



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

Meeting of the  
Environmental Quality and Operations Committee

**Thursday, October 17, 2024  
2:00 p.m.**

Microsoft Teams meeting  
Join on your computer, mobile app  
[Click here to join the meeting](#)

Meeting ID: 260 049 398 97

Passcode: DQBHL3

**Or call in (audio only)**

[+1 202-753-6714,,424543557#](tel:+12027536714424543557)

Phone Conference ID: 424 543 557#

2:00 p.m.	I	Call to Order	Sarah Motsch Chair
	II	Roll Call	Michelle Rhodd Board Secretary
2:05 p.m.	III	<a href="#">BPAWTP Performance Update</a>	Nicholas Passarelli
2:10 p.m.	IV	<a href="#">Service Line Identification Pilot - Update</a>	William Elledge
2:25 p.m.	V	Action Items	David Parker John Pappajohn
		<b>Joint Use</b>	
		<a href="#">1. Contract No. 10491 – Calcium Hydroxide – W.K. Merriman, Inc.</a>	
		<a href="#">2. Contract No. 250030 – Structural Rehabilitation for Emergency Repair – Structural Preservation Systems, LLC</a>	
		<b>Non-Joint Use</b>	
		<a href="#">1. Contract No. 220160 – Major Sewer Rehabilitation 1-5 Northeast Boundary – Spinello</a>	
2:40 p.m.	VI	Other Business/Emerging Issues	
2:55 p.m.	VII	Executive Session*	
3:15 p.m.	VIII	Adjournment	Sarah Motsch

*This meeting is governed by the Open Meetings Act. Please address any questions or complaints arising under this meeting to the Office of Open Government at [opengovoffice@dc.gov](mailto:opengovoffice@dc.gov).*

**Follow-up Items from Prior Meetings:**

1. Getachew Melsew (Sr. Manager, Planning, Engineering): To provide copy of white paper on the equity analysis benefits and either a presentation to the full Board or the opportunity for Board Members to observe a training session on the equity analysis tool and dashboard. **Responses will be provided in January 2025.**
2. William Elledge (Director, Engineering and Technical Services): To provide a study to identify technology the Lead Free Team can use at a more efficient cost to do significant material verification. **Presentation will be provided in October 2024.**

<sup>1</sup>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.



