

BLUE SCAR

Summer Studio Project

Project Statement

In the face of unprecedented climate crisis, New York City's deteriorating sewer system is at a critical point of failure, especially with the mismatch between the water and sewershed. This project deconstructs parts of the Gravesend neighborhood in Brooklyn, a flood prone area where water wants to occupy, to construct water basin that captures the stormwater with gravity.

Critical Research

John Wesley Powell - Watershed Map
Dogma - Everyday is Like Sunday

August 2024

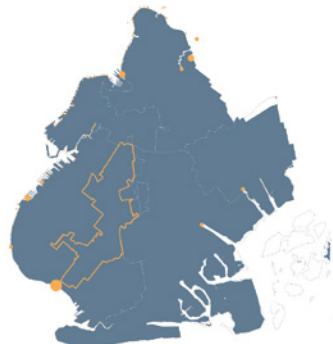
Seunghu Kim, Jiali Jia, Maissa Eid, Patricio Munoz
M.S. Architecture and Urban Design
Columbia University

Managed Retreat

→ Transition of Frequent Flooding Neighborhood

Blue Scar filled after a flashflood event, holding 382 olympic size pools worth of stormwater, buying time and slowly releasing towards wastewater treatment plant, minimizing massive combined sewer overflows.





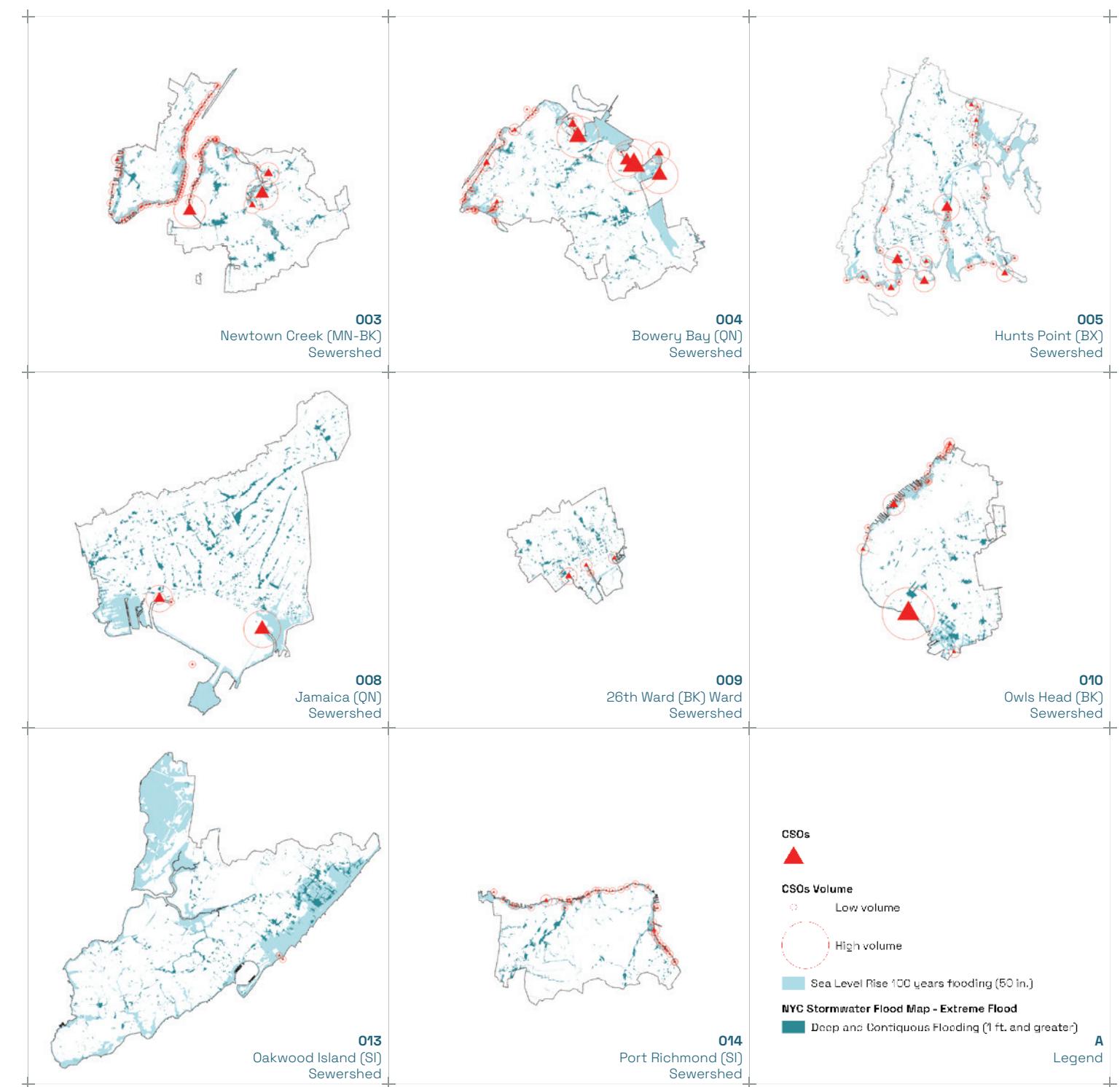
Brooklyn Sewersheds



Brooklyn Watershed



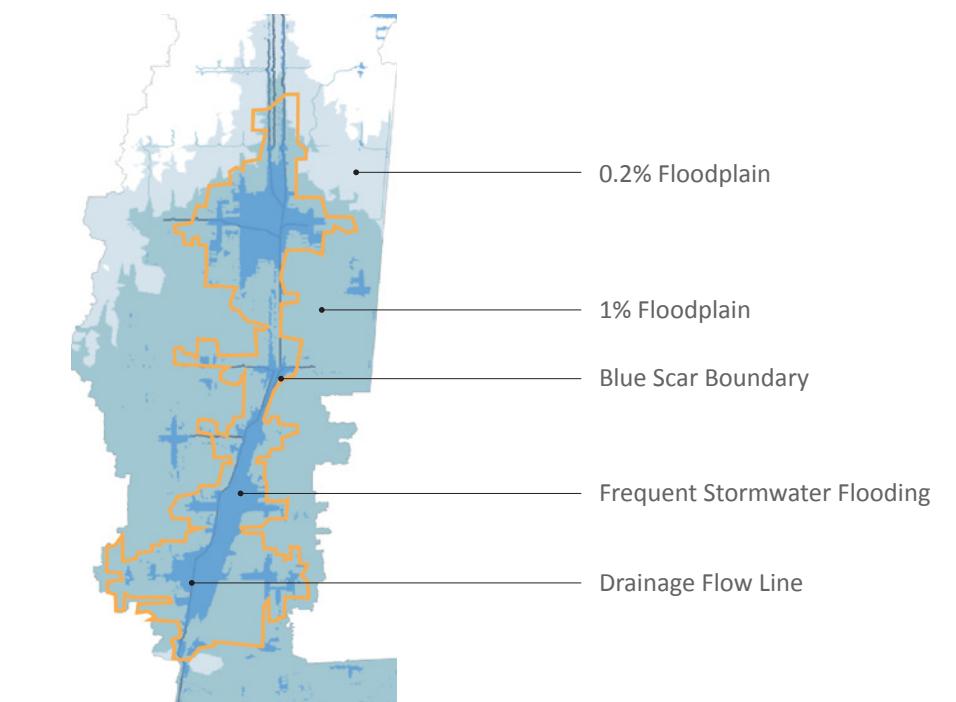
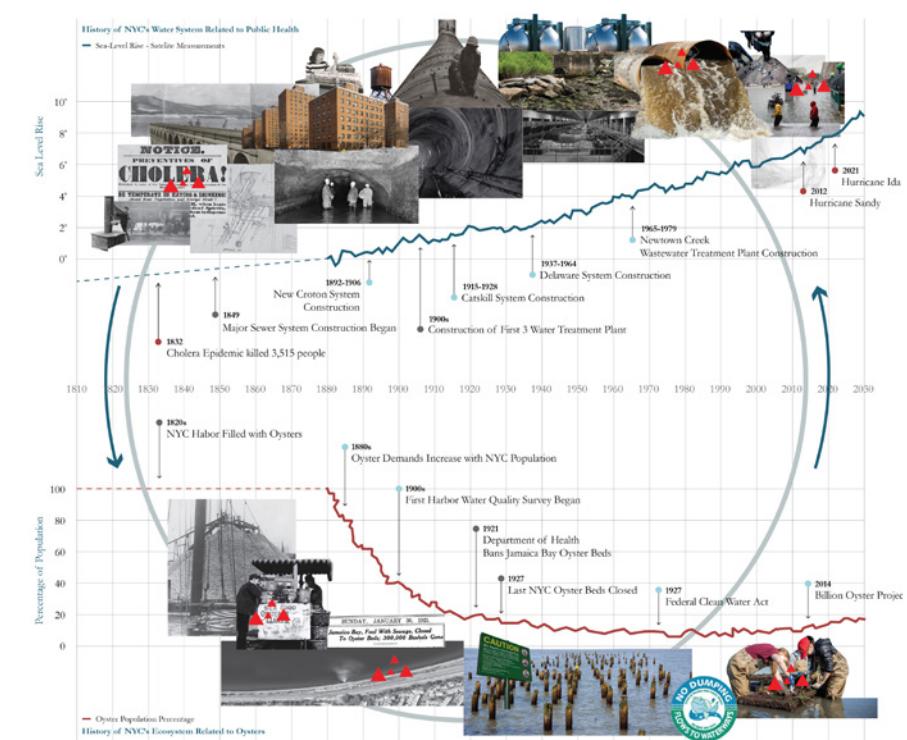
Mismatch

