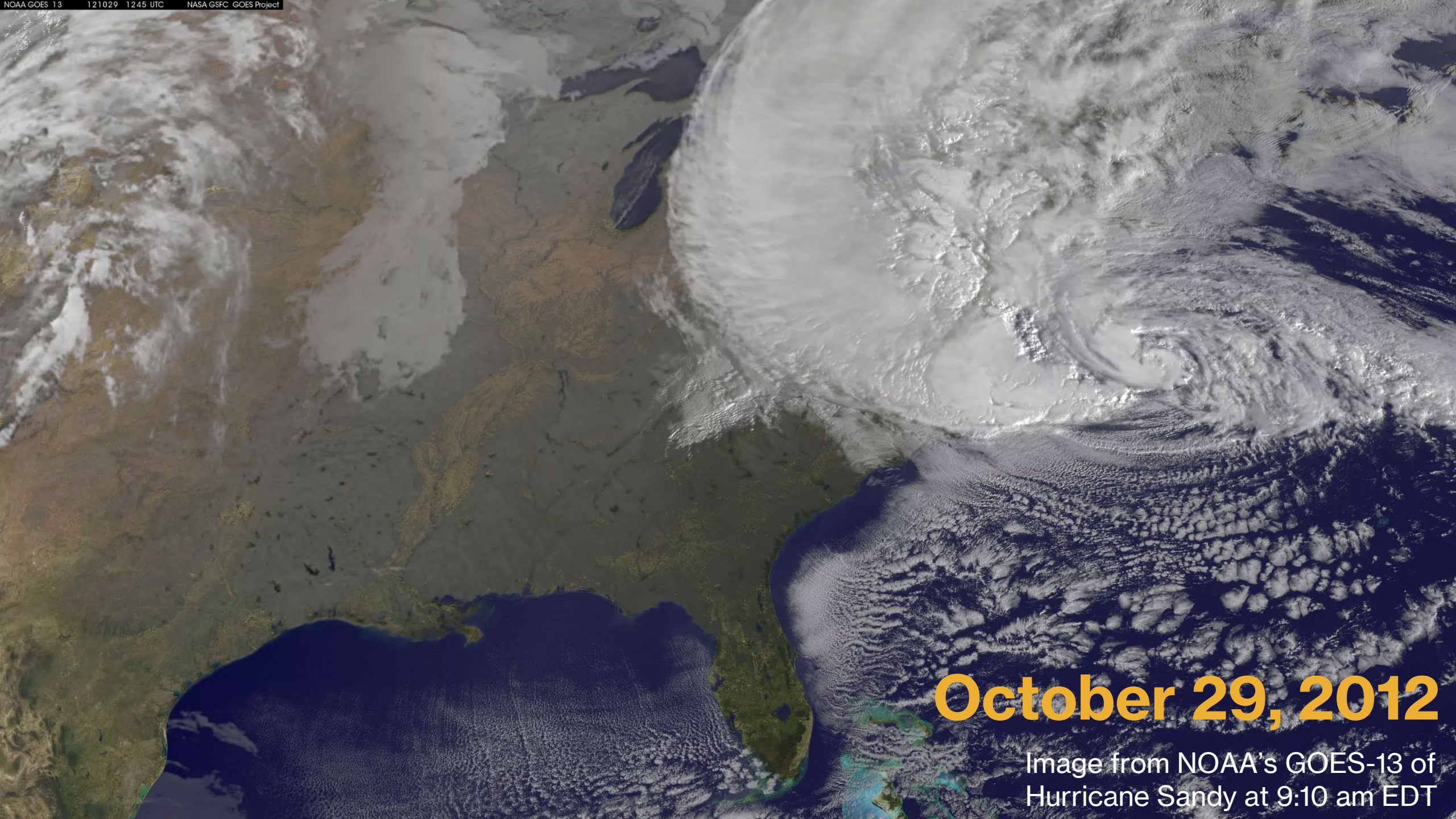




Climate Resilience Roadmap Update

October 29, 2025



October 29, 2012

Image from NOAA's GOES-13 of
Hurricane Sandy at 9:10 am EDT

MTA Climate Resilience Roadmap

Released April 2024

1. Assessment of **current and future** vulnerabilities:
 - Coastal surge
 - Sea level rise
 - Heavy rain
 - Extreme heat
2. Establishes **10 goals** for climate resilience
3. Outlines an **implementation framework** leveraging:
 - Capital Plan integration
 - Resilient design practices
 - Operating agency actions
 - Partner agency actions



Recent extreme weather in NYC

Major heavy rain events

1. July 14, 2025

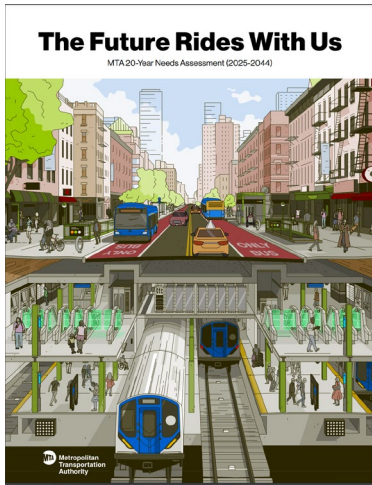
- >2"/hour intensity over west side Manhattan/Bronx
- Delays and suspensions at multiple subway stations across 10 lines
- Full service restored ahead of morning rush on July 15

2. July 31, 2025

- ~2.75"/hour intensity over eastern Queens
- Suspension of LIRR's Port Washington Branch due to flooding at Bayside and Great Neck
- Full service restored by morning rush on Aug 1



