dc.gov .	September 16, 2022	Includes technical basis for permit amendment. Final draft technical memorandum is currently under review and will be submitted by September 15, 2022
2. Implement corrective actions, including performing any maintenance activities, required to meet emission limits for siloxane flare.	December 2, 2022	DC Water will submit a permit modification by November 18, 2022. The permit amendment request is in lieu of the stated "corrective actions" referenced in the Administrative Order.
3. Submit to AQD a protocol for emissions testing for the siloxane flare. Due January 6, 2023	January 6, 2023	Following agreement on DC Water's approach, a revised protocol will be prepared and submitted if required by DOEE. To be submitted by December 31, 2022
4. Complete retesting for the siloxane flare. Due February 6, 2023	February 6, 2023	Retesting will be conducted following approval of testing protocol. Will be completed by February 6, 2023



CIP Quarterly Update



CIP Quarterly Update

Environmental Quality & Operations Committee

September 15, 2022



Paul Guttridge, Director, CIP Infrastructure Management



CIP Quarterly Update

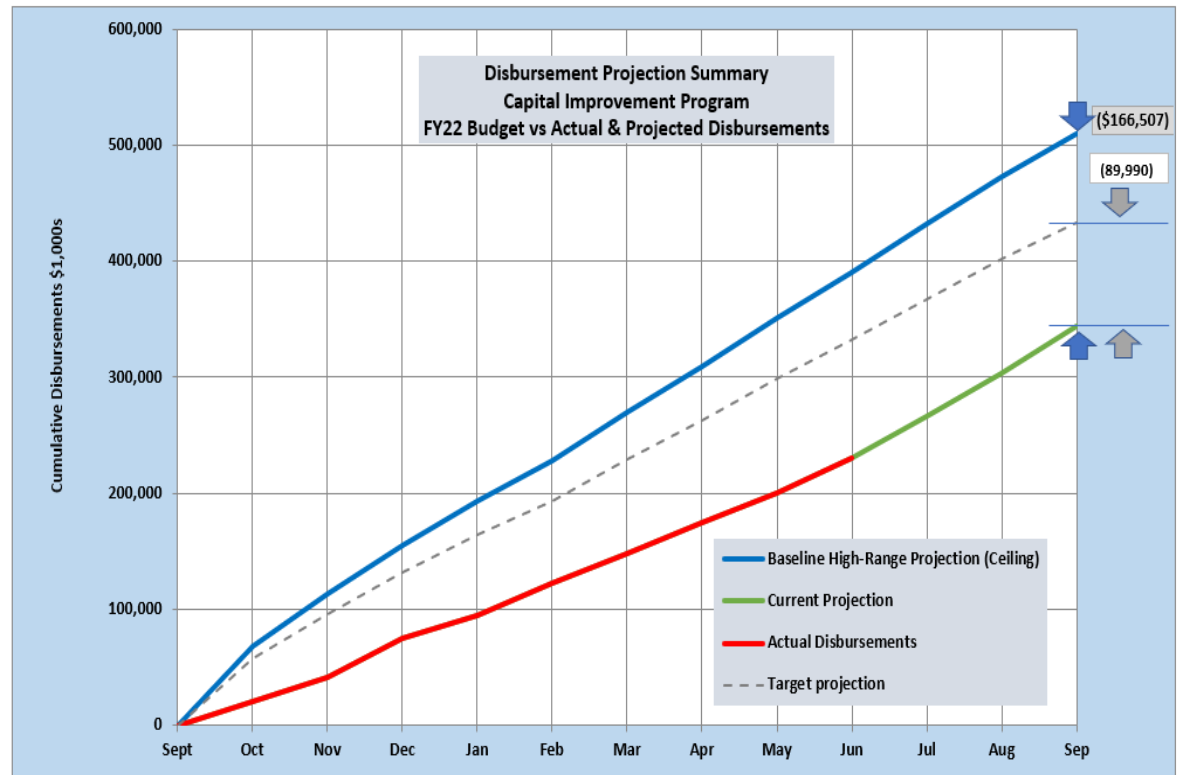
CIP Disbursement Performance

Current projected program disbursements through the end of the fiscal year compared with the proposed FY22 baseline budget ceiling are shown in the chart (right).

The current projected fiscal year 2022 CIP disbursements are **\$344M** through the end of September 2022.

This is \$167M under the approved not to exceed baseline ceiling of **\$510M**, or 67% of the baseline forecast.

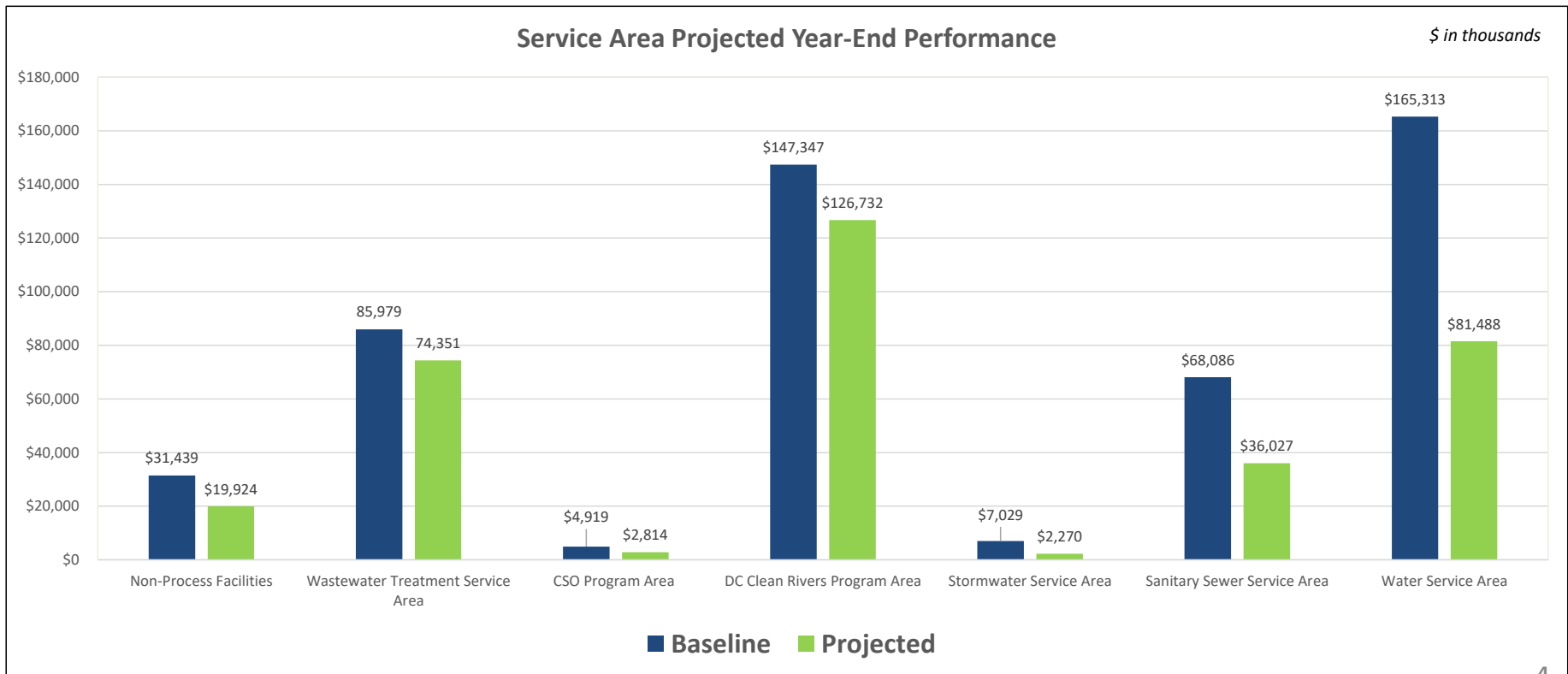
The current forecast is \$90M below the target projection, which represents 79% of the target.





FY22 Projected Performance by Service Area

CIP Disbursement Performance by Service Area





Key Drivers of CIP Performance by Service Area

Non-Process Facilities (63%), \$11.5M underspending due to:

- HH Main and O Relocation (Fleet and Sewer Facilities) – delays installing transformers
- HJ COF Renovations - project reassessed and deferred

Wastewater Treatment Service Area (86%), \$11.6M underspending due to:

- Work under Miscellaneous Facilities Upgrade Contract 7 (MFU7) construction contract was less than projected due to NTP later than scheduled and supply chain issues
- Scope change necessitating a change order that impacted the start of the Switchgear construction contract

CSO Program Area (57%) \$2.1M underspending due to:

- Work at Main and O St Pump Stations through MFU contracts delayed due to coordination of engineering documentation

DC Clean Rivers Program Area (86%) \$20.6M underspending due to:

- An uptick in Covid infections to crews and the inherent issues with the ground improvement technique selected over more invasive techniques to minimize traffic and neighborhood impacts during construction – The place-in-operation timeframe remains mid-2023, ahead of the March 23, 2025, Consent Decree deadline



Key Drivers of CIP Performance by Service Area (Cont.)

Stormwater Service Area 32% (\$4.8M) underspending due to:

- Supply chain issues and DDOT permitting delayed execution through MFU7. Kenilworth Avenue PS construction was delayed by DDOT and has since been removed from DDOT's project to be constructed through MFU contract instead.

Sanitary Sewer Service Area 53% (\$32.0M) underspending due to:

- Permitting and contract negotiations of Phase II design-build contract for Potomac Interceptor Phase 5 Pipe Rehab took longer than anticipated.
- Major Sewer Assessment and Heavy Cleaning had to be re-bid
- New Sanitary Sewer Program Management contract transition resulted in delay while work was ramped up.

Water Service Area 49% (\$83.8M) underspending due to:

- Multiple SDWM contracts are being impacted by DDOT regulations and permit issues that were not anticipated when the projects were awarded.
- Condition assessment activities have been impacted by inoperable valves needed to isolate the flow.
- The disbursements for the Lead-Free DC (LFDC) program are currently projected to be \$32.3M below the baseline. This underspending is generally due to the lower than anticipated customer participation rates and delays to the construction progress due to efforts to maximize homeowner participation.
- Note, current supply chain issues will impact near-term future projects.



Action Plan to Improve FY23 Performance

➤ Improve the Initial Plan (Baseline) Forecast

- Durations updated (extended where applicable) to reflect accurate schedules
- Include schedule impacts to account for supply chain issues
- Account for anticipated performance levels
- Custom cost curve for Potomac Tunnel will be used following procurement

➤ Improve Execution of the Plan (Actuals)

- Use Master Service Agreements (MSAs) to execute contracts more efficiently and with greater flexibility
- Work collaboratively with DDOT to address 1,200 Foot rule, Traffic Control Plans and permitting challenges
- Procurement of MFU-8 program is underway, will increase available contract capacity for task-order based construction
- Non-Process Program Manager is now on-board and providing resources for planning and execution of Non-Process Facilities work
- 12-month lookahead collaboration between Engineering and Procurement
- Procurement developing strategy to mitigate supply chain issues.
- Increased focus on project execution and schedule adherence with monthly project updates, Department Head approval required for scope and schedule deviations.



Current Disbursement Projections within the Service Areas and Significant Project Variances

Non-Process Facilities

Baseline Disbursements	\$31,439,000
Projected Disbursements	\$19,924,000 (\$11.5 M 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 \$3.9M 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 \$2.0M below baseline. This project was initially put on hold in response to COVID-19 revenue restrictions. The project has recently been transitioned to the new Program Manager. Concept design is planned to start in FY23.



Current Disbursement Projections within the Service Areas and Significant Project Variances

Wastewater Treatment Service Area

Baseline Disbursements	\$85,979,000
Projected Disbursements	\$74,351,000 (\$11.6M below baseline projection)

Significant project variances are listed below:

- *Liquid Processing Program Area – (\$6.0M below baseline)*
 - The forecast disbursements for Project IY – Effluent Filter Upgrade are \$3.1M below baseline due to longer scheduled time to complete design details for short-term/emergency repairs.
 - The forecast disbursements for Project A2 – Liquid Processing Program Management are \$2.2M below baseline due to the WTPM work being focused on other program areas (combined AL - Plantwide Program Management & AM - Solids Processing Program Management \$1.5M above baseline).
 - The forecast disbursements for Project J2 – Primary Treatment Upgrade are \$1.3M below baseline due to Miscellaneous Facilities Upgrade Contract 7 (MFU7) construction contract supply chain issues.
- *Plantwide Projects Program Area – (\$7.2M below baseline)*
 - The forecast disbursements for Project TZ – 50416 - Elec Power Sys - Switchgear are \$3.8M below baseline due to an initial scope change necessitating a change order that impacted the start of the construction contract.
 - The forecast disbursements for Project CW – Security at Blue Plains are \$1.2M below baseline due to 2-year extension (previously expected to end Sep.'22) to match job IV01 - Blue Plains IT Backbone FOC Tubes.
- *Solids Processing Program Area – (\$2.6M above baseline)*
 - The forecast disbursements for Project BX - Gravity Thickener Upgrades Phase II are \$3.2M above baseline. This overspend is due to an invoice anticipated to be paid in FY21 subsequently paid in FY22. Additionally, the work is also progressing slightly ahead of baseline projection.



