Climate Strong Communities

NYC Mayor's Office of Climate & Environmental Justice



Stapleton, Staten Island Engagement Summary

Contents

1. Climate Strong Communities
2. Neighborhood Overview
3. Climate Threats
4. CSC Engagement Overview
5. Engagement Activities
6. Engagement Takeaways
7. Neighborhood Programs
8. Resources



1. Climate Strong Communities



Program Overview

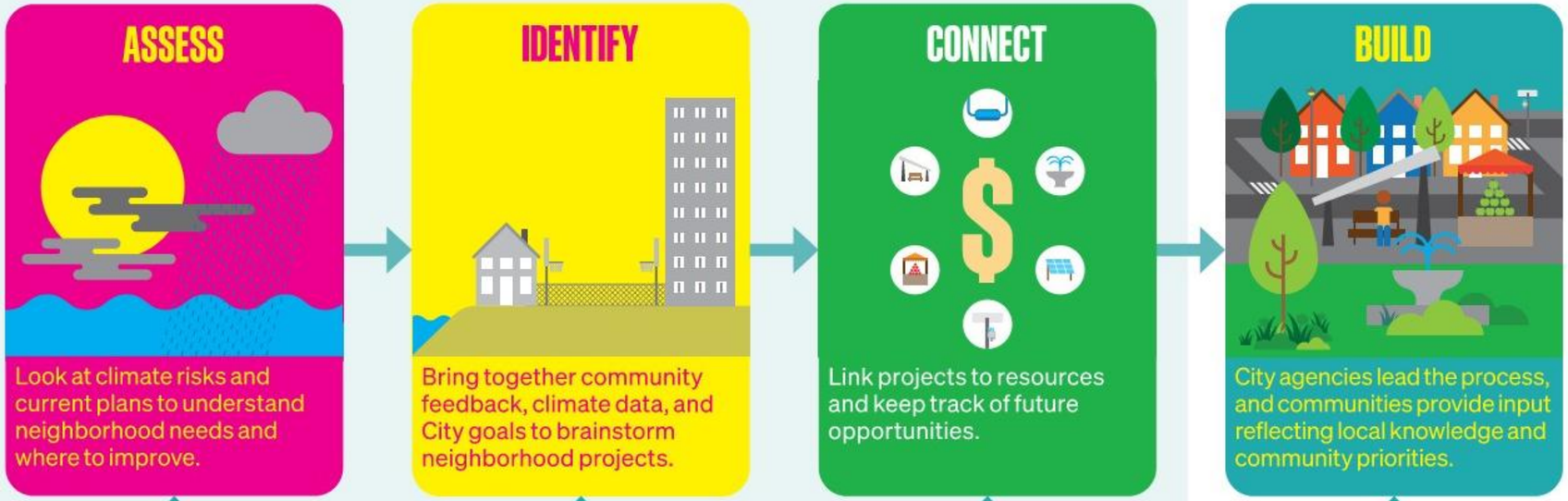
Climate Strong Communities

What is CSC?

Led by the Mayor's Office of Climate & Environmental Justice, Climate Strong Communities (CSC) partners with communities and City agencies to develop project ideas and connect them to resources. These projects aim to protect communities from climate threats and make neighborhoods more livable, connected, and safer by improving public spaces and infrastructure.

What happens next?

City agencies and communities work together to design and build neighborhood projects.





COMMUNITY

Guide project ideas through community priorities and lived experience.



GOVERNMENT

Support project development through technical expertise and interagency coordination.

Life Cycle of a CSC Project

Climate Strong Communities

CSC partners with communities to understand climate risks and local priorities, identify resilience project ideas, and connect them to resources. The graphic below shows a typical NYC project life cycle; CSC engages community members from the earliest (risk assessment) phase.



2. Neighborhood Overview



Stapleton, Staten Island

Neighborhood Overview

Population

- Stapleton is a diverse neighborhood on the northeast coast of Staten Island, with residents representing a range of cultural backgrounds and languages, including Spanish and languages from West Africa and South Asia.

Land Use & Density

- Stapleton is characterized by a varied mix of land uses, with much more land committed to mixed commercial/office use than the rest of Staten Island. The neighborhood features a building stock that's diverse in age and character.
- Stapleton has a significant number of vacant lots and brownfields.
- A defining landmark of the neighborhood is Tappen Park.