Climate Resilience in the MTA Capital Plan



20-Year Needs
Sep 2023



Climate Resilience Roadmap
Apr 2024



Approved 5-Year Plan
May 2025



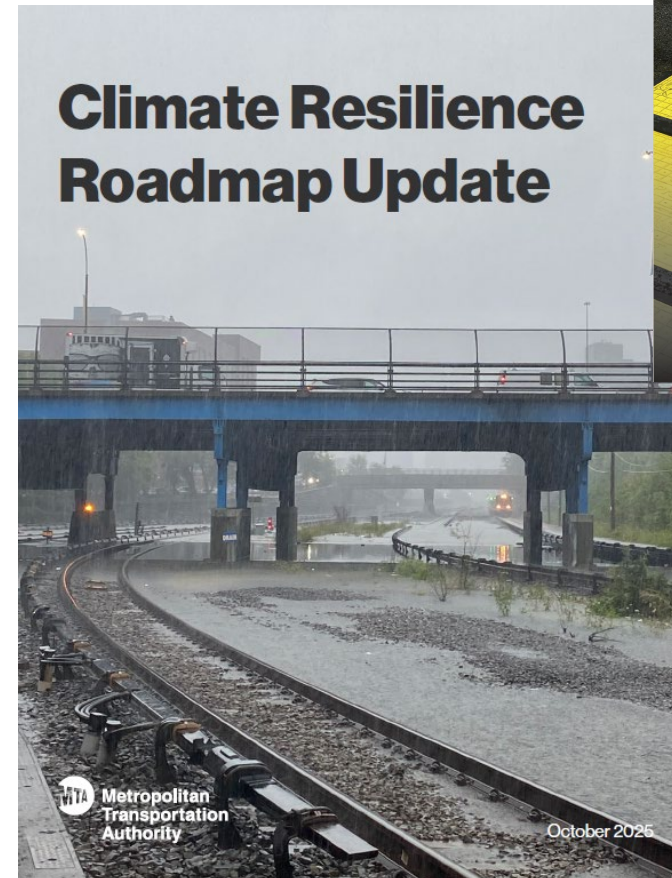
\$700M for subway stormwater resilience



\$800M for Hudson Line Climate Resilience

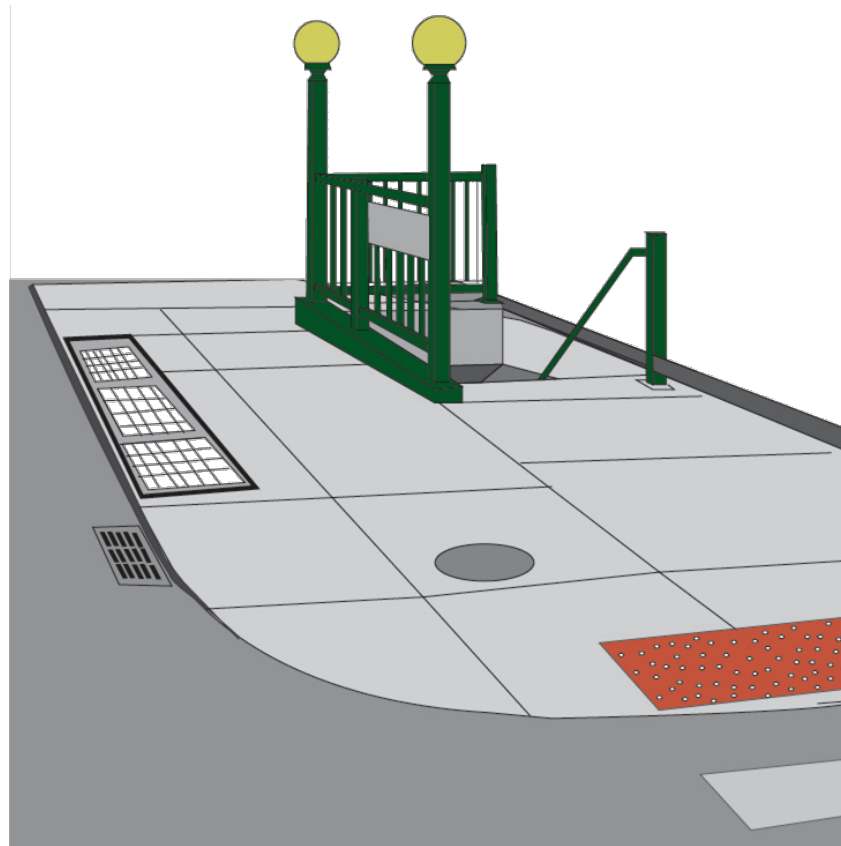
Climate Resilience Roadmap Update

- 1. Addresses multiple hazards facing NYC:**
 - Heavy rain
 - Coastal flooding
 - Extreme heat
- 2. Specific actions to reduce exposure to growing threats:**
 - MTA actions
 - MTA/City collaborations
 - Call for accelerated NYC investments in 10 chronically impacted communities