Current Disbursement Projections within the Service Areas and Significant Project Variances

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	\$2,814,000 (\$2.1M 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	\$126,732,000 (\$20.6M below baseline projection)

The Northeast Boundary Tunnel (NEBT) is the primary driver for Clean Rivers spending and we project Fiscal Year 2022 disbursements will be below planned disbursements. Reasons for underspending include an uptick of COVID-19 infections, and slower than anticipated construction progress at the Florida Avenue site. At this 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 to reduce impacts to the community during construction. However, the freeze growth-imposed pressures on some of the permanent works, necessitating corrective measures. This impacted the ability to progress some of the work at the Florida Avenue site which impacted spending. In addition, there was underspending on allowances established in the contract to mitigate various high risks during construction because some of the risks and construction challenges did not occur. This savings is a positive outcome that resulted in reduced spending.

The projected place-in-operation timeframe remains mid-2023, ahead of the March 23, 2025, Consent Decree deadline.



Current Disbursement Projections within the Service Areas and Significant Project Variances

Stormwater Service Area

Baseline Disbursements	\$7,029,000
Projected Disbursements	\$2,270,000 (\$4.8M below baseline projection)

Significant project variances are listed below:

- *Storm Pumping Facilities Program Area (\$4.3M below baseline)*
 - The disbursements for Project NG – Stormwater Pump Stations Rehabilitation are \$4.3M below the baseline. Work to be performed through MFU7 was delayed due to supply chain issues, permitting requirements (now completed). In addition, the Kenilworth PS, intended to be constructed via a DDOT Contract, was delayed, consequently impacting disbursements. The Kenilworth PS work has been re-programmed to be constructed via the MFU contract.



Current Disbursement Projections within the Service Areas and Significant Project Variances

Sanitary Sewer Service Area

Baseline Disbursements	\$68,086,000
Projected Disbursements	\$36,027,000 (\$32.1M below baseline projection)

Significant project variances are listed below:

- *Interceptor/ Trunk Force Sewers Program Area (\$24.3M below baseline)*
 - The disbursements for Project LZ – Potomac Interceptor Projects – Rehab Phase II are \$12M below the baseline. Permitting and contract negotiations of Phase II design-build contract for Potomac Interceptor Phase 5 Pipe Rehab took longer than scheduled. Contract negotiations are complete, and construction has begun.
 - The disbursements for Project RA – Major Sewer Assessment and Heavy Cleaning are \$1.9M below the baseline due to an extended procurement period to re-bid the project. The work is repackaged and readvertised.
 - The disbursements for Project A4 – Future Sewer System Upgrades are \$2.0M below the baseline due to additional time for Miscellaneous Facilities Upgrade Contract 7 (MFU7) task order initiation.
 - The disbursements for Project HT – Rehabilitation of Anacostia Force Main is \$1.3M below baseline because of invoicing delays from DDOT for Sewer Construction Contract – Firth Sterling.
 - The disbursements for Project G5 – Sewer Rehab Near Creekbeds are \$1M below the baseline in part due to time required to process the supplement agreement for the Process Design Engineer Basic Ordering Agreement (BOA).
 - The disbursements for Project RC – Major Sewer Rehab 1 are \$1.3M below the baseline in part due to longer than anticipated time for onboarding subconsultants for the NEPA process, as well as longer than anticipated time for design allowance approval.



Current Disbursement Projections within the Service Areas and Significant Project Variances

Sanitary Sewer Service Area (Continued)

Baseline Disbursements	\$68,086,000
Projected Disbursements	\$36,027,000 (\$32.1M below baseline projection)

Significant project variances are listed below:

- *Sanitary On-Going Projects (\$4.3M below baseline)*
 - The disbursements for Project M9 – FY2022 - DSS Sanitary Sewer Projects are currently \$4.3M 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 (\$5.2M below baseline)*
 - The disbursements for Project AU – Sanitary Sewer Program Manager are currently \$2.7M below the baseline due to a slower ramp up of work than expected.
 - The permitting contract was extended 18 months through a No Cost Change Order to accommodate DDOT, DCRA, and NPS permitting requests.
 - The disbursements for Project DN – Sewer Inspection Program are currently underspending by \$2.0M. This is primarily due to delayed invoicing by contractors performing heavy cleaning and performing inspection/condition assessment work.
- *Sanitary Pumping Facilities (\$1.8M below baseline)*
 - There are no significant project variances for this program area currently projected over the fiscal year.



Current Disbursement Projections within the Service Areas and Significant Project Variances

Water Service Area (continued)

Baseline Disbursements	\$165,313,000
Projected Disbursements	\$81,488,000 (\$83.8M below baseline projection)

Significant project variances for the second quarter are listed below:

- *Water Lead Free DC Program Area (\$32.3M below baseline)*
 - The disbursements for the Lead-Free DC (LFDC) program are currently projected to be \$32.3M below the baseline. This underspending is directly due to the lower than anticipated customer 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 / Contract Actions

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 Sep	Oct
HX00	Small Diameter Watermain Rehab 16A	Construction	No	\$10M-\$15M	EQ & Ops Nov	Dec
HX00	Small Diameter Watermain Rehab 16B	Construction	No	\$10M-\$15M	EQ & Ops Jan	Feb



Schedule - Key Performance Indicators

Summary of Key Performance Indicators (KPIs) through the 3rd Quarter:

	Performance
14	KPIs completed within threshold
2	KPIs completed outside threshold (>90)
4	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
LZ07	-113	Negotiation for the Phase 2 contract took longer than expected. NTP issued at the beginning of April.
GR02	-95	A lack of CAD Resources delayed the design activity.
SC01	-764	New program manager engaged later than expected. Project has been reassessed, reprioritized and subsequently deferred.
SD01	-854	New program manager engaged later than expected. Project has been reassessed, reprioritized and subsequently deferred.
QG03	-120	The design start was delayed due to protracted negotiations
MC01	-802	Delays due to other ongoing work that resulted in modifications to the initial scope of work.



Schedule - Key Performance Indicators

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	23-Jul-21	23-Jul-21	100	✓
Q1	LZ07	PI Phase 5 Pipe Rehab between MH31 and MH30	Phase II Design-Build NTP	15-Dec-21	7-Apr-22	7-Apr-22	-113	✘
Q1	LZ16	Potomac Interceptor - Rt 7 Crossing	Construction Substantial Completion	31-Dec-21	8-Feb-22	8-Feb-22	-40	✓
Q2	IL10	Creekbed Sewer Rehabilitation Rock Creek Oregon Avenue	Construction Substantial Completion	31-Mar-22	29-Jun-22	29-Jun-22	-89	✓
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	25-Apr-22	25-Apr-22	-95	✘
Q2	SC01	Main & O Seawall Restoration (Phase 2 HQO)	KPI Design Start Milestone	29-Jan-22	3-Mar-24		-764	✘
Q2	SD01	Main PS Building Modifications - Historic Restoration	KPI Design Start Milestone	29-Jan-22	1-Jun-24		-854	✘
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	8-Dec-21	46	✓



Schedule - Key Performance Indicators (Cont.)

Quarter	Job Code	Job Name	Activity Name	Due Date (Baseline)	Estimated/ Completed Date	Actual Completed Date	Variance (positive is early)	Met within 90 days
Q2	HH02	New Sewer Services Headquarters	Construction Substantial Completion	28-Feb-22	20-Oct-21	20-Oct-21	132	✓
Q2	QG03	Ft. Stanton Reservoir No. 1 Rehabilitation	Design Start Milestone	1-Feb-22	1-Aug-22		-120	*
Q3	F201	Small Diameter Water Main Repl 14A	Construction Substantial Completion	2-May-22	31-Oct-22		-182	
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	1-Aug-22		-79	
Q3	OB01	Inflatable Dams Replacement	Design (CFR) Start Milestone	31-May-22	29-Jul-22	29-Jul-22	-59	✓
Q3	F103	Small Diameter Water Main Repl 13C	Construction Substantial Completion	30-Jun-22	31-Aug-22		-62	
Q3	IL06	Creekbed Sewer Rehabilitation Fenwick Branch E Beach Dr & Red Bud Lane	Design Start KPI Milestone	1-Apr-22	5-May-22	5-May-22	-34	✓
Q3	GR03	Small Diameter Water Main Rehab 15D	Construction Start Milestone	13-Jun-22	5-Oct-22		-114	
Q3	RC01	Rehabilitation of RCMI & Beach Drive Sewers	Design Start Milestone Phase II	4-Jun-22	1-Oct-22		-119	
Q3	DE03	Small Dia Water Main Repl 12C (was C&L)	Construction Start KPI	30-Jun-22	23-May-22	23-May-22	38	✓
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	1-Sep-22		-92	



Schedule - Key Performance Indicators (Cont.)

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	I801	Large Valve Replacements 11R	Construction Substantial Completion	30-Sep-22	30-Nov-22		-61	
Q4	MC01	Sewer System SCADA	Construction Start Milestone	30-Sep-22	10-Dec-24		-802	✘
Q4	F104	Small Diameter Water Main Repl 13D	Construction Substantial Completion	21-Aug-22	30-Jan-23		-162	
Q4	FQ03	Main PS Miscellaneous Upgrades	Construction Start Milestone	30-Sep-22	1-May-23		-213	
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	1-Apr-23		-190	
Q4	QS03	Local Sewer Rehab Project 5-3	Design Start Milestone	16-Jul-22	15-Apr-22	15-Apr-22	92	
Q4	OE01	FY15 - Plantwide Storm Drainage Improvements	Construction Start Milestone	8-Sep-22	28-Apr-23		-232	
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	1-Aug-22		-2	

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



BP Power Reliability and Microgrid



Blue Plains Microgrid Project

Environmental Quality & Operations Committee

September 15, 2022



DCFA#480: Electrical Improvements and Microgrid Implementation at Blue Plains

David Parker, Interim Vice President, Engineering
Duncan Mukira, Supervisor, DWE



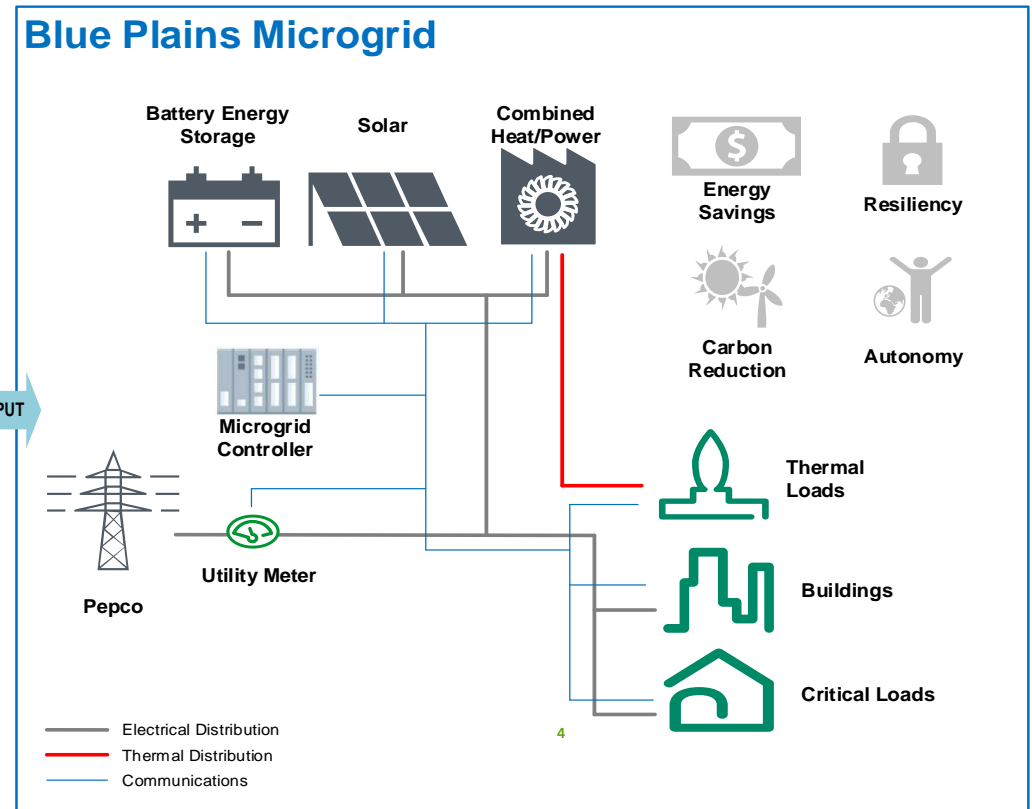
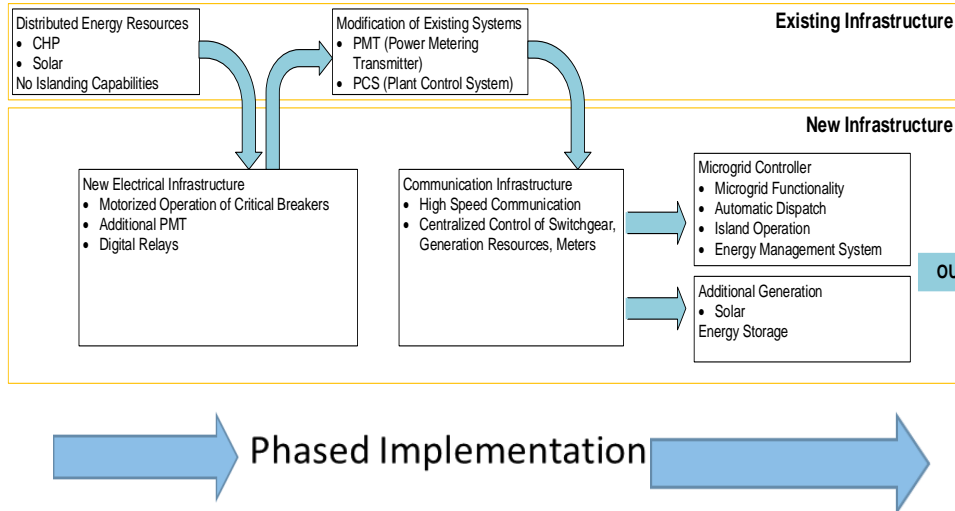
Existing and Planned

