

Parkchester & Morris Park Cloudburst Program

April 10, 2024



Topics

- **Flooding: Issues and Solutions**
 - City's Toolkit to Address Flooding
 - Cloudburst and Cloudburst Management
 - Cloudburst Hubs
- **Parkchester & Morris Park Cloudburst Hub**
 - Overview of Cloudburst Hub
 - Project Timeline
 - Outreach

Flooding: Issues and Solutions

The Problem

Climate change is causing sudden more power storms that result in more flooding.



The City has a **toolkit** to combat flooding

DEP is using a multi-layered approach that strategically uses grey infrastructure, green infrastructure, and other flooding solutions.

- ✓ Grey Infrastructure
- ✓ Green Infrastructure
- ✓ Blue Infrastructure
- ✓ Regulation
- ✓ Real-time Monitoring

Sewers: 1st Line of Defense

- **Sewers** work in every rainstorm and protect against 98% of rain events.
- The sewer network is generally built to handle **1.5 to 1.75** inches of rain per hour.
- During rainstorms, the system can get overwhelmed when the amount of water produced by the storm is greater than the capacity of pipes.
- Just like we don't design roads for Memorial Day Weekend traffic, we don't design sewers to handle hurricane-level water, as **during a Cloudburst.**



What is a Cloudburst?

- A cloudburst is a sudden, heavy downpour where a lot of rain falls in a short amount of time.
- Cloudbursts can cause overland flooding, damage property, disrupt critical infrastructure, pollute New York's waterways, and in extreme examples even cause loss of life.





Our Solution: Cloudburst Management

Cloudburst Management is a way of **absorbing**, **storing**, and **transferring** stormwater to minimize flooding from heavy rain events.

Cloudburst Management uses a **combination** of:

- ✓ Grey infrastructure, like drainage pipes and underground tanks
- ✓ Green infrastructure, like trees and rain gardens.

These projects are designed to help manage street flooding during heavy events.

Cloudburst Management can minimize damage to property and infrastructure by reducing pressure on the sewer system.

Elements of Cloudburst Management

ABSORB



STORE

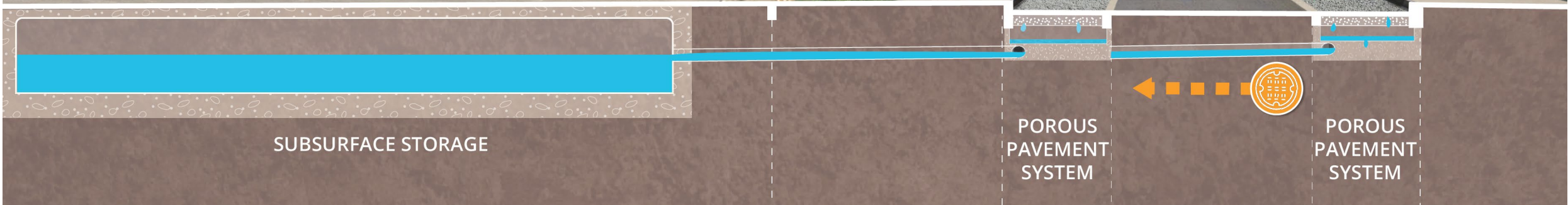


TRANSFER



What is a Cloudburst Hub?

