

Wet Weather Program

# City Council/AlexRenew Workgroup Kickoff Meeting

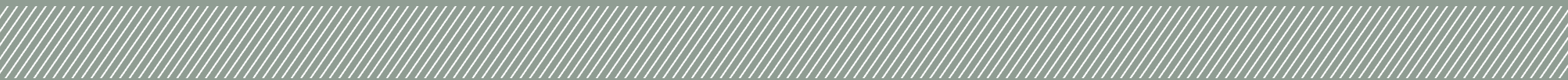


July 23, 2018

# Presentation Outline

- ▶ Welcome and Introductions
- ▶ Review of Program Team Approach and Critical Path Schedule
- ▶ General Overview of Wet Weather Program Components
- ▶ Review of Potential Locations of Wet Weather Program Components
- ▶ Update on Coordination with Federal, State, and Local Agencies
- ▶ Ongoing Site Investigations
- ▶ Overview of Community Engagement
- ▶ Program Branding
- ▶ Next Steps

# Review of Program Team Approach and Critical Path Schedule



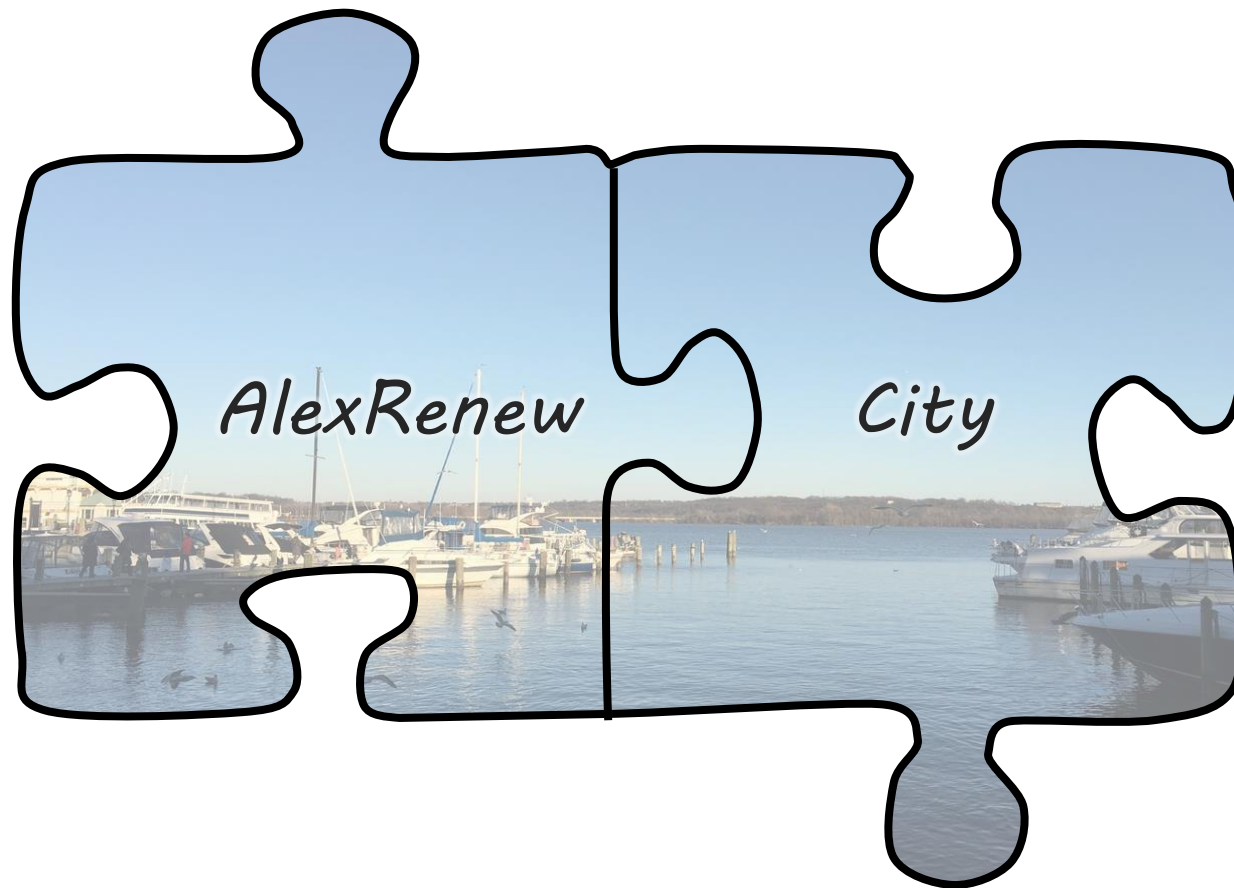
# The City and AlexRenew partnership is crucial to the success of the Wet Weather Program

## Long Term Control Plan Update

Jointly prepared and approved in June 2018

## City and AlexRenew

Are committed to working together to deliver the Program by 2025



## Project Team

Already working together on permitting and other Program support activities

## Outfall Transfer Agreement

Established joint approach to continue working relationship in May 2018

# Outfall Transfer Agreement defined a “Project Team Approach” to deliver the Program in compliance with the Virginia CSO Law

Representatives from each department tasked with regulatory review

City Regulatory Team

Program Coordination Working Meetings

Coordination meetings to discuss Program planning and design approaches – attended by City and AlexRenew staff

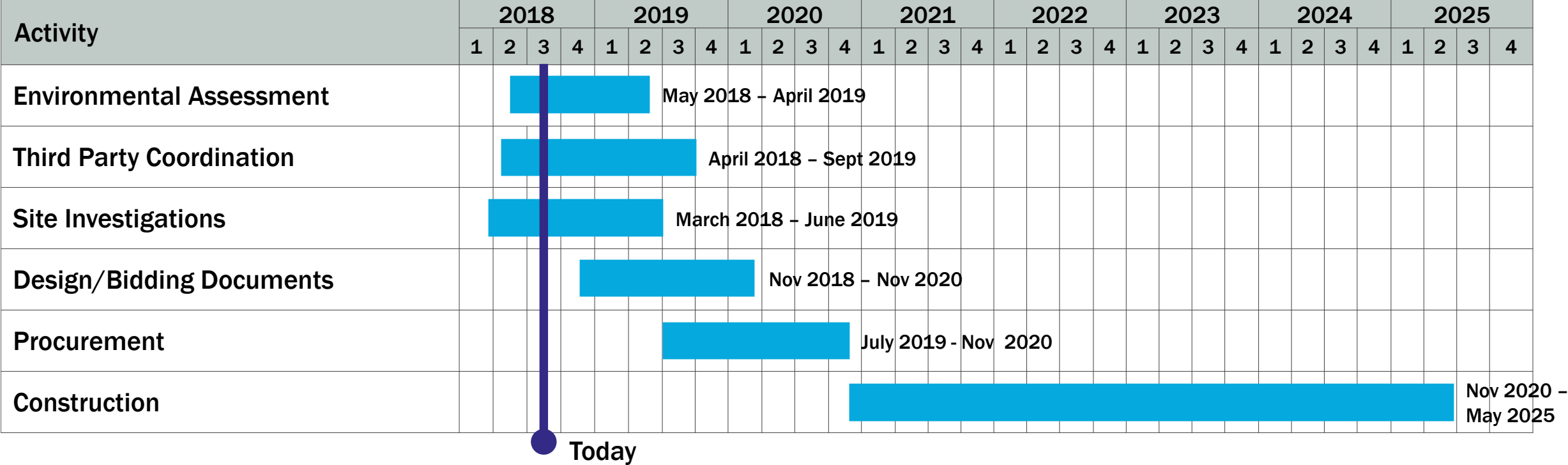
Two members each from the City Council and AlexRenew Board to review and guide plans, design, implementation and costs to minimize community impacts and maximize community benefits