Our 10 Year CIP includes *Project IC budget, starting in FY23* to upgrade and modernize the electrical distribution system including optimizing existing power generations at Blue Plains AWTP.

- There are two existing generations at Blue Plains AWTP
 - 3.4MW Solar PV
 - 13.8MW Combined Heat and Power (CHP)
- Planned generations
 - 0.5MW Solar PV – Under design at Biosolid Curing Pad
 - 6.8 MW Solar PV- Planning start FY26



Existing and Planned (Cont.)



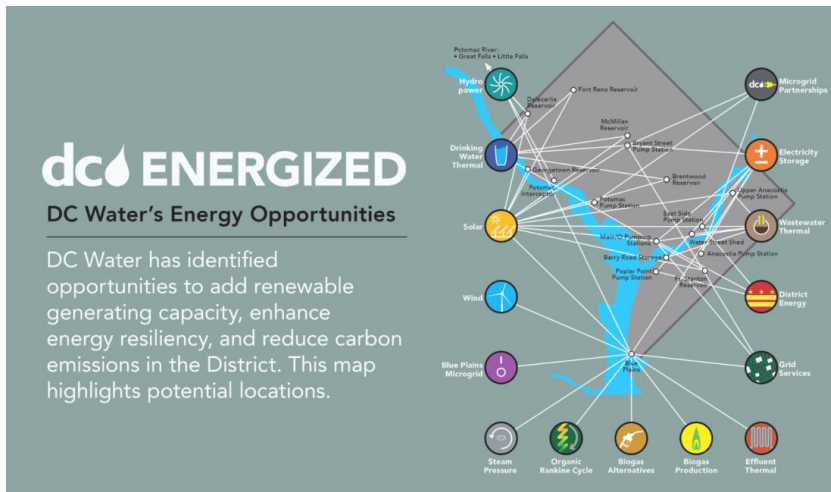


Electrical Improvements and Microgrid Implementation Project

Background

- Interconnection Agreement with Pepco
- Existing and future generation considerations

The intent is to increase interconnection MW to accommodate additional renewables



PEPCO Interconnection 25MW_{AC}

Max Rated Existing
CHP
13.8 MW_{AC}

Max Rated Existing
Solar
3.4 MW_{AC}

Potential Curing Pad
Solar
<1 MW_{AC}

Potential Additional
Solar
6.8 MW_{AC}

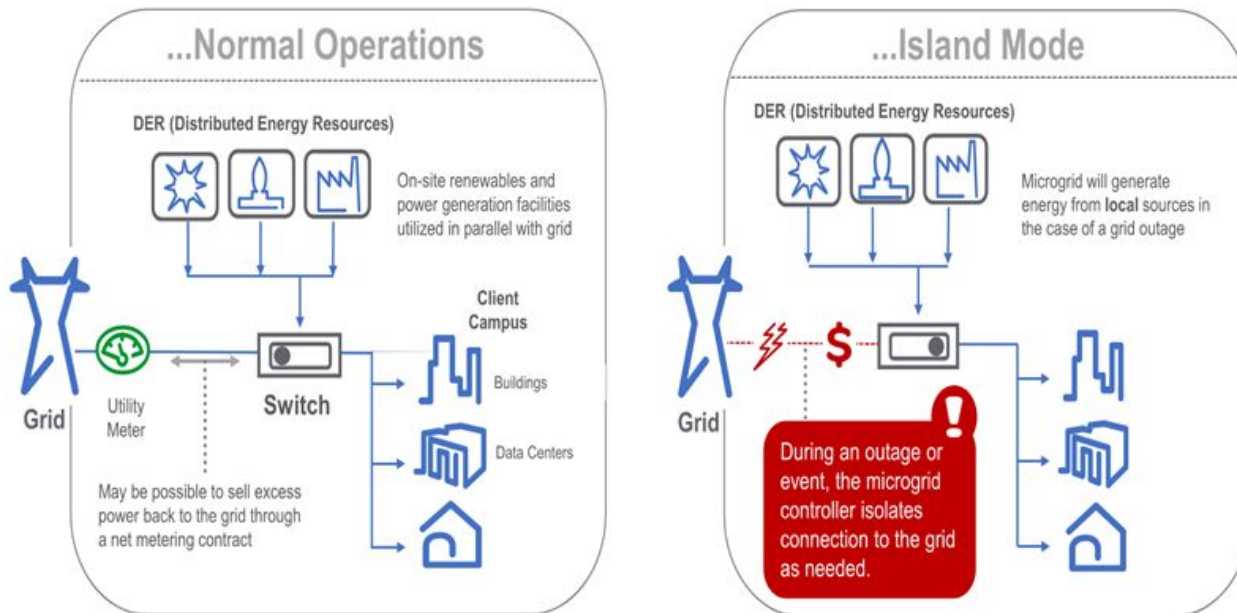
Prior PEPCO Interconnection	Current PEPCO Interconnection
25MW	25MW
5 turbines @ 5MW/Turbine	3 turbines @ 4.6 MW
	Solar @ 11.2MW

Blue Plains approximate power usage ranges from 25-39MW with Dry Weather Average of 28MW, and 39MW in Peak Wet Weather.



What is a Microgrid?

An **integrated energy system** consisting of **interconnected loads and distributed energy resources** that **can be controlled as a single entity** and operated connected to the grid in **Normal Operations and Island Mode**.



At this time, CHP and Solar generations are not configured to provide backup power at Blue Plains AWTP. i.e., not designed to operate in island mode without staging a black-start generator. In event of a major Pepco outage, the existing Solar (3.4MW) and CHP (13.8MW) will shut down; consequently, not improving resiliency at Blue Plain AWTP.



Funding and AEG Challenge

FEMA Funding

In July 2022 DC Water was awarded \$150,000 FEMA scoping grant for this project. This grant will contribute towards feasibility studies and microgrid roadmap.

COO presented this project at the 3rd Quarter AEG challenge in July 2022:

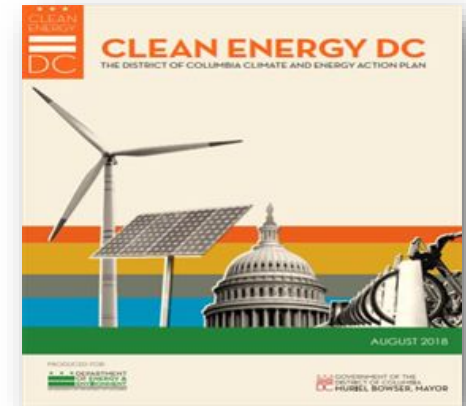
- The Opportunity presented won the challenge!
- Attendees volunteered in the Taskforce that will provide expertise to align this project with Justice 40 Initiatives, identify federal and other funding sources for the project



AEG DC Challenge - Winning Obstacle Statement

2022 Q3 Grid Modernization Grid Modernization Selected Obstacle:

Aligning the Blue Plains Microgrid project scope with Justice 40 outcomes and securing federal funds for project implementation in partnership with external stakeholders.



Equity Consideration:- Loss of Blue Plains AWTP Operations would significantly impact disadvantaged communities in SE and NE parts of the City.

SELECTED OBSTACLE STATEMENT:



- Kishia Powell, Chief Operations Officer, DC Water



Challenge Milestones

M1 Design sprint: Microgrid scope & J40 launch stakeholder engagement with key jurisdictions; include data needs

M2 Align to notice(s) of funding

M3 Recommend strategies and solutions

M4 Engage & Educate develop presentation materials



“Don't Stop the Flow: D.A.R.E.”



AEG Challenge Status

- **Identified DC Water's leads for this challenge (Duncan Mukira and Denise Edwards)**
- **Conducted kickoff meeting**
 - Presented the challenge obstacle and scope of work of the microgrid project
 - Identified Taskforce members
- **Weekly Taskforce meetings**
 - Created two subcommittees (Justice 40 and Stakeholders engagement)
 - Identified specific goals and deliverables for each subcommittee
 - Taskforce members volunteered their services in one or both subcommittees
 - Subcommittee leads will provide weekly updates to DC Water Co-leaders
 - Goal is to identify all funding sources including J40, BIL,IRA and other federal funding sources that can contribute towards electrical upgrade and microgrid implementation at Blue Plain AWTP.
 - An In-person progress meeting with Taskforce members has been scheduled for September 21, 2022
- **1st milestone AEG Update - November 03, 2022**



Electrical Improvements and Microgrid Implementation Project

Goals of the Project

- Improve the safety of personnel
- Increase reliability of the existing distribution system
- Enable management and optimization of DERs
- Reduce operational and maintenance costs
- Improve resiliency and resolution of electrical faults
- Address District equity and J-40 objectives
- Receive grant funding from J-40, FEMA, BIL,IRA etc.
- Invest effectively in electrical infrastructure
- Support sustainable DC Climate goals
- Expand analysis and reporting
- Align with DC Water's Blueprint 2.0 Imperatives
- Meet Cybersecurity requirements





Scope of Work

BOA Scope of Work (DCFA #480)

- **Studies**
 - Feasibility of battery storage and preparation of the microgrid roadmap
 - Reviewing electrical distribution system to recommend improvements
 - Power control analytic software platform and management system interface to PCS
- **Concept Design**
 - Automating and upgrades of the existing breakers
 - Upgrading PMTs, relays, and existing PCS communication fiberoptic infrastructure
- **Assist in preparing applications for FEMA and other grants**
- **Owner representation during the implementation of the microgrid**
- **Coordinate and facilitate engagements with internal and external stakeholders including AEG challenge.**
- **Determine delivery methods (DBD, DB, PDB) of microgrid implementation phases**



Procurement Strategy

Agreement Type

A Basic Order Agreement (BOA) type engineering services agreement for \$4,000,000 for 3 years with 2 years optional.

It is anticipated that the Microgrid Roadmap recommendations will inform future contracts that will be building blocks on the overall Microgrid Roadmap.

- Advertised
- 7 Proposals Received
- Evaluation and Selection
- EQ & Ops



- March 3, 2022
- May 5, 2022
- August 10, 2022
- September 17, 2022

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

ACTION REQUESTED

**GOODS AND SERVICES CONTRACT AWARD
Document Management Services
(Joint Use)**

Approval to award and fund a contract to provide document management services in the amount of \$1,282,887.00 for the base and two option years.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Page After Page Business Systems, Inc. 819 7 th Street, NW Washington, DC 20001 (DBE)	SUBS: Crowned Grace Inc. 4415 Nicole Dr. Suite F Lanham, MD 20706 (WBE)	PARTICIPATION: DBE 94% WBE 6%
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DESCRIPTION AND PURPOSE

Base Period Contract Value:	\$424,340.70
Base Period Contract Dates:	11-01-2022 - 10-30-2023
No. of Option Years in Contract:	2
Total Option Year 1-2 Value	\$858,546.30
Proposal Closing Date	09-08-2021
Proposal Price Range	\$1,124,933.34 - \$1,556,509.76

Purpose and Scope of the Contract:

To provide document management services for DC Water facilities. These services include staffing and managing the mailrooms and reprographics center. Reprographics work includes business cards, scanning, printing, and document finishing and packaging. The contractor will also maintain ninety-five DC Water-owned copiers and miscellaneous equipment.