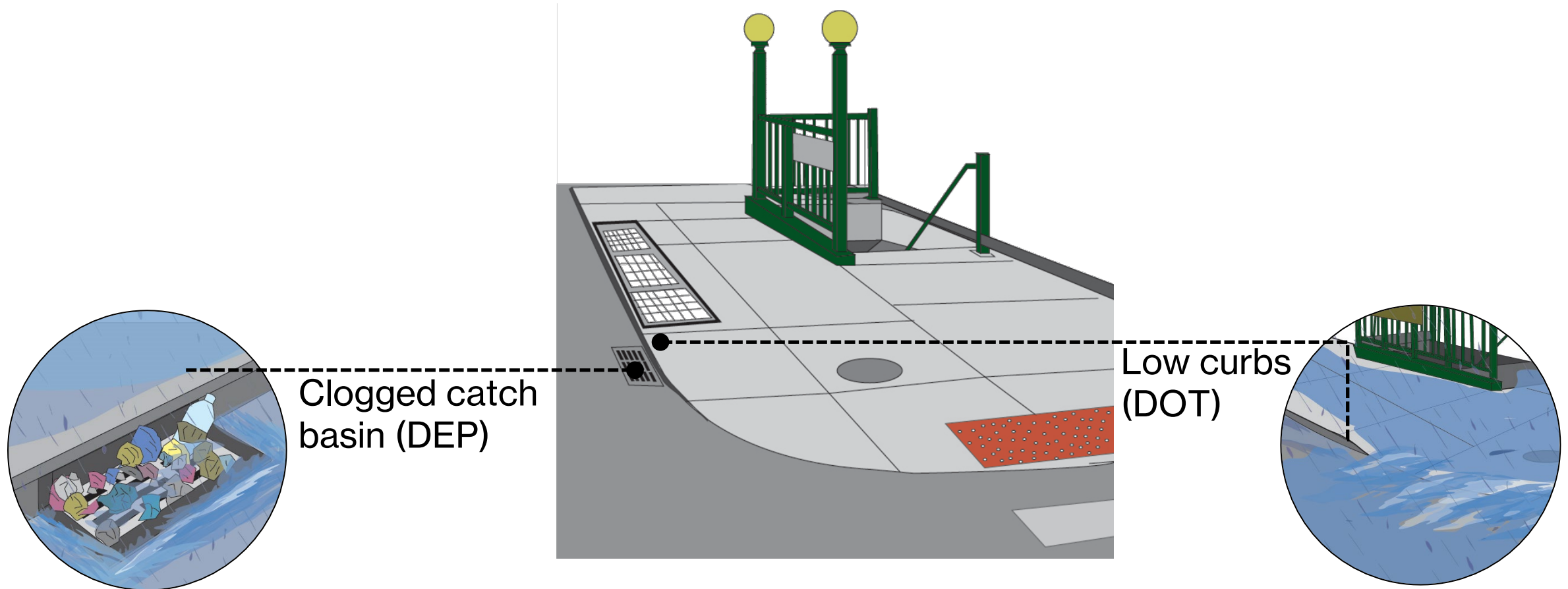
Heavy Rain

Why subways are vulnerable to stormwater



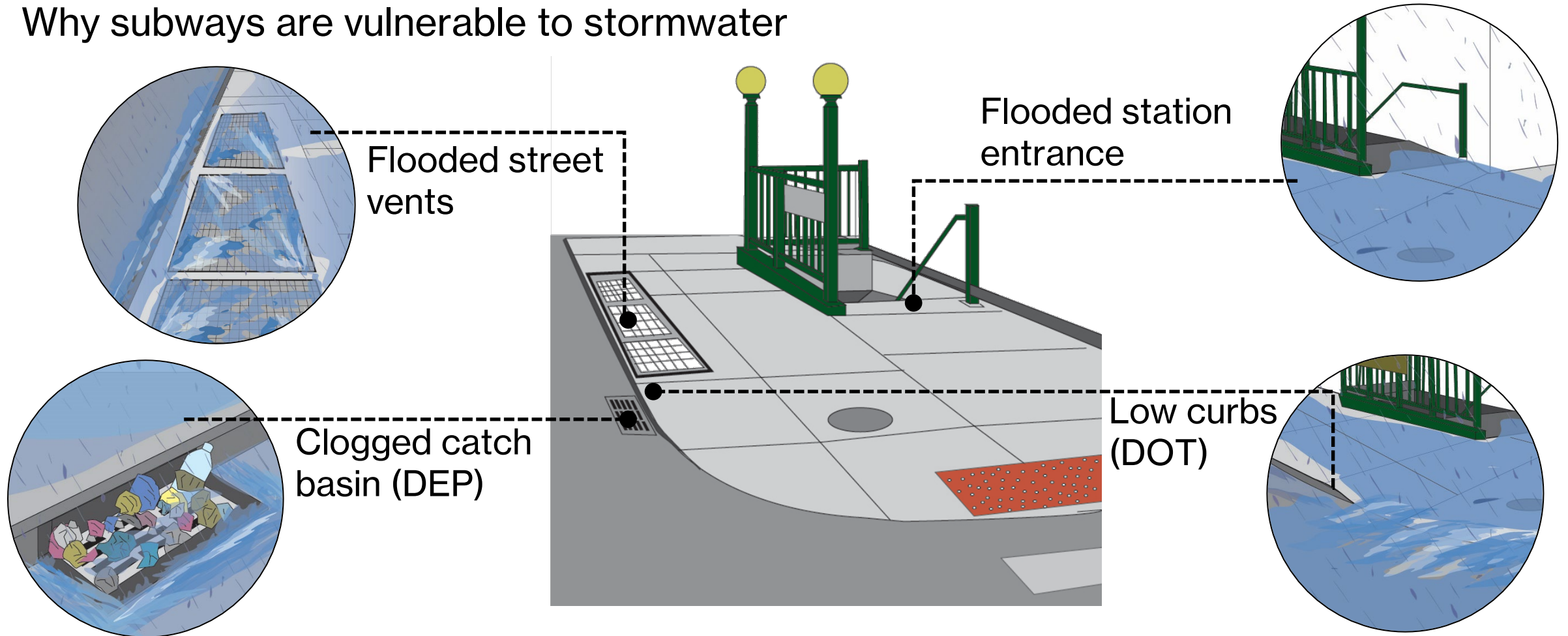
Heavy Rain

Why subways are vulnerable to stormwater



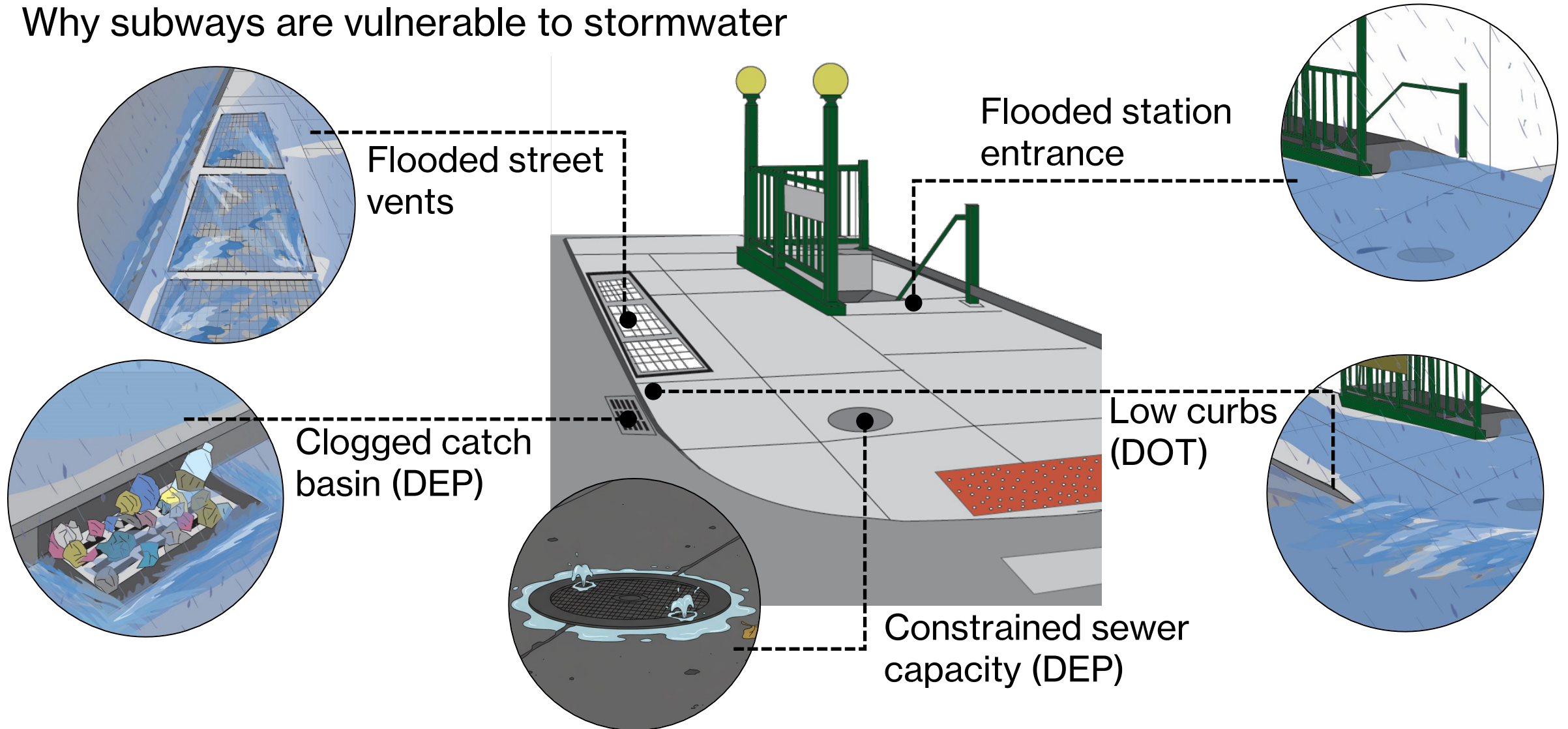
Heavy Rain

Why subways are vulnerable to stormwater



Heavy Rain

Why subways are vulnerable to stormwater

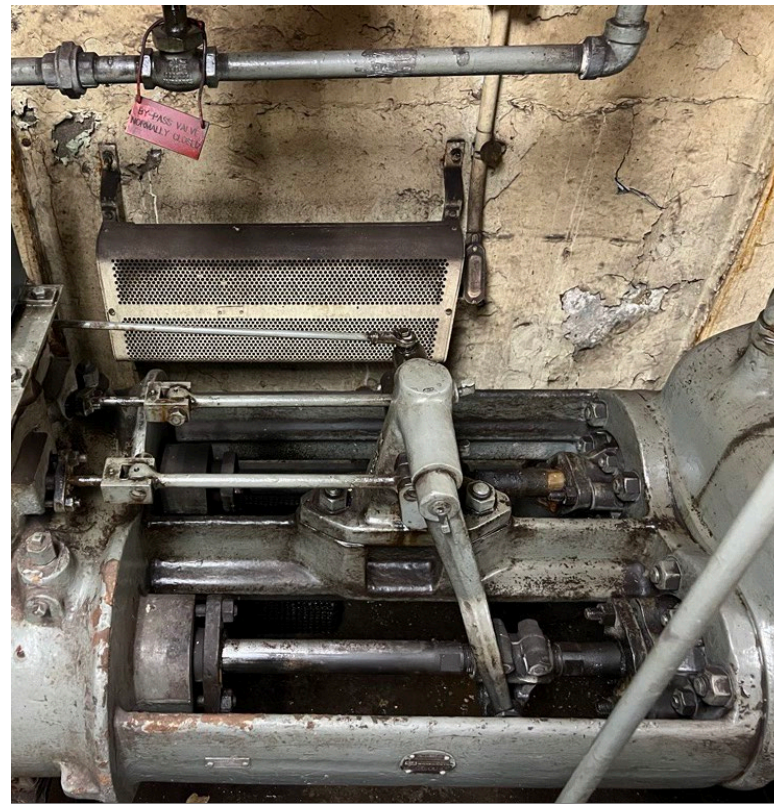