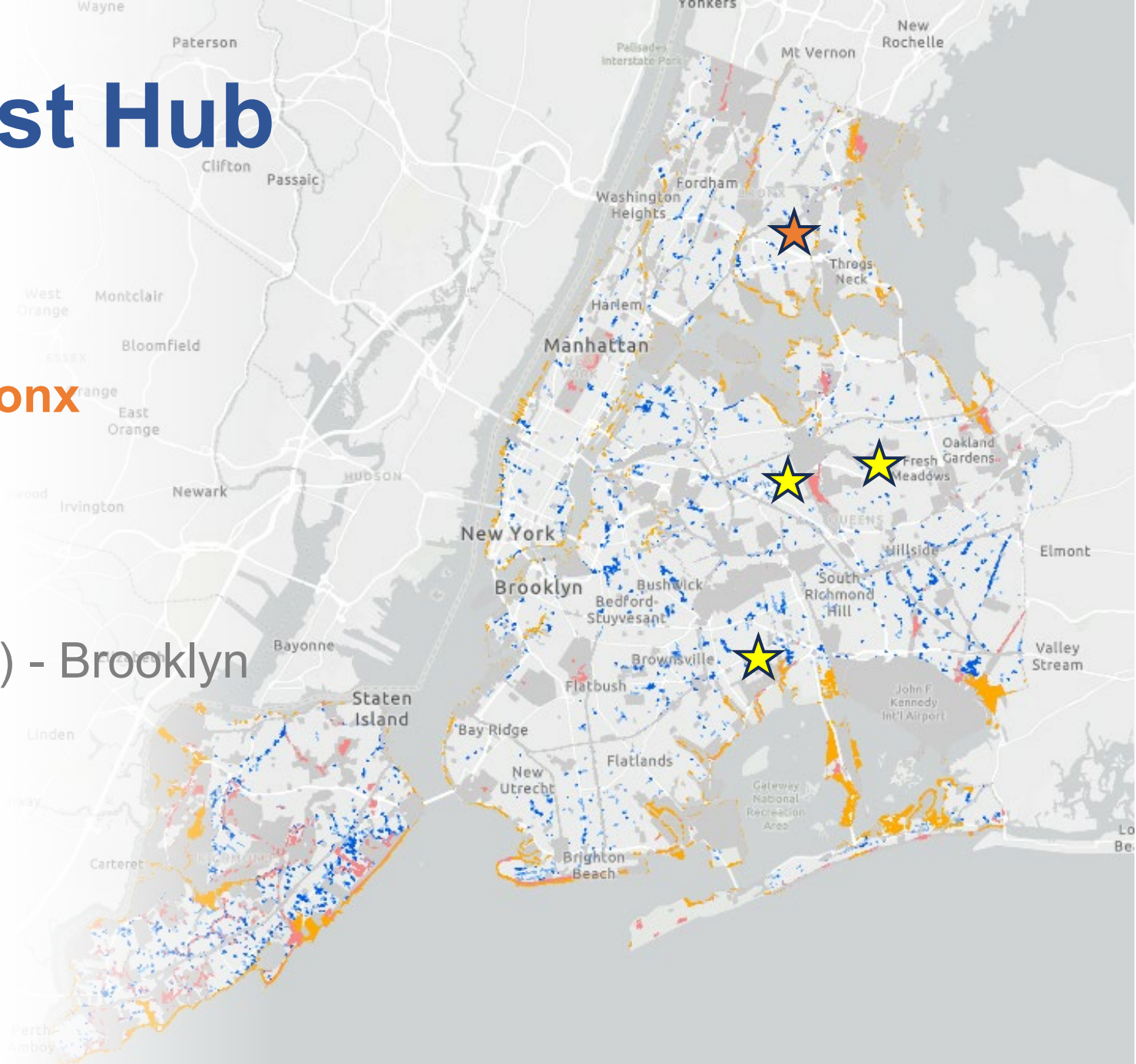
Areas to address flooding through a combination of Cloudburst Elements are called **Cloudburst Hubs**



