



# **Sanitary Infrastructure Division Annual Update**

## **Oronoco Outfall Remediation Project Update**

Environmental Policy Commission  
February 10, 2025

# Agenda

- Sanitary Division Update
  - Sanitary Infrastructure Role
  - Sanitary Sewer Asset Renewal Program
  - Projects Aimed at Addressing Sewer Backups from Wet Weather
  - Fats, Oils and Grease (FOG) Program
  - Eco-City Action Plan Update
- Oronoco Outfall Remediation Program
  - Background
  - Consent Decree and Current Implementation Status

# Sanitary Infrastructure Role

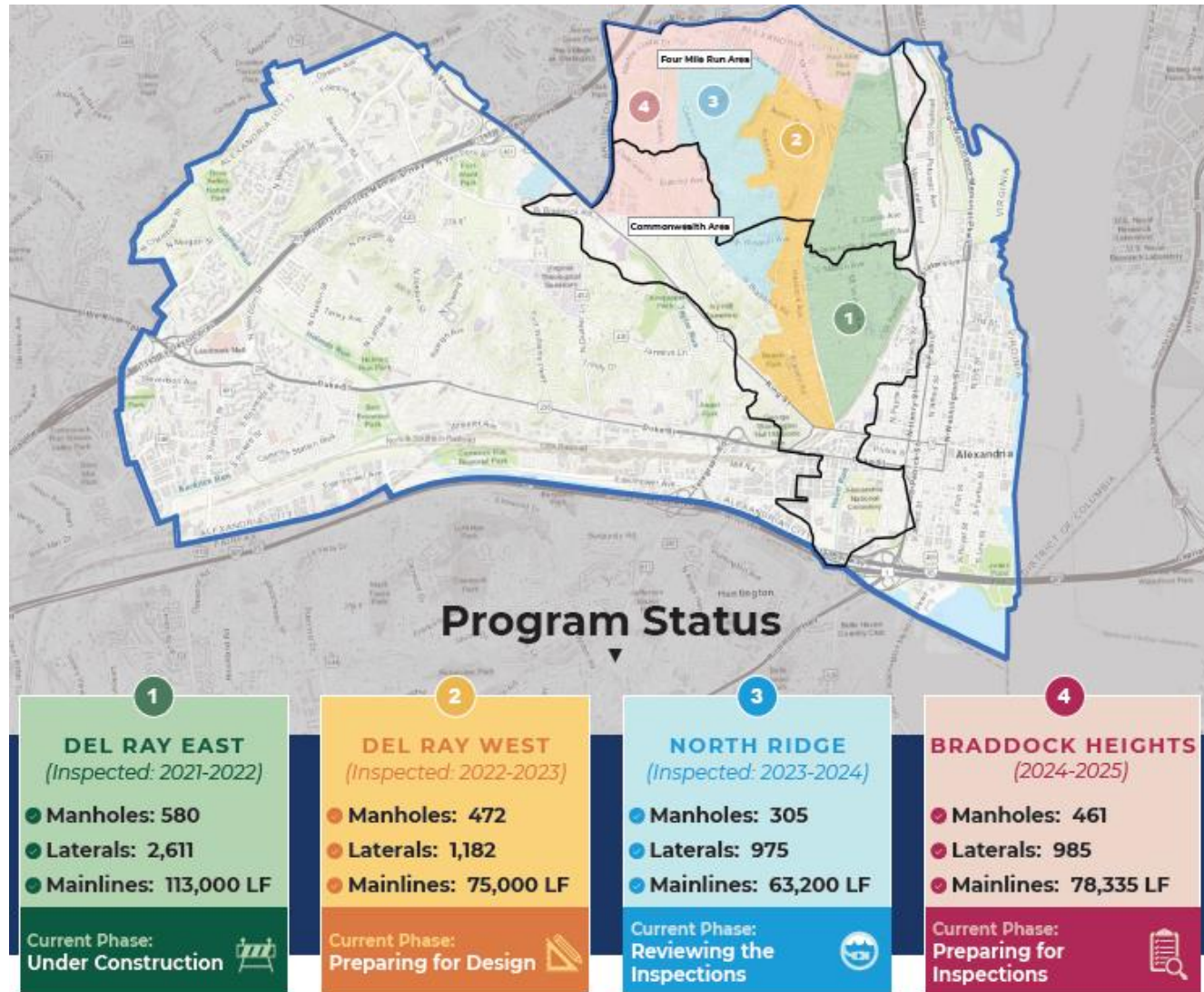
- Planning level engineering encompassing over 240 miles of sanitary and combined sewer within the City
- Development and implementation of the City's 10-year Sanitary Sewer Capital Improvement Program utilizing revenues collected from customer sewer bills and [connection fees from development](#)
- Coordination with the City's Department of Project Implementation related to design and construction of sanitary sewer capital projects
- Coordination with AlexRenew on the RiverRenew Program for the combined sewer system
- Review of development and redevelopment plans in order to ensure [adequate sewer capacity](#) to accommodate growth and identify when upgrades to sewer infrastructure are required to serve new development
- Ensuring that development projects located within the combined sewer system (CSS) comply with the City's [CSS Management Policy](#) for development/redevelopment