Heavy Rain

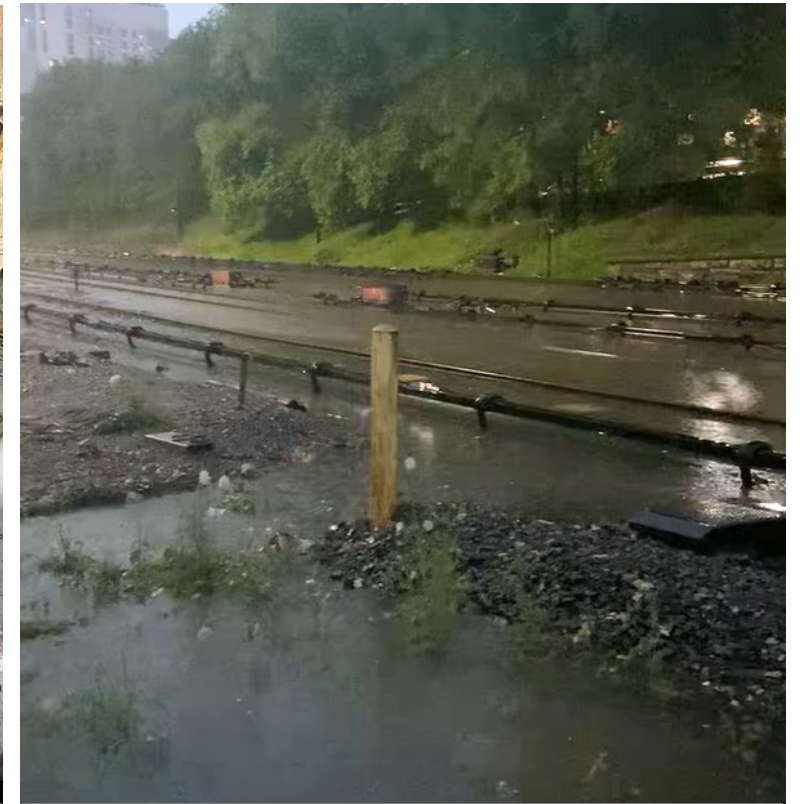
MTA Actions



1. Keep stormwater out
Install stormwater runoff protections like new top step at Northern Blvd **M R**



2. Remove stormwater that enters
Upgrade outdated hydraulics like pneumatic pump at 116 St **2 3**

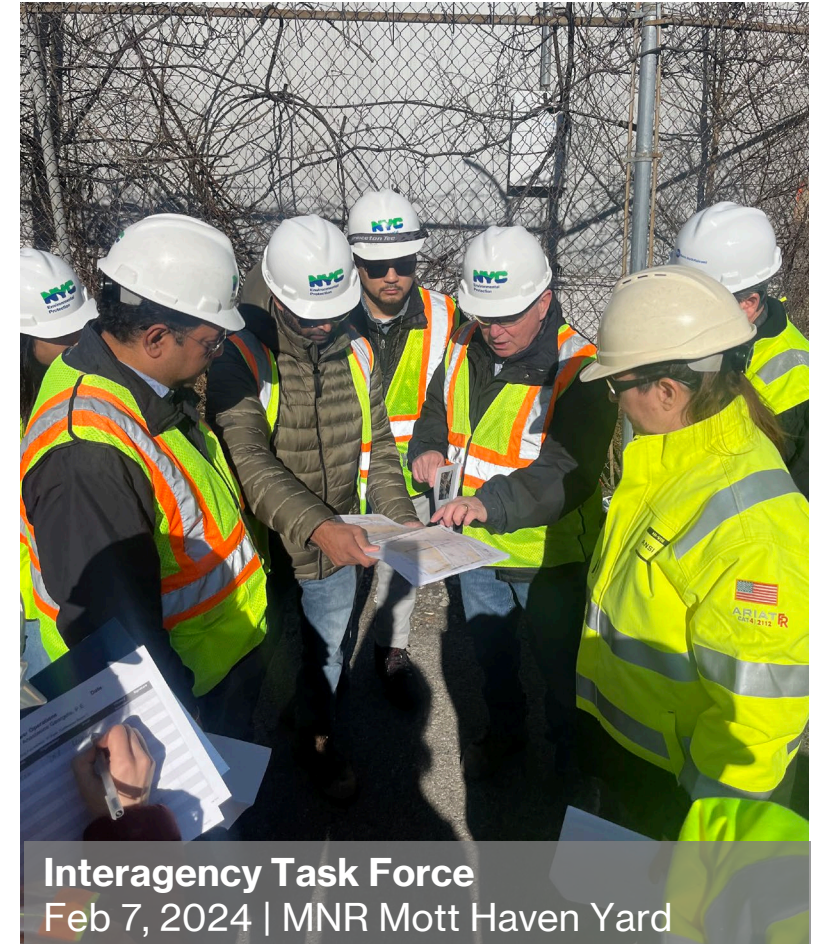


3. Protect vulnerable open-cut railroad infrastructure
Like MNR Mott Haven Yard

Heavy Rain

MTA/City Collaborations: Interagency Task Force

- Formed after Ida in Sep 2021
- Includes staff from:
 - NYCDEP
 - NYCDOT
 - MTA C&D/Operating Agencies
- Since 2021, **30+** meetings and **8+** post-storm investigations at multiple sites



Interagency Task Force
Feb 7, 2024 | MNR Mott Haven Yard

Heavy Rain

MTA/City Collaborations: Example at Dyckman St [A](#)