Physical Characteristics & Assets

- In 2012, the neighborhood was severely impacted by Hurricane Sandy causing significant damage to local businesses along the retail corridor.
- Stapleton's sense of community endures, supported by the continuity of churches, local businesses and social organizations.



Neighborhood walk with the Stapleton Neighborhood Support Team.

Community Assets

Neighborhood Overview



Key

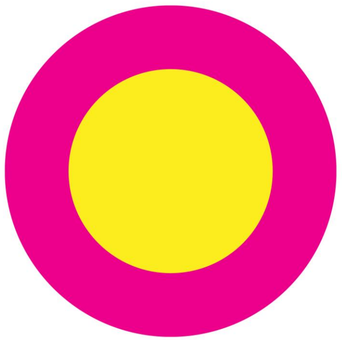
- Libraries
- Schools
- Community Centers
- Religious Institutions

3. Climate Threats



Multi-Hazard Climate Risks

Climate Threats



EXTREME HEAT

PROJECTED 4X MORE HEAT WAVES BY THE 2080S



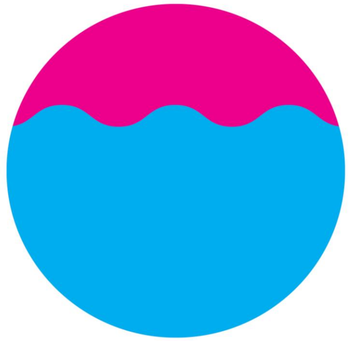
POOR AIR QUALITY

EXACERBATED BY EXTREME HEAT / WILDFIRE EVENTS

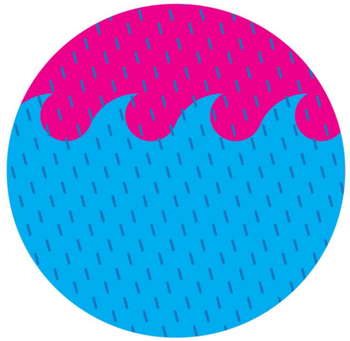


EXTREME RAINFALL

UP TO 22% MORE PRECIPITATION BY THE 2080S



COASTAL SURGE FLOODING



CHRONIC TIDAL FLOODING

UP TO 3.75 FEET OF SEA LEVEL RISE BY THE 2080S

Source: NPCC4

Extreme Heat

Climate Threats

This map shows the surface temperature deviation from the mean temperature. This shows how much warmer it is in Stapleton compared to other parts of New York City.

Sustained exposure to high temperatures can harm public health, and lead to dehydration, heat exhaustion, heat stroke, and even death. Extreme heat is the leading cause of weather-related fatalities across the country.

In New York City, on average each year, there are more than 500 heat-related deaths. *(NYC Health Department 2025 Heat-Related Mortality Report)*

Key

0° +4° +8°

+2° +6°



Source: Heat layer created by NYC Council Data Team in 2021

Extreme Heat

Climate Threats

Takeaways

- Extreme heat exposure continues to be a concern in hotspots in the neighborhood, including both the coast to the northeast, and parts of the southern boundary of the neighborhood along the Staten Island Expressway.
- Residents identified a lack of shade and street trees in Stapleton.



Neighborhood walk with the Stapleton Neighborhood Support Team.

Extreme Heat

Climate Threats

Location-based Feedback

- Lower-elevation areas in Stapleton experience extreme heat, due to relatively higher concentrations of buildings and limited tree canopy, for example, in the developments around Eibs Pond Park.
- The Stapleton Library is an important community asset and serves as a cooling center during the summer months. Community members emphasized the importance of energy efficiency in the neighborhood, noting that the library has precious experienced blackouts during heatwaves.



Tabling at African Heritage Day in downtown Stapleton.

Coastal + Stormwater Flooding

Climate Threats

This map shows coastal flooding and stormwater flooding in Stapleton.

Coastal flooding includes both chronic tidal flooding and coastal surge. Coastal surges happen when large amounts of water from the ocean rush onto land, with potential damage to coastal communities and infrastructure. Chronic tidal flooding occurs when high tides cause water to spill over onto land, even without storms.

Stormwater flooding entails "cloudburst" events which occur when a large amount of rain falls in a short time. Extreme rain can cause flooding in low-lying areas with poor drainage and insufficient stormwater infrastructure systems.