City Council/ AlexRenew Workgroup

Fees

No fees will be charged to either party for Program components

# Wet Weather Program Critical Path Schedule

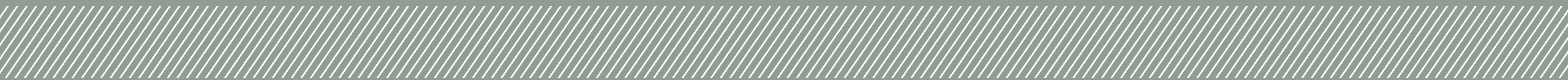


## Potential Schedule Risks







- Permitting
- Environmental Contamination
- Easements/Agreements
- Environmental, Historic and Cultural Resources
- Conflicts with Existing Structures
- Community Impacts
- Bidding/Procurement Environment



# General Overview of Wet Weather Program Components



# The Wet Weather Program includes these major components:

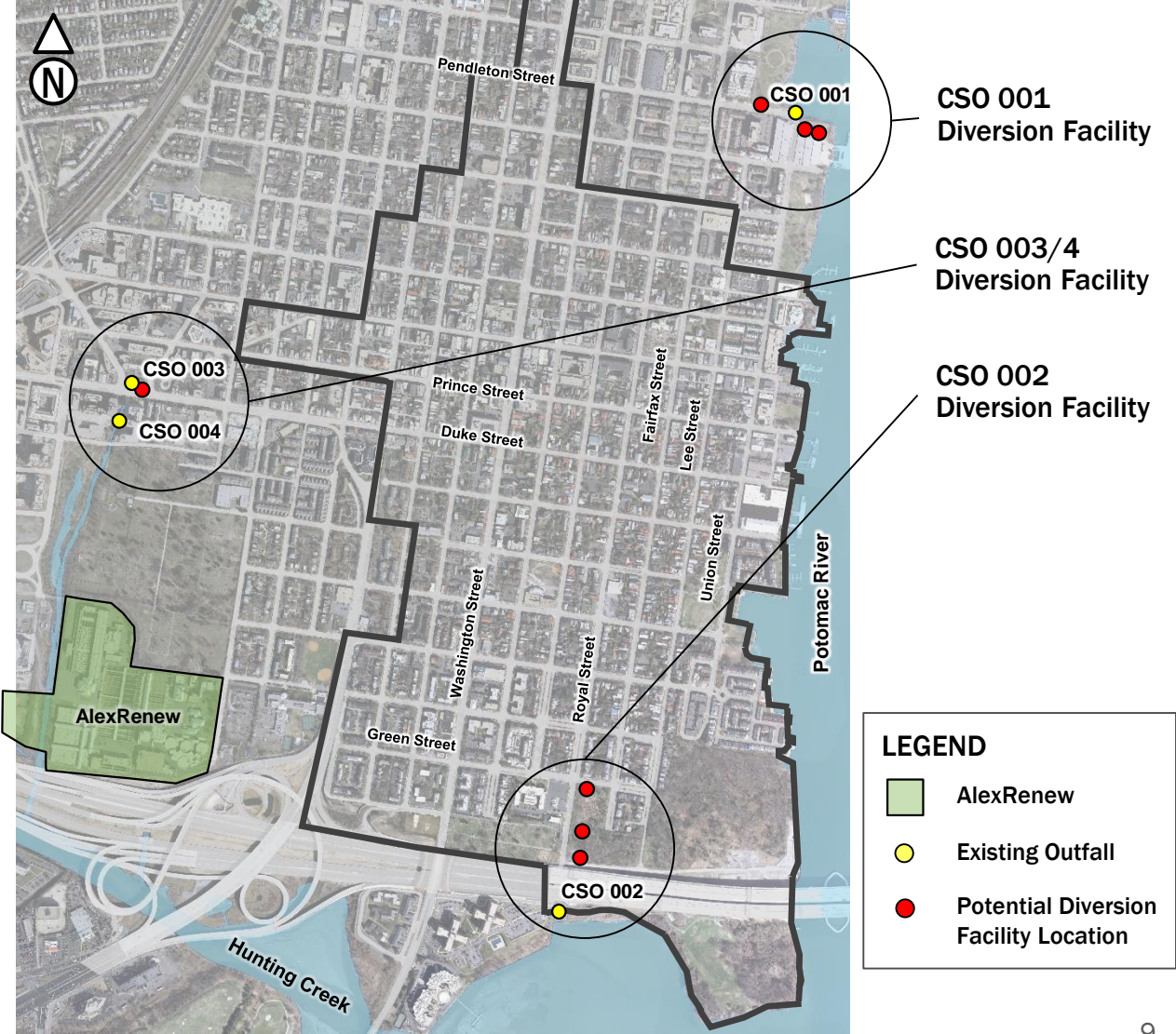
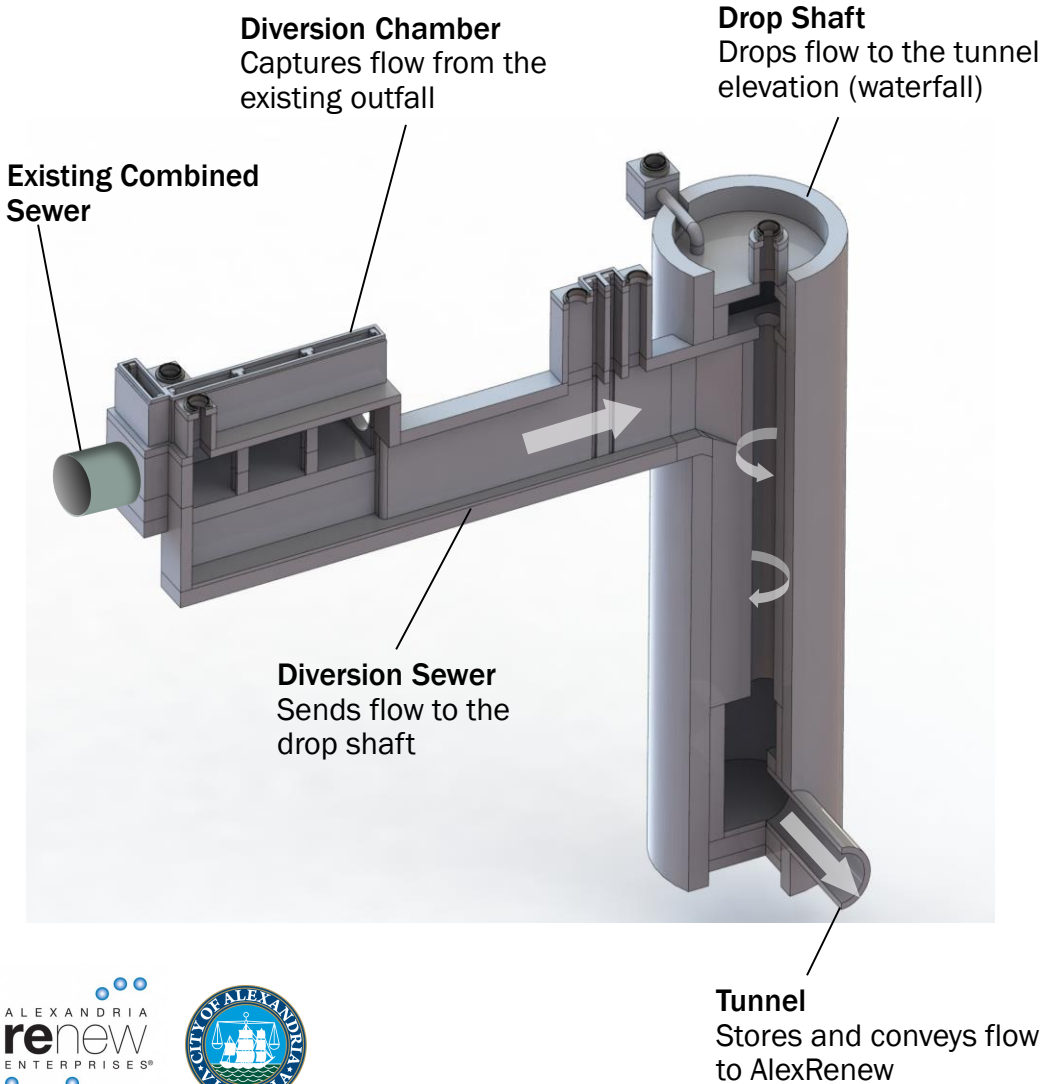
Diversion Chambers	Drop Shafts	Tunnels	Wet Weather Treatment	WRRF Upgrades	Equipment
					