# ***BPAWTP UPDATE***



**Blue Plains Complete Treatment Performance**  
Environmental Quality & Operations Committee  
October 17, 2024

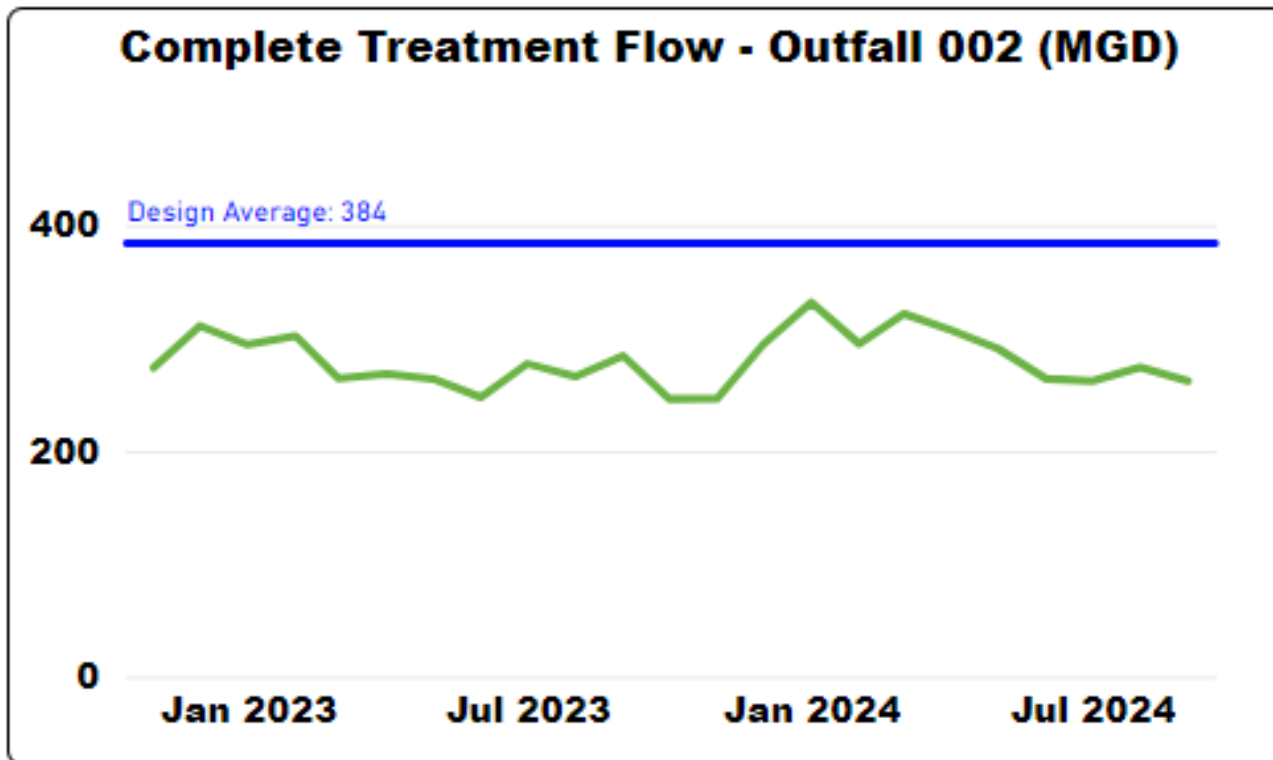


Nicholas Passarelli, Vice President , Wastewater Treatment Operations



# Operational Performance Complete Treatment

## Monthly Average Flow Trend to Complete Treatment (MGD)



All weekly and monthly NPDES permit requirements were met

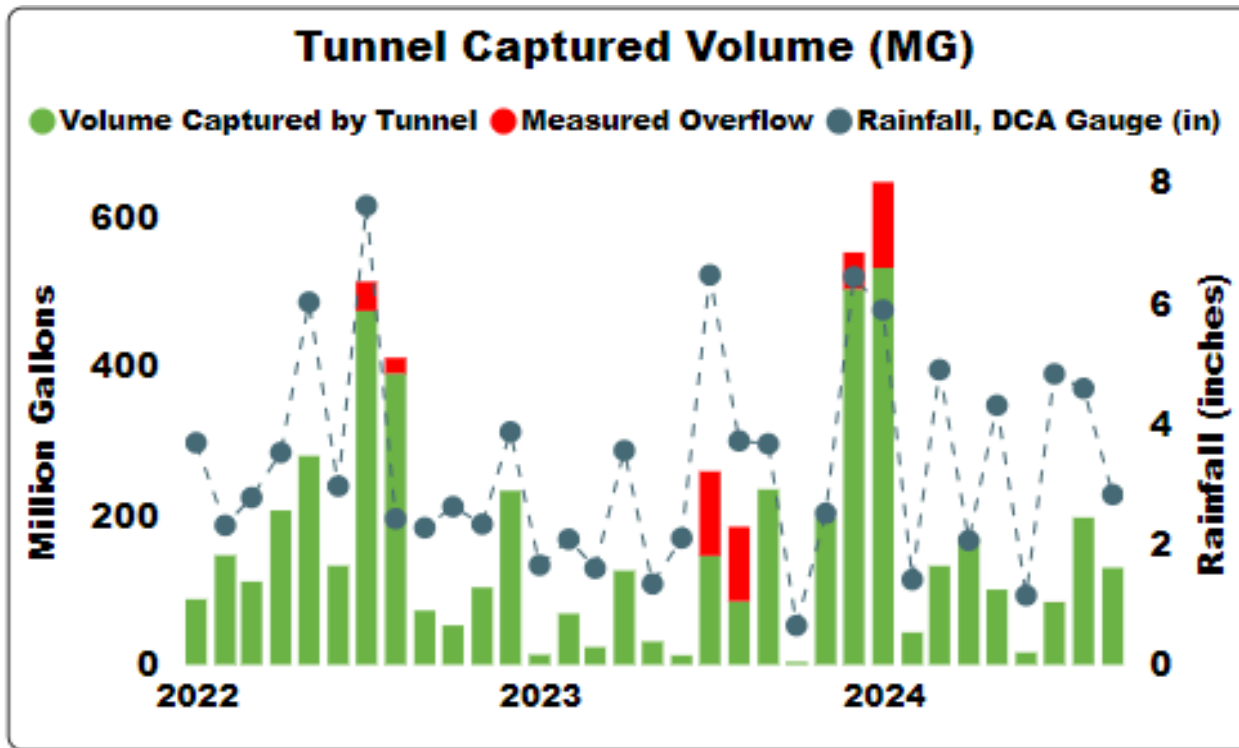
Average Outfall 002 flow for September 262 MGD

Peak Day flow for September 26th at 373 MGD



# Operational Performance Tunnel Systems and Wet Weather Treatment

## Anacostia River Tunnel System Monthly Performance 2022 – 2024 (Through Sept 2024)



## Total Annual System Performance from Start-Up (2018-2023)

	Anacostia River Tunnel System
Number of events	290
Volume Captured, MG	16,229
Volume to CSO, MG	1,538
Percent Captured, %	91.0

Note: Total System includes Anacostia, Potomac, and Rock Creek  
MG ~ Million Gallons  
CSO~ Combined Sewer Overflow

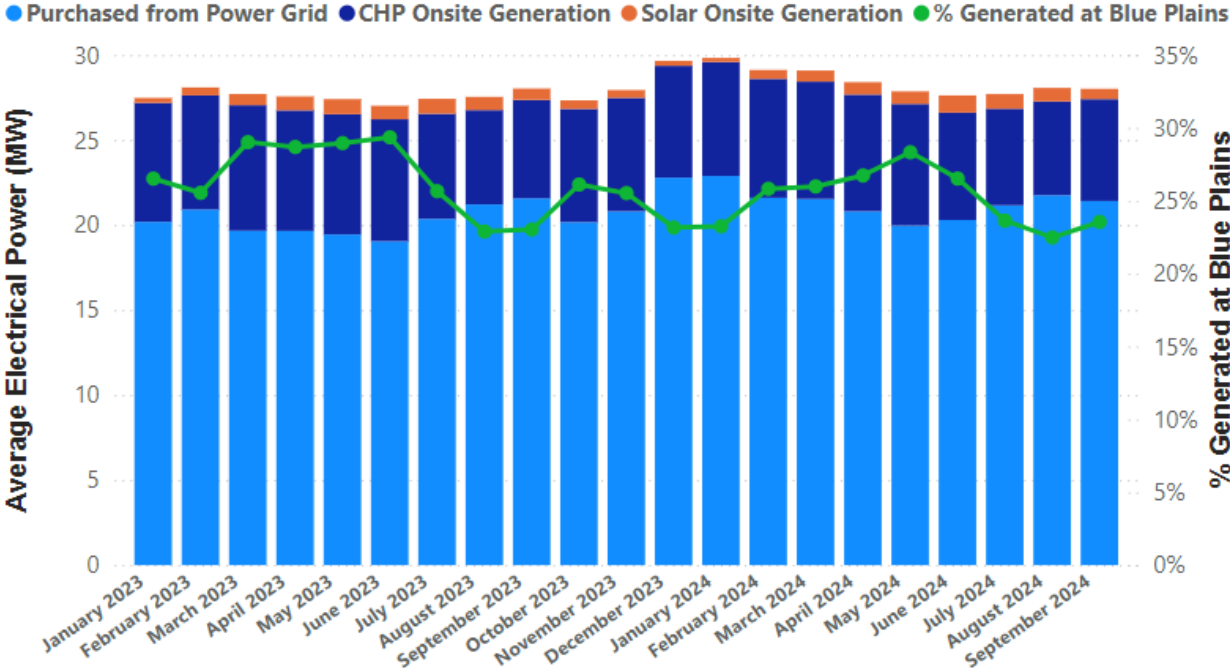
1443 MG of volume captured by Anacostia River Tunnel System in Calendar Year 2023 through December, with 262 MG overflow

\* - CSO 019 diversion to tunnel was out of service July 5 - Aug 29, 2023, for commissioning of Northeast Boundary Tunnel, causing temporary increase in overflows. Necessary for safety of workers in tunnel. EPA/DOEE advised in advance.