# Sanitary Sewer Asset Renewal Program

Sewer inspection and rehabilitation program

Program Goals:

1. Remove infiltration and inflow in the sewer system
2. Extend useful life of existing sewers (state of good repair)



# Projects Aimed at Addressing Sewer Backups

- Types of projects aimed at mitigating sewer backups:
  - Asset Renewal Program – reduce infiltration and inflow into the sanitary sewer system
  - Sewer Upsizing Projects – replace existing sewers with larger sewers
    - Del Ray Upsizing Project #1 – Construction Notice to Proceed January 2025
    - 300/400 blocks N Alfred Street – Construction Notice to Proceed February 2025
    - Madison and Saint Asaph – Bids received, contract award Jan/Feb 2025
    - 400 block Wolfe Street – 100% design completed, Invitation to Bid Feb/Mar 2025
  - Combined Sewer Separation Projects – disconnection of sanitary sewers from combined sewer system and reconnection to fully separate sanitary sewer
    - 500 block N Pitt Street – construction completed
    - 600 block N Columbus Street – 100% design completed, Invitation to Bid Feb/Mar 2025
    - Colonial/Powhatan – Early stages of design

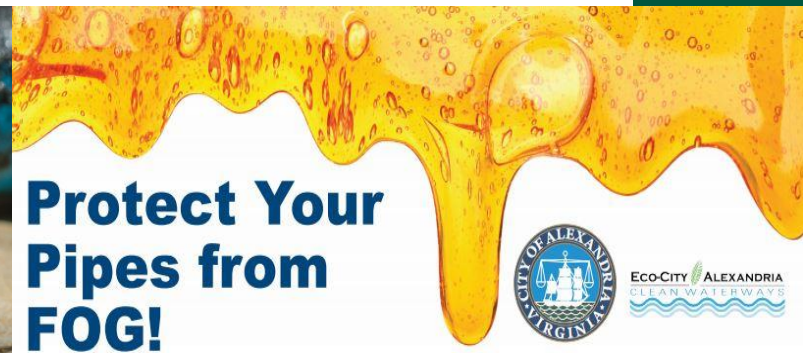
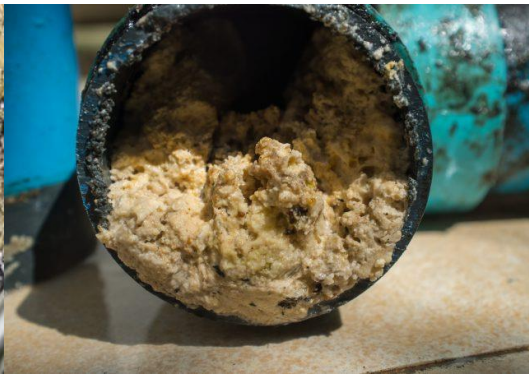
# Fats, Oils, Grease (FOG) Program

- Sources of FOG – cooking oil, meat fats, food scraps, shortening, sauces, dairy products
- Adverse impacts
  - Reduce capacity of the sewer collection system
  - Contribute to sanitary sewer overflows into waterways
  - Contribute to sewer back-ups
  - Impacts wastewater treatment facility operations
  - Increases operational costs



# FOG Program Highlights

- Ordinance Updated in 2020 – Became effective in July 1, 2021
- 283 food service establishments inspected (FSEs)
  - 85% inspected in compliance
  - Corrective action letters to non-compliant – to be reinspected Spring 2025