Tunnel System

Work at AlexRenew



# Diversification facilities will be located near the existing outfalls



# Diversion facilities are largely below-grade when complete

Construction in city street



Restoration in city street



Photos courtesy of  
DC Water's Clean  
Rivers Project

Construction along Potomac

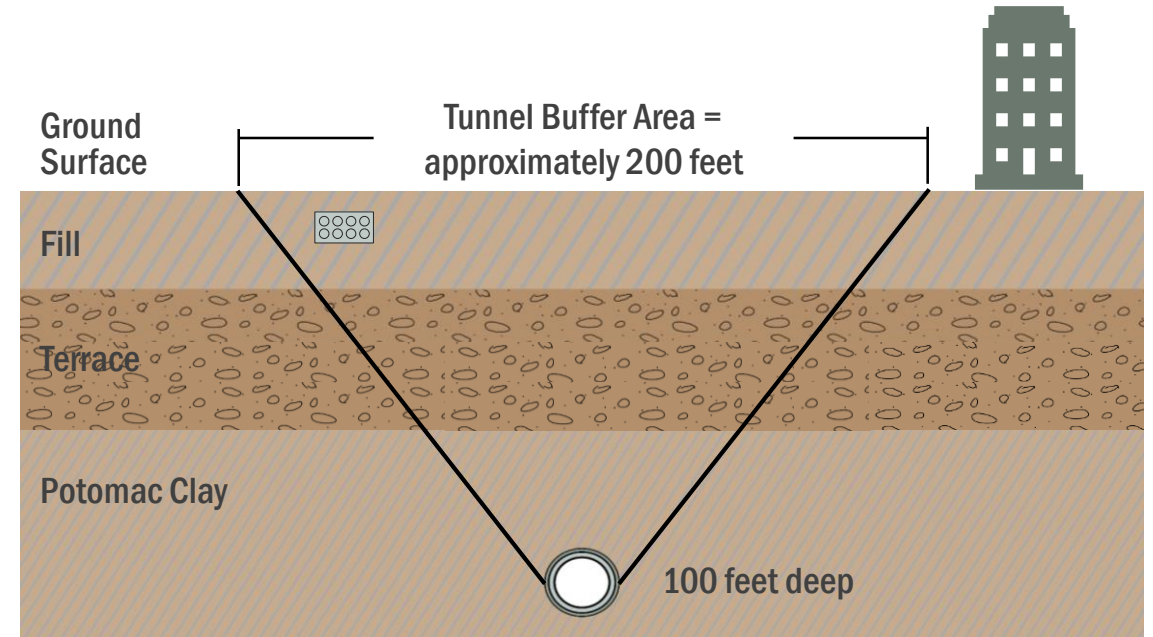


Restoration along Potomac

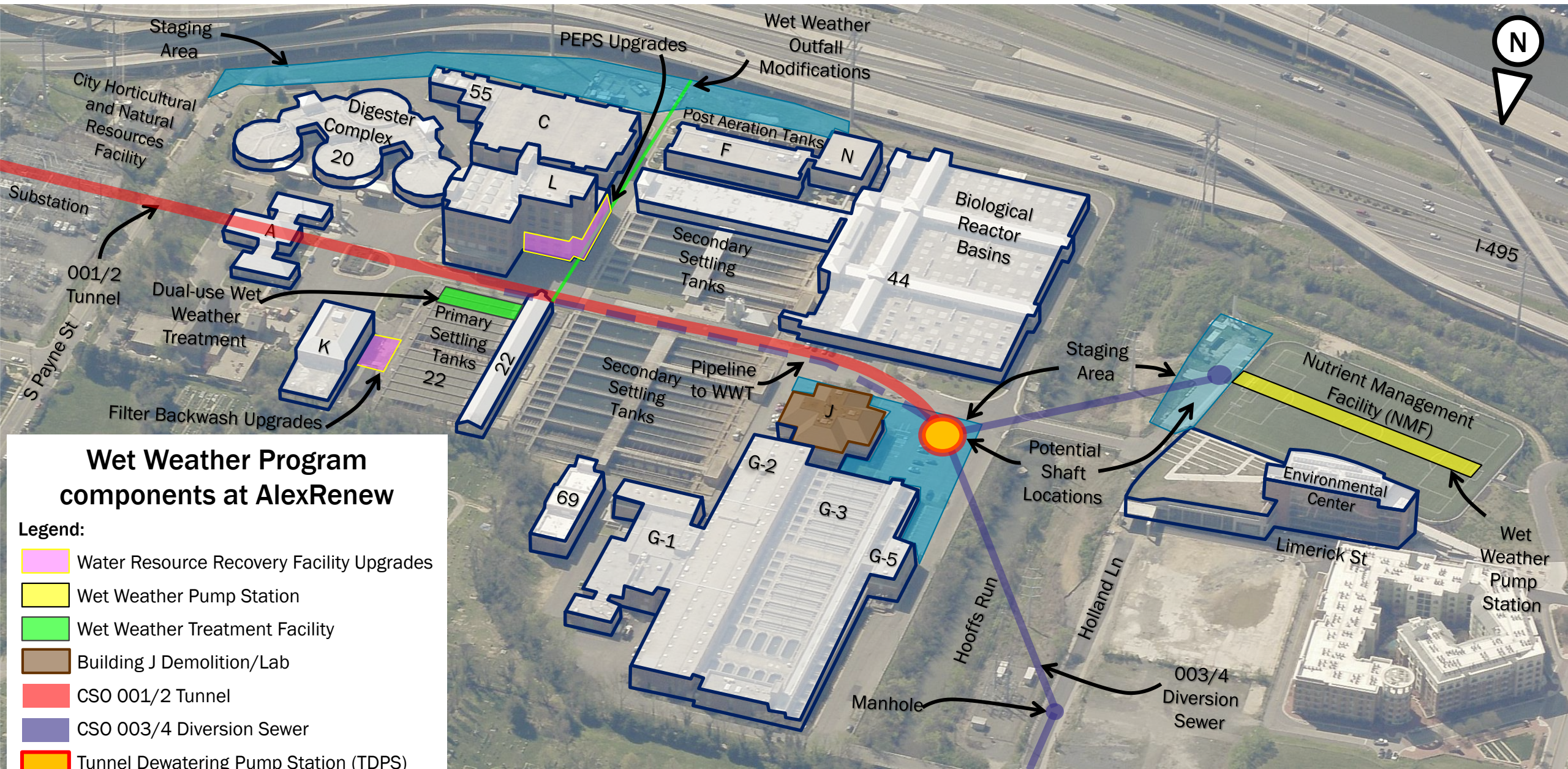


# General considerations for tunnel alignments

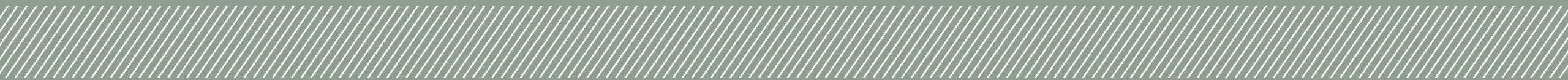
- ▶ Favor public right-of-way and open-space land
- ▶ Locations at AlexRenew and outfalls are fixed
- ▶ Minimize structures within buffer area
- ▶ Utilize earth pressure balance tunnel boring machine
- ▶ Set constructible curves
- ▶ Align tunnel in most favorable ground
  - Potomac Clay – favorable ground
  - Patuxent Sands – less favorable
  - Alluvium/Terrace & Fill – least favorable



Proximity to existing structures is a major consideration for the alignment of the proposed tunnels