**Systematic Mismatch**

Conflict between two systems, causing massive infrastructure failure.

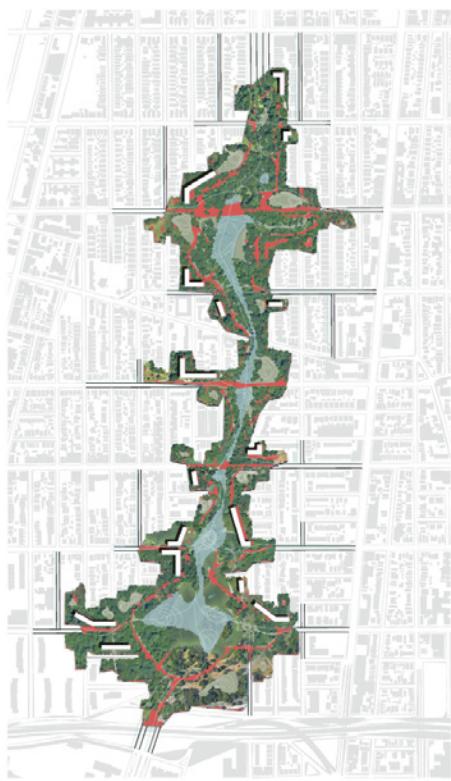
NYC Sewersheds Catalog

A new way of mapping NYC. Ever more increasing pluvial flooding threatens to revert the glorious New York City back to the 1850s when waterborne diseases were out of control. This sewersheds catalog reveals where infrastructure is failing.

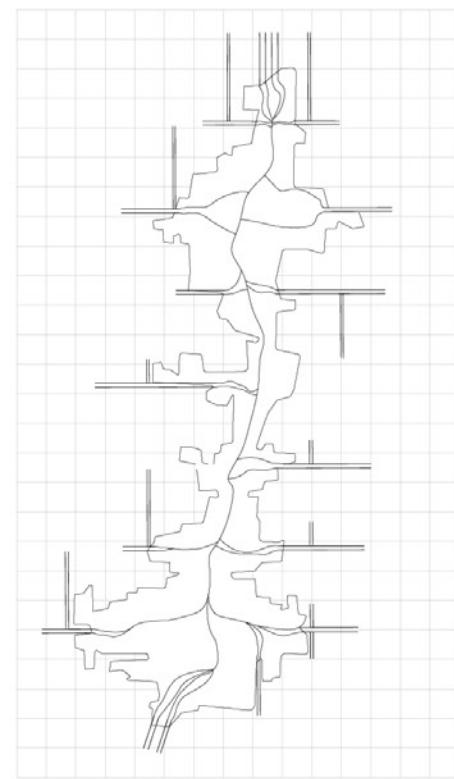
**CSOs Storymap / Boundary of the Blue Scar**

↑ Understanding the history of NYC getting its freshwater from 120 miles up north, using it and dumping it as CSOs, resulting sea level rise and near extinction of oysters.