# Eco-City Action Plan: Long-Term Actions

**6.2.5** By FY2028, explore a reclaimed wastewater reuse partnership between the City and Alexandria Renew, including updating the technical and economic feasibility study for using reclaimed wastewater for irrigation of some of the larger open spaces in the city. **Coordinate w/AlexRenew following RiverRenew project**

**Cost Estimate:** \$100,000

**Cost Breakdown:** Updating the previous study and coordinate with AlexRenew.



**6.2.6** By FY2028, collaborate with Virginia American Water and regional partners to monitor, evaluate, and ensure safe and adequate water supply for the City now, and in the future. **Underway – early stages**

**Cost Estimate:** \$10,000–\$25,000

**Cost Breakdown:** Required costs will be absorbed within City's operating budget

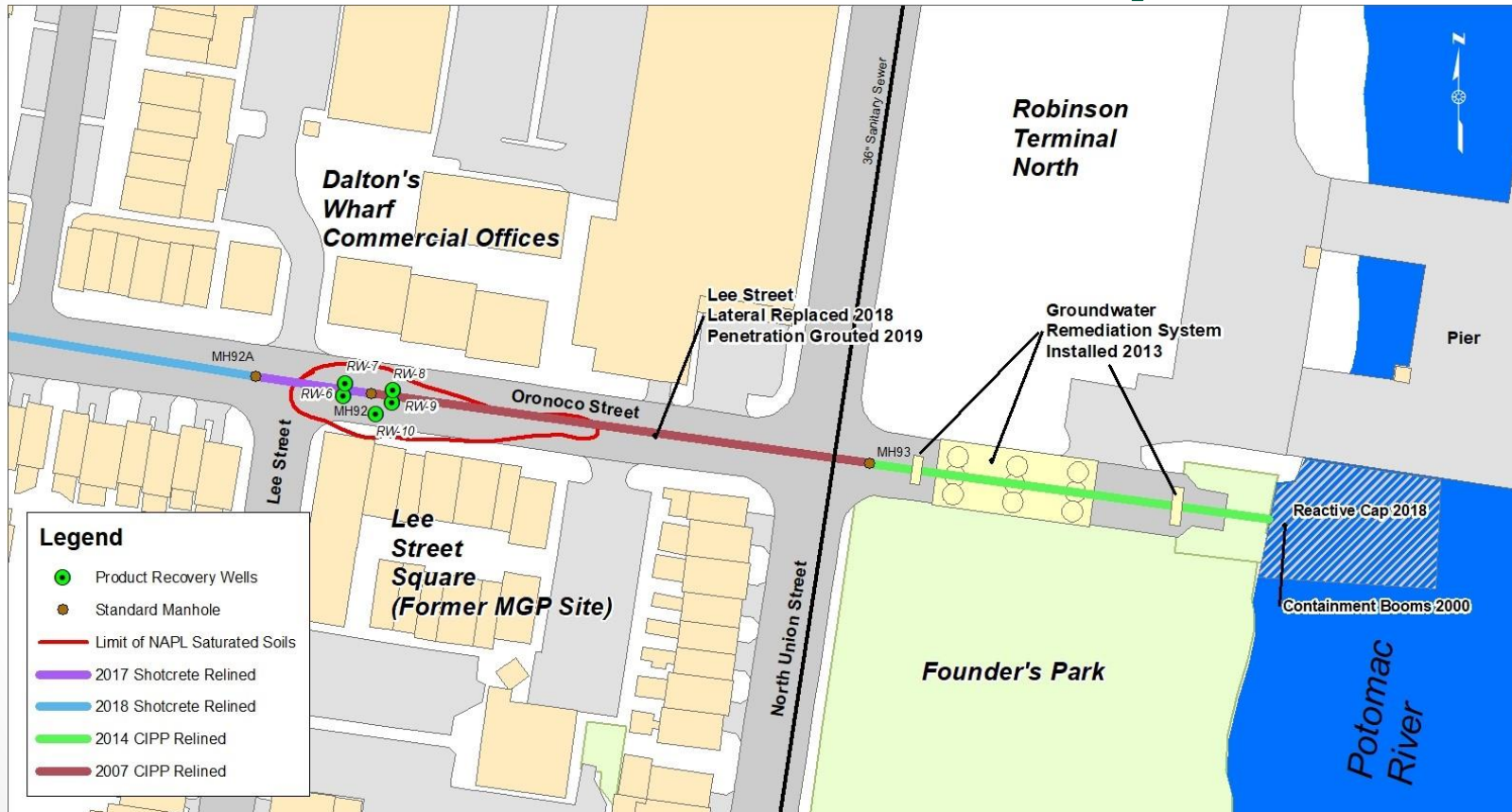




# Oronoco Outfall Remediation Program Background

- From 1851-1956, a manufactured gas plant (MGP) operated near North Lee and Oronoco Streets
- Due to byproduct (coal tar) leaking into soils/groundwater, City entered the site into the Voluntary Remediation Program (VRP) administered by Virginia Department of Environmental Quality (VDEQ) in 2000
- Past remediation activities focused on installing containment booms, recovering byproduct, pipe repairs, installation of groundwater treatment system, and dredging contaminated soils

