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Tank Rehabilitation & Utility Services Outreach Event

Facility Design & Construction Division, Systems Control Division, and Utility Services

August 7 , 2024

Agenda

Water Storage Facility Rehabilitation | **Water Tank Painting** | **Utility Services**

1. Team Introductions
2. Project Objectives
3. Project Overview
4. Preliminary Scope
5. Questions

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Water Storage Facility Rehabilitation

Facility Design & Construction Division

Christopher DeHerde, Project Manager

August 7 , 2024

Team Introductions

Team Introductions

Facility Design and Construction Division (FDCD)

- Theon Grojean, Division Manager
- Christopher DeHerde, Project Manager

Project Objectives

Project Objectives

- Extend the service life of aging storage facilitates and water mains.
- Remove the existing lead paint and apply a new high-performance coating system that will protect for 20 to 25 years.
- Improve water quality by installing insect-proof vents.
- Update site security features that require repair and/or replacement.
- WSSC Water's goal is to maintain safe and reliable drinking water.

Project Overview

Project Overview

Andrews Elevated Tank Rehabilitation

- Allentown Rd, Andrews, Maryland

Greenbelt Standpipe Rehabilitation

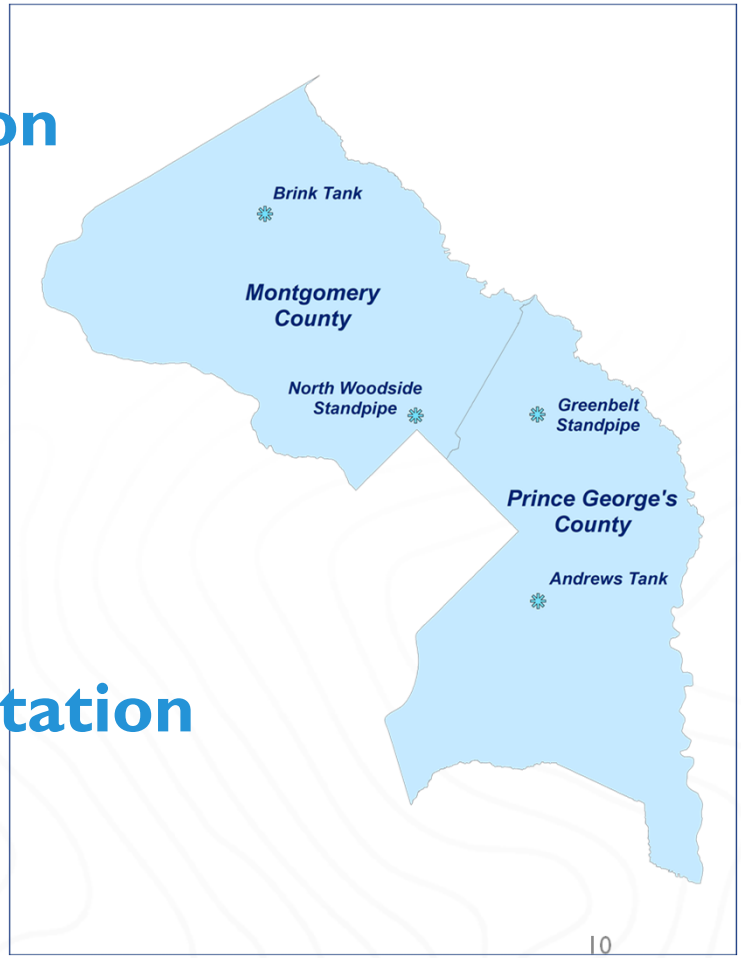
- Ridge Road, Greenbelt, Maryland

Brink Elevated Tank Rehabilitation

- Ridge Road, Germantown, Maryland

North Woodside Standpipe Rehabilitation

- Seminary Place, Silver Spring, Maryland



Preliminary Scope

Preliminary Scope

Site Work

- Demolish house on newly acquired lot
- New access drive
- New perimeter fencing
- New yard piping and altitude valve vault

Structural Improvements

- Improved water quality
- Relocate overflow piping
- Structural steel upgrades
- Foundation repairs
- OSHA upgrades to railings and ladders