Key

- Coastal Flooding
- Stormwater Flooding



Source: NYC Open Data Extreme Stormwater Flood Map and NYC DCP Flood Hazard Mapper

Coastal + Stormwater Flooding

Climate Threats

Takeaways

- Bay Street , Canal Street, and Front Street make up Stapleton's main commercial corridors, and are home to many locally owned businesses. NST members highlighted the importance of this local economy and shared their concerns about the low-lying corridors' flood vulnerability. They recounted a history of business owners facing financial difficulties, relocations, or closures due to flood events.

- Community members emphasized the importance of addressing infrastructure gaps such as drainage systems unable to handle heavy rainfall. They emphasized that adequate infrastructure is important for protecting vulnerable populations, like small business owners and homeowners, from flooding.



Tabling at African Heritage Day in downtown Stapleton.

Coastal + Stormwater Flooding

Climate Threats

Location-based Feedback

- **Stormwater Flooding:** The Bay Street area experiences recurrent flooding during heavy rainfall, resulting in costly and disruptive impacts on local businesses. Based on 2080 projections, Stapleton may experience major extreme rainfall flooding along Van Duzer Street and Broad Street, where the topography collects runoff from the higher elevations. Residents noted that they frequently observe water flowing downhill during heavy rainfall.

- **Coastal Flooding:** Tappen Park and surrounding areas are frequently flooded and had significant flooding from Hurricane Sandy. The Flood Vulnerability Index in Stapleton is highest for the census tracts along the waterfront.



Annotated flood map from Stapleton tabling event.

4. Community Engagement



CSC Engagement Overview

Community Engagement

Climate Strong Communities is an ongoing program that began in 2023 and collaborates with different New York City neighborhoods.

Stapleton is a Year 2 Climate Strong Communities Neighborhood that began engagement in the fall of 2024.



Community Engagement Structure

Community Engagement

Community Partner

- A community-based organization, faith-based organization, or a trusted institution that collaborates with the CSC team to facilitate engagement.

Neighborhood Support Team (NST)

- A group of 5-8 members recommended by the community partner or other organizations who provide input on community experience and promote public engagement activities.

Stapleton Engagement Structure

Community Engagement

The Stapleton NST included 7 individuals representing 7 organizations.

Community Partner:

- Staten Island Urban Center

Neighborhood Support Team Members:

- Protectors of Pine Oak Woods
- African Refuge
- Central Family Life Center
- Staten Island Council of Churches
- Canvas Institute
- Van Duzer Civic Association

5. Engagement Activities



Engagement Schedule

Engagement Activities

1. Understand Climate Risks

Fall – Winter 2024

- **Neighborhood Support Team Meeting #1:** NST members identified several issues, initiatives, and priorities at a virtual discussion.
- **Neighborhood Walk:** CSC team walked around the neighborhood and visited key sites, led by NST members.
- **Tabling at Community Events:** CSC team shared outreach materials at existing public events to engage community members.

2. Identify Potential Climate Programs and Strategies

Early 2025

- **Neighborhood Support Team Meeting #2:** NST members and the CSC team focused on validating community priorities and discussing potential CSC programs.
- **Public Workshop:** Attendees engaged in group discussions using the CSC card deck and printed heat and flood maps to discuss their experience of the neighborhood and identify potential program locations.

3. Prioritize Potential Neighborhood Projects

Spring 2025

- **2025 Climate Summit:** NST members across eight CSC neighborhoods convened as a group in person for the first time. The meeting goal was to share knowledge and experience, strengthening ties between neighborhood work and adaptation city wide.

Neighborhood Support Team Meetings

Engagement Activities

NST Meeting #1: Climate Risk Assessment | September 11, 2024

- The first NST meeting brought the project team and the NST together to discuss issues and opportunities in Stapleton. Prior to this project, many of the NST members had already worked together on other community projects.
- Members discussed their primary climate concerns for the neighborhood. The group reviewed the heat and flood maps and collaborated with the team to plan for tabling and the public workshop.
- Following this NST meeting, the NST and the project team gathered for a neighborhood walk.

NST Meeting #2: Project Identification | November 22, 2024

- At the second NST meeting, the team outlined their priorities for addressing climate risks.
- NST members discussed how to incorporate environmental justice efforts into existing neighborhood programs.

Stapleton Neighborhood Walk

Engagement Activities

Neighborhood Walk | September 13, 2024

NST members led the project team through the neighborhood during the Stapleton site walk. The walk began at Tappen Park and ended at Maker Park, with stops at other neighborhood assets and opportunity areas.