# Oronoco Outfall Past Remediation Progress (before Consent Decree)

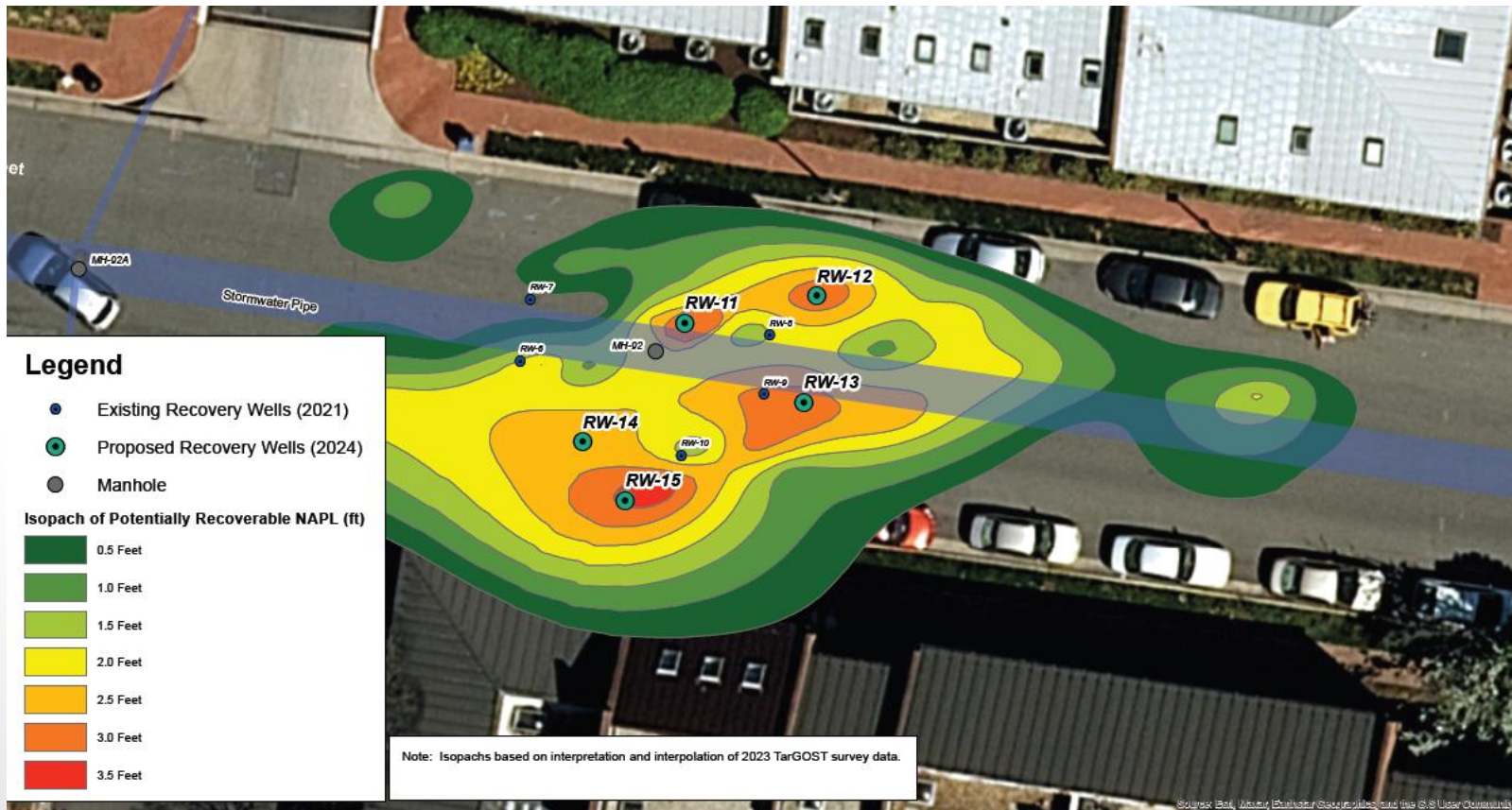


# Consent Decree Overview

- Lawsuit filed by Potomac RiverKeeper Network May 9, 2022
- Components of Consent Decree – Effective January 8, 2024
  - Upland Remediation – recovery of free product from soil and groundwater
  - Pipe Rehabilitation from Manhole 92A to Manhole 93
  - Sediment Characterization and Sediment Remediation (if required)
  - Introduction of freshwater mussels into the Potomac River (not related)

# Upland Remediation

- November 2023: TarGOST survey performed
- August 2024: 5 new recovery wells installed
- If recovery drops off before Consent Decree terminated, new TarGOST/well install to occur





# Pipe Rehabilitation

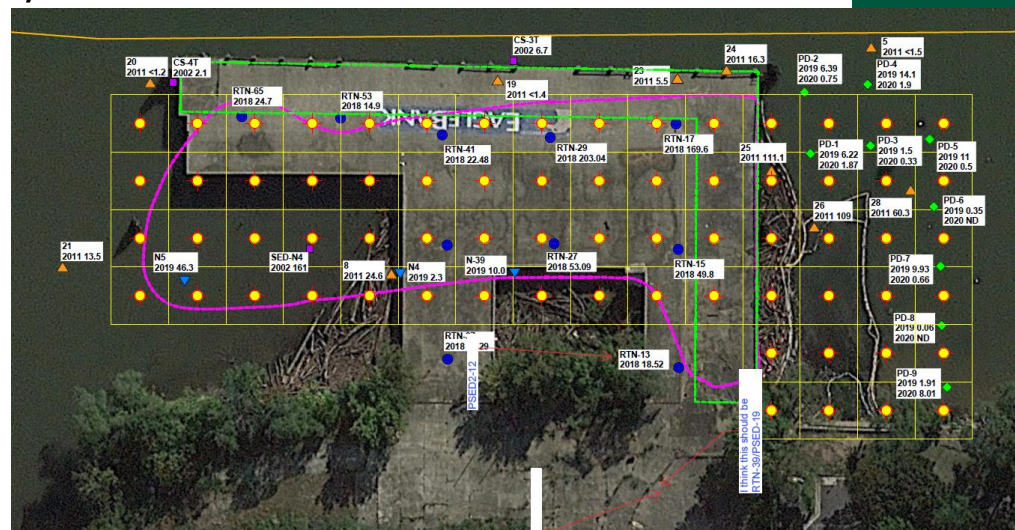
- Consent Decree requires pipelining to be completed March 31, 2025
  - From Lee Street to N Union Street
- Pipelining project completed December 29, 2024
- City is required to inspect pipe on an annual basis until Consent Decree terminated