# Operational Performance Electrical Energy Use and Generation

## Blue Plains Electrical Energy Use and Generation



26% of electricity was generated onsite

Combined Heat and Power (CHP) facility produced an average of 6.7 megawatts (MW), with 5.5 MW net to Blue Plains grid

Solar System produced an additional 0.80 MW of power on average

Total electricity consumption at Blue Plains averaged 28.1 MW

DC Water purchased an average of 21.8 MW of electricity from PEPCO

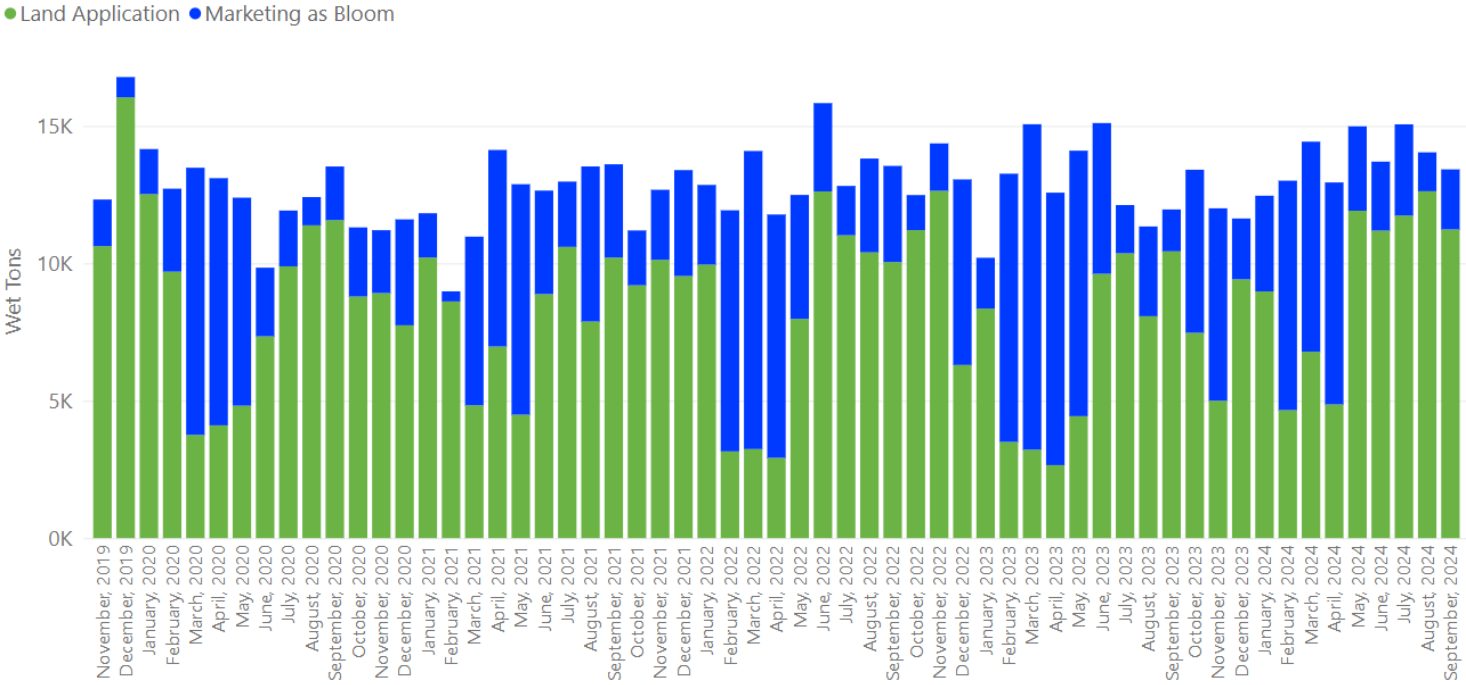
Total Purchased Power Savings FY24 through June: \$2,528,989

Note: Total Purchase Power Savings based on actual grid power invoicing to DC Water and power produced on site at CHP & Solar Panels.



# Operational Performance Class A Biosolids Production

## Total Production of Class A Biosolids and Beneficial Reuse by Type



In September, Blue Drop sold approximately 2,184 tons of Bloom; for a total of 55,204 tons towards the FY24 goal of 65,000 tons.

Blue Plains Produced 13,421 tons of biosolids for the month with the remaining 11,237 tons managed through land application contracts.





# *Service Line Identification Pilot – Update*



**Service Line Identification Pilot - Update**  
Environmental Quality & Operations Committee  
October 17, 2024

**Imagine a city  
without lead.**



William Elledge, Director, Engineering & Technical Sciences



## Agenda



1. What is the status quo?
2. Why pilot testing alternatives?
3. What technologies are we piloting?
4. Preliminary observations
5. Next Steps