Coating

- Abrasive blasting
- Epoxy based coating
- Protects against corrosion

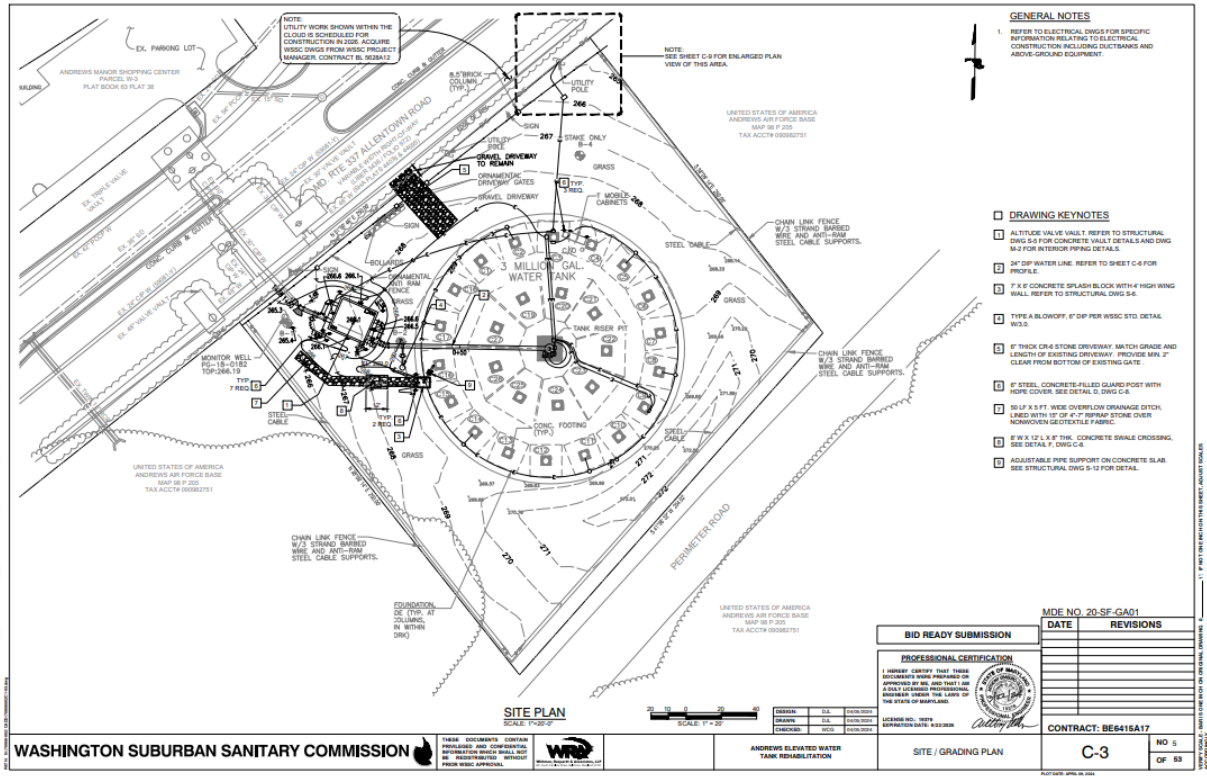
Andrews Elevated Tank

- 3-Million-Gallon Elevated Tank
  - 152 ft Diameter and 152 ft Tall
  - Supported by 27 Columns
- Property is owned by Joint Base Andrews
- Constructed in 1966 by Chicago Bridge and Iron
- Lasted coated in 1995
- Site access off Allentown Road (Maryland Route 337)

Andrews Elevated Tank

Challenges

- Coordination with Joint Airforce Base
- Aviation lights need to remain in service
- Traffic Control maybe required for deliveries



