

**Northeast Boundary Tunnel Hole  
Through at 6<sup>th</sup> and R St NW**

***Briefing on:***

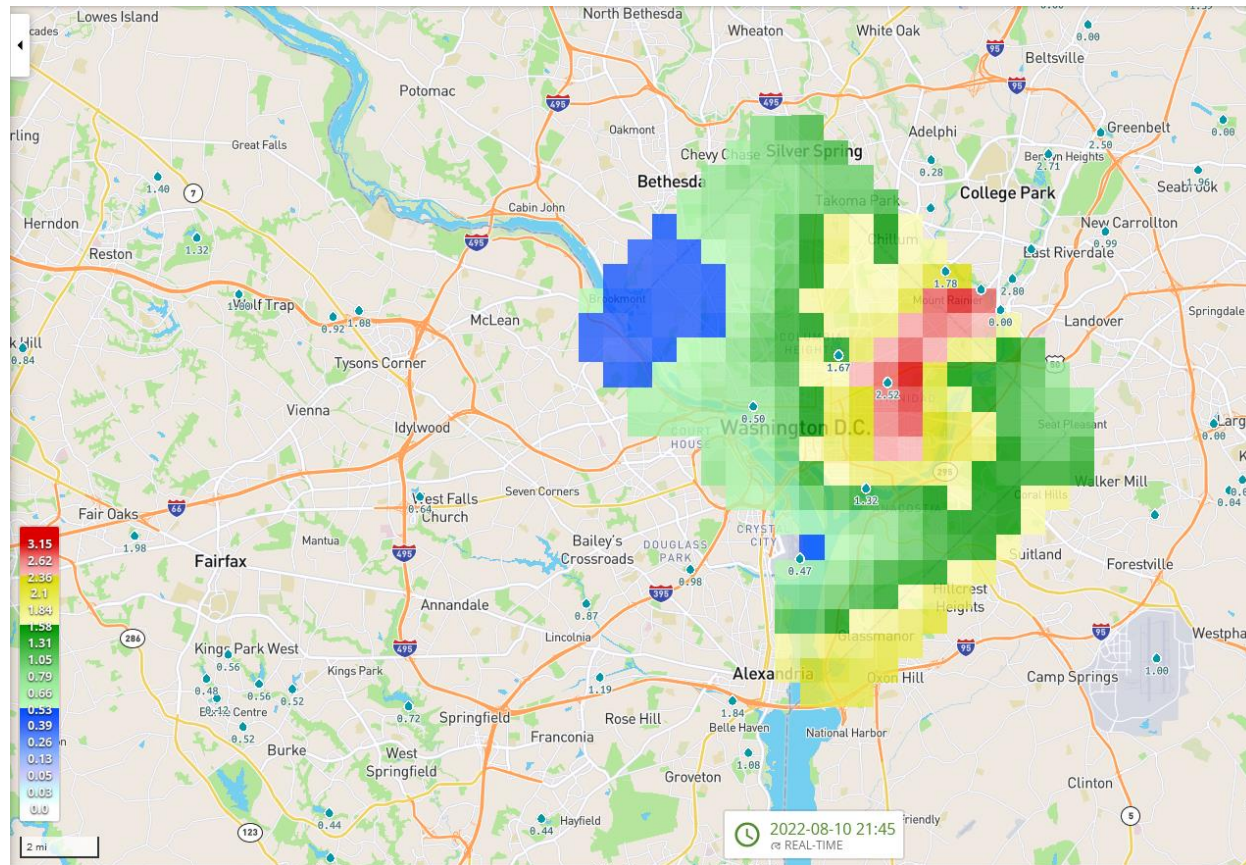
## ***NORTHEAST BOUNDARY TUNNEL***

***Briefing for:***

***ANC 6E***

October 4, 2022