4 Initial Cloudburst Hub Locations

Fully Funded & In Design

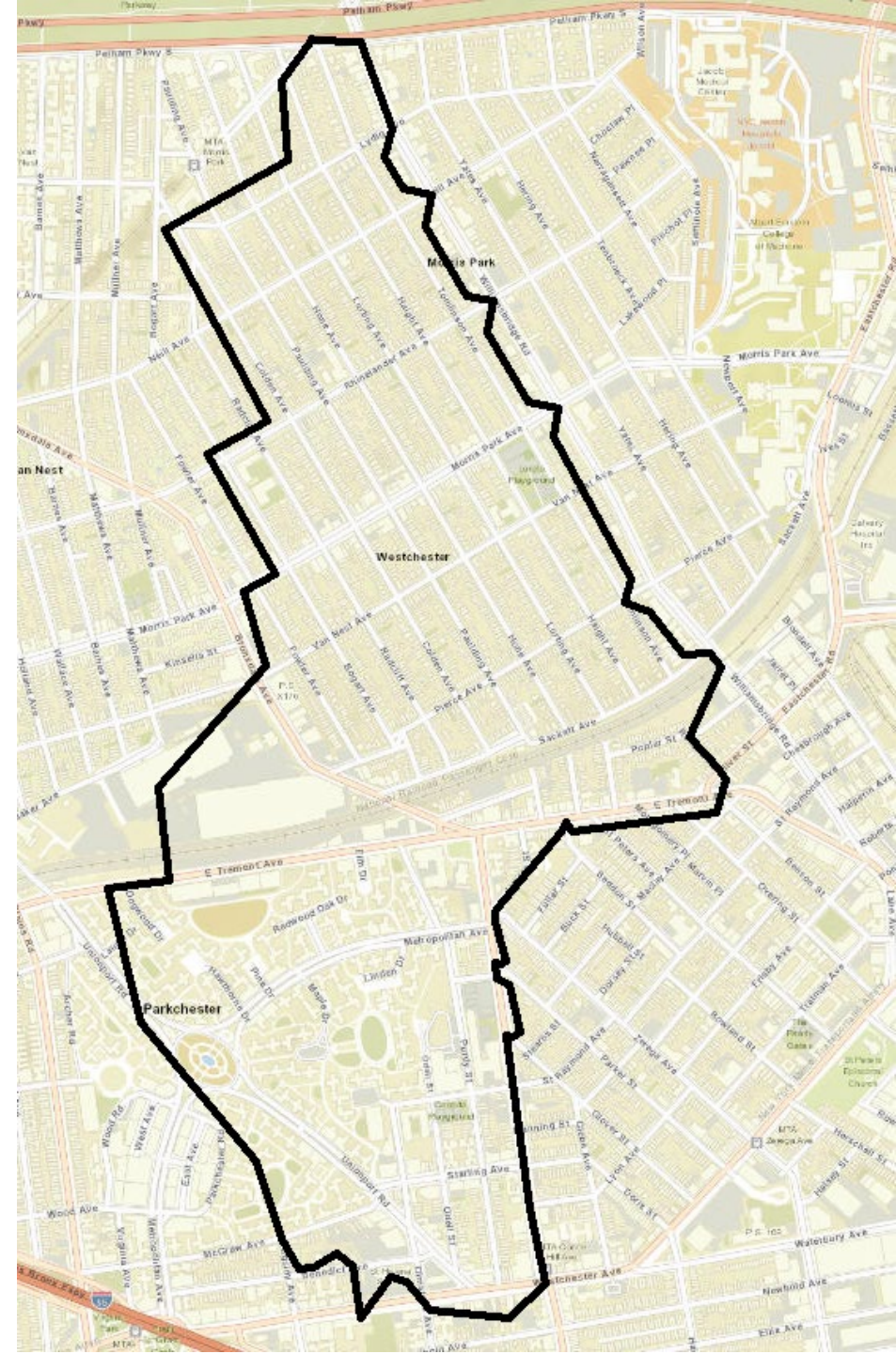
- **Parkchester/Morris Park – Bronx**
- Corona - Queens
- Kissena - Queens
- East New York (Hendrix/Linden) - Brooklyn



Parkchester & Morris Park Cloudburst Hub

Parkchester/Morris Park Cloudburst Hub

- Hub boundary is based on how stormwater naturally drains in the area.
- Management of stormwater outside of this boundary will be addressed through other DEP projects.
- A combination of Cloudburst elements will be used to manage larger storm events.
- Most improvements will be made in streets within the hub.
- Some public sites have been identified for potentially larger scale improvements.