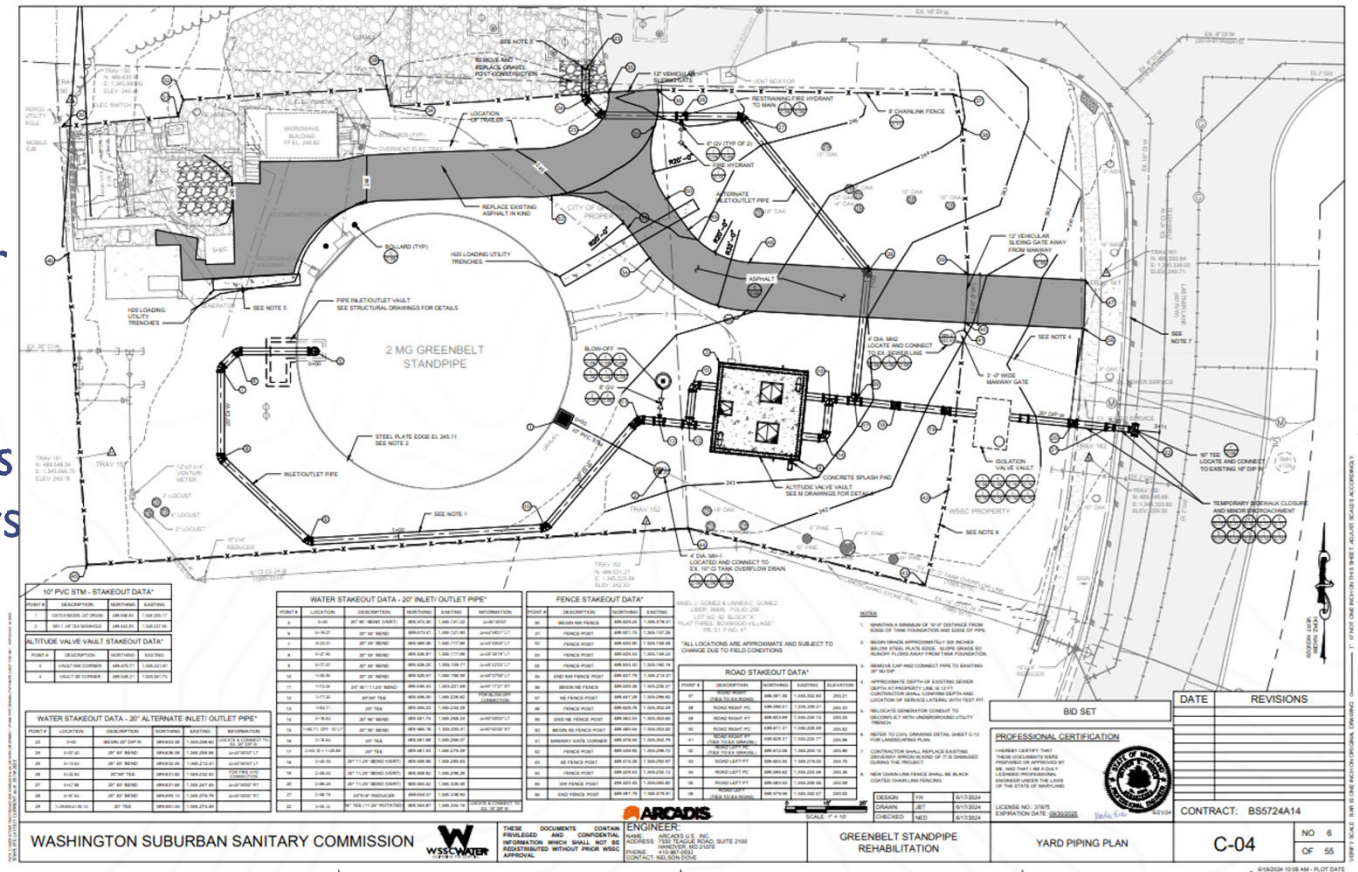
Greenbelt Standpipe

- 2 Million-Gallon Standpipe
  - 69 ft Diameter and 83 ft Tall
- Constructed in 1936
- Last coated in 1993
- WSSC acquired the adjacent lot (241 Lastner Lane)
  - Better access
  - More space to work and yard piping
- Existing Site access drive off of Ridge Road
- Three existing structures

Greenbelt Standpipe

Challenges

- Sequencing demolition of the house at 241 Lastner Lane
- Deliveries limited to outside of school bus pickup/drop off hours
- Provide security fencing for site