1: Tappen Park



2: Stapleton Library



3: Stapleton Houses



4: Central Family Life Center



5: Maker Park

Public Workshop

Engagement Activities

Public Workshop | January 30, 2025

- The NST worked with the project team to host a public workshop at Trinity Lutheran Church. Thirty-two community members attended.
- The workshop was structured as group discussions following an introductory presentation. Community members discussed their lived experience with flooding and extreme heat in the neighborhood and brainstormed potential projects that could address these issues.
- At the workshop, members identified infrastructure projects they would like to see in their neighborhood. These community-identified programs included Cool Neighborhoods, Energy Efficient Buildings, and Resilience Hubs.



Stapleton Public Workshop

Climate Summit

Engagement Activities

Climate Summit | April 21, 2025

- The Climate Summit convened NST members representing all eight of the CSC neighborhoods. The event took place at the Building Energy Exchange during Earth Week. Forty NST members attended.

- The event was an opportunity for NSTs to connect with other organizations and city agencies to share their knowledge and experience.

- NST members also discussed other City initiatives, such as energy storage programs, the Urban Forest Plan, and EJNYC.









2025 Climate Summit

6. Engagement Takeaways



Stapleton

Engagement Takeaways

Community Priorities after Hurricane Sandy

- After Hurricane Sandy, community priorities shifted to focus on climate resilience and economic recovery. Community members are still advocating for recovery programs and their implementation.

- NST members shared that the responsibility to educate the community tends to fall on community organizations. NST members emphasized the need for community education and resource distribution regarding climate risks. Many organizations adapted their missions post-Hurricane Sandy to better serve the needs of vulnerable populations.

Addressing Infrastructure Gaps

- NST members discussed issues with existing infrastructure, including drainage and sewer systems that are inadequate to handle increasingly heavy rain events. At a tabling event, one resident shared that eight feet of water flooded her basement during Hurricane Sandy.





Stapleton engagement activities

Stapleton

Engagement Takeaways

Disaster Preparedness

- The NST recommended collaboration with local organizations and property managers to ensure underserved communities are informed and engaged in resilience planning.

- Residents expressed how enhancing disaster preparedness is paramount, especially for seniors and homeowners.

Accommodating Outreach

- Residents shared the importance of flexibility in public engagement efforts to accommodate a variety of schedules. To enhance outreach, NST members suggested collaborative efforts across community organizations and conversational, word-of-mouth promotion methods to share events.

- NST members recommended making engagement more inclusive by ensuring there are opportunities for outreach in Spanish.





Stapleton engagement activities

DRAFT | 3/20/2026

7. Neighborhood Programs



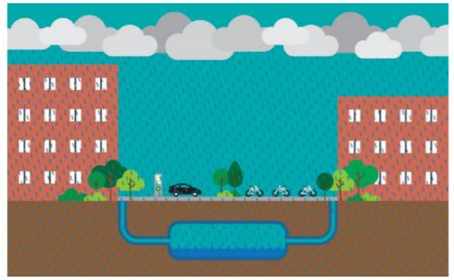
Examples of Climate Projects

Neighborhood Programs

The CSC programs provide conceptual ideas of potential climate infrastructure that may address extreme heat or flooding. The 10 Climate Strong Community programs discussed with NSTs are shown below.