A 10% contingency has been added to the proposed amount to account for unforeseen costs.

Supplier Selection:

This was an open market solicitation. Over 500 suppliers were invited to participate. Three responses were received at the close of the solicitation. Page After Page was selected based on best value considering the criteria of qualifications, experience, technical approach, and price.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	Award Based On:	Best Value
Commodity:	Document Management Services	Contract Number:	10126
Contractor Market:	Open Market with DBE/WBE goals		


BUDGET INFORMATION


Funding:	Operating	Department:	Facilities Services
Project Area:	Authority Wide	Department Head:	Brent Christ

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	70.33%	\$902,254.50
Washington Suburban Sanitary Commission	22.20%	\$284,800.94
Fairfax County	4.75%	\$60,937.14
Loudoun Water	2.35%	\$30,147.85
Other (PI)	0.37%	\$4,746.68
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$1,282,887.00

 /09/01/2022
 Maureen Holman Date
 VP, Shared Services

 09-01-2022
Digitally signed by Joel Grosser
 DN: dc=com, o=HWSA Users,
 ou=Procurement, cn=Joel Grosser,
 email=joel.grosser@dcwater.com
 Dan Bae Date
 VP, Procurement and Compliance

 Digitally signed by Matthew T. Brown
 Date: 2022.09.01 16:44:41
 -0400
 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 AWARD

**Security Systems
(Joint Use Indirect)**

Approval to award and fund a contract to provide security systems services in the amount of \$3,610,000.00 for the base and four option years.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Enterprise Security Solutions, LLC 44710 Cape Court Unit 112. Ashburn, VA 20147	Telecommunications Development Corp., Washington, DC (DBE) Aspen of DC., d/b/a ADC Management Solution, Washington DC (WBE)	DBE 20% WBE 10%

DESCRIPTION AND PURPOSE

Base Period Contract Value:	\$680,000.00
Base Period Contract Date:	11-01-2022 – 10-31-2023
Number of Option Years:	4
Total Option Year 1-4 Value:	\$2,930,000.00
Proposal Closing Date:	05-18-2022
Total Number of Proposals:	2
Proposal Price Range	\$3,602,996.80 - \$6,264,286.18

Purpose of the Contract:

DC Water requires a qualified contractor to provide maintenance and on-call and emergency repair services to ensure the continued proper, safe and reliable operation of access control, alarm and video surveillance systems utilized at DC Water Facilities.

Contract Scope:

To provide preventative and operational maintenance of DC Water’s security system. The work includes: the maintenance, repair, installation, testing, troubleshooting, replacement and reconfiguration of existing and future hardware and software that comprise the facilities security and access control systems: including card readers, locking devices, cabling, wiring, control panels, software, etc. The contractor is also responsible for maintaining an on-site spare parts inventory for all security systems installed at DC Water facilities.

Supplier Selection:

This was an open market solicitation. Ten suppliers were invited to participate we received two responses. Enterprise Security Solutions is recommended for this contract award because they were the highest rated supplier on the evaluation criteria of qualifications, experience, technical approach, and price.

Each option year will be awarded based on requirements, availability of funds and performance.

Enterprise Security Solutions is the incumbent. They have proven success and expertise in performing the requirements set forth in the scope of work. The COTR is satisfied with Enterprise Security Solution’s performance.

PROCUREMENT INFORMATION

Contract Type:	Good and Services	Award Based On:	Highest Ratings
Commodity:	Security	Contract Number:	10279
Contractor Market:	Open Market with DBE/WBE Goal		

BUDGET INFORMATION

Funding:	Operating Capital Equipment	Department:	Security
Project Area:	DC Water Wide	Department Head:	Ivelisse Cassas

ESTIMATED USER SHARE INFORMATION

User - Operating	Share %	Dollar Amount
District of Columbia	70.33%	\$1,589,458.00
Washington Suburban Sanitary Commission	22.20%	\$501,720.00
Fairfax County	4.75%	\$107,350.00
Loudoun Water	2.35%	\$53,110.00
Other (PI)	0.37%	\$8,362.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$2,260,000.00

ESTIMATED USER SHARE INFORMATION

User – Capital EQ	Share %	Dollar Amount
District of Columbia	43.57%	\$588,195.00
Washington Suburban Sanitary Commission	42.12%	\$568,620.00
Fairfax County	9.02%	\$121,770.00
Loudoun Water	4.50%	\$60,750.00
Other (PI)	0.79%	\$10,665.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$1,350,000.00

 /08/30/2022
 Maureen Holman Date
 VP of Shared Services

Joel Grosser  09/01/2022
 Dan Bae Date
 VP of Procurement

_____/_____
 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

ARCHITECTURAL AND ENGINEERING SERVICES:

**Electrical Improvements and Microgrid Implementation at Blue Plains AWTP
(Joint Use)**

Approval to execute architectural and engineering services contract for \$4,000,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Jacobs Engineering Group Inc. 1010 Wayne Ave. 1150 Silver Spring , MD 20910	Astute Engineering Vienna, Virginia DBE	23.0%
<u>Headquarters</u> 1999 Bryan Street, Suite 1200, TX 75201	CCJM Washington , DC DBE	3.0%
	Ontiveros Energy Austin, TX DBE	2.0%
	McKissack & McKissack Washington , DC WBE	3.0%
	SZ PM Consultants Washington , DC WBE	1.0%

DBE Total = 28.0% WBE Total = 4.0%

Jacobs Engineering intends to enter into a mentor relationship with CCJM

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	\$4,000,000.00
Contract Time:	1826 Calendar Days (5 Years)
No. of Option Years in Contract:	2
Anticipated Contract Start Date (NTP):	11-01-2022
Anticipated Contract Completion Date:	11-01-2027
Bid Opening Date:	05-05-2022
Bids Received:	7

Other firms submitting proposals/qualification statements:

- Arup Inc.
 - Black & Veatch*
 - CHA Consulting
 - Ramboll Engineering
 - Stantec Inc.*
 - Wiley & Wilson
- * Indicates shortlisted firms.

Purpose of the Contract:

To provide electrical feasibility studies, microgrid roadmap, concept designs and other as needed engineering services at Blue Plains AWTP under a Basic Order Agreement (BOA). When fully implemented based on projects recommended in the roadmap, the microgrid will: Improve safety, maintain reliability, support sustainable DC Climate goals including Justice 40 initiatives. It will also help reduce operational costs, invest effectively in infrastructure, improve resilience, enable management and optimization of existing and future distributed energy resources at Blue Plains.

Contract Scope:

- Prepare a microgrid roadmap that will identify portfolio of projects required to implement a microgrid at the Blue Plains Advanced Wastewater Treatment Plant (AWTP)
- Assess condition of the existing electrical distribution system and provide recommendations for improvements
- Prepare concept designs for automating selected breakers, upgrading power monitoring devices and electrical communication networks
- Assist in identifying grant funding sources and preparing application for the selected grants
- Coordinate and facilitate discussions with internal and external stakeholders including supporting the ongoing AEG challenge work.
- Feasibility studies for Battery Energy Storage Systems (BESS) and interfaces to the existing Process Control System (PCS)
- Provide assessment and cost estimates of Operational & Maintenance requirements of the upgraded electrical system
- Recommend delivery methods (Design Build, Design Bid Build, Progressive Design Build) of the microgrid related projects

Federal Grant Status:

- This Contract is funded in part by Federal grant.

PROCUREMENT INFORMATION

Contract Type:	Lump Sum and Cost Plus Fixed Fee	Award Based On:	Highest Ranking Score
Commodity:	Engineering Design Services	Contract Number:	DCFA-480
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	Department:	Wastewater Engineering
Service Area:	Wastewater	Department Head:	David Parker
Project:	IC		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	37.47%	\$1,498,800.00
Federal Funds**	3.75%	\$150,000.00
Washington Suburban Sanitary Commission	45.84%	\$1,833,600.00
Fairfax County	8.38%	\$335,200.00
Loudoun County & Potomac Interceptor	4.56%	\$182,400.00
Total Estimated Dollar Amount	100.00%	\$4,000,000.00

** In July 2022 DC Water was awarded \$150,000 scoping grant from FEMA that contribute funds towards feasibility studies under this project. We anticipate applying for additional grants funding when microgrid related projects are defined during feasibility study phase of this project.

Kishia L. Powell _____
 September 6, 2022
 Kishia L. Powell Date
 COO and EVP

Dan Bae _____
 September 7, 2022
 Dan Bae, VP Date
 Procurement and Compliance

Matthew T. Brown _____
 September 7, 2022
 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

CONSTRUCTION CONTRACT:

**Small Diameter Water Main Replacement - 15D
(Non-Joint Use)**

Approval to execute a construction contract for \$21,544,813.00

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Capitol Paving of D.C., INC 2211 Channing St NE Washington, DC 20018	Amerigal Construction Glen Dale, MD DBE	32.0%
	Acorn Supply LLC White Marsh, MD WBE	6.0%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	\$21,544,813.00
Contract Time:	420 Days (1 Year 2 Months)
Anticipated Contract Start Date (NTP):	12-08-2022
Anticipated Contract Completion Date:	02-01-2024
Bid Opening Date:	05-19-2022
Bids Received:	5
Other Bids Received	
Fort Myers Construction	\$21,990,245.00
Sagres Construction	\$24,397,457.00
Anchor Construction	\$25,433,297.00
Spiniello	

Purpose of the Contract:

Replacement of small diameter water mains that have experienced failures, or have a history of low water pressure, or water quality issues across various locations within the District of Columbia.

Contract Scope:

- Replace 4.81 miles of water mains ranging from 3" to twelve 12" diameter and associated valves and appurtenances.
- Replace water services 2" in diameter and smaller in public and private space as needed.
- Replace curb stop / curb stop box, meter box and penetration through building wall and connection to first fitting inside the building including installation of a shut-off valve and pressure reducing valve.
- Provide permanent pavement and surface restoration.

Federal Funding Status:

- Construction contract is anticipated to be funded in part from a Water Infrastructure Finance and Innovation Act (WIFIA) loan.

PROCUREMENT INFORMATION

Contract Type:	Unit Price	Award Based On:	Lowest responsive, responsible bidder
Commodity:	Construction	Contract Number:	180040
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	Department:	Engineering and Technical Services
Service Area:	Water	Department Head:	William Elledge
Project:	GR, BW		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$21,544,813.00
Federal Funds	0.00%	\$0.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County & Potomac Interceptor	0.00%	\$0.00
Total Estimated Dollar Amount	100.00%	\$21,544,813.00

Kishia L. Powell _____ September 2, 2022
 Kishia L. Powell _____ Date
 COO and EVP

Dan Bae _____ September 6, 2022
 Dan Bae, VP _____ Date
 Procurement and Compliance

Matthew T. Brown _____ September 7, 2022
 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 FACT SHEET**

ACTION REQUESTED

**PARTICIPATION IN DDOT PROJECT:
DDOT – South Capitol Street Circulator Facility
(Non-Joint Use)**

Approval to participate in DDOT’s project to revitalize South Capitol Street Circulator Facility under the terms of the 2002 Memorandum of Agreement (MOA) between District of Columbia Department of Transportation (DDOT) and DC Water for an amount up to \$1,488,500.00. This amount exceeds the General Manager’s approval authority.

PARTY INFORMATION

PARTY: District Department of Transportation 55 M Street, SE, Suite 400, Washington, DC 20003	SUBS: DBE and WBE fair share objectives will follow DDOT goals.	PARTICIPATION:
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DESCRIPTION AND PURPOSE

MOA Value, Not-To-Exceed:	\$1,488,500.00
MOA Time:	912 Days (2 Years, 6 Months)
Anticipated MOA Start Date:	11-01-2022
Anticipated MOA Completion Date:	05-01-2025

Purpose DC Water’s Participation:

DDOT is expanding and developing the DC Circulator Program at the South Capitol Street Circulator Facility. Therefore, DDOT requires an adequate facility for the expansion of the DC Circulator bus fleet and additional maintenance, charging, and parking spaces for their new electric buses. The proposed improvement will occur adjacent to and over the East and West Outfall Sewers which are approximately 90” diameter and 100”x112” respectively in size and feed the Blue Plain Advanced Wastewater Treatment Plant. The West Outfall sewer will be structurally lined during this DDOT project to ensure that the 116-year-old non-reinforced concert pipe is protected during and following the proposed construction. The East Outfall sewer will not be lined during this project because this portion of the sewer was lined in 2010 following a pipe collapse.