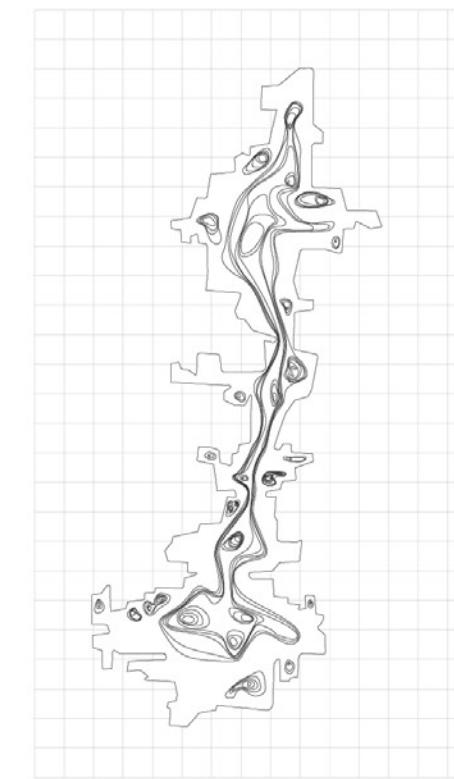
↓ The boundary of the Blue Scar was given by the area stormwater flooding area, acknowledging that this is where the water wants to be.