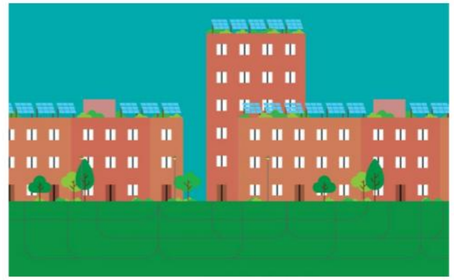
Blueways



Cloudburst Projects



Cool Neighborhoods



Resilient Grids



Coastal Resiliency



Resilience Hubs



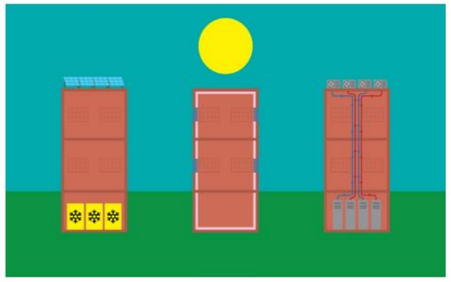
Resilient Playgrounds



Urban Agriculture



Urban Forestry



Energy-Efficient Buildings

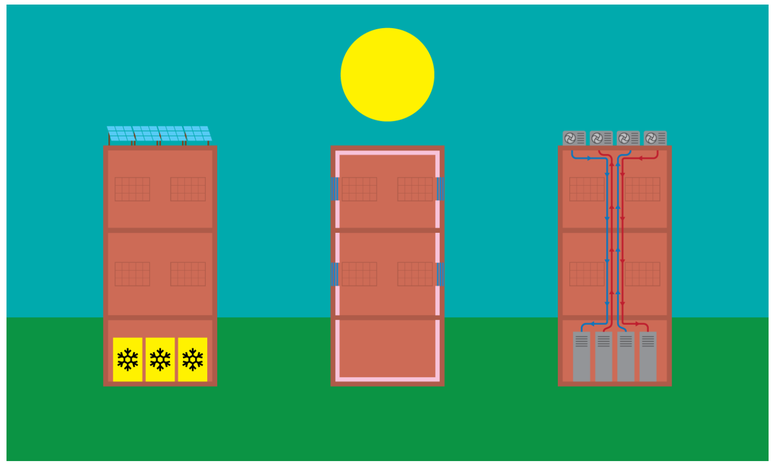
Stapleton NST Prioritized Programs

Neighborhood Programs

Of the 10 CSC programs provided, the Stapleton NST prioritized the following three programs for discussion.



Cool Neighborhoods



Energy Efficient Buildings



Resilience Hubs

Cool Neighborhoods

Neighborhood Programs

Cool Neighborhoods make the hottest part of a neighborhood safer and more pleasant with plants, water features, and cooling materials such as cool pavement and cool roofs.

Community Discussion and Ideas

- Cool Neighborhoods was discussed as a strategy to help mitigate both the extreme heat and flooding that residents experience on many of the major corridors in the neighborhood.

- Attendees proposed incorporating shade structures at bus stops along key corridors to provide relief from heat for commuters. They also mentioned the potential of incorporating undeveloped lots as areas of opportunity for urban agriculture.

Areas of Opportunity

- Participants highlighted Vanderbilt Avenue, Broad Street, Canal Street, Bay Street, and Van Duzer Street as key corridors that could benefit from the Cool Neighborhoods program.



The above graphic illustrates the Cool Neighborhoods program.

Energy Efficient Buildings

Neighborhood Programs

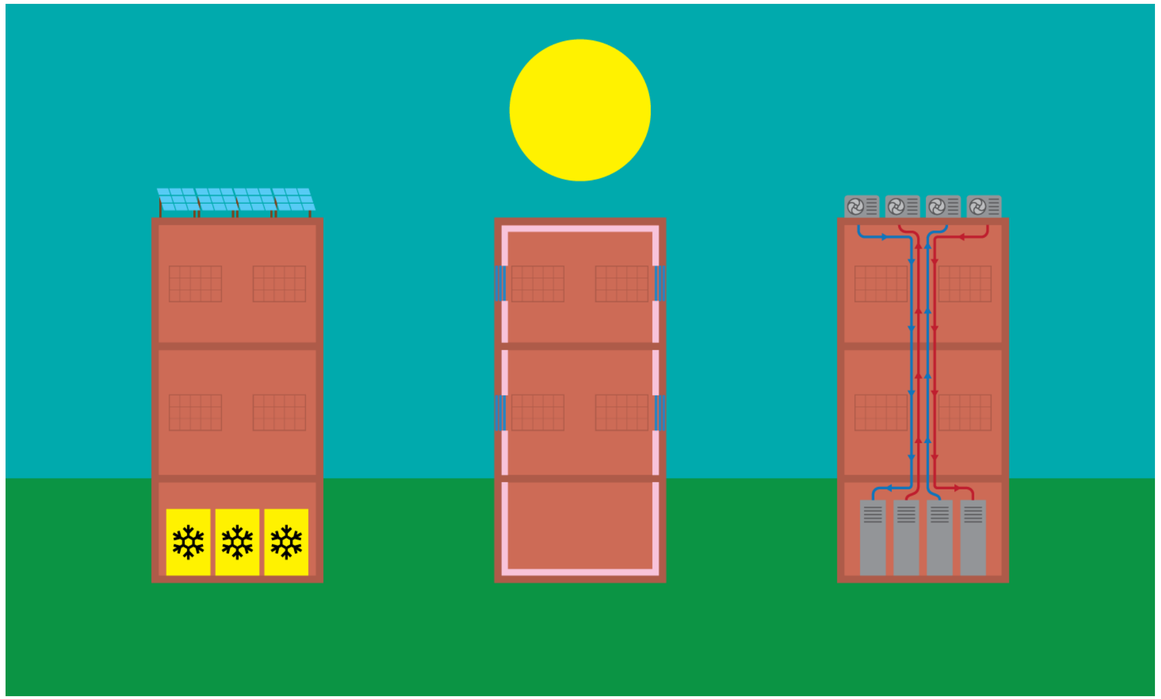
Energy Efficient Buildings make buildings more energy-efficient and integrate more renewable energy sources.