# Review of Potential Locations of Wet Weather Program Components



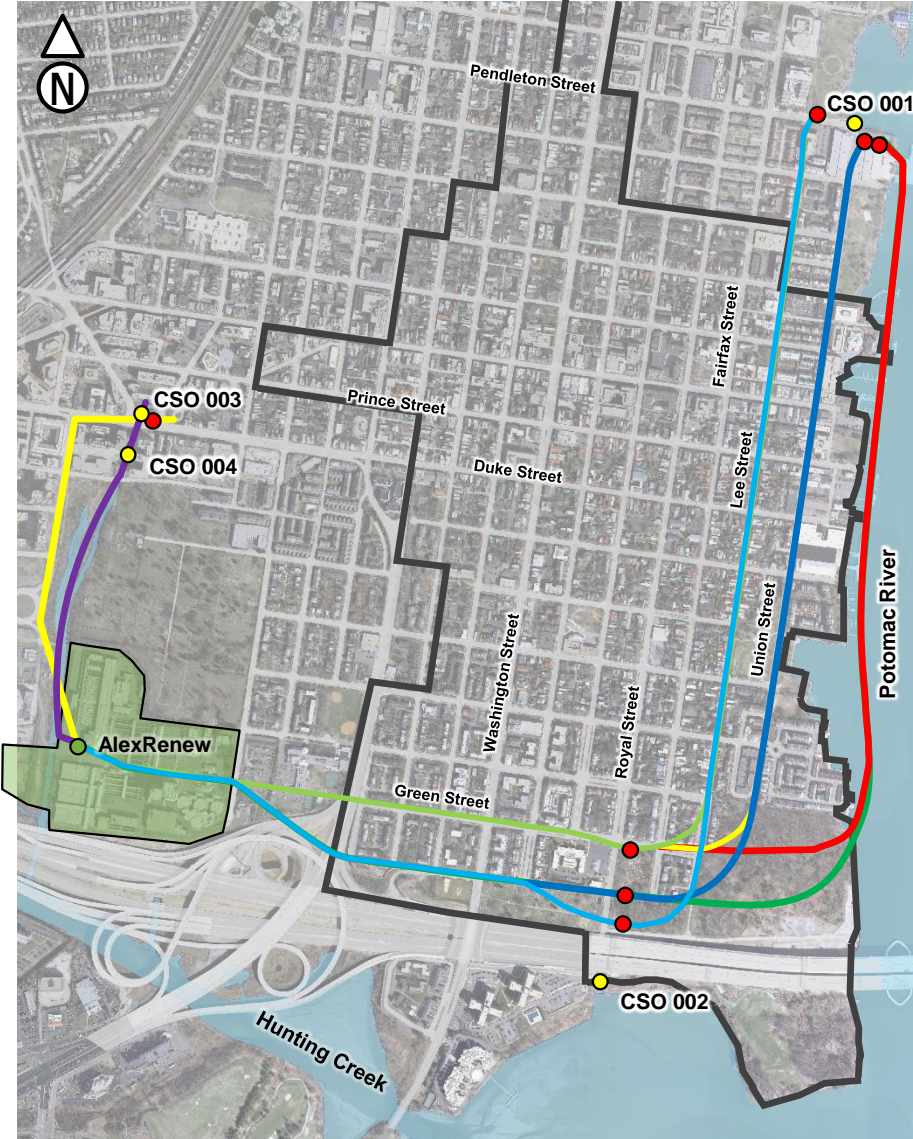
# We are currently evaluating potential tunnel alignments and locations of diversion facilities

## 001/2 Tunnel Alignments

East-West	North-South
Green Street	Lee Street
Church Street	Union Street
	Potomac River

## 003/4 Tunnel Alignments

Option	Approx. Depth
Deep	100-feet
Trenchless	20 to 40-feet
Hooffs Run	10 to 20-feet



**LEGEND**

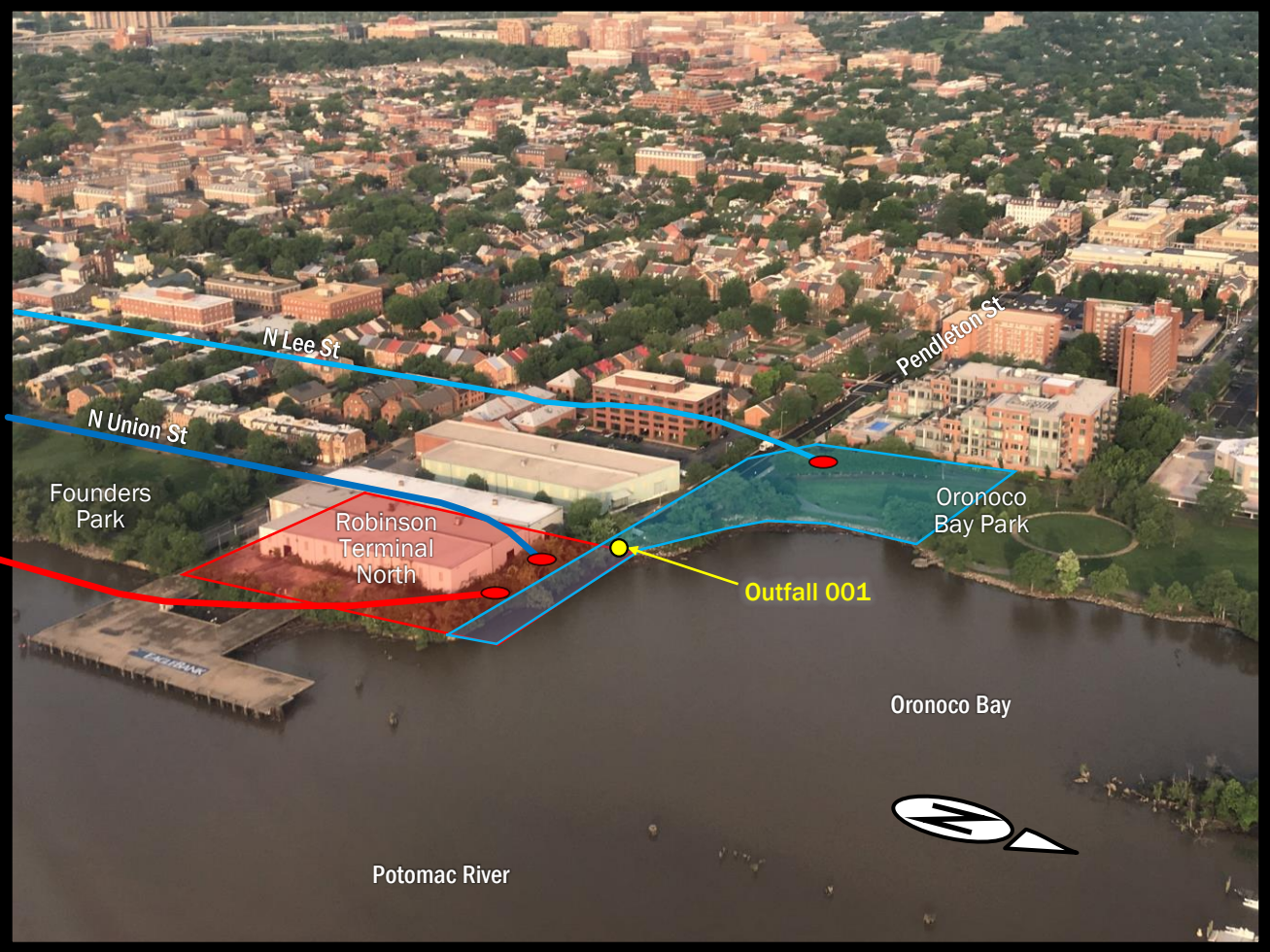
- AlexRenew
- Existing Outfall
- Potential Diversion Facility Location
- Tunnel Dewatering Pumping Station/Mining Shaft
- Potential Alignment Alternatives
- Historic District (Old Town)

**Note:** Potential alignments are conceptual only and are currently under evaluation. Other alignments than those shown are possible. Potential alignments will be studied as part of preliminary engineering and the stakeholder outreach process.