Scope of DC Water’s Participation:

- Slipline approximately 200 LF of the West Influent Sewer with a 90” diameter fiberglass reinforced polymer mortar pipe.
- Connect two (2) – 6” diameter sanitary sewer laterals to the West Influent Sewer.
- Connect one (1) – 15” diameter stormwater bioswale overflow pipe to existing 54” storm sewer.
- Connect one (1) – 8” diameter water lateral to existing 16” water main.
- Reset water valve boxes and manhole frames and covers as required.
- Provide permanent pavement and surface restoration.

Federal Grant Status:

- Work is not eligible for Federal grant funding assistance.

AGREEMENT INFORMATION

Contract Type:	MOA	Award Based On:	N/A
Commodity:	Design and Construction	Contract Number:	N/A

BUDGET INFORMATION

Funding:	Capital	Department:	Engineering and Technical Services
Service Area:	Sewer	Department Head:	William Elledge
Project:	RC		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$ 1,488,500.00
Federal Funds	0.00%	\$
Washington Suburban Sanitary Commission	0.00%	\$
Fairfax County	0.00%	\$
Loudoun County & Potomac Interceptor	0.00%	\$
Total Estimated Dollar Amount	100.00%	\$ 1,488,500.00

_____/_____
 Kishia L. Powell Date
 COO and EVP

_____/_____
 Dan Bae Date
 VP of Procurement

_____/_____
 Matthew T. Brown Date
 CFO and EVP
 Finance & Procurement

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

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

ACTION REQUESTED

PARTICIPATION IN DDOT PROJECT:

DDOT – S St Revitalization from 7th St NW to Florida Ave NW

(Non-Joint Use)

Approval to participate in DDOT’s project to revitalize S St from 7th St NW to Florida Ave NW under the terms of the 2002 Memorandum of Agreement (MOA) between District of Columbia Department of Transportation (DDOT) and DC Water for an amount up to \$1,500,000.00. This amount exceeds the General Manager’s approval authority.

PARTY INFORMATION

PARTY:	SUBS:	PARTICIPATION:
District Department of Transportation 55 M Street, SE, Suite 400, Washington, DC 20003	DBE and WBE fair share objectives will follow DDOT goals.	

DESCRIPTION AND PURPOSE

MOA Value, Not-To-Exceed: \$1,500,000.00
 MOA Time: 818 Days (2 Years, 3 Months)
 Anticipated MOA Start Date: 09-01-2022
 Anticipated MOA Completion Date: 11-27-2024

Purpose of DC Water’s Participation:

Replacement of small diameter water mains that have experienced failures, or have a history of low water pressure, or water quality issues within the District of Columbia.

Scope of DC Water’s Participation:

- Replace 0.28 miles of water mains ranging from 6” to 8” diameter and associated valves and appurtenances.
- Replace copper water services 2” diameter and smaller in public and private space.
- Replace curb stop/curb stop box, meter box and penetration through building wall and connection to first fitting inside the building including installation of a shut-off valve and pressure reducing valve.
- Provide permanent pavement and surface restoration.
- Collaborate with DDOT on storm sewer/sanitary sewer design.

Federal Grant Status:

- Work is not eligible for Federal grant funding assistance.

AGREEMENT INFORMATION

Contract Type:	MOA	Award Based On:	N/A
Commodity:	Design and Construction	Contract Number:	N/A

BUDGET INFORMATION

Funding:	Capital	Department:	Engineering and Technical Services
Service Area:	Water	Department Head:	William Elledge
Project:	KH		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$ 1,500,000.00
Federal Funds	0.00%	\$
Washington Suburban Sanitary Commission	0.00%	\$
Fairfax County	0.00%	\$
Loudoun County & Potomac Interceptor	0.00%	\$
Total Estimated Dollar Amount	100.00%	\$ 1,500,000.00

KPowell / 09.06.22
 Kishia L. Powell Date
 COO and EVP

_____ / _____
 Dan Bae Date
 VP of Procurement

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

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



DC Clean Rivers Update



DC Cleans Rivers Project Quarterly Update

Environmental Quality & Operations Committee

September 15, 2022



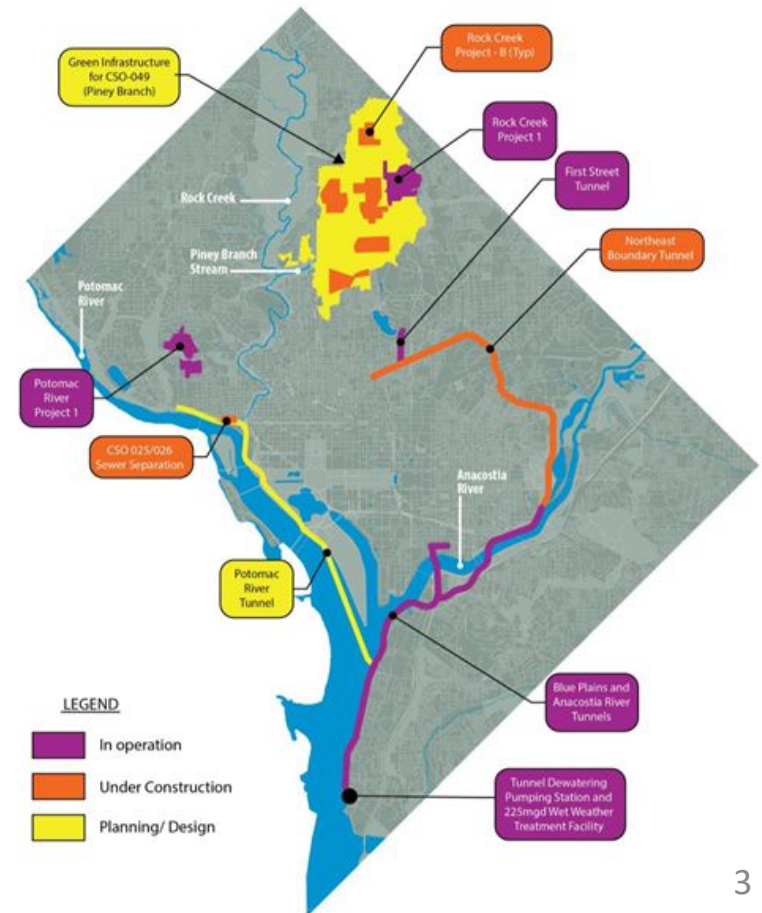
Moussa Wone, Director, DC Clean Rivers Project
Jeff Peterson, Sr. Construction Manager
Seth Charde, Sr. Manager, Green Infrastructure



DC Clean Rivers Project Snapshot

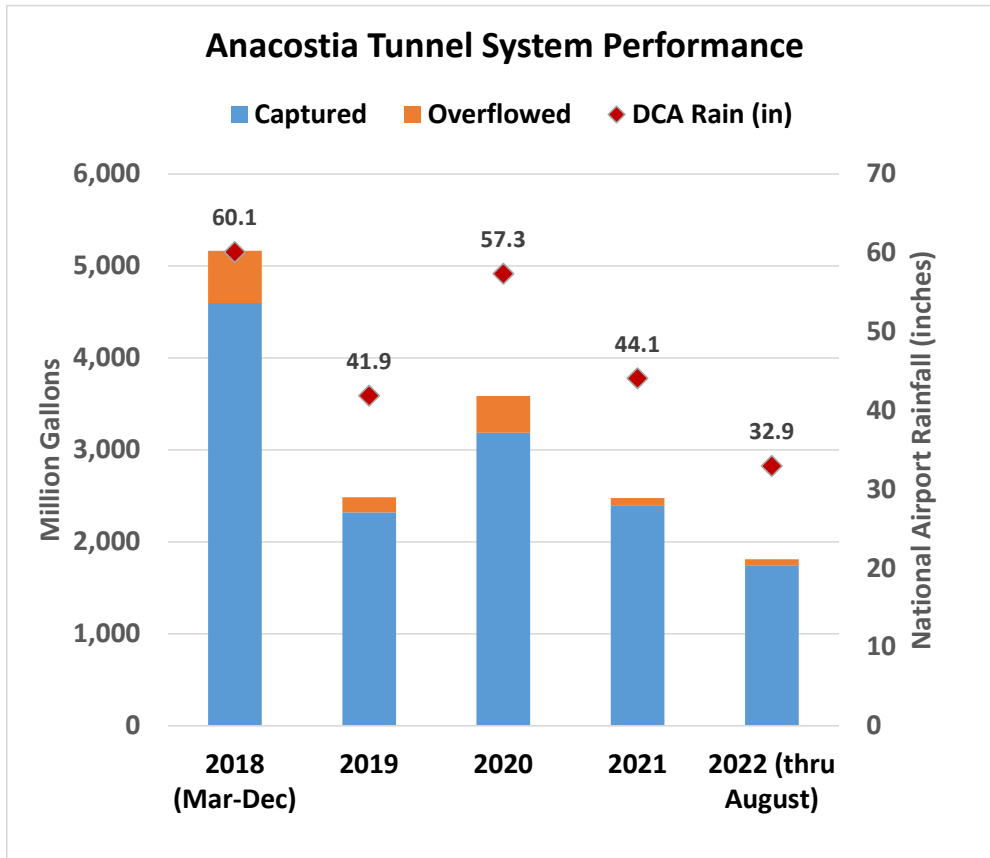


Area	Status
Anacostia	
Anacostia Tunnel System	<ul style="list-style-type: none"> • More than 14.2 billion gallons captured • More than 8,562 tons of trash/debris removed
Northeast Boundary Tunnel	<ul style="list-style-type: none"> • Construction at drop shaft sites continues
Potomac	
CSO 025/026 Separation	<ul style="list-style-type: none"> • Completed work at 31st St. • Started work at Wisconsin Ave. • Work at Structure 44 to start soon
Potomac Tunnel Advance Utility Construction	<ul style="list-style-type: none"> • Work ongoing on Independence Avenue, CSO-028 and CSO-020
Potomac Tunnel Construction	<ul style="list-style-type: none"> • Shortlisted 4 firms and started Collaboration Period
Rock Creek	
Green Infrastructure (GI) Project B	<ul style="list-style-type: none"> • Eight Alley Permeable Pavement (APP) facilities have been completed while four alleys and three planter bioretentions (PBR) facilities are currently under construction • Total contract has 48 APPs and 19 PBRs





Anacostia Tunnel System Performance



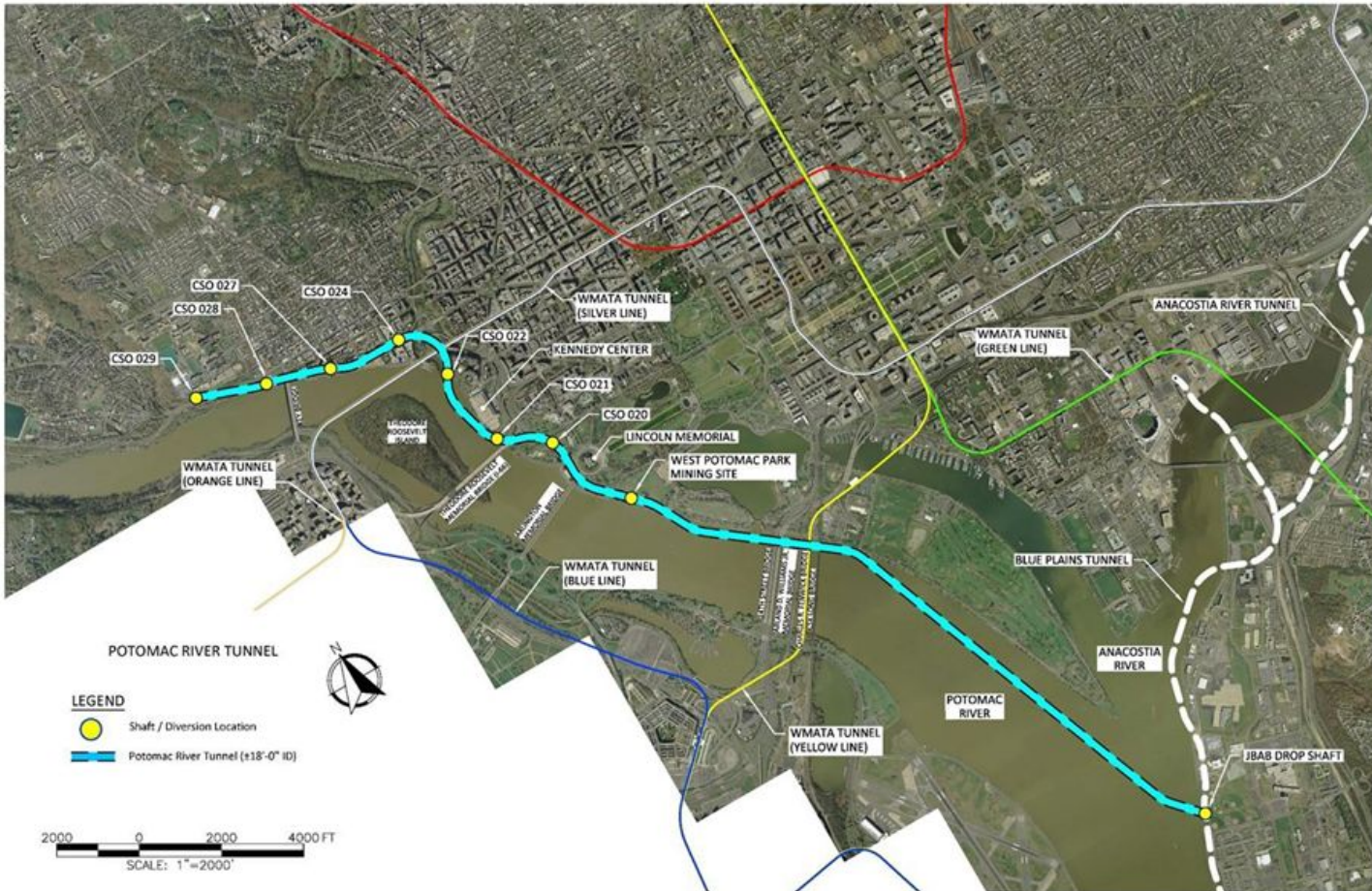
Over **14.2 billion gallons** captured Mar 2018 – August 2022
 Over **8,562 tons of trash**, debris, and other solids captured
 Exceeding predicted capture rate (91%>80%)