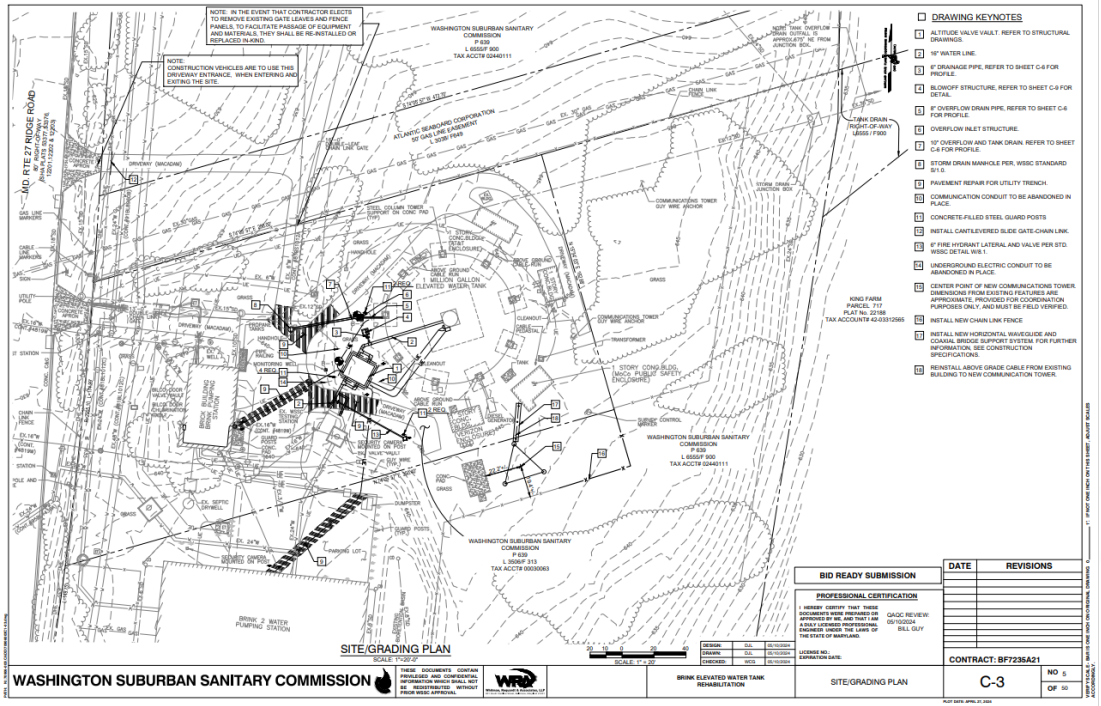
Brink Elevated Tank

- 1 Million-Gallon Elevated Tank
  - 281 ft Diameter and 125 ft Tall
  - Supported by 8 Columns
- Constructed in 1967 by Pittsburgh Des Moines Steel
- Lasted coated in 1999
- Site access off of Ridge Road (Maryland Route 27)
- Existing communication tower
  - Supported with guy wires
- Two (2) pumping stations on site

Brink Elevated Tank

Challenges

- Sequencing
  - Demolition existing communication tower
  - Construct new communication tower
  - 3rd Party Vendors relocate to new communication Tower
- Provide access to pumping stations throughout construction