# Potential CSO 001 Diversion Facility locations

Two options:

- Near River
- Oronoco Bay Park



**LEGEND**

- Potential Staging Area for Oronoco
- Potential Staging Area for River
- Existing Outfall
- Potential Diversion Facility Location
- Potential Alignment Alternatives

Item	001
Staging Area (acres)	1
Construction Duration (years)	2.5
Shaft diameter (feet)	30
Construction Work Hours	7AM - 6PM
Typical Hauling Rates (trucks/hour)	2-10

# Potential CSO 002 Diversion Facility locations

Two options:

- Green Street
- Jones Point Park



Item	002
Staging Area (acres)	1
Construction Duration (years)	2
Shaft diameter (feet)	35
Construction Work Hours	7AM - 6PM
Typical Hauling Rates (trucks/hour)	2-10

**LEGEND**

- Potential Staging Area - North
- Potential Staging Areas - South
- Existing Outfall
- Potential Diversion Facility Location
- — — Potential Alignment Alternatives

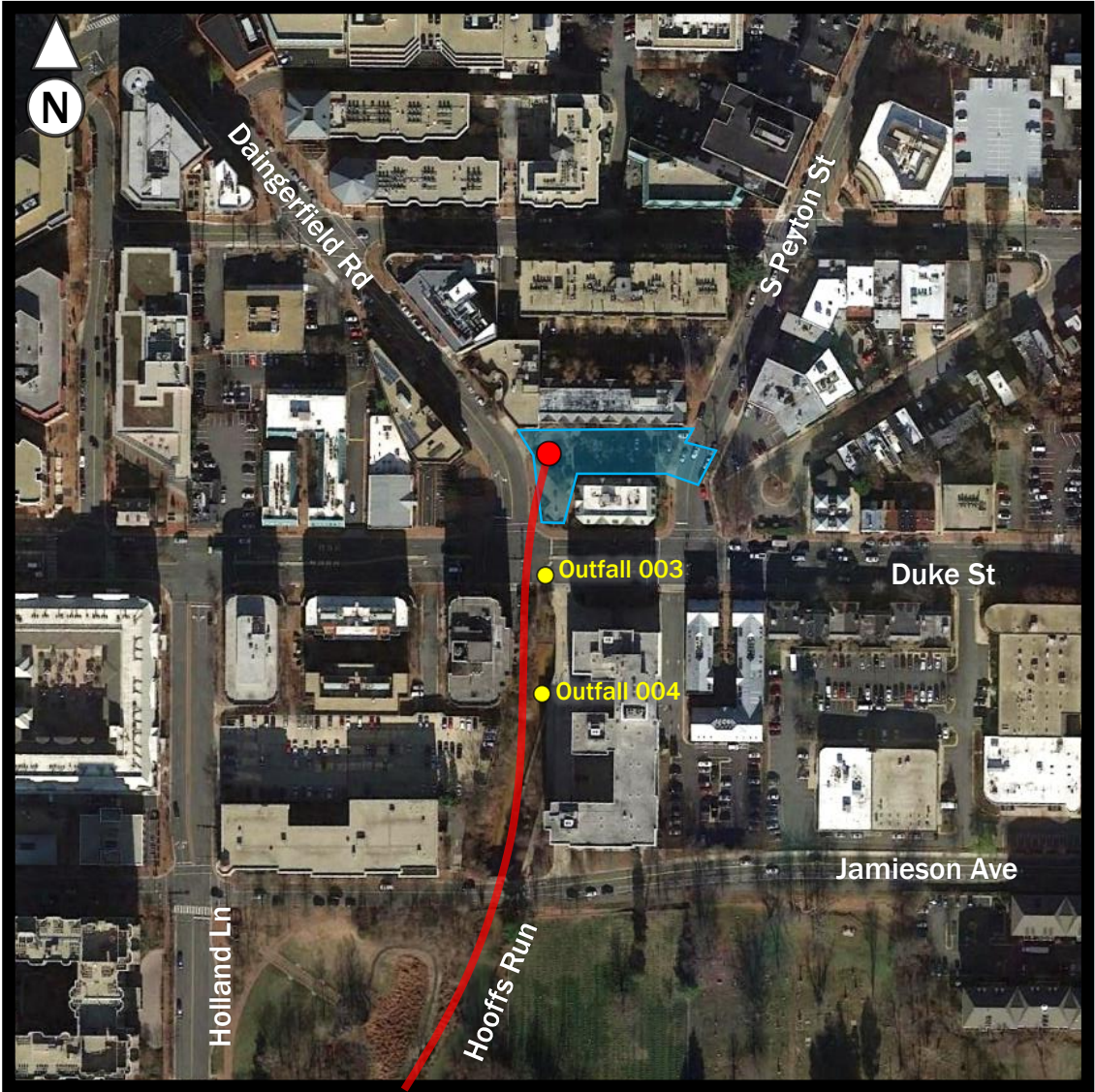




# Potential CSO 003/4 Diversion Facility locations (Deep)

Three options:

- Deep
- Trenchless
- Hooffs Run



Item	003/4
Staging Area (acres)	1
Construction Duration (years)	2
Shaft diameter (feet)	30
Construction Work Hours	7AM - 6PM
Typical Hauling Rates (trucks/hour)	2-10

**LEGEND**

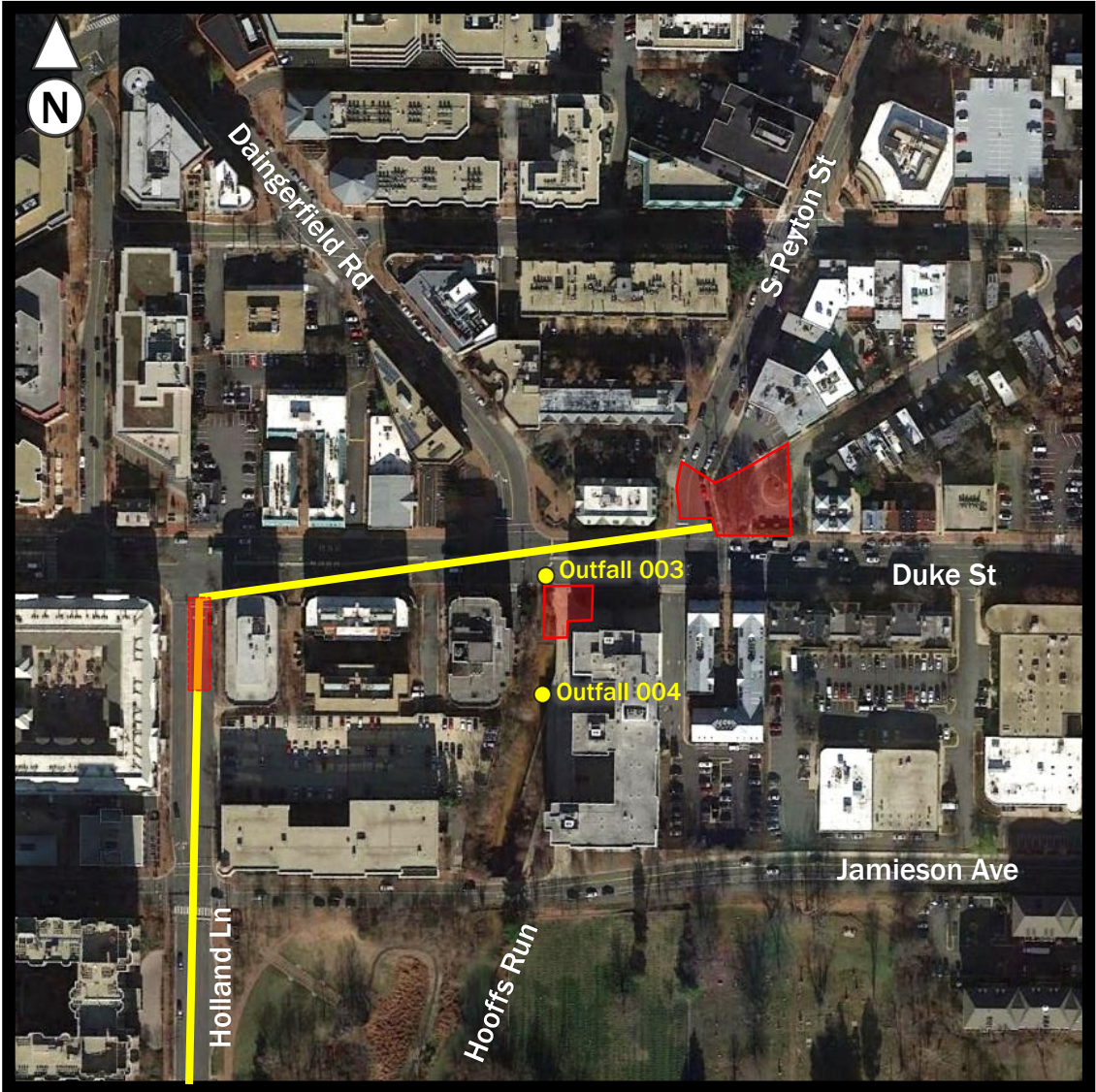
- Potential Staging Area - Deep
- Existing Outfall
- Potential Diversion Facility Location
- Potential Alignment Alternative