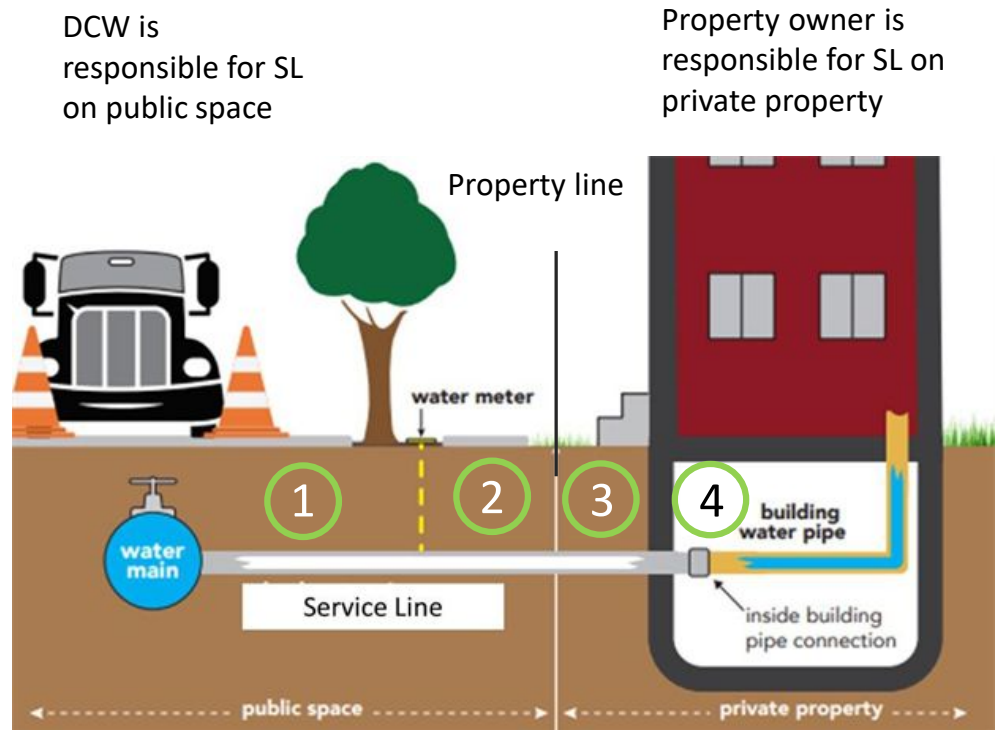
# Typical Service Line Configuration



## Sections of a Service Line :

1. Water main to water meter
2. Water meter to property line
3. Property line to building
4. Inside building

In the District of Columbia (DC), the property owner owns the entire service line, however, DC Water is responsible for maintaining the portion of the service line between the water main in the road and the property line, typically denoted by a curb stop valve



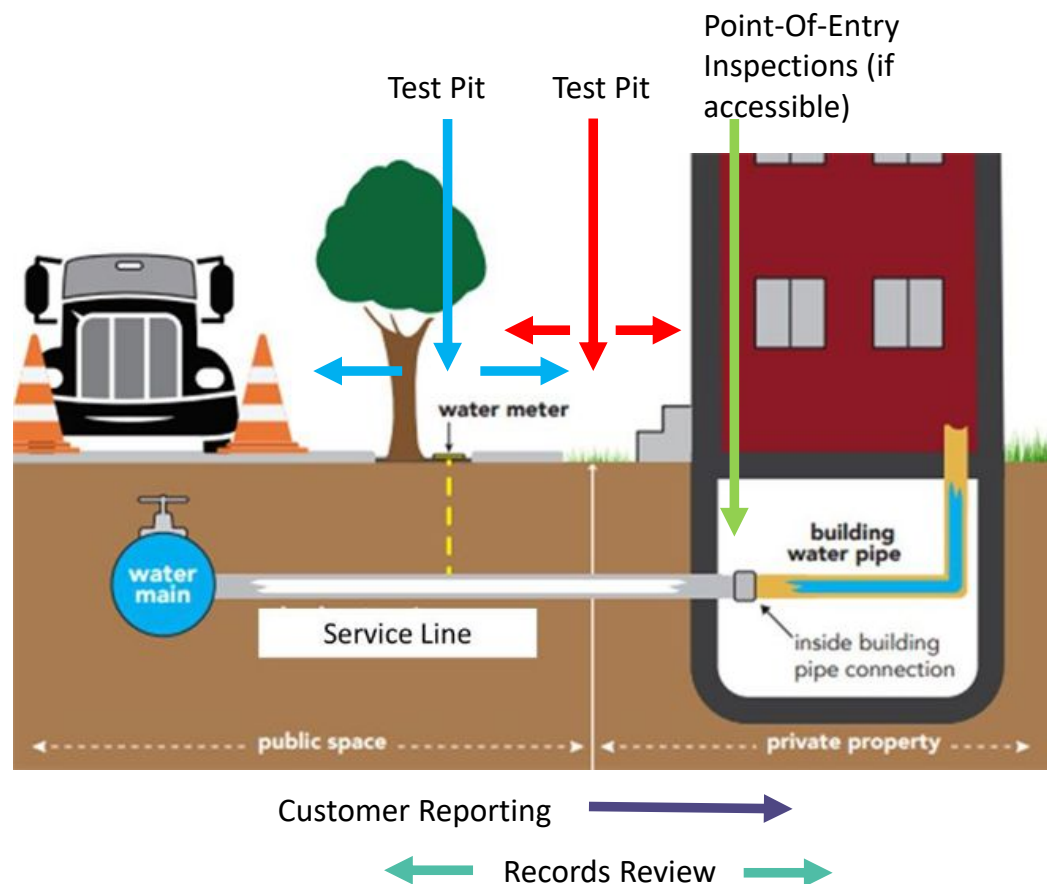


# Verification of Service Line Material: Currently using test pits



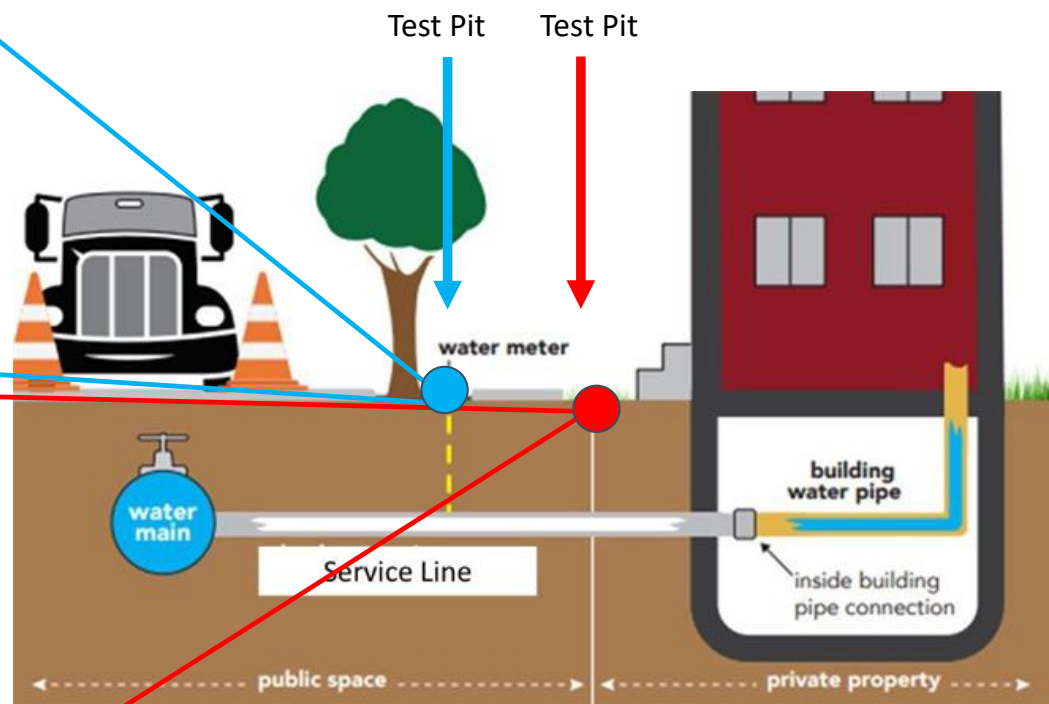
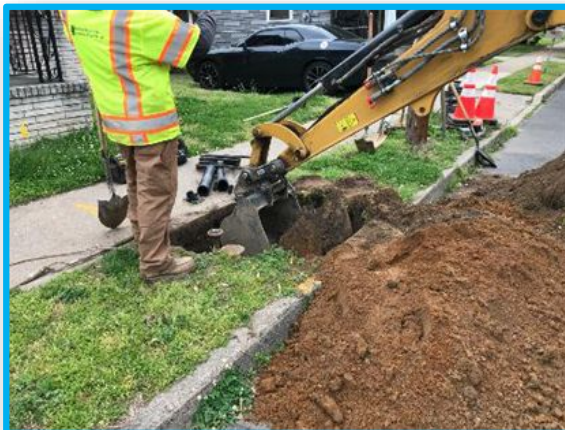
## Verification of the Service Line:

1. Test pit at meter
  - Main to meter
  - Meter to property line (i.e. curb-stop)
2. Test pit at curb-stop
  - Water meter to property line (i.e. curb-stop)
  - Property line to building
3. Interior point-of-entry inspection





# Verification of Service Line Material: Photos





## Why pilot test alternatives?



\$100M



d.

### Disruptive

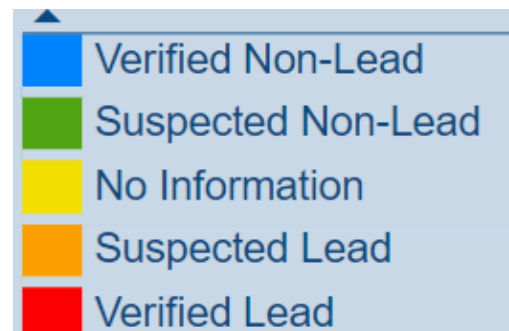
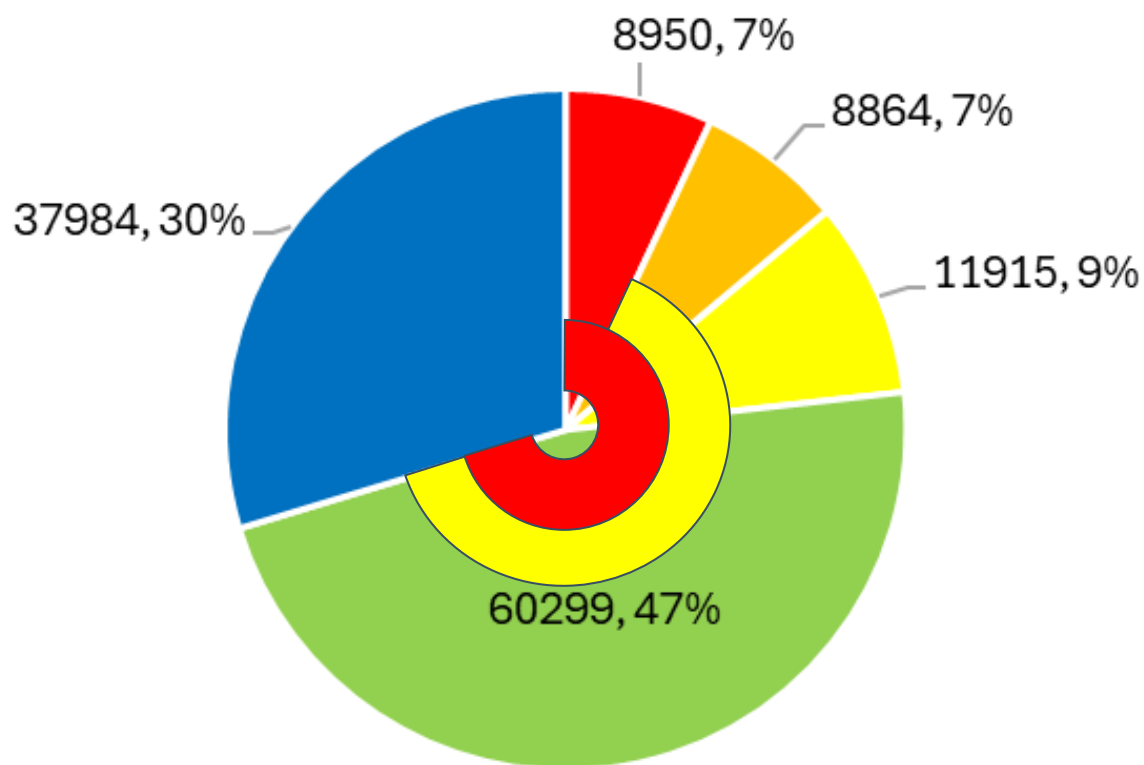
Currently there are no widely used, non-invasive, rapid, and cost-effective methods to determine buried service line material accurately



# Why pilot test alternatives?



## DCW Material Inventory - October 2024



EPA Definition of "replacement pool"



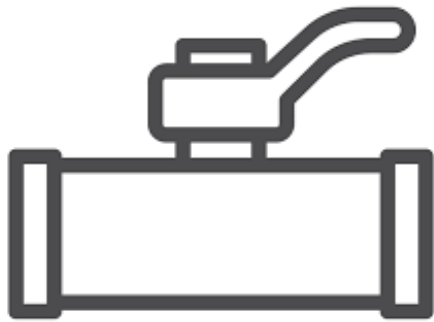
EPA Definition of "unknown"







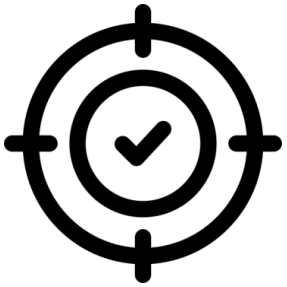
## Possible additional challenges with new methods



**Currently there are no widely used, non-invasive, rapid, and cost-effective methods to determine buried service line material accurately**