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



Potomac River Tunnel



Tunnel Contract (Best Value Design-Build):

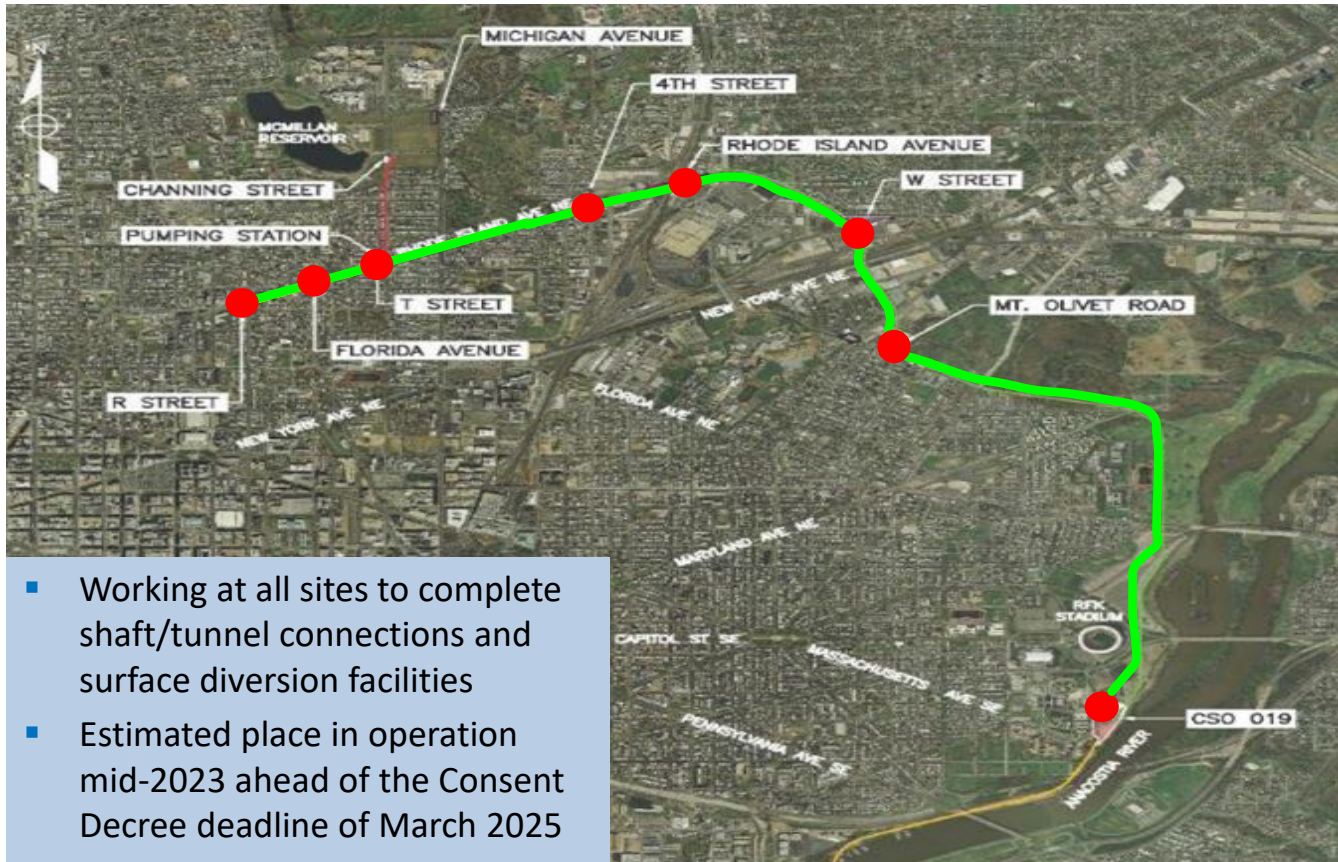
- ✓ RFQ: completed May, four teams short listed
- ✓ RFP: issued June 2022
- ✓ Addenda: four issued to date
- Collaboration: Beginning October 2022
- NTP: November 2023
- Place in Operation: February 2030

Construction Management Services:

- ✓ Industry outreach: June 15, 2022
- ✓ Pre-submittal meeting: Aug 19, 2022
- Quals/Tech proposal: due Oct 6 2022
- NTP: Aug 2023



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 Contract A Advanced Utility Construction



Purpose: construct high voltage electric duct bank to power Potomac River Tunnel Contract B (PRT-B) tunnel boring machine and construct power drops to shaft work sites for PRT-B.

Estimated completion date is mid 2023.

Electrical duct bank along Independence Avenue between 14th Street and Ohio Drive completed.

Final restoration of curbs has started. Roadway paving will begin soon.



**Final Restoration on
Independence Avenue**



CSO 025/026 Sewer Separation



- Site 1: 31st Street

Completed sewer separation work, pending walkthrough to address punch list (final manhole testing, mill and overlay, tree planting, etc.)

- Site 2: Wisconsin Avenue

Sewer separation work ongoing at east end of Wisconsin Avenue project site

- Site 3: Structure 44

Work to start pending DOEE permit approval

Continuing to coordinate with the community to minimize construction impacts



Excavation for Manhole 7 Connection to the Upper Potomac Interceptor at Wisconsin Avenue and K Street



Green Infrastructure Rock Creek Project B



Consent Decree Requirements

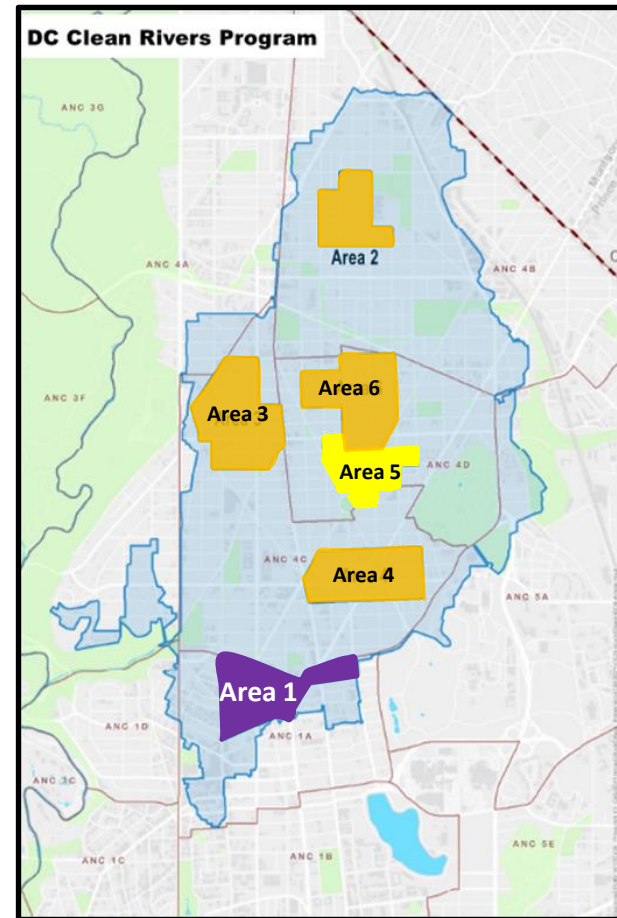
Manage 22 impervious acres with GI
Place in operation by January 23, 2024

Construction Status

- Area 1 – Columbia Heights
Three Alley Permeable Pavement completed
- Area 2 – Takoma DC
Three Alley Permeable Pavement completed
Two Planter Bioretention under construction
- Area 3 – 16th St Heights
Two Alley Permeable Pavement under construction
- Area 4 – Grant Circle
Two Alley Permeable Pavement completed
One Planter Bioretention under construction
- Area 5 – Sherman Circle
No Active Construction
- Area 6 – Brightwood Park
Two Alley Permeable Pavement under construction

Legend

- In operation
- Construction
- Future Construction





Clean Rivers Public Outreach Efforts



Category	Activities
Community Partnerships	<ul style="list-style-type: none"> • Gave project background presentations to two new Executive Directors at North Capitol and Rhode Island Ave. NE Main Streets. Grant distributions in progress to over 40 impacted businesses. • Assisted OMAC on responses and information distribution regarding August street flooding events and Northeast Boundary Tunnel (NEBT). • Coordinated with T St. construction site businesses related to inlet facility redesign to protect two mature trees and to maintain storefront access. • Lunch Program to support local businesses: July 15 → 45 meals from Boundary Stone at Florida and T St sites, Aug 26 → 80 meals from DCity Smokehouse for Mt Olivet and W Street sites
Key Meetings & Approvals	<ul style="list-style-type: none"> • Held a NEBT Tunnel Forum for the Rhode Island Ave. and 4th St. construction sites on May 26. • Held meeting with Councilmember McDuffie staff and BP auto mechanic at 4th St. site to go over changes in roadway grade and flooding concerns. • Met with Deputy Mayor for Planning and Economic Development on June 26 to give project updates. • Held block meeting on Adams St., NW in Bloomingdale to sign up interested residents for tree box restorations.
Community Outreach Program	<ul style="list-style-type: none"> • Assisted Council on Arts and Humanities with procuring an artist for Cooper Gordon Park installation. Art contract awarded on July 12. • Restarted staff lunch program using local impacted restaurants and dry goods businesses.