# Potential CSO 003/4 Diversion Facility locations (Trenchless)

Three options:

- Deep
- Trenchless
- Hooffs Run



**LEGEND**

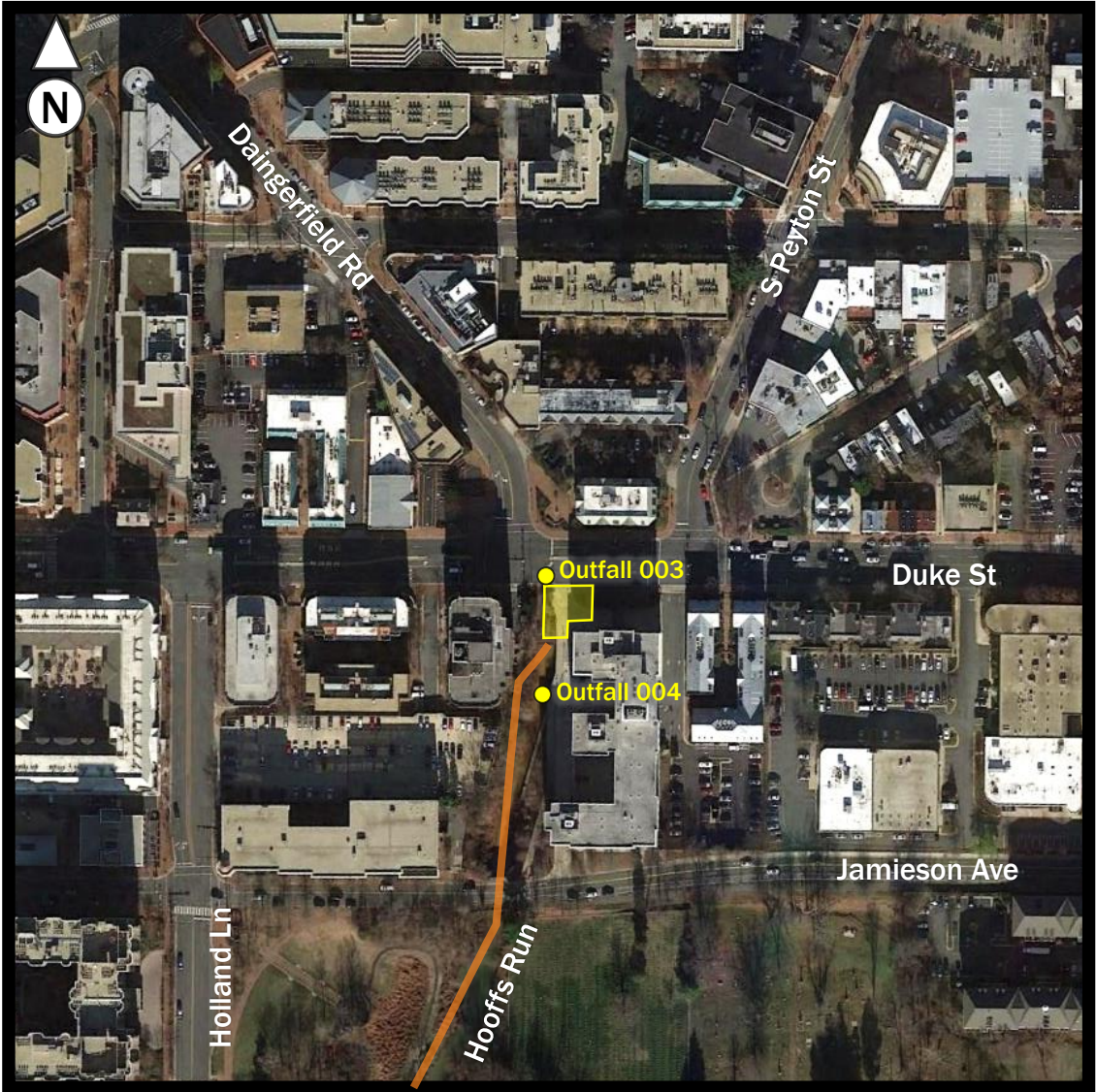
- Potential Staging Areas - Trenchless
- Existing Outfall
- Potential Diversion Facility Location
- Potential Alignment Alternative

Item	003/4
Staging Area (acres)	0.5
Construction Duration (years)	2
Shaft diameter (feet)	N/A
Construction Work Hours	7AM - 6PM
Typical Hauling Rates (trucks/hour)	2-10

# Potential CSO 003/4 Diversion Facility locations (Hooffs Run)

Three options:

- Deep
- Trenchless
- Hooffs Run

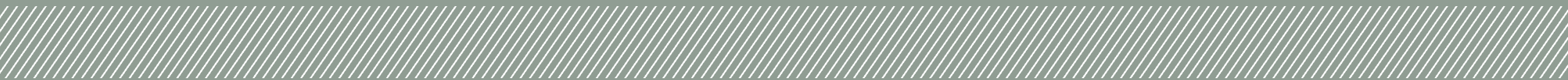


**LEGEND**

- Potential Staging Areas – Hooffs
- Existing Outfall
- Potential Diversion Facility Location
- Potential Alignment Alternative

Item	003/4
Staging Area (acres)	0.3
Construction Duration (years)	2
Shaft diameter (feet)	N/A
Construction Work Hours	7AM – 6PM
Typical Hauling Rates (trucks/hour)	2-10

# Update on Coordination with Federal, State, and Local Agencies



# The Wet Weather Program involves significant coordination with federal, state, and local agencies

## Federal Agency Approvals



- NEPA
- Special Use Permit
- Construction and Right of Way Permit
- ARPA Permit



- US Army Corps of Engineers®**
- Clean Water Act Permit

## Consulting Federal Agencies



United States Environmental Protection Agency



U.S. Department of Transportation  
Federal Highway Administration



## State Agency Approvals



- Clean Water Act Permit
- Construction General Permit
- VPDES Permit(s)



- Submerged Lands Permit



- Land Use Permit

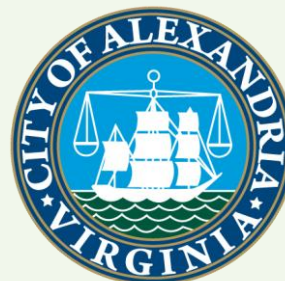


- Consent for Encroachment

## Consulting State Agencies



## City Approvals



- DSUP
- Excavation Permit
- Grading Permit
- Building Permit
- Right-of-Way Permit

- Archaeology
- Landowner Easements
- Hauling Permit
- Demolition Permit
- Mechanical Permit