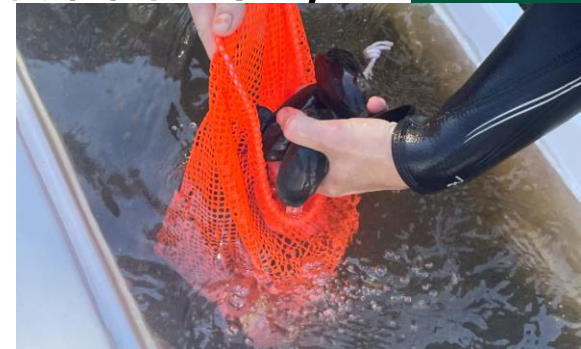
# Sediment Characterization and Remediation

- City to perform characterization of sediments north of the outfall and develop a remedial action plan for any contaminated sediments (if needed)
  - City to submit permits March 2025
  - Sediment sampling to be completed late 2025
  - Remedial action plan to be submitted to VDEQ for approval in early 2026
- Implementation of potential remedial activities to be implemented around July 1, 2026



# Mussels Project

- Separate project to help introduce and reestablish population of mussels in the Potomac River
  - Over 20,000 freshwater mussels to be introduced
  - Mussels act as natural filters, removing pollutants from waterways, thus enhancing water quality
  - City working with Virginia Department of Wildlife Resources (DWR)
- First batch of mussels (~3,700) released at Windmill Hill Park embayment on October 31, 2024





# Questions

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