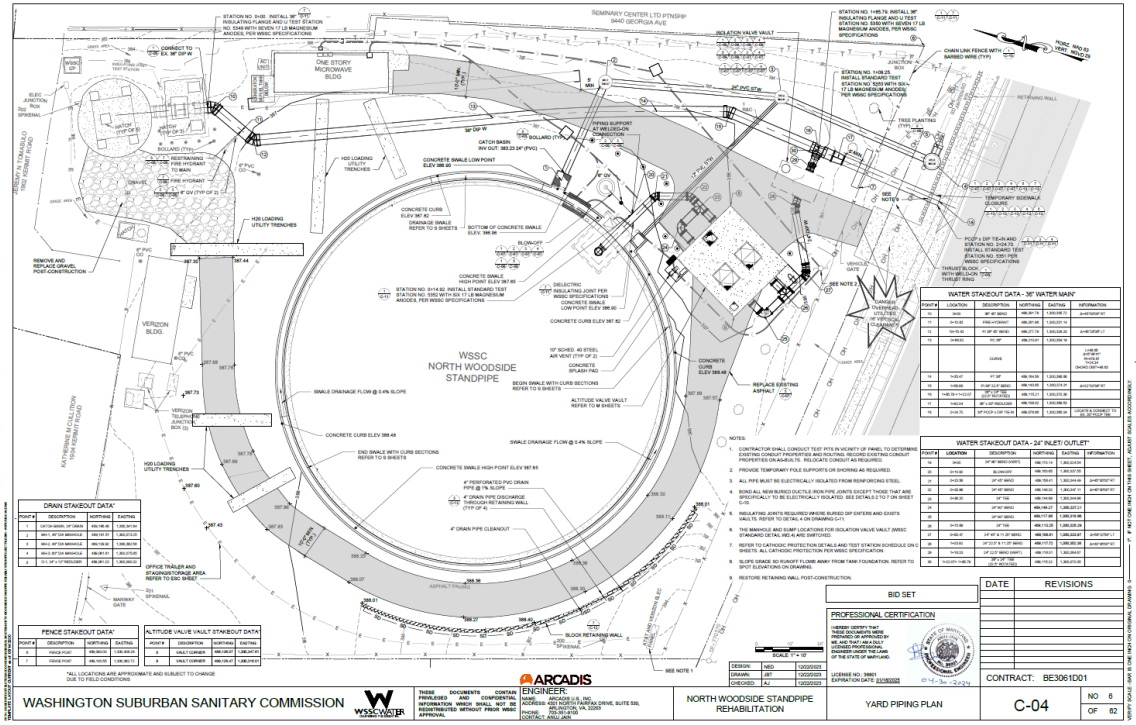
North Woodside Standpipe

- 7.5 Million-Gallon Standpipe
  - 110-ft Diameter and 130-ft Tall
- Constructed in 1968 by Pittsburgh Des-Moines Steel
- Last coated in late 1980's
- Site access off Seminary Place
- Two (2) existing building on site
- 36-inch PCCP Transmission Main

North Woodside Standpipe

Challenges

- Site has limited space for on site storage
- Pipe work and valve vaults near entrance will limit site access
- Traffic Control maybe required for deliveries

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Water Tank Painting

Production Department / Systems Control Division

Karen Wright, Systems Control Division Manager

August 7, 2024

Team Introductions

Team Introductions

Systems Control Division

- Karen Wright, Systems Control Division Manager

Plant Engineering WNVR1

- John Kasprzak, Section Manager, Plant Engineering WNVR0

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WNVR0 Is the correct name?
Williams, Natasha V R, 2024-08-02T17:25:02.134

WNVR1 Is this the formal name
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Project Objectives

Project Objectives

- The current paint on the facilities is at the end of life or worse
- Recoat the tanks with a high-performance coating system that will protect the facilities for the next 20 to 25 years
- Update any security features that may need updating

Project Overview

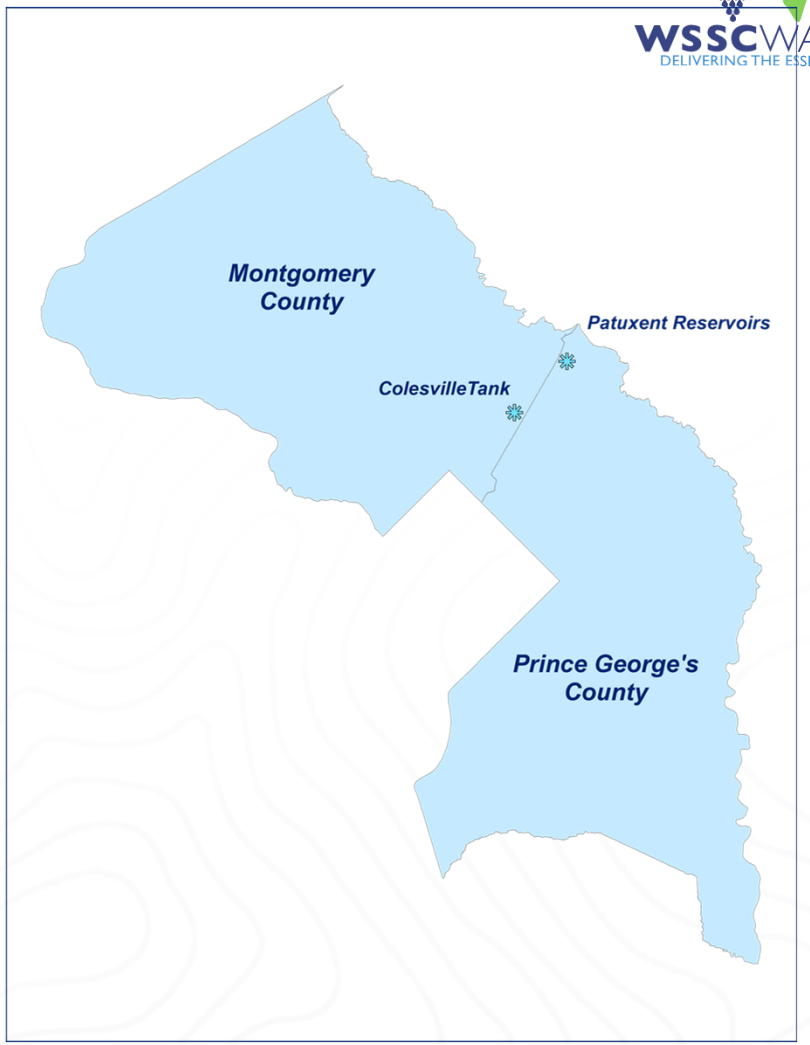
Project Overview

Colesville Elevated Tank

- Built in 1999
- Capacity: 2.2 million gallons
- Height: 208.5 ft
- Diameter: 80 ft