# Rainfall – August 10, 2022

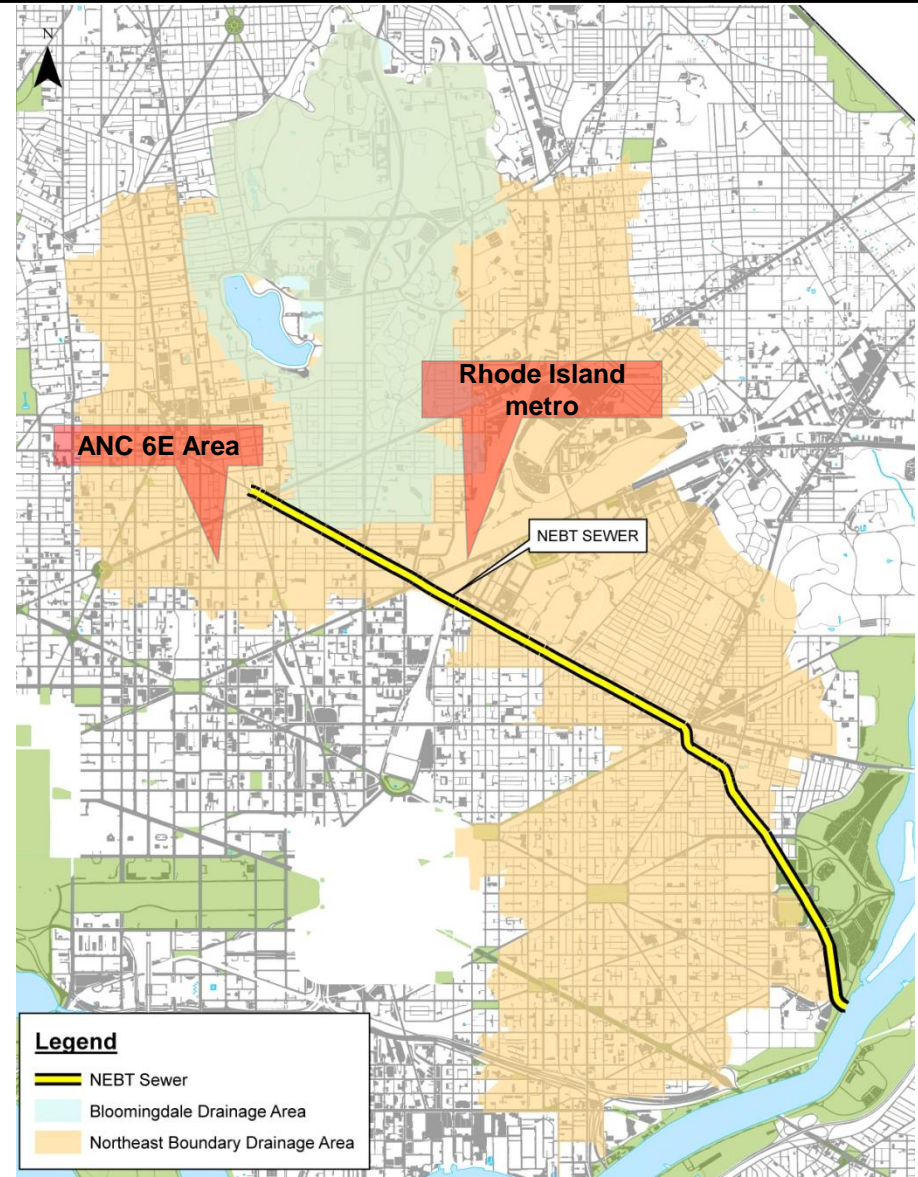


- Over 2 inches of rain was observed during the first half-hour of the storm.
- Storm estimated to be between a 12 and 17- year storm event