Credit: SecretNYC



July 2022 heavy rain event
No further impacts in 2024 and 2025



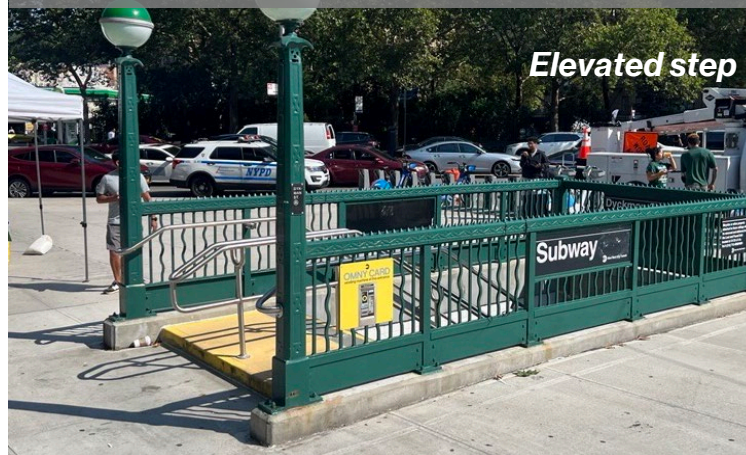
Elevated vents

MTA Actions

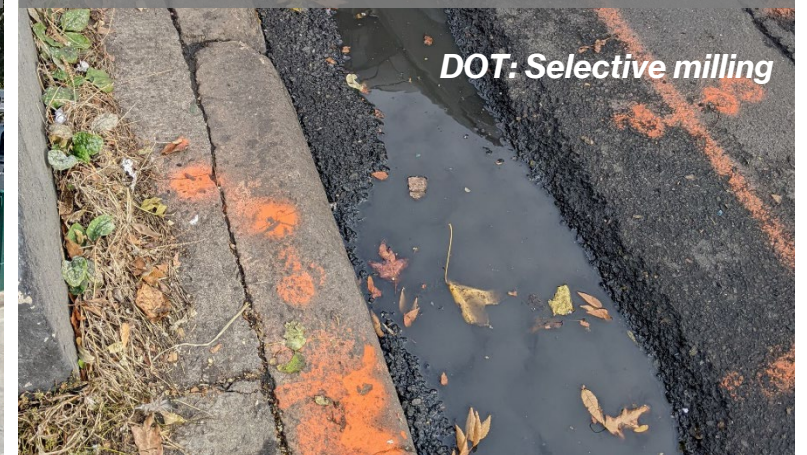


DEP: New catch basin

NYCDEP & NYCDOT Actions



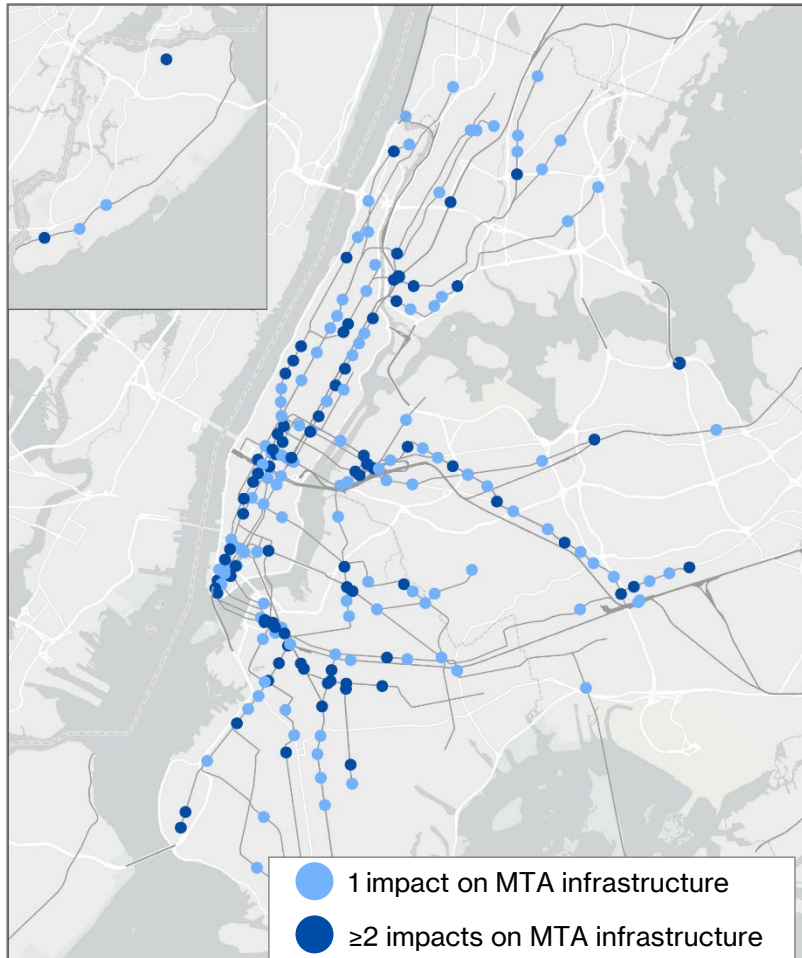
Elevated step



DOT: Selective milling

Heavy Rain

NYCDOT/NYCDEP stormwater actions needed

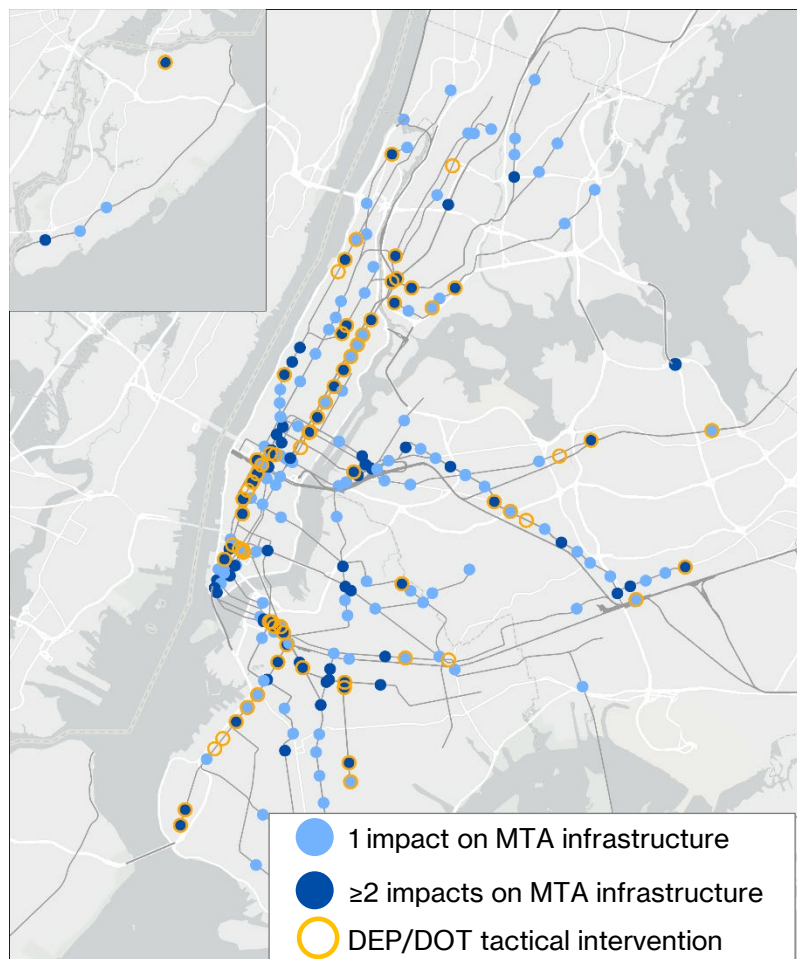


Since 2007, more than **200 locations** where transit infrastructure has been impacted by one or more heavy rain events