Patuxent Reservoirs #1

- Built in 1941
- Capacity: 2 million gallons
- Height: 20 ft
- Diameter: 130.5 ft



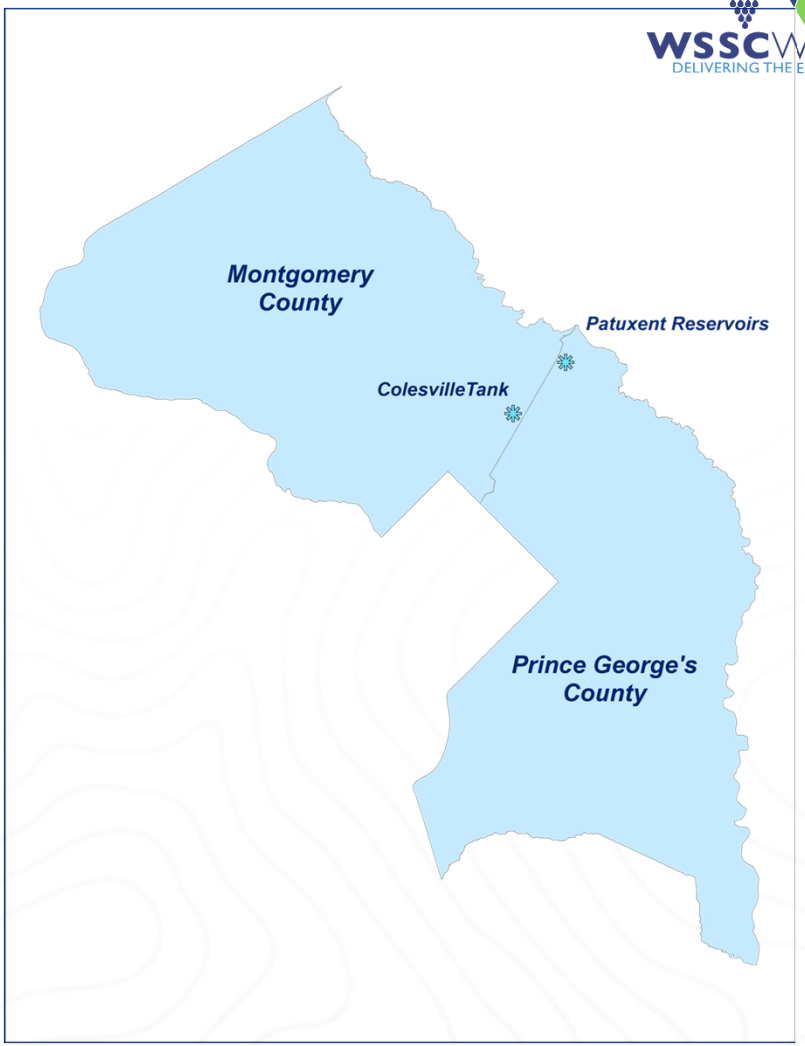
Project Overview

Patuxent Reservoir #4

- Built in 1951
- Capacity: 3 million gallons
- Height: 21.5 ft
- Diameter: 150 ft

Patuxent Reservoir #6

- Built in 1951
- Capacity: 3 million gallons
- Height: 21.5 ft
- Diameter: 150 ft



Preliminary Scope

Preliminary Scope

For all tanks

- Remove any sediment and transport off-site
- Sandblast or power wash existing steel to prepare the surface for painting
- Modifying existing overflow drains with new security devices

For Colesville

- Repair vertical cracking on a concrete pedestal
- Provide concrete pads for future uplighting
- Swap out light fixtures for LED fixtures

For Patuxent

- Repair screens along roof edging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Utility Services Projects

Utility Services Department

August 7, 2024

Team Introductions

WNVR0

Team Introductions

Water/Wastewater Systems Assessment Division

Yvette Parker, Division Manager

Arturo Acevedo, PE, Section Manager

Luke Bender, Project Manager

Crystal Wheaden, Principal Civil Engineer

Pipeline Infrastructure Strategic Planning Division

Monet Lea, Division Manager

Asif Noor, Water Asset Strategy Manager

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WNVR0 Include everyone's credentials?
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Project Objectives