# Northeast Boundary Drainage Area

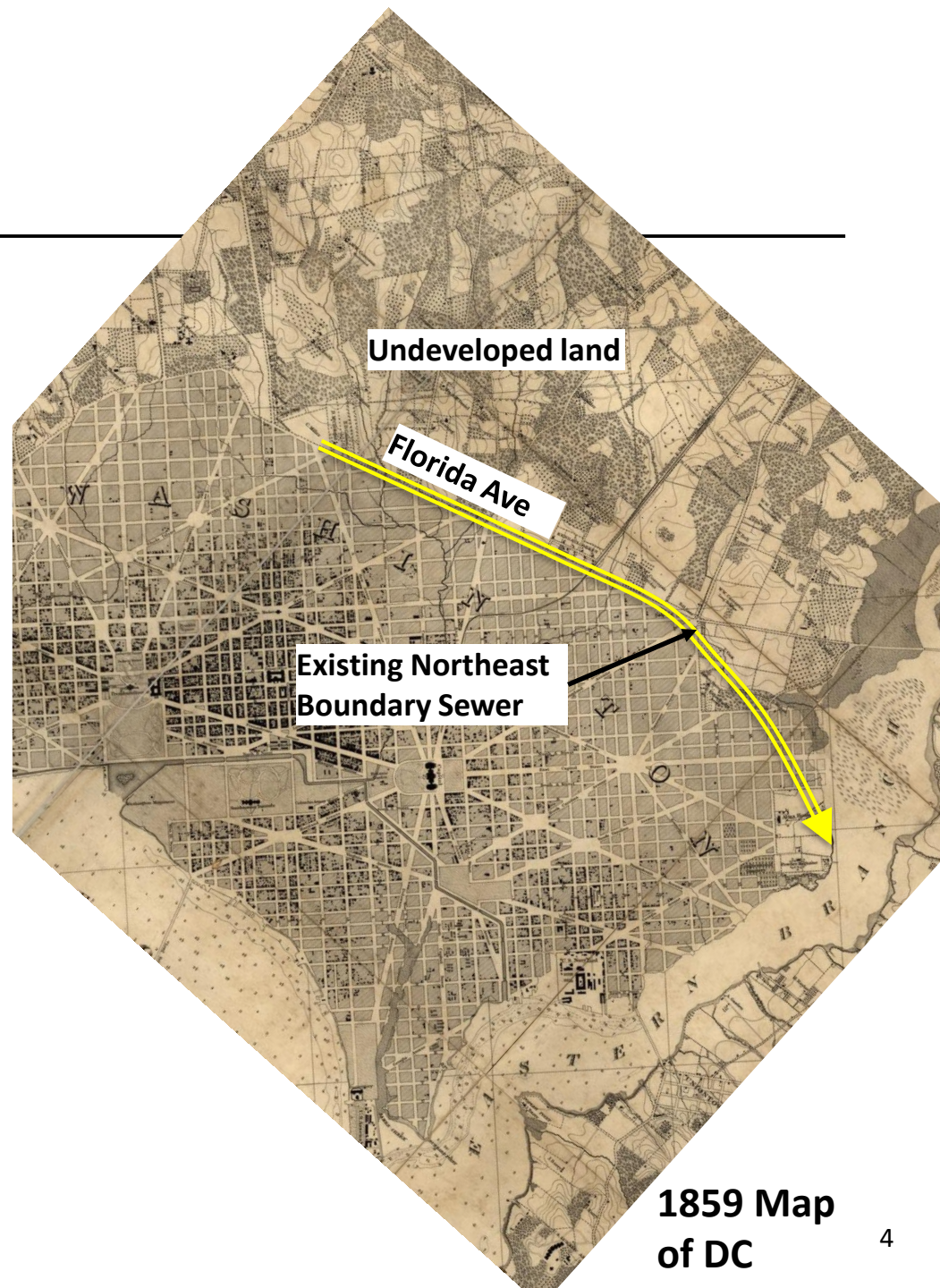
- Area served by Northeast Boundary Sewer
  - Constructed circa 1870-1880
- Part of the District's combined sewer system
- One (1) pipe in street serves both sanitary collection and storm water runoff
- Built-out in the early 1900s