# The Regulatory Team met on June 22 and is establishing a regular meeting schedule

## Regulatory Team

### City Staff

Dirk Geratz\*

Adele Gravitz

Junaid Malik

Erin Bevis-Carver

\*City Team Lead

\*\*AlexRenew Team Lead

### AlexRenew Staff

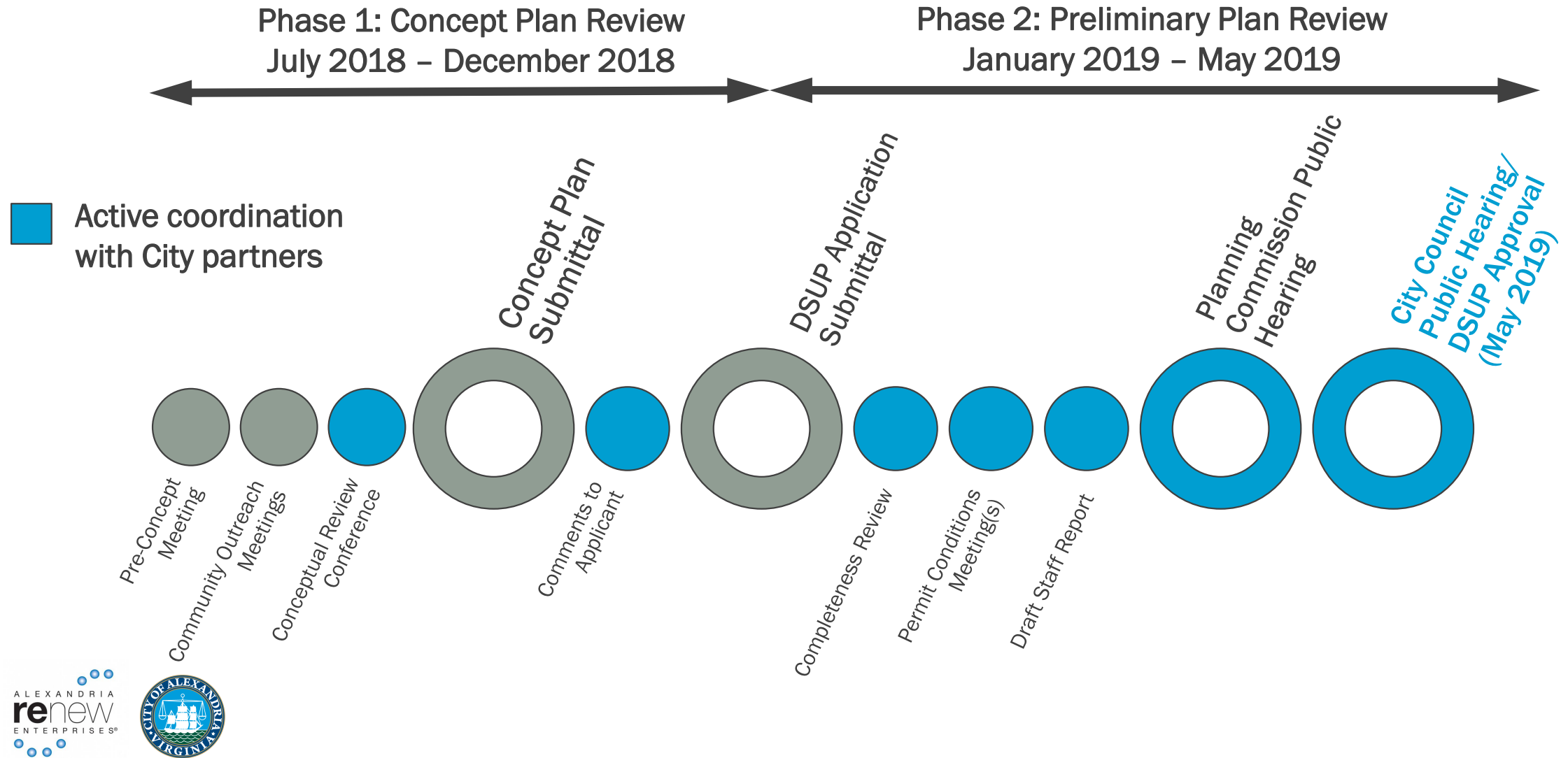
Caitlin Feehan\*\*

Doug Chapin

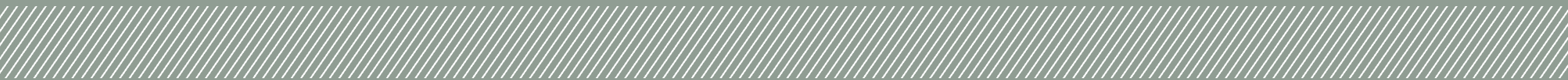
Kelvin Coles



# The Regulatory Team is working on a draft DSUP schedule to meet 2025 deadline



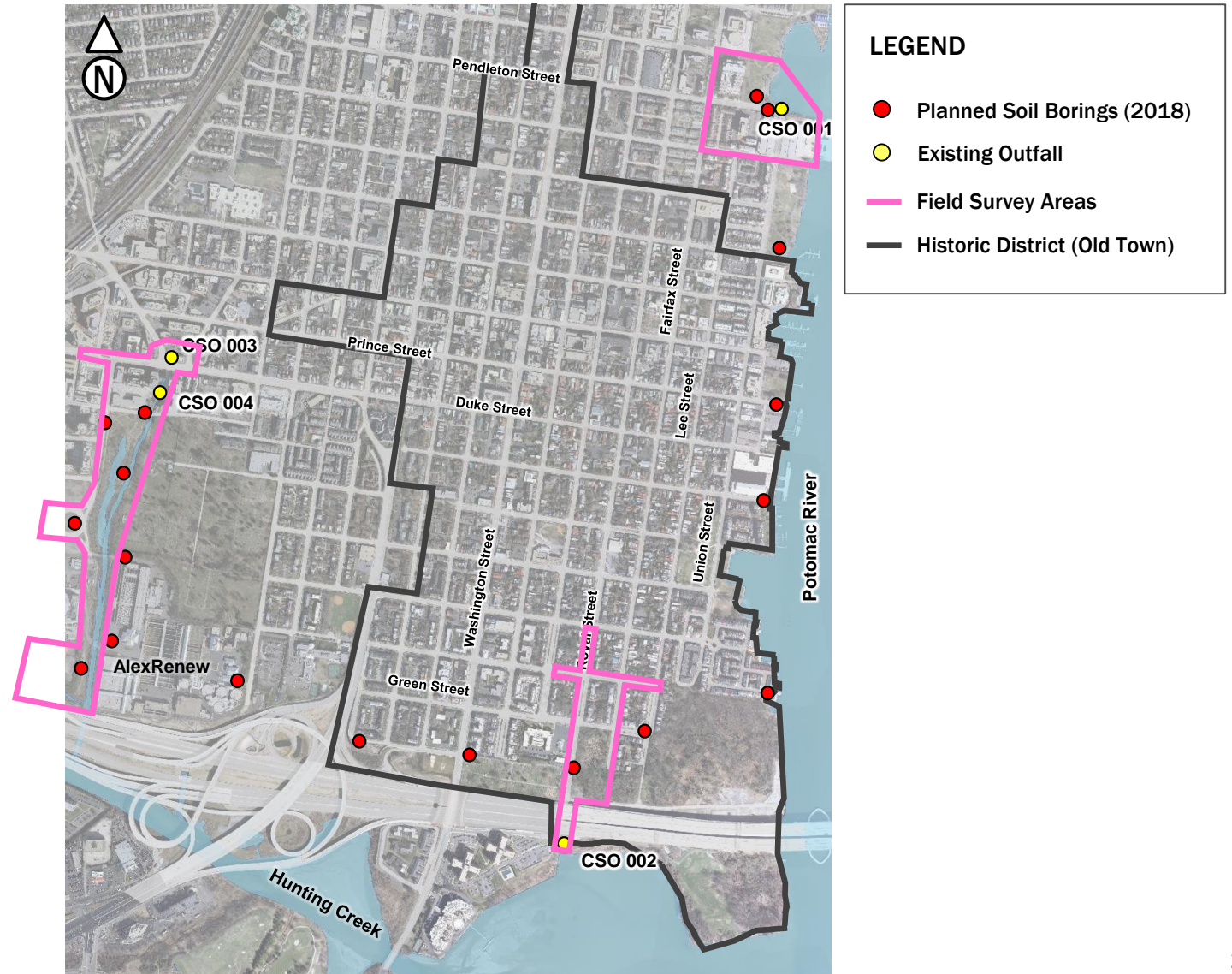
# Ongoing Site Investigations



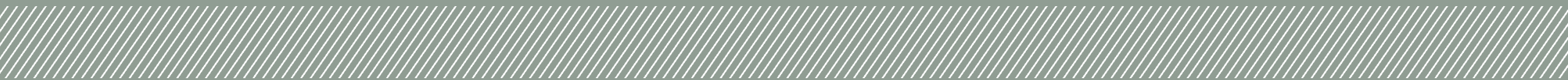


# We're currently conducting field surveys and beginning the process for soil borings

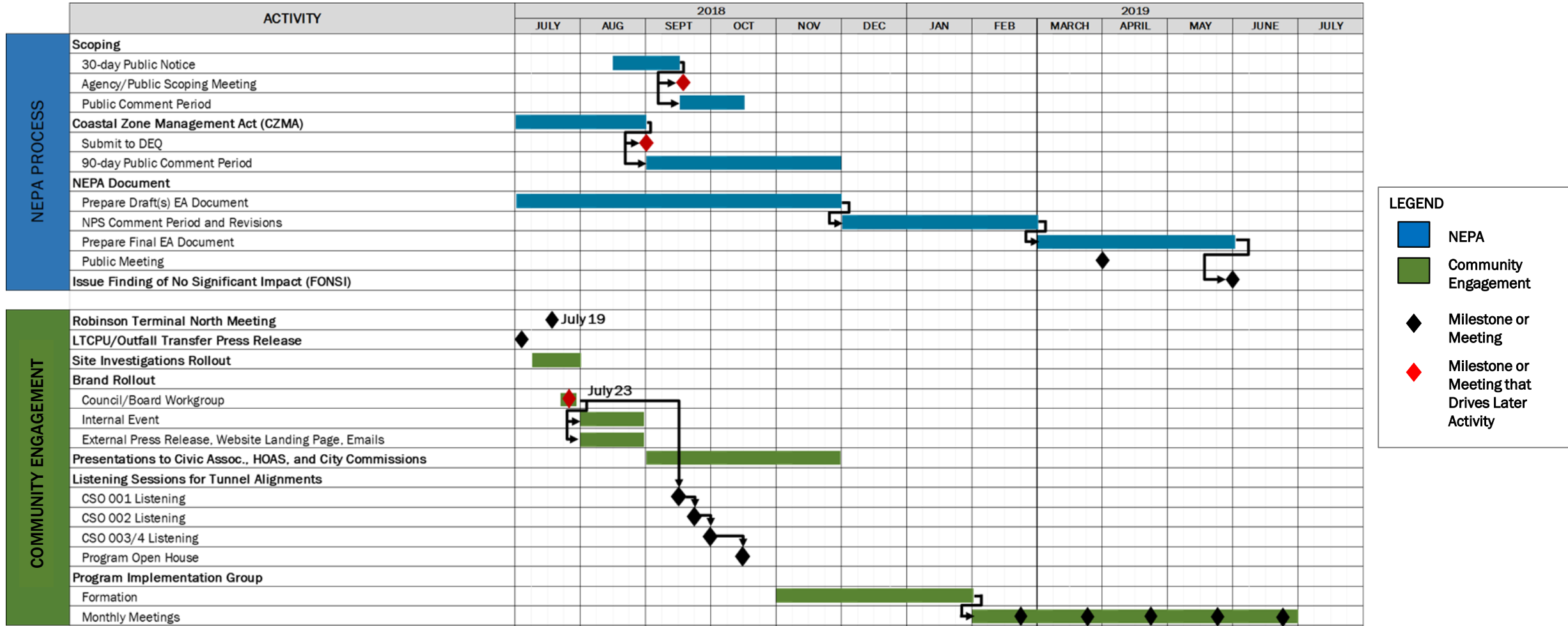
- Geotechnical soil borings
  - Oronoco Bay Park: C12-11
  - Founders Park: C12-02
  - African American Heritage Park: C34-05
- Field surveys
- Natural resources surveys
- Cultural resources surveys



# Overview of Community Engagement



# Community engagement is ongoing with focus on listening sessions in mid-September



# Working to mitigate community impacts through a multiprong approach

- ▶ HOA and community group meetings
- ▶ Listening/Learning Sessions
- ▶ One-on-one Meetings
- ▶ Open Houses
- ▶ Program Website
- ▶ City Website
- ▶ Social Media
- ▶ Flyers
- ▶ Events
- ▶ eNews
- ▶ Call-click-connect



Alexandria Renew Enterprises is implementing a major infrastructure program to achieve healthier waterways in Alexandria by upgrading our century-old combined sewer system.

A new network of tunnels is being planned to connect to the existing combined sewer system and prevent millions of gallons of sewage mixed with rainwater from reaching our waterways.

In the next few weeks, we'll be drilling at various locations in Alexandria to collect soil samples. We'll use this data to better understand the conditions below ground to design and build solutions that are best suited to our local geology.

When we're done collecting samples, we'll follow standard practice and fill the holes with an environmentally friendly grout-like material and return the site to its existing condition.



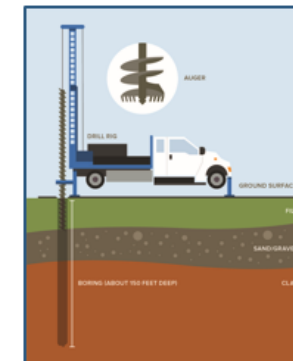
Locations of planned borings

#### WHAT, EXACTLY, IS A BORING?

A boring is essentially a small, deep hole in the ground - about the diameter of a softball. We'll conduct borings to collect two types of soil samples:

**Auger sample:** Think of a long drill bit going into the ground.

**Split-spoon sample:** Think of a hollow straw being pushed into piece of cake.



Typical drill rig setup