Heavy Rain

NYCDOT/NYCDEP stormwater actions needed

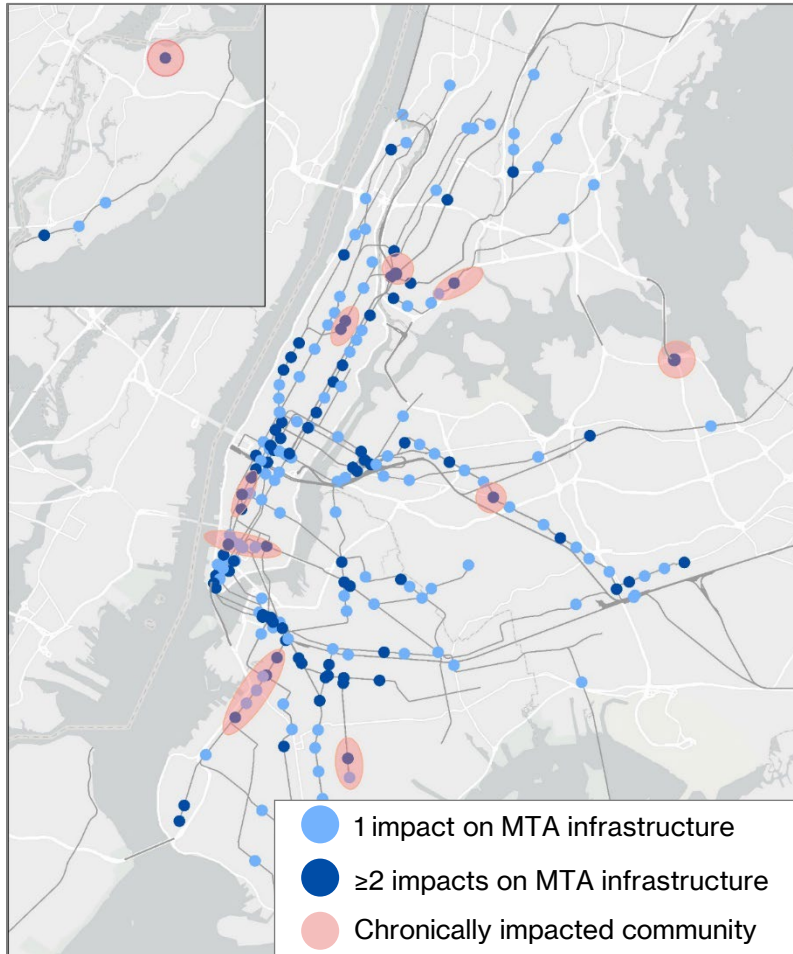
Since 2021, **73 locations** adjacent to MTA infrastructure where short-term “tactical” measures have been deployed by NYCDEP or NYCDOT



Heavy Rain

NYCDOT/NYCDEP stormwater actions needed

However, there are **10 chronically impacted communities** adjacent to transit infrastructure where short-term actions alone are not sufficient



Heavy Rain

NYCDOT/NYCDEP stormwater actions needed



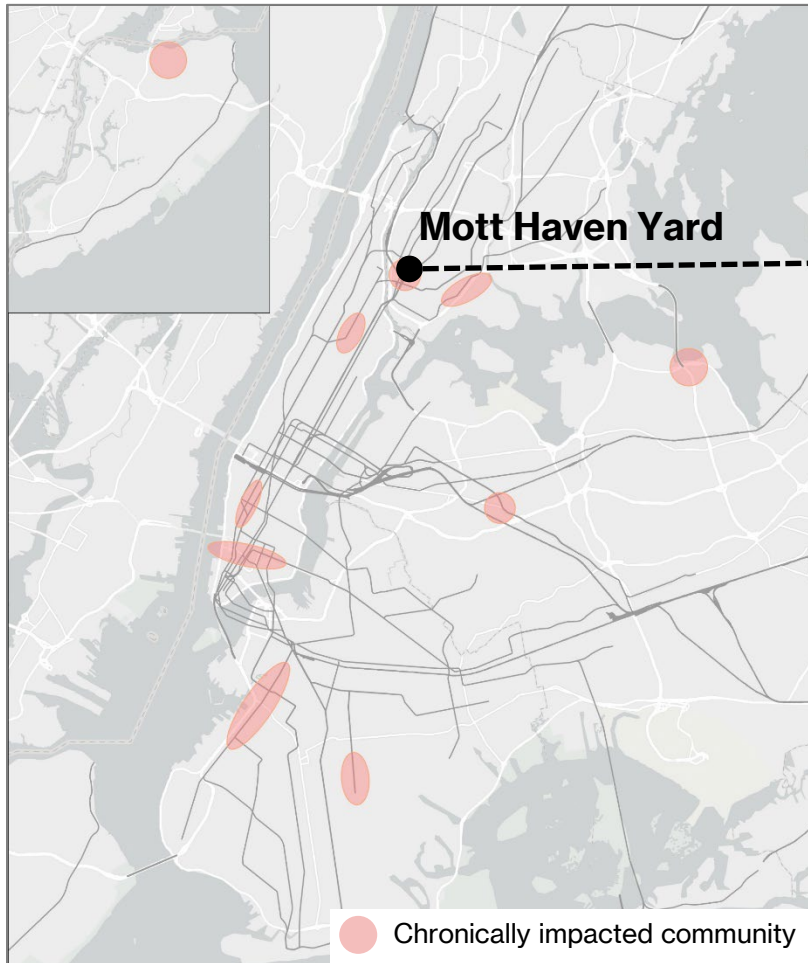
7th Ave at 23rd St
2.5" curb near subway vents