# History of Flooding

- Flooding occurred soon after construction of Northeast Boundary Sewer
- Recognition that sewer capacity was too low
- Florida Ave was District boundary in the past – area to north was undeveloped
- Subsequent development substantially increased loads on sewer system in early 1900s

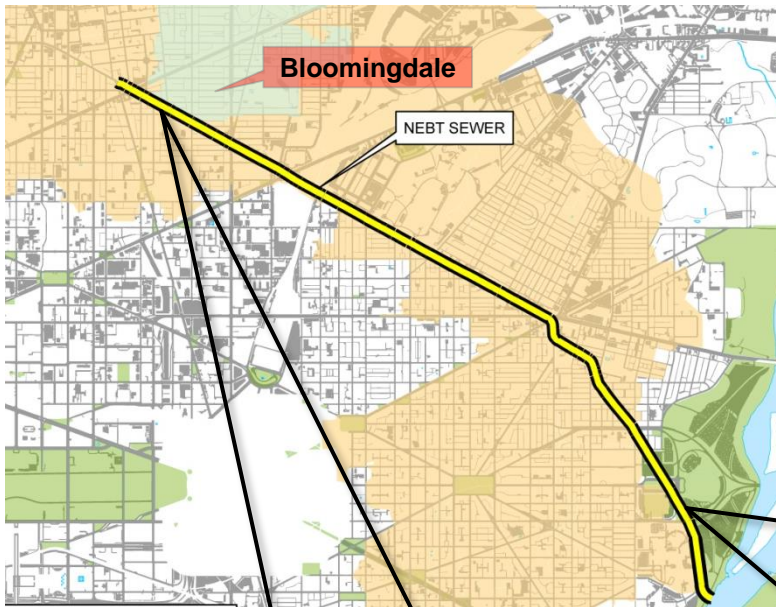
Prior to Home Rule, managed  
by Federal Government



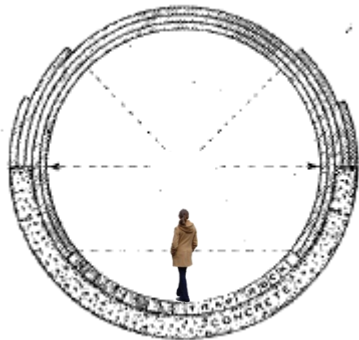
**1859 Map  
of DC**



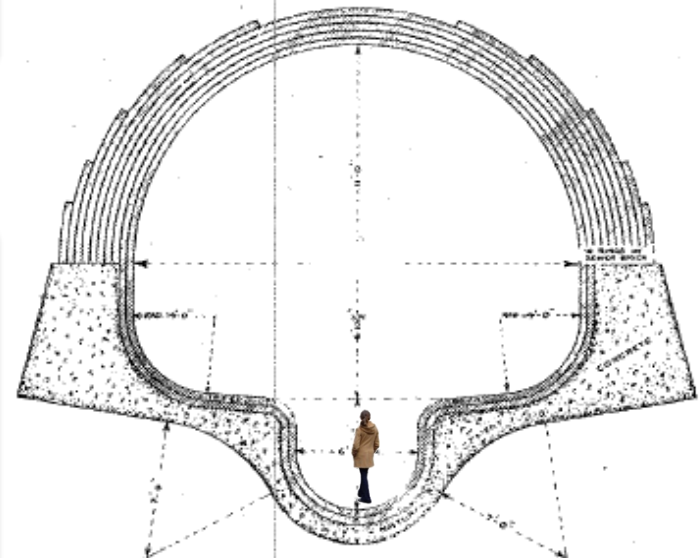
# Why was Flooding not Addressed in the Past?