# Criteria for pilot test





# Testing No-Dig Identification Methods

## Sample Sites



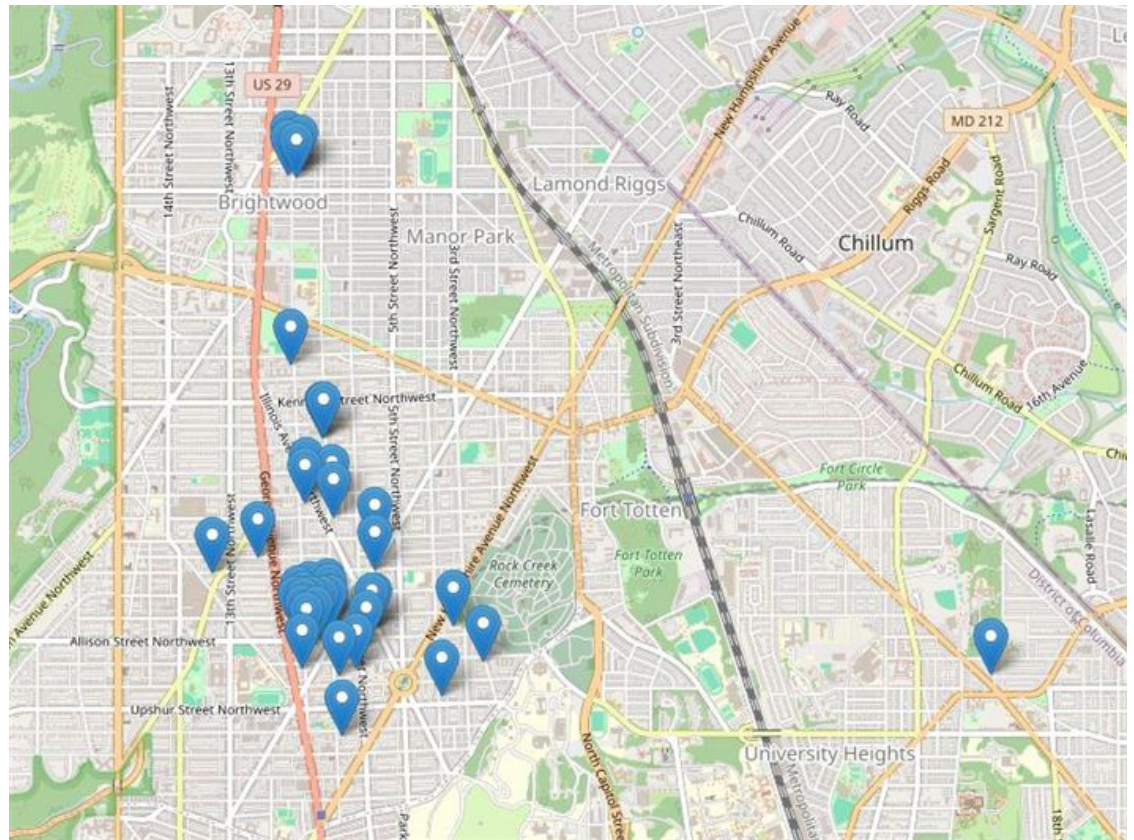
43 homes classified as:

- Suspected Lead
- Suspected Non-lead
- No Information

Testing Period – September 23 to October 4, 2024

Provided filters and flushing instructions to all tested homes

\$50 bill credit as incentive to participate





# Testing No-Dig Identification Methods *Technologies*





# Electro Scan's Swordfish



**1** Remove water meter



**2** Disinfect probes



**3** Test public & private service line



**4** Flush (external) for 30 mins w/o meter + 5 mins w/ meter



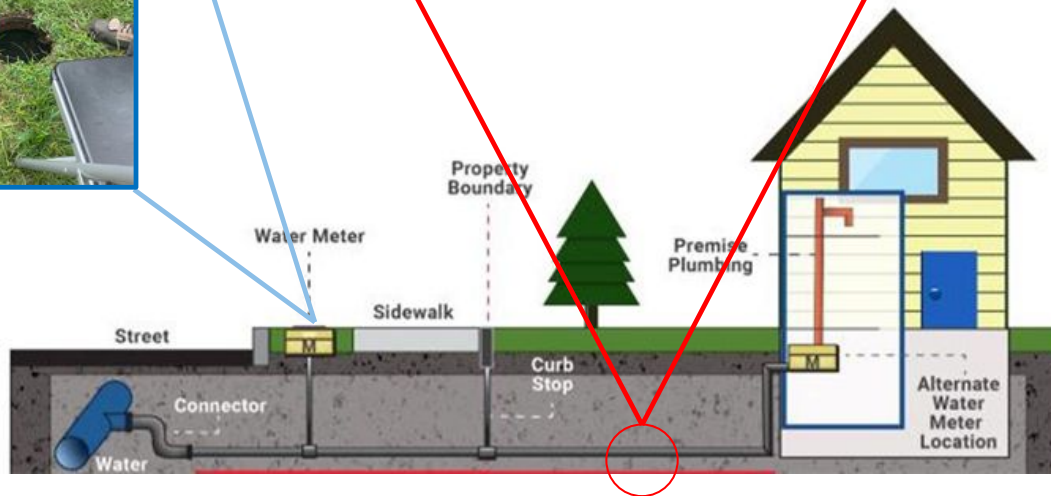
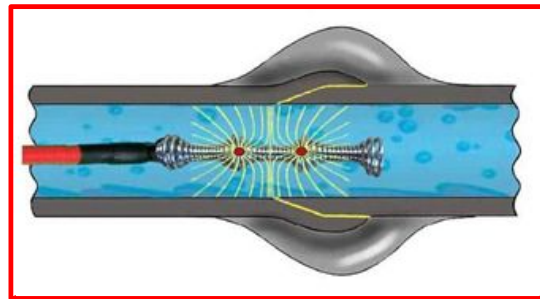
**5** Report results. Provide filters and flushing (internal) instructions.