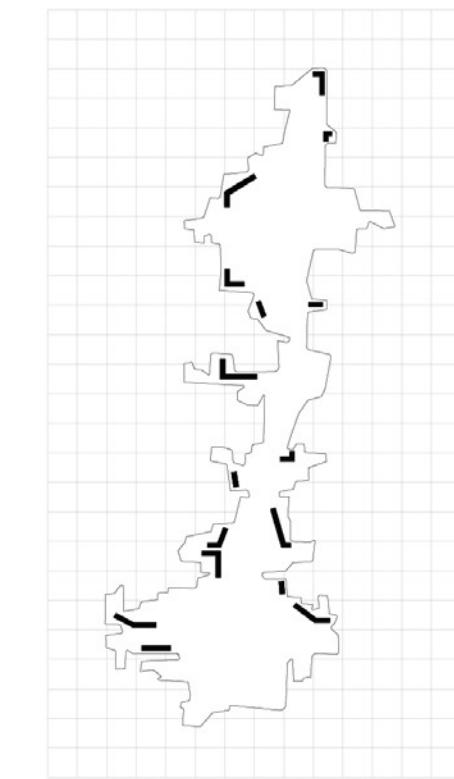
Blue Scar
New Ecological Infrastructure



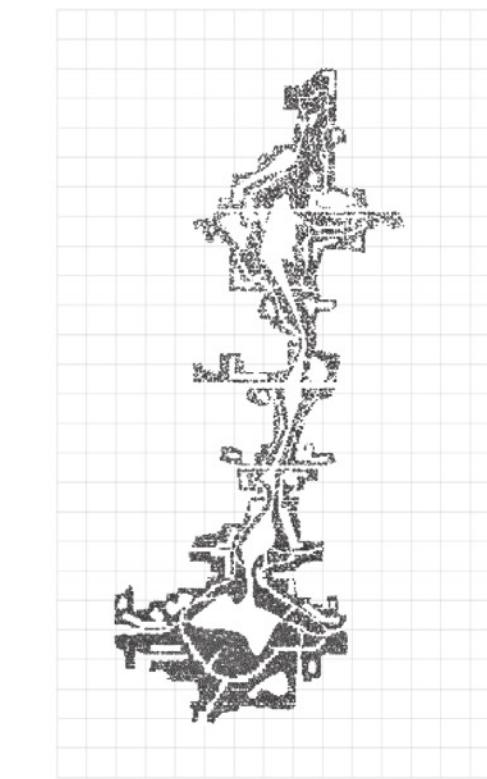
Water Entry
Street Water Collection



Topography
Mounds / Basins



New Housing
Housing for Migrating Residents

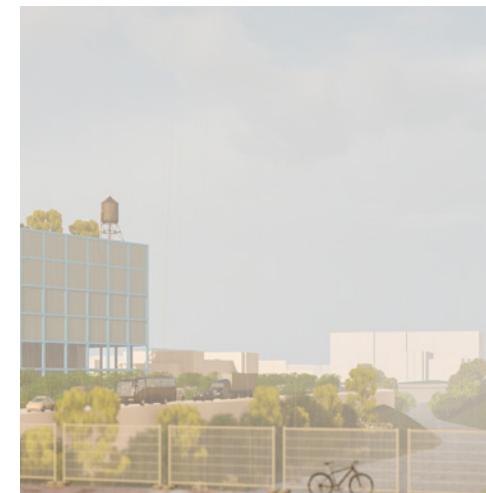


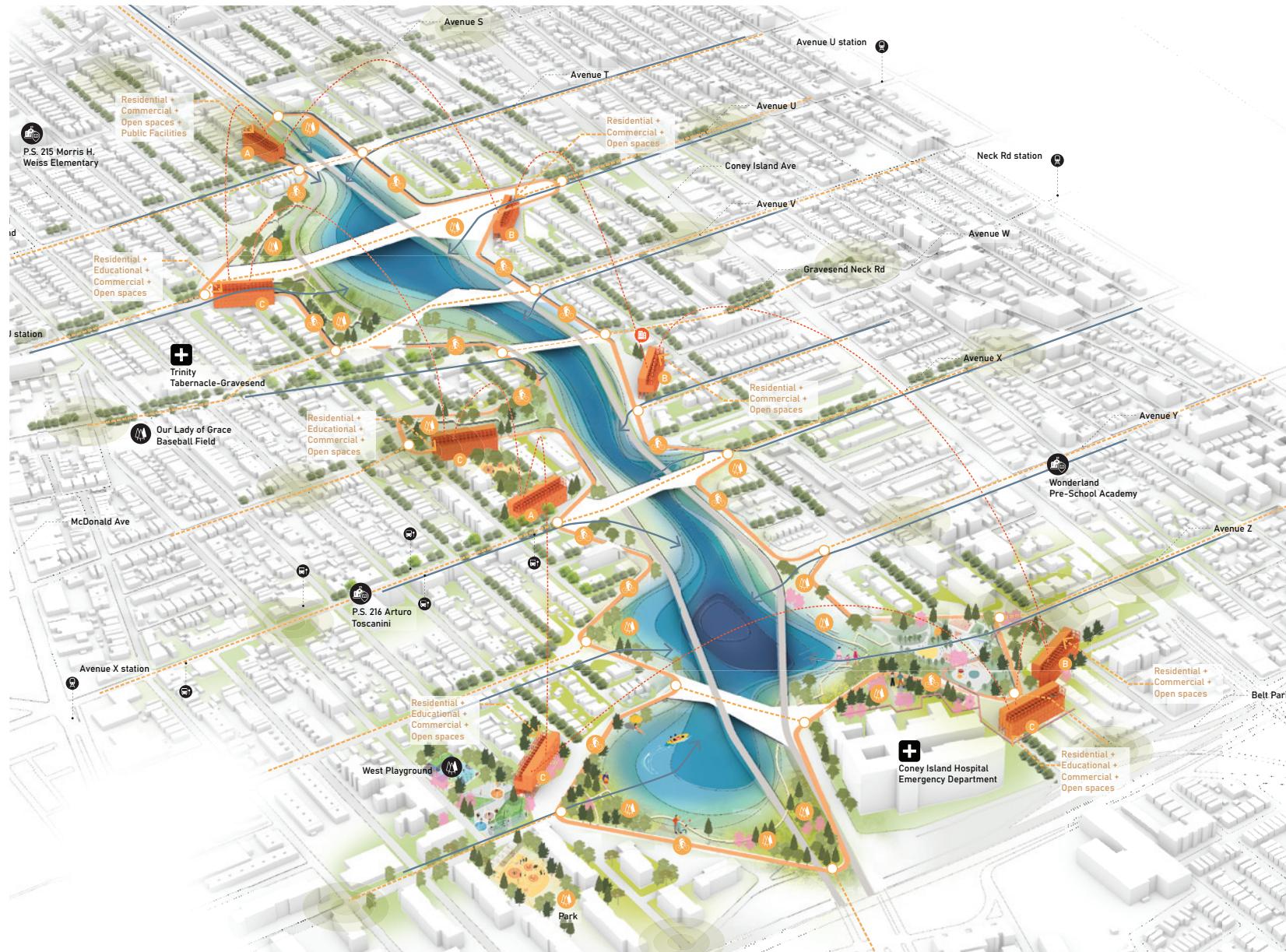
Vegetation
Trees, Shrubs, and Grass



Elements of the Blue Scar

Different layers of elements playing crucial role of holding rainwater. How does the water actually come into the Blue Scar? Ways to capture stormwater by closing catchment basins on streets towards treatment plants, creating water corridor to guide the stormwater effectively.