- Existing Northeast Boundary Sewer is about  $\frac{1}{2}$  as large as needed
- Constructing another sewer of this size was infeasible without large disruption to neighborhoods using open cut
- New tunneling technologies have made soft ground tunneling practical

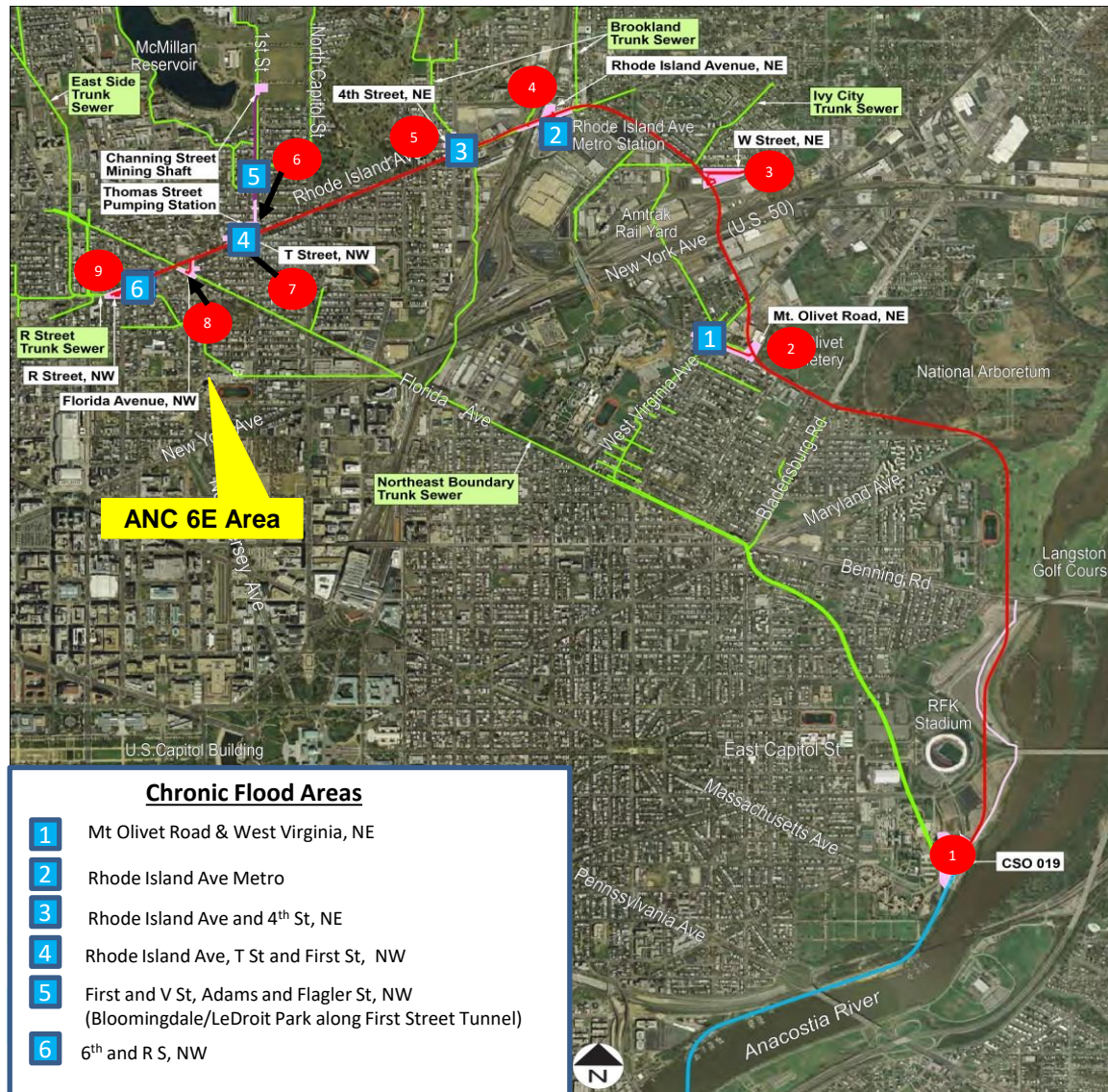


Existing Northeast Boundary Sewer  
(10'-0" Diameter)



Existing Northeast Boundary Sewer Section  
(22'-0" x 23'-6")