Sites to Store Stormwater

- Stormwater from the surrounding area will be stored below ground at these locations.
- Features above ground will be improved based on community feedback

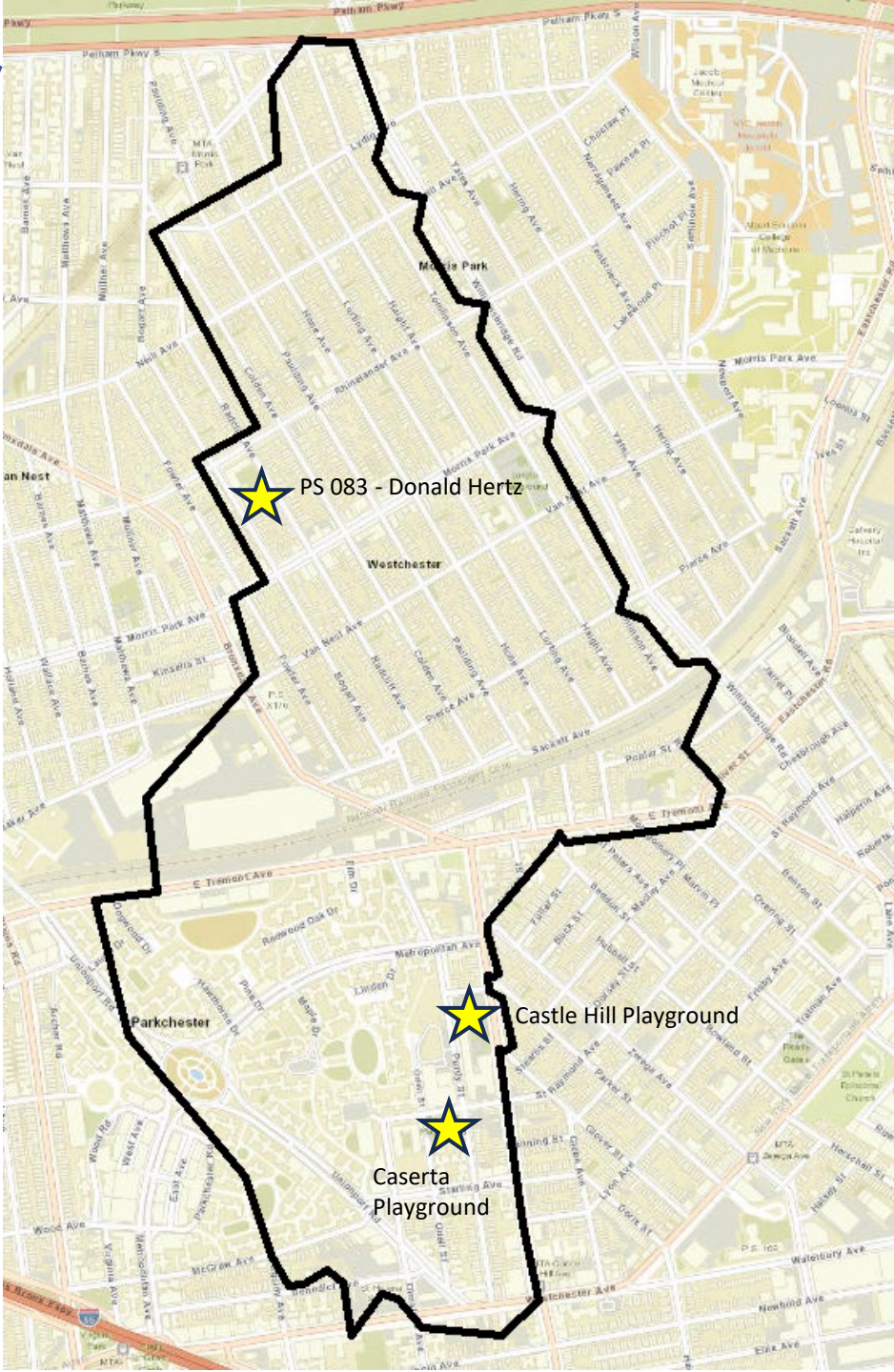
Castle Hill Playground



Caserta Playground



PS 083 - Donald Hertz



Anticipated Design and Construction Timeline



Gathering input during design phase



Cloudburst Outreach Goals

01

Inform communities about ongoing cloudburst projects and provide opportunities for their input throughout the design process.

02

Educate communities about the type of flooding cloudburst projects will address and communicate residual risks.

03

Establish foundational relationships with communities to ensure successful community engagement for cloudburst projects that can be built upon for planned long-term infrastructure improvement projects.



Anticipated Outreach Timeline / Milestones



- Hold Community Board and BID presentations
- Identify ways to spread information of the project, upcoming engagement events, and opportunities to provide feedback – flyers distributed and posted
- Plan events to include interactive information and listening sessions in early May:
 - One in Morris Park
 - One in Parkchester

How you and the community can get involved

- Sign up the Parkchester/Morris Park mailing list through the link below
 - <https://nyc.gov/dep/newsletters>
- You can also sign up for the new NYC Water newsletter by selecting "DEP Stormwater" from this link
- Educate other members of the community about flooding and the initiative that is underway in this neighborhood to address it
- Attend our upcoming events!