**Material Evaluation**  
Pipe Material: Copper  
Pipe Diameter: 0.5  
Max Load: 100  
Total Distance Scanned: 8 ft  
Pipe Entry Method: Meter To Home  
**Third Party Chemical Test:**  
Lead Test Status: Performed  
Result: No Lead  
Inspection Checklist: Completed  
Post Flush: Completed  
Operator Notes: 2 areas of concern ; 3m confirmed

**Time to Test: 1-hr**



# Electro Scan's Swordfish (continued)



## Advantages

Can detect where materials change

Can identify the materials of valves and fittings

Does not require entering the home

Instantaneous reporting

## Disadvantages

May cause disturbance to protective coating – need to provide a filter and flushing instructions

Does not work with all piping configurations

Requires water to be shut-off during testing



# EDT Inc's Service Line Material Identification Testing (SMIT)



1 Locate the service line



2 Insert electrodes in the ground to test public and private service line



3 Report results within 48-hrs



Material_Suspected
lead
copper
copper
copper

Time to Test: 1.5-hr



## Preliminary Observations



- Swordfish staff have high confidence on service lines tested
- Swordfish cannot make it through all plumbing configurations
- EDT needs additional calibration





## Next Steps



- Obtain remaining results from both technologies
- Confirmatory test pits
- Compare results with findings from test pits
- Make recommendation for a potential alternative to test pitting
- LCRI Final Rulemaking
  - We have until Oct 2027 to reduce “replacement pool” (per EPA’s definition) by ~60k
- Possible sole source contract for verification of less than 40k service lines



# Questions?



Test Pit



EDT SMIT



Electro Scan Swordfish



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

**ACTION REQUESTED**

**GOODS AND SERVICES CONTRACT AWARD YEAR**

**CALCIUM HYDROXIDE  
(Joint Use)**

Approval to exercise base year and to approve funding for the base year and all option years (OY1 – OY2) for the supply and delivery of calcium hydroxide (also called “lime slurry”) in the amount of \$3,070,000.00.

**CONTRACTOR/SUB/VENDOR INFORMATION**

<b>PRIME:</b> W.K. Merriman, Inc. 8038 Front River Road Pittsburgh, PA 15225	<b>SUBS:</b> N/A	<b>PARTICIPATION:</b> N/A  WBE – 100%
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**DESCRIPTION AND PURPOSE**

Base Period Contract Value:	\$993,000.00
Base Period Contract Dates:	12-01-2024 – 11-30-2025
No. of Option Years in Contract:	2
Total Option Year 1-2 Value:	\$2,077,000.00
Option Year 1-2 Dates:	12-01-2025 – 11-30-2027
Total Number of Proposal	2

**Purpose of the Contract:**

To supply and deliver calcium hydroxide. Calcium hydroxide is used in the Nitrification Facility to adjust pH.

**Contract Scope:**

This contract is to provide calcium hydroxide to the Blue Plains Advanced Wastewater Treatment Facility for DC Water’s Department of Wastewater Treatment (DWT). DWT has an ongoing need for calcium hydroxide in slurry form to feed the Nitrification Facility at the Blue Plains Wastewater Treatment Plant. The product is used in the Biological Nutrient Removal process for pH control.

To ensure supply security, calcium hydroxide was awarded to two companies with independent supply chains. W.K. Merriman, Inc. is awarded 90% (this request) and Suffolk Solutions is awarded 10%, of DC Water’s requirements.

This contract action exercises the base year. Option years will be exercised annually.

**Supplier Selection:**

An open-market RFP (DCW-SOL-24-10388) for calcium hydroxide supply and delivery was released on June 11, 2024. Two companies, W.K. Merriman and Suffolk Solutions, responded. Both of them are existing suppliers to DC Water.

The final selection, and percentage award distribution, is based on technical evaluation and pricing.

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**PROCUREMENT INFORMATION**


<b>Contract Type:</b>	Good and Services	<b>Award Based On:</b>	Best Value
<b>Commodity:</b>	Calcium Hydroxide	<b>Contract Number:</b>	10491
<b>Contractor Market:</b>	Open Market		

**BUDGET INFORMATION**

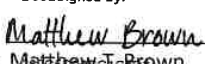
<b>Funding:</b>	Operating	<b>Department:</b>	Wastewater Treatment
<b>Project Area:</b>	Blue Plains	<b>Department Head:</b>	Nicholas Passarelli

**ESTIMATED USER SHARE INFORMATION**

User - Operating	Share %	Dollar Amount
District of Columbia	43.27%	\$1,328,389.00
Washington Suburban Sanitary Commission	41.18%	\$1,264,226.00
Fairfax County	10.02%	\$307,614.00
Loudoun Water	4.81%	\$147,667.00
Potomac Interceptor	0.72%	\$22,104.00
<b>TOTAL ESTIMATED DOLLAR AMOUNT</b>	<b>100.00%</b>	<b>\$3,070,000.00</b>

Signed by:  
  
 Jeffrey F. Thompson Date  
 Chief Operating Officer, EVP

DocuSigned by:  
  
 Korey Gray Date  
 Vice-President of Compliance and  
 Interim Chief Procurement Officer

DocuSigned by:  
  
 Matthew T. Brown Date  
 CFO and EVP of Finance and Procurement  
 and Compliance

\_\_\_\_\_  
 David L. Gadis Date  
 CEO and General Manager

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

**ACTION REQUESTED**

**PROGRESSIVE DESIGN-BUILD CONTRACT:**

**On Call Structural Rehabilitation  
(Joint Use)**

Approval to execute a Progressive Design-Build (PDB) Emergency Capital Rehabilitation contract for \$20,000,000.00 for a contract period of one year plus one renewable period of one year.

**CONTRACTOR/SUB/VENDOR INFORMATION**

<b>PRIME:</b>	<b>SUBS:</b>	<b>PARTICIPATION:</b>
Structural Preservation Systems, LLC 6955 San Tomas Rd. Elkridge, MD 21075	DBE/WBE*	TBD*

\*Certified DBE/WBE participation will be awarded on an individual task order basis. Structural has agreed with DC Water to perform continuous Good Faith Efforts to identify and provide opportunities to actively engage the certified business community to meet/exceed DC Water's business diversity, equity, and inclusion goals established for each task order they are awarded.

**DESCRIPTION AND PURPOSE**

Contract Value, Not-To-Exceed:	\$20,000,000.00
Contract Time:	730 Days (2 Years, 0 Months)
No. of Option Years in Contract	1
Anticipated Contract Start Date (NTP):	11-21-2024
Anticipated Contract Completion Date:	11-20-2026 (Including 1 Option Year)

**Purpose of the Contract:**

Conduct emergency specialty structural design and rehabilitation on linear and vertical assets that are at high risk of failure. This will be achieved through a collaborative design-build approach, incorporating targeted investigations by subject matter experts, followed by custom design and construction.

This work aims to align swift mitigation of asset failures as identified by the ongoing comprehensive condition assessments to enhance DC Water's resiliency management in a time-critical way.