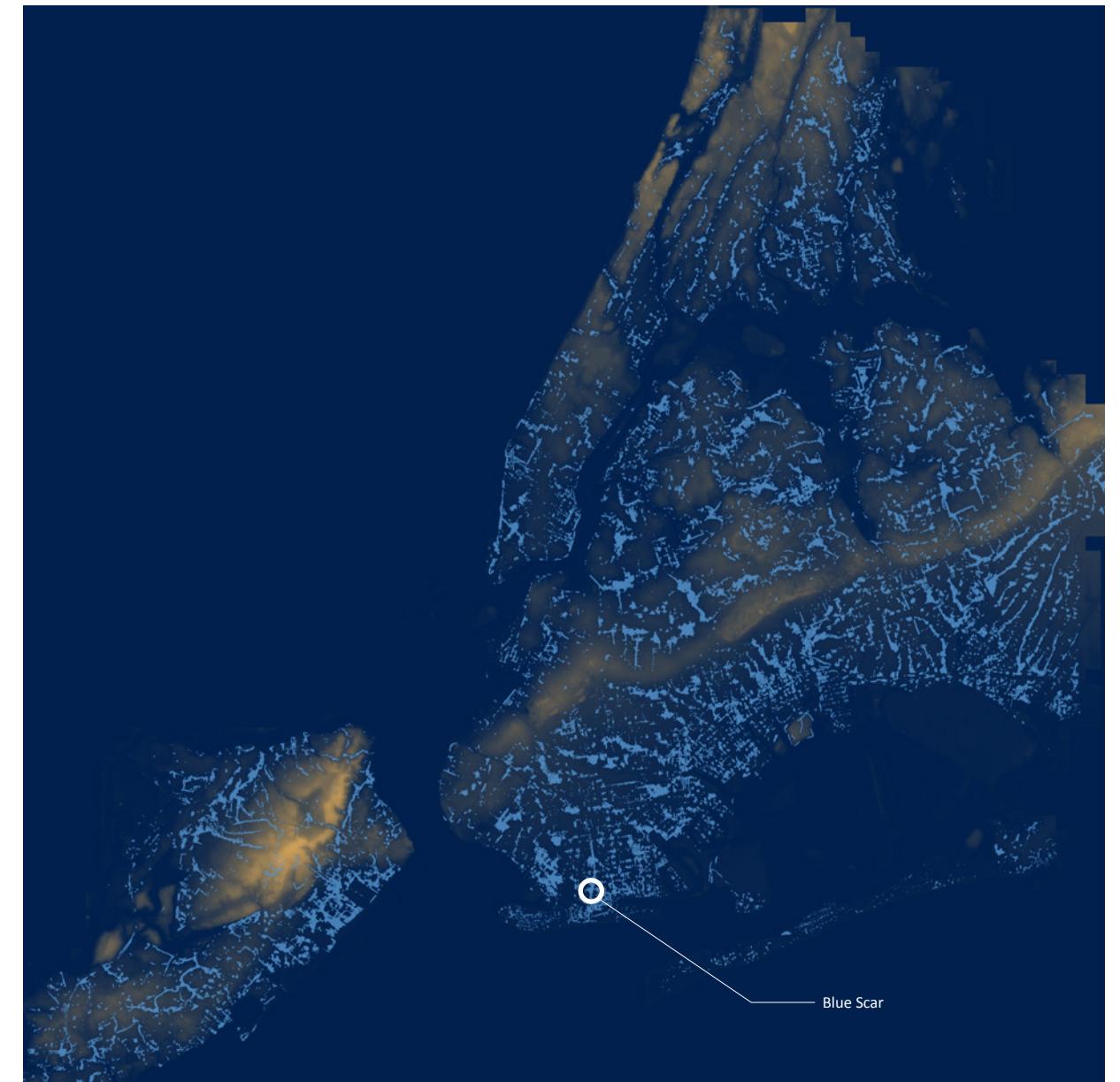




Overall Diagram of the Blue Scar

Blue Scar integrated in the neighborhood, providing stormwater basin and unique experience for community. Filled with stormwater after flash flood event, rather than going towards sewer system, causing CSOs.

Through permanent dry/wet areas, the Blue Scar becomes an recreation assets during dry seasons. Previously neglected area of the neighborhood became a place of building new relationship with nature.



NYC Stormwater Flooding Map

Once mapped as a threat, this is now an opportunity to dismantle parts of our city to cohabit with nature, creating a meaningful dialogue and relationship with nature.