#### WHAT WILL I SEE?

You may see drilling equipment, or "drill rigs," with three- or four-person teams at the locations outlined on the map. The equipment will move from location to location and spend between 3 and 5 days at each site. Please note, boring locations have been chosen with the intent of posing minimal disruptions to the community, but some locations may require temporary changes in pedestrian and traffic patterns. We will notify you of any changes in traffic conditions, and we apologize in advance for any inconvenience!

# Listening sessions will focus on considerations at each diversion facility site

- ▶ Open-house format
- ▶ Review proposed Program components at various stations/boards
- ▶ Focus on site-specific considerations – each location (001, 002, 003/4) will have a separate meeting
  - An Overall open-house meeting following individual listening sessions
- ▶ Receive public input on proposed alternatives
- ▶ Gain an understanding of community concerns and potential ways to mitigate impacts
- ▶ Identify potential members of Stakeholder/ Program Implementation Group



# Introducing RiverRenew



# RiverRenew brand statement

**RiverRenew** is an initiative to achieve cleaner, healthier waterways in Alexandria by upgrading our century-old combined sewer system. A new network of tunnels will connect to the existing sewer system to prevent millions of gallons of sewage mixed with rainwater from reaching our rivers and streams. Our shared goal is to create a brighter future for our families, businesses, and waterways.



# RiverRenew

INVESTING IN HEALTHIER WATERWAYS FOR ALEXANDRIA



# Next Steps



# 6-month look ahead schedule

Timeline	Item
July 2018	Letter for CSO funding support to VML Environmental Policy Committee*
July – November 2018	Preliminary Engineering Report
	Draft Environmental Assessment
September 2018	Community Listening Sessions and Open House*
	Agency and stakeholder Scoping Meeting*
Late Summer 2018	Communication with Virginia General Assembly delegation*
	Visit by Senate Finance Committee*
October 2018	DSUP Concept Plan submittal*
November 2018	Start development of Program Implementation Group
	Begin detailed design
<ul style="list-style-type: none"> <li>▶ Continued coordination with third party agencies</li> <li>▶ Continue engaging Council/Board Workgroup*</li> </ul>	

\* Denotes active coordination with City partners



# Visit the Wet Weather Program and City websites

<http://www.alexwetweatherprogram.com>

<https://www.alexandriava.gov/tes/info/default.aspx?id=105095>