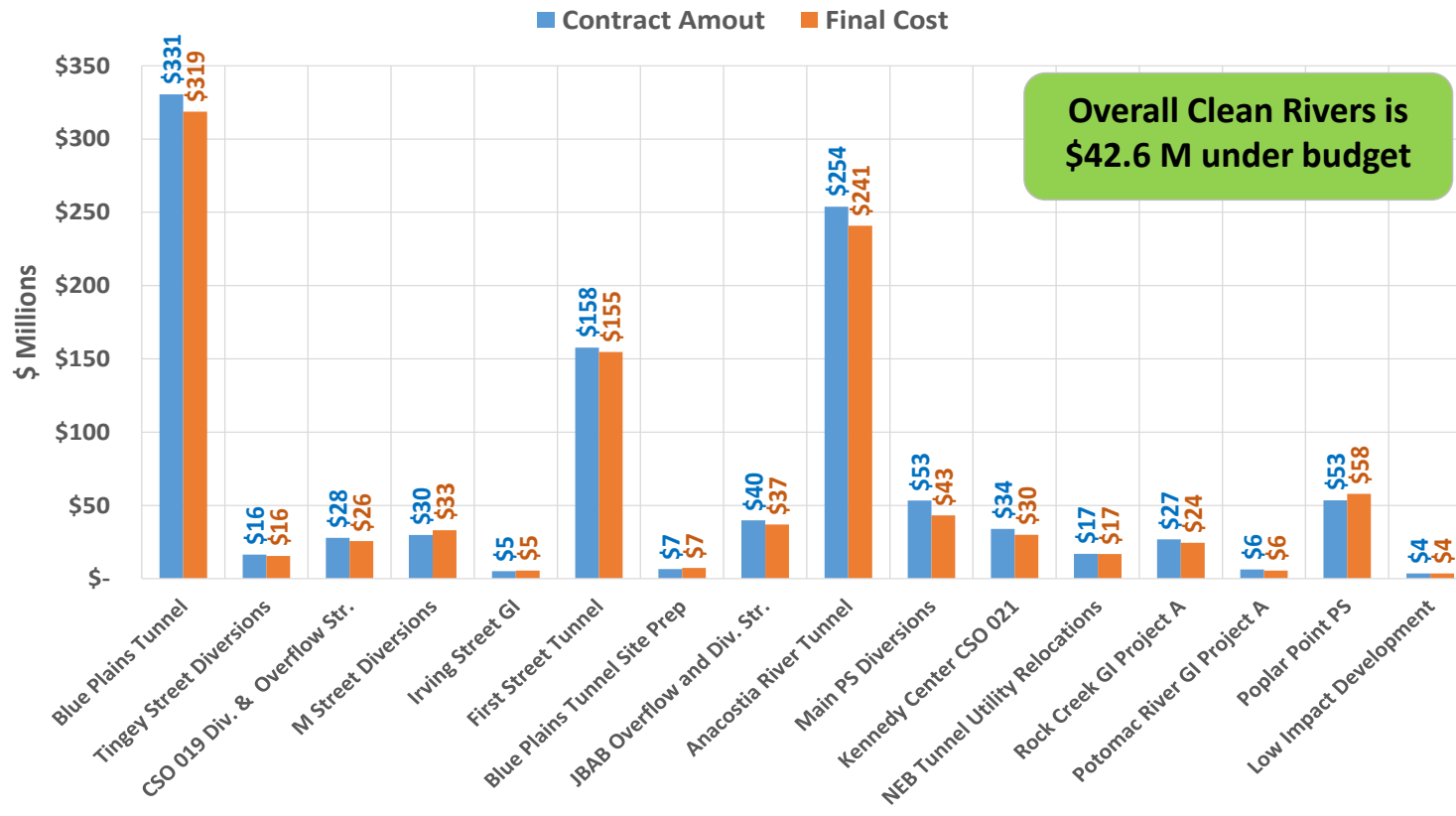
Proposed Art Design:
“Let Us Lift Each Other Up:
A tribute to Margaret Cooper
and Lillian Gordon.”



Clean Rivers Budget



Construction Contract Amounts vs Final Cost



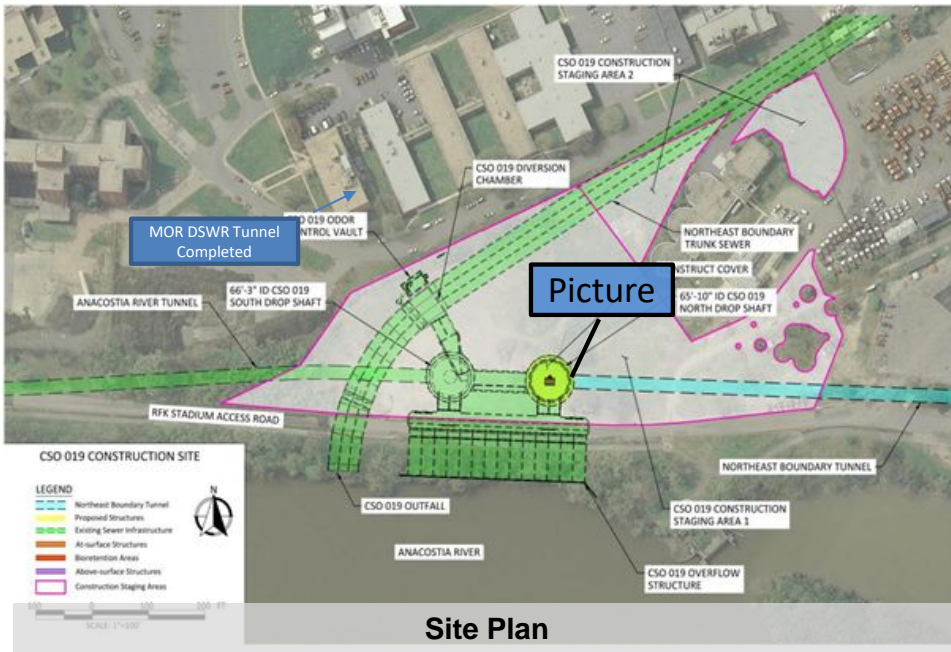
Clean Rivers expenditures on Northeast Boundary Tunnel are not expected to exceed the budget



Northeast Boundary Tunnel Surface Work Detailed Updates



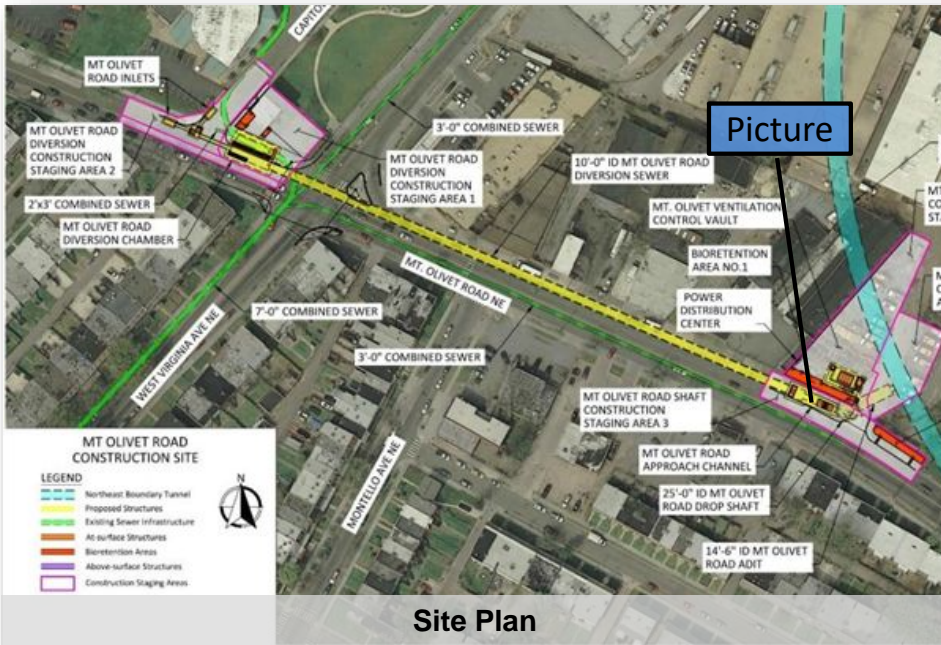
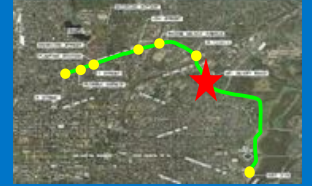
Division J – Northeast Boundary Tunnel Construction Progress: CSO 019 (near RFK Stadium)



- Rebar and concrete placement for tunnel collar at shaft interface
- Rebar and concrete for invert in North Shaft



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



Drop Shaft Site

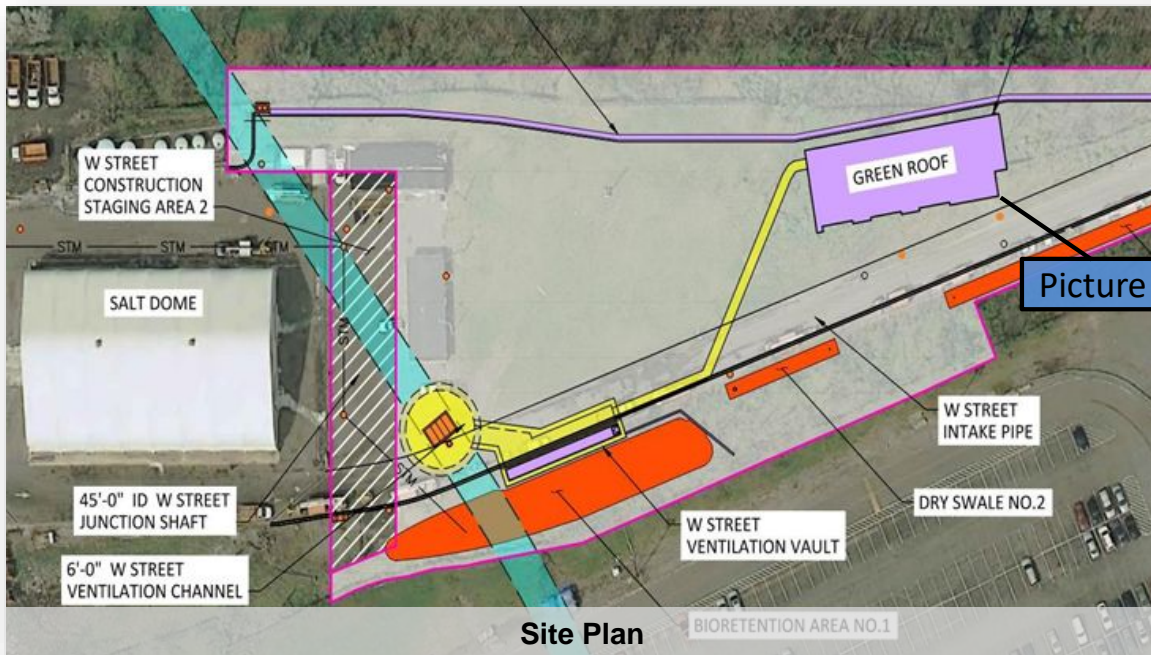
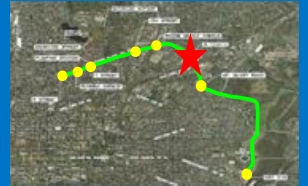
- CIP concrete work for Ventilation Control Vault permanent structure (roof slab) is complete. SIH began demolition and removal of the flood wall and support of excavation (SOE).
- Concrete work for Approach Channel permanent structure (walls) is nearly complete. SIH is working on the concrete riser on east side of approach channel.

Diversion Site

- Concrete work for Diversion Chamber permanent structure is complete.
- Excavation and lagging installation ongoing for three storm diversion sewers and the junction manhole.



Division J – Northeast Boundary Tunnel Construction Progress: W Street

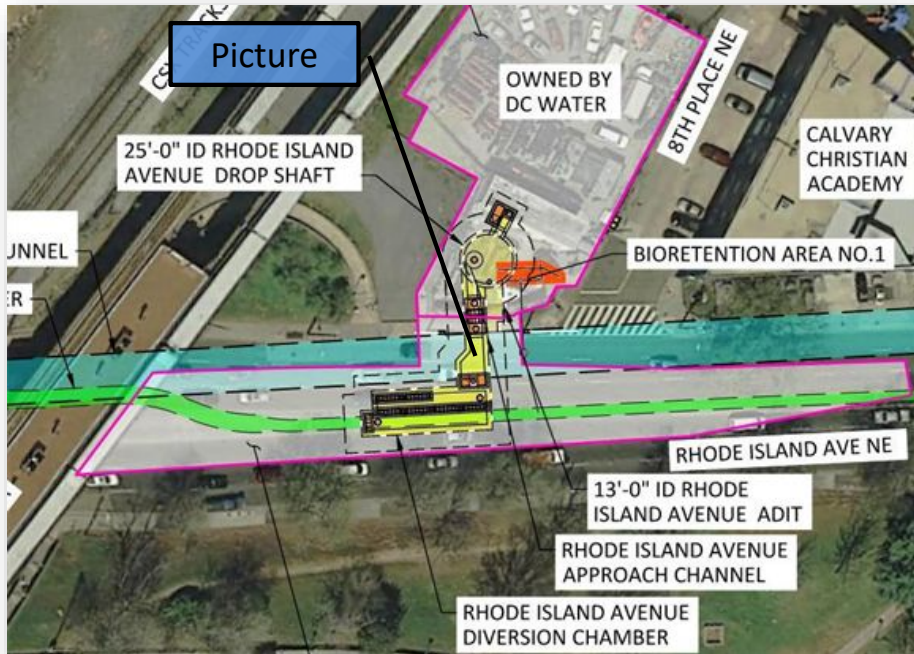
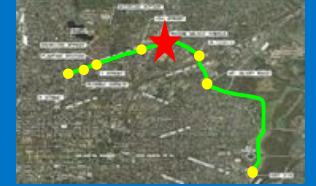


Ventilation Control Facility

- Completed metal roof deck and concrete
- Completed structural steel erection
- Completed Ventilation Control Facility (VCF) masonry walls
- Continue VCF construction including coordination with plumbing and electrical work