Community Discussion and Ideas

- Participants discussed Energy Efficient Buildings as an opportunity to address issues including power outages and inadequate heating and cooling systems in many of the neighborhood's public housing and co-ops.
- Community members noted a growing effort by homeowners to retrofit their properties.

Areas of Opportunity

- Suggested areas of opportunity include the Stapleton Houses and Park Hill Co-ops.
- Residents expressed interest in measures to improve energy efficiency in publicly owned buildings.



The above graphic illustrates the Energy Efficient Buildings program.

Resilience Hubs

Neighborhood Programs

Resilience Hubs upgrade public spaces to provide resources, programming, and shelter-in-place before, during, and after a climate event.

Community Discussion and Ideas

- Participants envisioned a Resilience Hub program in Stapleton that provides resources during climate events like flooding, extreme heat, and power outages.
- Community members discussed opportunities to invest in trusted spaces to make them more multifunctional so they can better serve the neighborhood. Stapleton's existing network of interconnected community spaces includes libraries, community centers, schools, recreation centers, and parks.

Areas of Opportunity

- Potential spaces for Resilience Hubs that were mentioned include: Stapleton Library, PS 57, IS 49, The Michael J. Petrides School, YMCA Gerard Carter Center at Stapleton Houses, Mary Cali Dalton Recreation Center, Edgewater Village Hall in Tappen Park, and Tompkinsville Park.



The above graphic illustrates the Resilience Hub program.

8. Resources



Resources

Stapleton Resources

Ongoing Projects

- MOCEJ: Geothermal Feasibility Study (St. George Campus on Staten Island

Plans and Reports

- NYC EDC: The Staten Island North Shore Master Plan
- NYC DCP: North Shore 2030 Report
- NYC HPD: The Jersey Street Community Visioning Report

Citywide Resources

- Flooding and Heat Resources
- Extreme Heat
- FloodHelpNY
- Urban Flood Monitoring
- Heat and Cooling Equity
- Hot Weather and Health

Resources

Flood Maps + Data

- Flood map files are included as separate attachments.
- Flood data sources:
    - NYC Open Data Stormwater Flood Maps
    - NYC DCP Flood Hazard Mapper

Heat Maps + Data

- Heat map files are included as separate attachments.
- Heat map data source:
    - DOHMH's Interactive Heat Vulnerability Index