8th Ave at 34th St
3.5" curb near subway vents

Heavy Rain

NYCDOT/NYCDEP stormwater actions needed



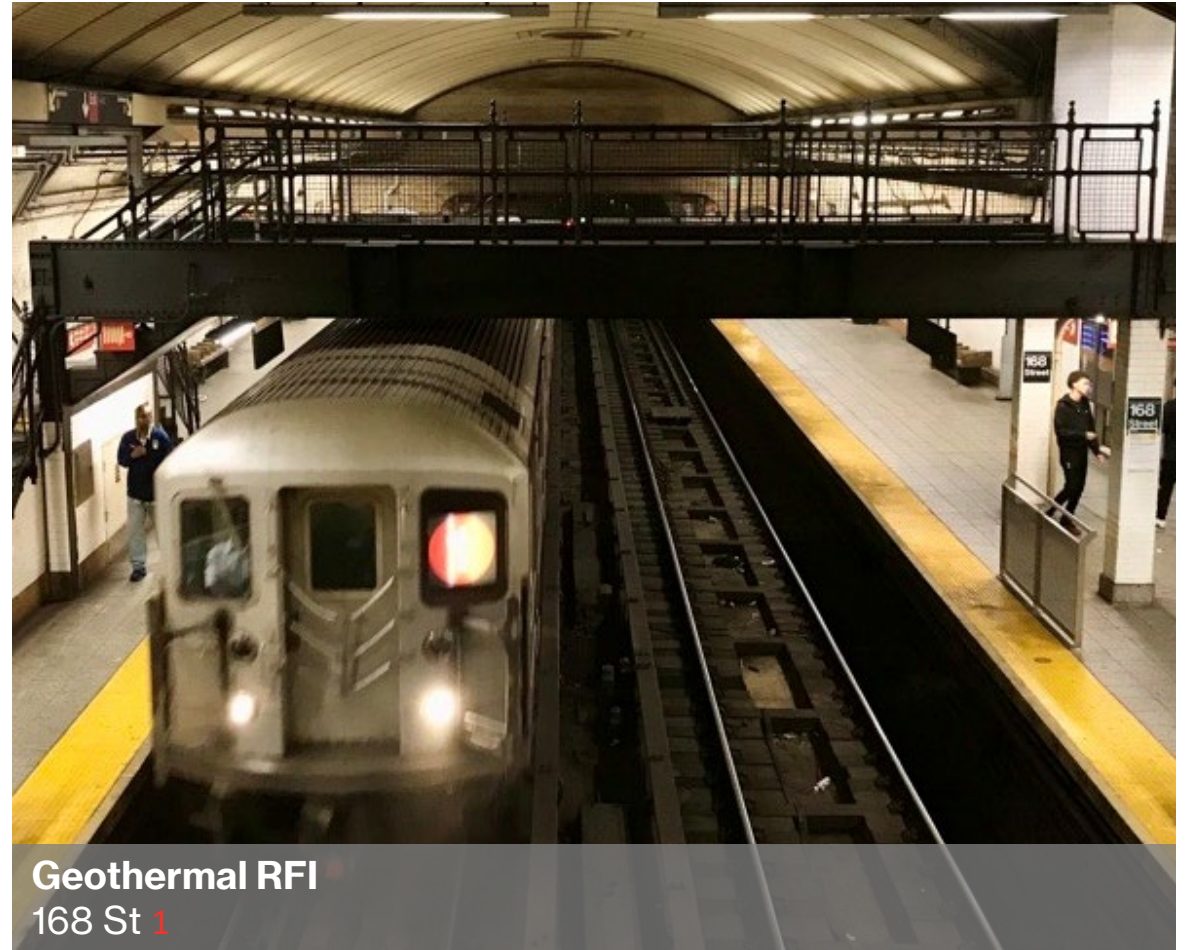
MNR Mott Haven Yard at 149th St Bridge
Constrained sewer capacity
 Sep 29, 2023

Recent Progress

Coastal Flooding

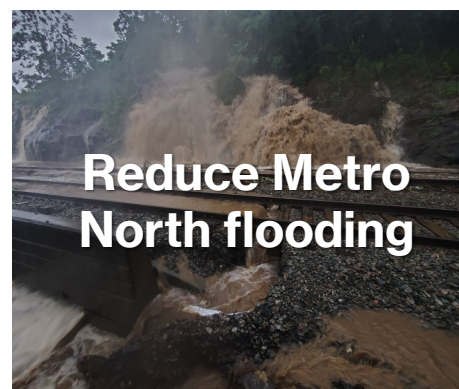
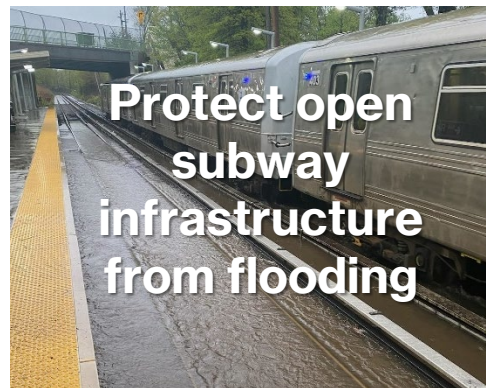


Extreme Heat



Next steps

10 Climate Resilience Roadmap Goals **UNDERWAY**



View the Climate Resilience Roadmap Update at:
mta.info/climate/resilience