Project Objectives

Large Diameter Metallic Mains Tool Provider

- Direct contract with tool provider(s) to perform services as needed
- Award contracts to multiple contractors
- Contract term – Three (3) year Base Term, with One two (2) year Option Term
- Estimated Contract Value – TBD

Condition Assessment of Large and Air Release Valves

- Award contract to one consultant
- Contract term – Three (3) year Base Term, with One two (2) year Option Term
- Estimated Contract Value – TBD

Fire Flow Testing Services

- Award contract to one contractor
- Contract term – One (1) year Base Term, with Four one (1) year Option Terms
- Estimated Contract Value – TBD

Project Overview

Large Diameter Metallic Mains Tool Provider

- Perform inspections for lined and unlined metallic water mains 30” to 96” in diameter within the WSSC Water Sanitary District
- Use innovative invasive/non-invasive technologies capable of:
  - Leak Detection
  - Pressure Monitoring
  - Air/Gas Pocket Detection
  - Pipe Wall Assessment
  - Corrosion Detection
  - Structural Integrity Analysis
  - Soil and Material Analysis

Preliminary Scope

Preliminary Scope

- Pipeline Inspections Using Innovative Invasive/Non-Invasive Tools
- Data Management and Reporting
  - Manage inspection data in a Commission-approved project database
  - Analyze and provide data in a format that can be easily transferred and integrated with the Commission's IT system
  - Quality assurance/quality control of all inspection data and reports
  - Data delivery on agreed-upon schedules
- Conduct innovative studies related to metallic water mains, as specified by the Commission to support the program initiatives
- The Commission's Project Manager may request additional or detailed deliverables related to water main inspections

Project Overview

Condition Assessment of Large and Air Release Valves

Inventory Management: Keeps track of all valves, their types, locations, and specifics

Condition Monitoring: Provides real-time data on valve performance and health, including operational status and any signs of wear or malfunction

Inspection Scheduling: Schedule regular inspections and maintenance tasks to prevent unexpected failures

Data Analysis: Analyzes performance data to predict potential issues, optimize maintenance schedules, and improve overall reliability

Reporting and Documentation: Generate reports and maintain records of inspections, maintenance activities, and performance metrics for compliance and decision-making

Preliminary Scope

Preliminary Scope

Project Management Support

- Schedule work based on the agreed timeline with WSSC Water
- Provide monthly milestone meetings and update reports

Inspection Rehabilitation and Condition Assessment

- The Consultant must provide a crew of personnel to physically inspect the (Large/ARV) valves
- The Operator must maintain a Class 1 Water Distribution System Operator Certification (D1) in MD

Large Valve/ARV Inspection and Repair

- The Consultant must conduct a thorough inspection of the valve (Large/ARV), structure, valve components, and report all findings
- GPS coordinates, date/time, asset ID, location, size, condition, turns, recommendation for repair or replacement

Monthly Reporting and Data Management

- Generate detailed monthly reports that include key performance indicators (KPIs), maintenance summaries, and any identified issues or risks
- Gather data on valve performance, maintenance activities, inspection results, and any issues encountered over the month

Project Overview

Fire Flow Testing Services

- WSSC Water has approx. 46,000 Fire hydrants throughout Prince George's and Montgomery Counties
- WSSC Water intents to acquire a contractor to perform fire flow testing services throughout Prince George's and Montgomery Counties for approx. 1,500 Fire hydrants every year
- Work requires conducting fire flow testing to determine pressure and flow-producing capabilities at any location within the distribution system, in accordance with American Water Works Association (AWWA) M-17 Standards
- Contractor shall also have expertise in data collection, data submission and analysis of pressure issues in water distribution system
- Traffic control may be required on some locations and will be used on as needed basis

Preliminary Scope

Preliminary Scope

- Project Management Support
- Fire Flow Testing Experience as per AWWA M-17 Standards
- Experience with water distribution system and assist WSSC in troubleshooting pressure related issues
- Data collection, data management and analysis experience
- GIS based mapping and data analysis experience
- Reporting
- Traffic control

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Questions?

Submit your questions to supplierdiversity@wsscwater.com

For past event's presentations and sign in sheets, visit
www.wsscwater.com/work-us/procurement/outreach-events


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