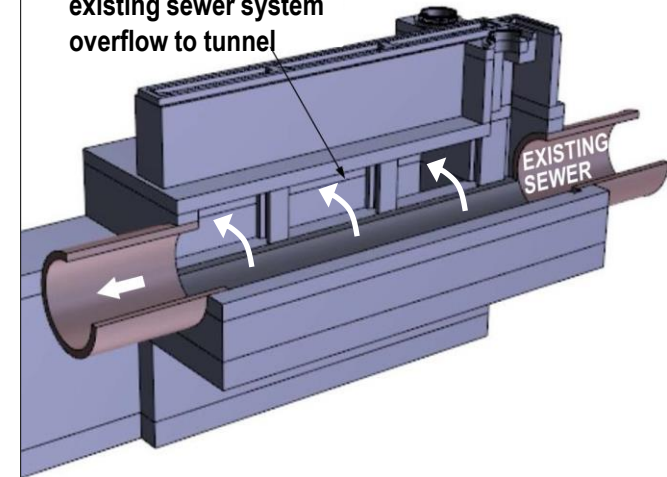
# Northeast Boundary Tunnel Project



## Construction Areas

Number	Site
1	CSO 019
2	Mt Olivet Road
3	W Street
4	Rhode Island Avenue (near Metro)
5	4 <sup>th</sup> Street
6	1 <sup>st</sup> Street
7	T Street
8	Florida Avenue
9	R Street

Excess flows in existing sewer system overflow to tunnel



# Northeast Boundary Tunnel Project

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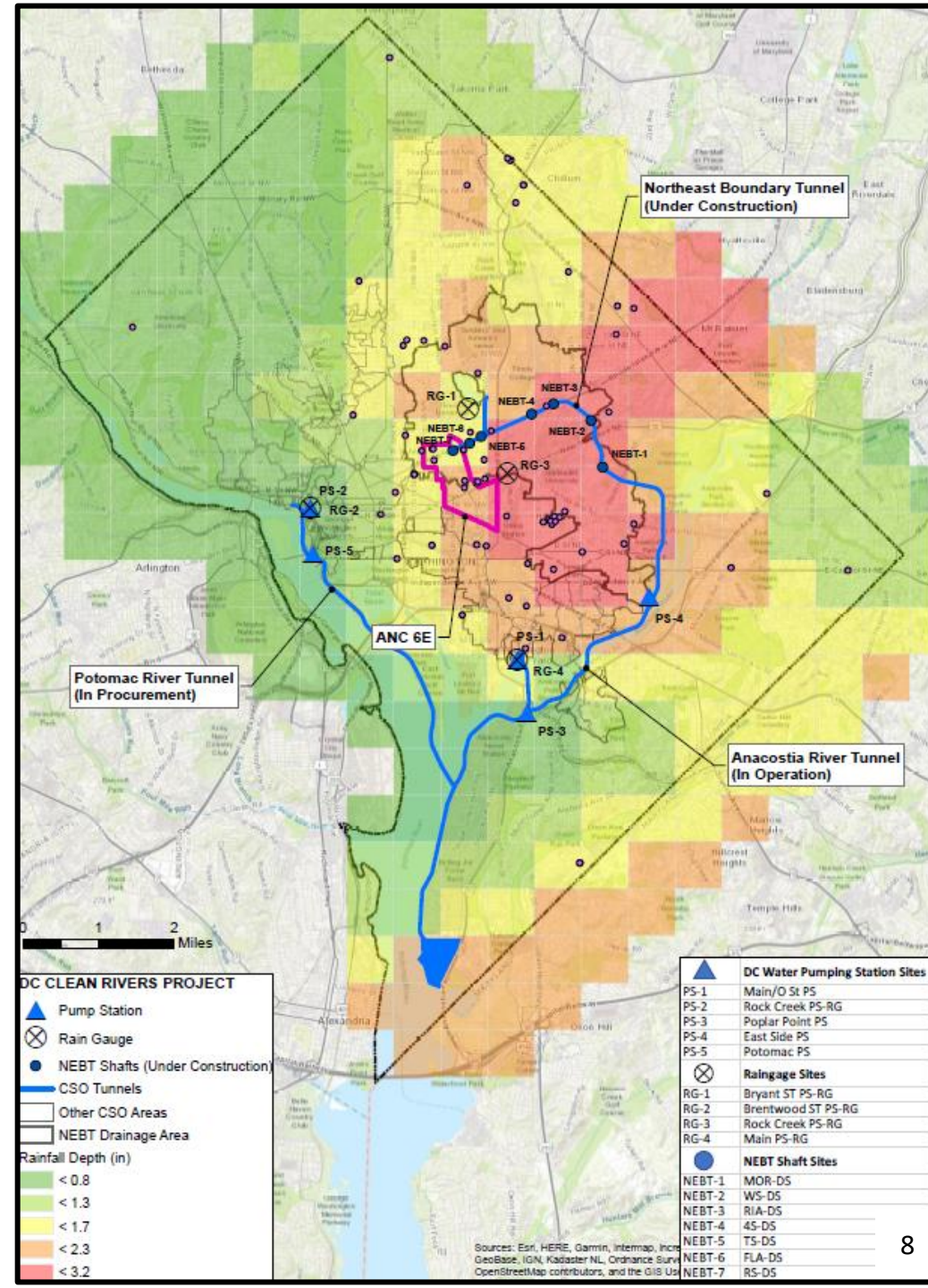
- 23' diameter tunnel, 5 miles long
- Largest project ever implemented by DC Water (\$580 M)
- Designed to:
  - Provide CSO control
  - Mitigate flooding in specific chronic areas up to 15-year 24-hour storm (current design standard for system)
  - Will not eliminate flooding for larger storm, but will mitigate impact
- Consent Decree requires project to be placed in operation by March 23, 2025. Project was accelerated after Bloomingdale/LeDroit Park flooding in 2012 and is planned to be placed in service in summer 2023