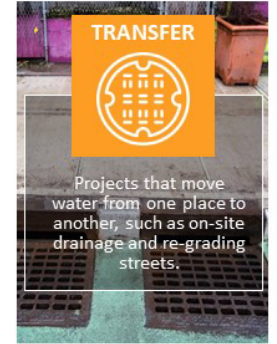
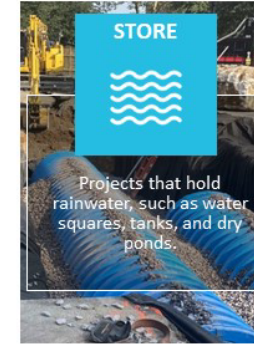
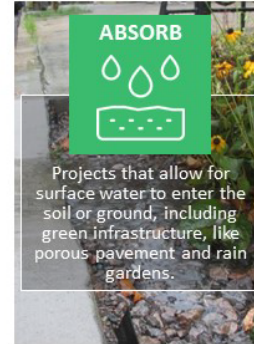
Cloudburst Planning in NYC

What is a cloudburst?

A cloudburst is a sudden, heavy downpour where a lot of rain falls in a short amount of time. Cloudbursts can cause flooding, damage property, disrupt critical infrastructure, and pollute New York's rivers and Harbor.

Cloudburst Management

Cloudburst Management is a way of **absorbing**, **storing**, and **transferring** stormwater to minimize flooding from heavy rain events. Cloudburst Management uses a combination of grey infrastructure, like drainage pipes and underground tanks, and green infrastructure, like trees and rain gardens. During heavy rain events, Cloudburst Management can minimize damage to property and infrastructure by reducing pressure on the sewer system.



Cloudburst Planning

In January 2023, the Mayor announced an expansion of the city's cloudburst program to four new sites as part of ongoing resiliency efforts to better prepare for intense rain events. Supported with nearly \$400 million in capital funds, these specially designed, built, and engineered infrastructure projects will protect residents and property in Corona and Kissena Park, Queens, Parkchester, Bronx, and East New York, Brooklyn from future extreme weather brought about by climate change.

Learn more about Cloudburst!

To learn more about the planning process and ways to get involved, go to our website by scanning the QR code or contact us at the email below.



NYC Environmental Protection

Email communityaffairs@dep.nyc.gov

Website nyc.gov/dep/cloudburst

Report flooding related issues by calling 311