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



Site Plan

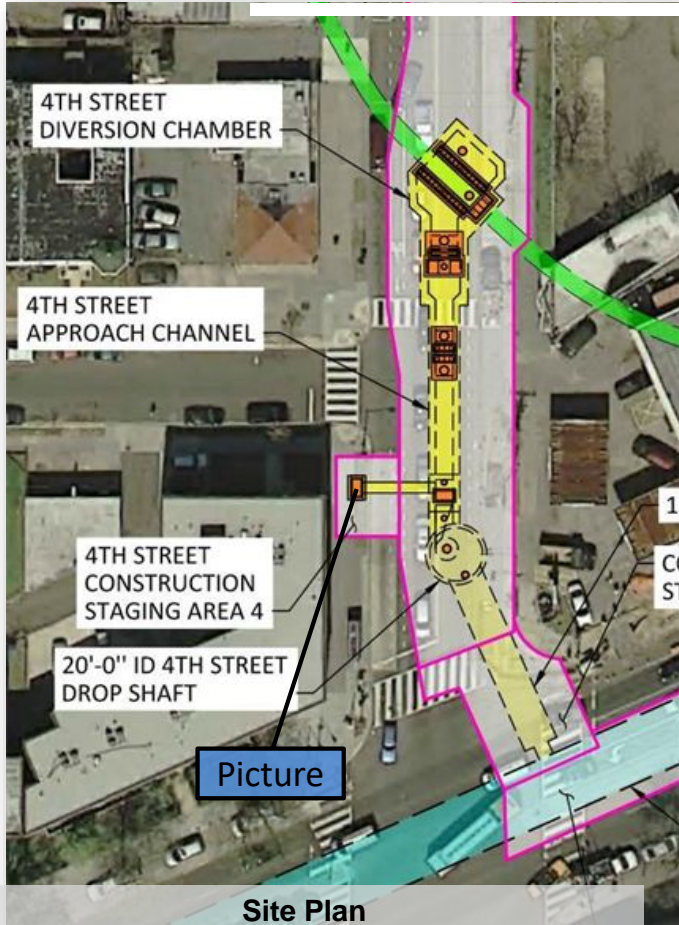
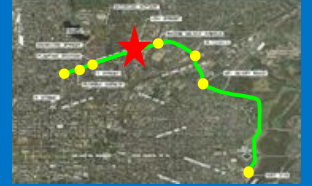


Approach Channel Excavation

- Diversion Chamber structure is complete
- Installing Approach Channel support of excavation system
- Starting construction of Stormwater Inlet No. 2 along eastbound lane of Rhode Island Avenue



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

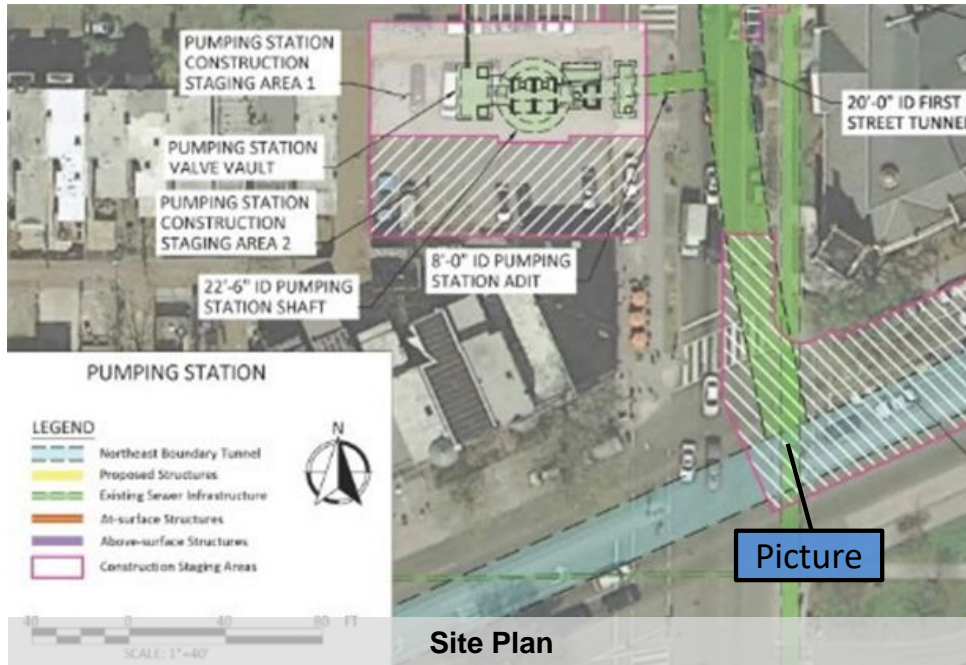
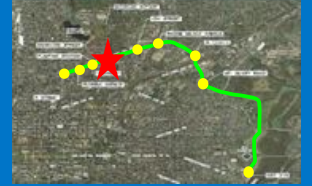


Ventilation Vault 2 Support of Excavation Installation

- Roadway restoration for 4th Street northbound lane is complete
- Installing Ventilation Vault support of excavation system on southbound side of 4th Street



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



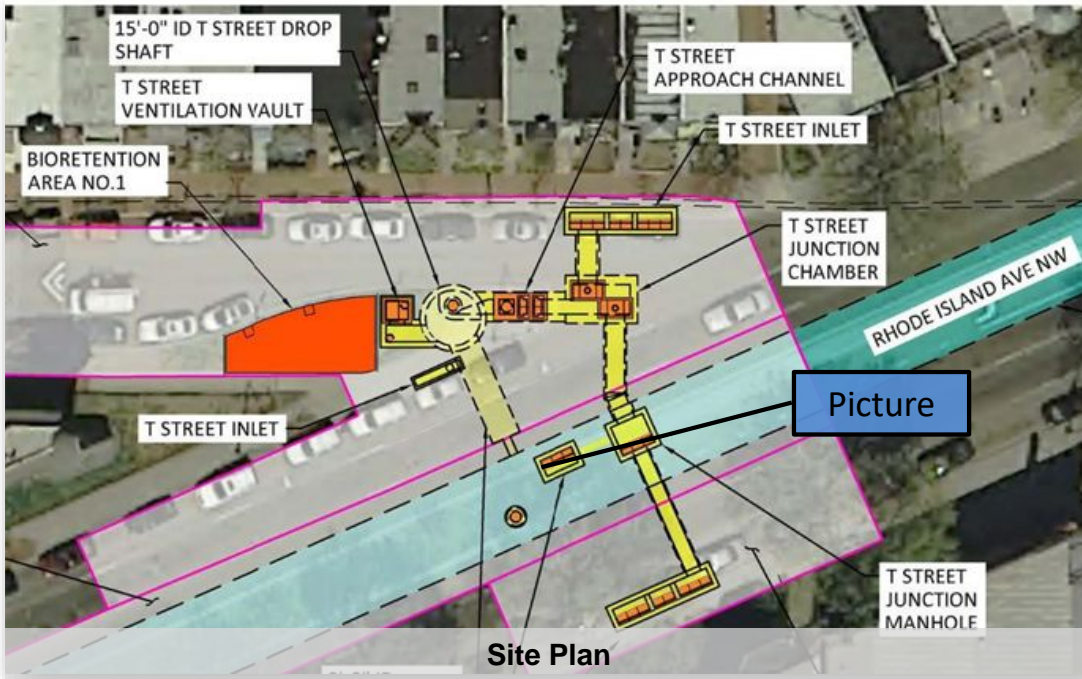
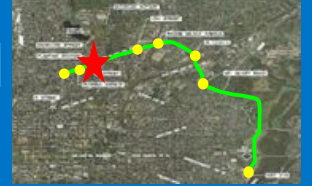
Picture



- Completed excavation of the First Street Tunnel/Northeast Boundary Tunnel connection. Dismantling of the Tunnel Boring Machine “Lucy” is on-going.
- Installing rebar in preparation for the first concrete liner placement at the tunnel connection.



Division J – Northeast Boundary Tunnel Construction Progress: T Street

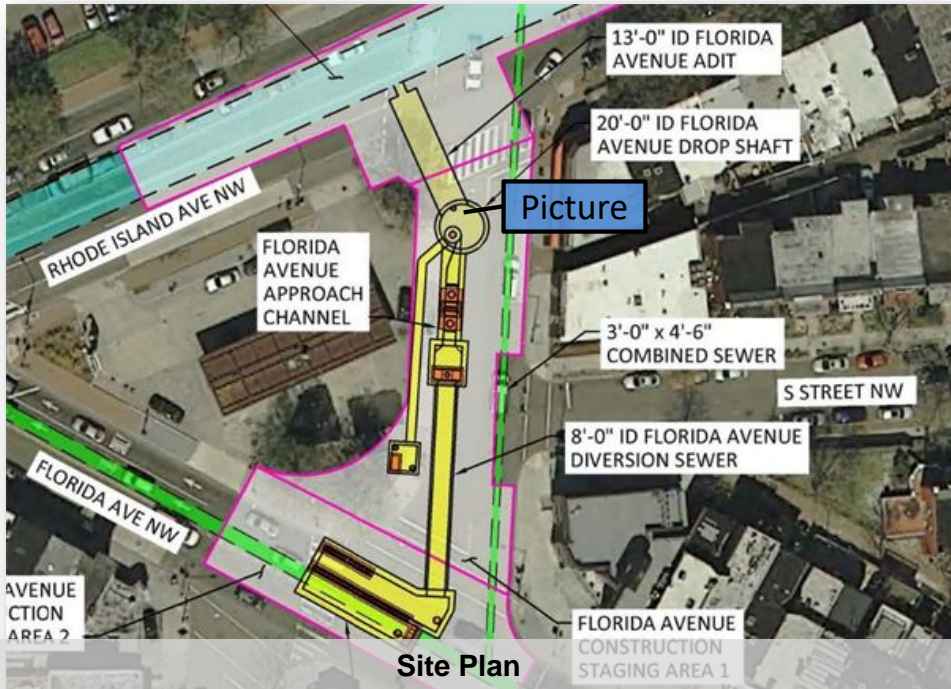
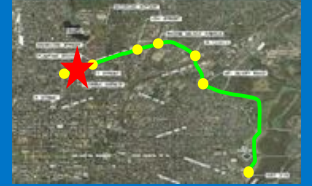


Construction Staging Area 2

- Completed Ventilation Vault.
- Completed excavation and placement of concrete base slab for Inlet No. 1. Installed 5-ft diameter Storm Diversion Sewer that connects Inlet No. 1 to the Junction Chamber.
- Completed Inlet No. 2 and Junction Manhole structures. Plan to start Inlet No. 3 along eastbound lane of Rhode Island Ave. 19



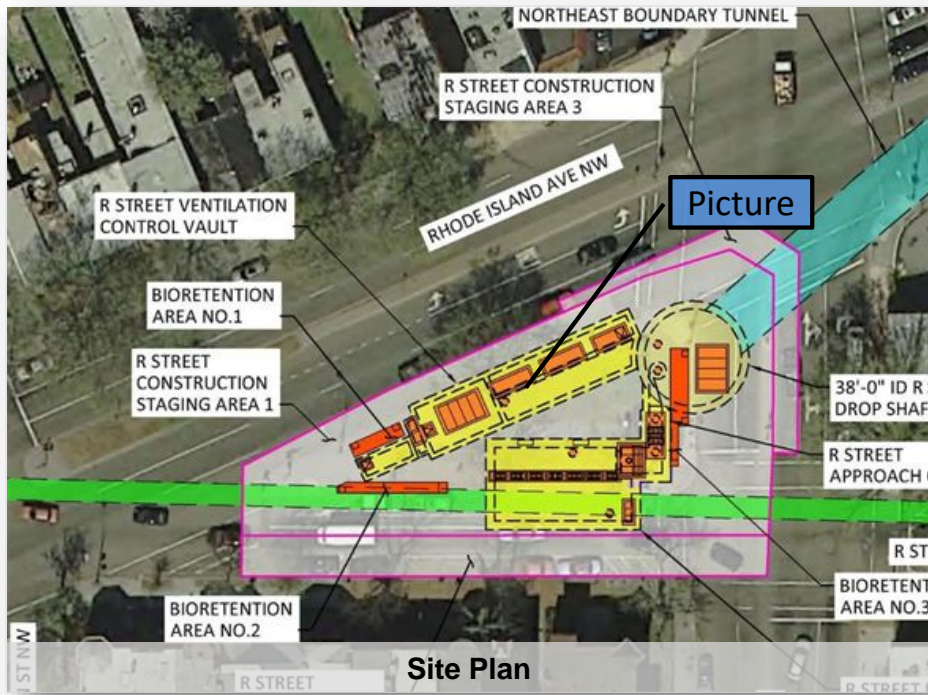
Division J – Northeast Boundary Tunnel Construction Progress: Florida Ave



- Concrete adit liner is completed. Installation of shaft concrete base slab, collar and internal vent shelf are on-going.
- Site restoration along Florida Ave. on-going.



Division J – Northeast Boundary Tunnel Construction Progress: R Street



- Completed Ventilation Control Vault excavation. Installing concrete base slab for Ventilation Control Vault.
- Installing support of excavation system for the ventilation control vault connection to the shaft.