# August 10, 2022

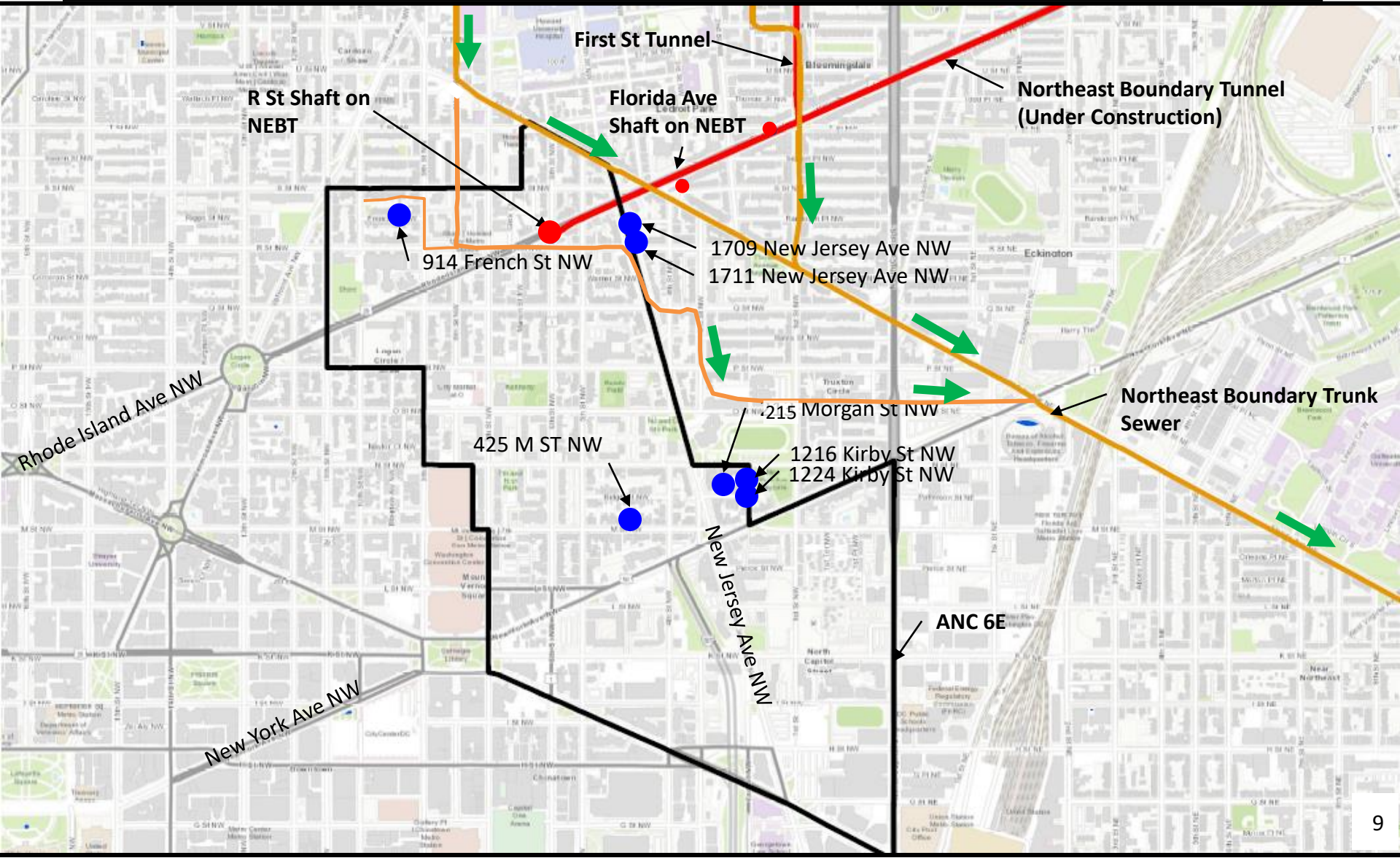
## Rain and Flooding Calls

- Rainfall has significant geographical variation – especially summer thunderstorms
- Radar rainfall data (1 kilometer square grids) shows more intense rain in northeast portions of DC and Maryland
- Rainfall exceeded capacity of system





# ANC 6E – Flooding Locations Map



# ANC 6E – Flooding Locations

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Address	Date	Problem	Investigation
914 French Street	8/10/22	Sewer backup into flood drain/toilet	Found no obstruction in main and public portion of lateral
215 Morgan	8/11/22	Clogged storm drains in alley	No problems found
425 M ST NW	8/25/22	Basement backup due to main line sewer and possible clogged storm drain	No problems found in main line and storm drain
1216 Kirby St NW	No Work Orders	TBD	DC Water will investigate catch basins and local sewers
1224 Kirby St NW	No Work Orders	TBD	



# Interim Measures

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- Backwater valve program
  - To mitigate basement backups
  - <https://www.dewater.com/backwater-valve-information-and-rebate-program-application>
- Floodproofing Program
  - To mitigate overland flooding at specific chronic areas in Bloomingdale and LeDriot Park
  - <https://dewater.com/whats-going-on/news/dc-water-offers-flood-proofing-rebate-program-residents-bloomingdale-and-ledroit>
- Resources for flooding
  - Customer service, claims, what to expect, etc.
  - <https://www.dewater.com/flooding>
- DC Water Command Center
  - By phone at 202-612-3400 or by Tweet “@dewater”

# The DC Flood Task Force

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- Established by Office of City Administrator (OCA) in September 2021
- Purpose: identify policies and projects to bolster flood readiness while equitably protecting the District's residents and economy from the damage that floods
- Chair: Deputy Mayor for Operations and Infrastructure (DMOI)
- Co-chairs: Director of the Department of Energy and Environment (DOEE) and the Chief Executive Officer and General Manager of DC Water
- <https://dcfloodtaskforce.org/>
- Develop action plans on key topics