**Contract Scope:**

- Collaborate closely with the DC Water team to assess asset failures, develop rehabilitation solutions, develop designs, and implement asset rehabilitation, of pipelines and sewer structures in a timely manner.
- Typical on-call PDB tasks include but not limited to criticality reviews, inspections, corrosion investigations and condition assessments of:
  - Pipelines
  - Sewer structures
  - Tanks

**Federal Grant Status:**

- This Construction Contract is not eligible for Federal grant funding assistance.

**PROCUREMENT INFORMATION**

<b>Contract Type:</b>	Fixed Price	<b>Award Based On:</b>	Qualification
<b>Commodity:</b>	Design and Construction	<b>Contract Number:</b>	250030
<b>Contractor Market:</b>	Sole Source (Limited Competition in the Market)		

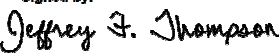
**BUDGET INFORMATION**


<b>Funding:</b>	Capital	<b>Department:</b>	Engineering and Technical Services
<b>Service Area:</b>	Water, Wastewater, Sewer	<b>Department Head:</b>	Ryu Suzuki
<b>Project:</b>	RU, RH, TL, KF		


**\*\*ESTIMATED USER SHARE INFORMATION**

User	Share %	Dollar Amount
District of Columbia	100.00%	\$ 20,000,000.00
Federal Funds	0.00%	\$
Washington Suburban Sanitary Commission	0.00%	\$
Fairfax County	0.00%	\$
Loudoun County & Potomac Interceptor	0.00%	\$
<b>Total Estimated Dollar Amount</b>	<b>100.00%</b>	<b>\$ 20,000,000.00</b>

\*\* Work under this contract will be assigned as needed under specific task orders. It is anticipated that Joint Use work may be assigned during the contract period. As tasks are developed for work associated with specific facilities and costs are developed, the individual users will be notified and billed according to agreed cost-sharing.

Signed by:  
  
 10/11/2024  
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 Jeffrey F. Thompson / Date  
 Chief Operating Officer and EVP

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 Matthew T. Brown / Date  
 Chief Financial Officer and EVP  
 Finance, Procurement and Compliance

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 Corey R. Gray / Date  
 Vice President of Compliance  
 and Interim Chief Procurement Officer

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 /  
 Date  
 David L. Gadis / Date  
 Chief Executive Officer and General Manager

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

**ACTION REQUESTED**

**CONSTRUCTION CONTRACT CHANGE ORDER:**

**Major Sewer Rehabilitation 1-5 Northeast Boundary  
(Non-Joint Use)**

Approval to execute Change Order No. 002 for \$712,000. The modification exceeds the Chief Executive Officer's approval authority.

**CONTRACTOR/SUB/VENDOR INFORMATION**

<b>PRIME:</b>	<b>SUBS:</b>	<b>PARTICIPATION:</b>
Spiniello Companies 354 Eisenhower Parkway Livingston, New Jersey 07039	Shekinah Group, LLC New Brunswick, NJ	DBE 17.0%
	GML, LLC Jessup, MD	DBE 2.0%
	RAM Construction, LLC Olney, MD	WBE 6.0%

DBE Participation = 19% WBE Participation= 6% WBE

**DESCRIPTION AND PURPOSE**

Original Contract Value:	\$7,823,300.00
Total of Previous Change Orders:	\$ 4,098.16
Current Contract Value:	\$7,827,398.16
Value of this Change Order:	\$ 712,000.00
Total Contract Value, including this CO:	\$8,539,398.16
Original Contract Time:	560 Days(1 Year, 6 Months)
Time extension, this CO:	0 Days
Total CO contract time extension:	0 Days
Contract Start Date (NTP):	10-18-2023
Anticipated Contract Completion Date:	04-30-2025
Cumulative CO % of Original Contract:	9.2%
Contract completion %:	55.1%

**Purpose of the Contract:**

This project aims to rehabilitate a section of the Northeast Boundary Trunk Sewer, thereby extending the lifespan of the sewer and its associated structures. The majority of the work will be carried out using trenchless rehabilitation technologies, primarily Geopolymer Lining Systems (GLS).

**Original Contract Scope:**

- Structural rehabilitation using Geopolymer Lining System (GLS) for approximately nine hundred (900) linear feet of 22-foot circular and three hundred and seventy (370) linear feet of 6-foot by 9-foot combined sewer pipes with associated internal point rehab and lateral/pipe reinstatements.
- Structural rehabilitation using Geopolymer Lining System (GLS) on five (5) sewer manholes/structures.
- Internal sewer flow control, pipe cleaning, inspection, and erosion and sediment control of project site.

**Previous Change Order Scope:**

- Revised the General Wage Decision (GWD) dated March 31, 2023, from the Contract Labor Provisions and replaced it with the GWD dated September 1, 2023.

**Current Change Order Scope:**

- Revise schedule of prices for a 22-foot circular sewer pipelining quantity from eight hundred (800) linear feet to nine hundred (900) linear feet to align with the drawings and specifications, unit price cost remains unchanged.

**PROCUREMENT INFORMATION**

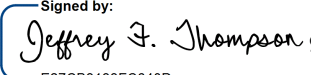
<b>Contract Type:</b>	Unit Price	<b>Award Based On:</b>	Lowest responsive, responsible bidder
<b>Commodity:</b>	Construction	<b>Contract Number:</b>	220160
<b>Contractor Market:</b>	Open Market		

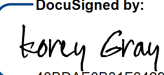
**BUDGET INFORMATION**

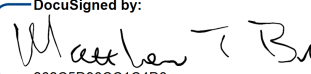
<b>Funding:</b>	Capital	<b>Department:</b>	Engineering and Technical Services
<b>Service Area:</b>	Sanitary	<b>Department Head:</b>	Ryu Suzuki
<b>Project:</b>	RC		

**ESTIMATED USER SHARE INFORMATION**

User	Share %	Dollar Amount
District of Columbia	100.00%	\$ 712,000.00
Washington Suburban Sanitary Commission	0%	\$
Fairfax County	0%	\$
Loudoun County & Potomac Interceptor	0%	\$
<b>Total Estimated Dollar Amount</b>	<b>100.00%</b>	<b>\$ 712,000.00</b>

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 Jeffrey F. Thompson Date  
 Chief Operating Officer and EVP

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 Corey R. Gray Date  
 Vice President of Compliance  
 and Interim Chief Procurement Officer

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