Environmental Justice Data

- EJNYC Mapping Tool

Resources

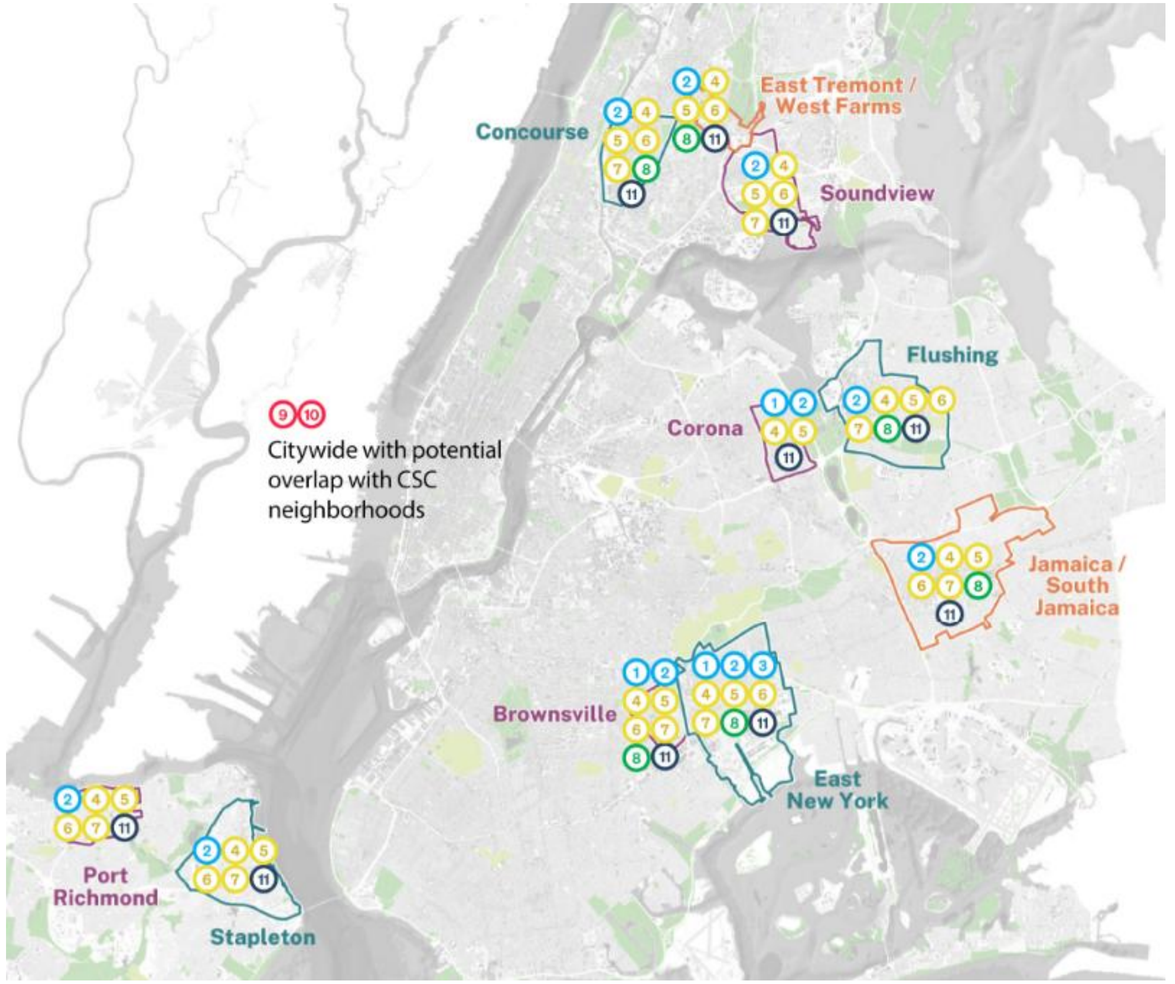
Stapleton NST Contact Information:

NST Member	Organization	Email
Saul Porter	Staten Island Urban Center	sporter@northfieldlfc.or
José Ramírez-Garofalo	Protectors of Pine Oak Woods	ppow@siprotectors.org
Reverend Judy Brown	African Refuge	jlbrown@africanrefuge.org
Antoinnette R. Donegan	Central Family Life Center	tdonegan@centralfamilylifecenter.org
Gloria Levine	Staten Island Council of Churches	angel.gl734@gmail.com
Bobby Digi Olisa	Canvas Institute	bobby@canvasinstitute.org
Peter Lisi	Van Duzer Civic Association	info@vanduzercivic.org

Resources

Agency Efforts in CSC Neighborhoods

1. DEP: **Cloudburst Hubs** in **Corona** (FEMA BRIC), **Brownsville** (HUD CDBG), and **East New York / Hendrix Linden**
2. DEP: **Slotted Catch Basin Cover Upgrades**
3. DEP: **Green Readiness Opportunities for the Workforce**
4. DYCD: **COMPASS**: afterschool programs serving ages K-8
5. DYCD: **Beacon**: school-based community centers
6. DYCD: **Cornerstone**: activities for youth and adults at NYCHA centers
7. DYCD: **Saturday Night Lights**: sports based enrichment programs and safe spaces for youth ages 11 to 18.
8. MOER: **Voluntary Cleanup Program**
9. MTA: **NYCT Extreme Heat Measurement and Mitigation Pilot** (NYCMTC's Unified Planning Work Program)
10. MTA: **Non-Revenue Fleet Electrification Infrastructure Study** (NYCMTC's Unified Planning Work Program)
11. **FloodNet Sensor Expansion & Installation Plan**



Resources

Citywide Grant Applications

As part of the ongoing Climate Strong Communities efforts to secure resources for resilience and sustainability projects, the CSC team has submitted the grant applications below, which aim to support citywide initiatives in addition to neighborhood-specific projects.

Project	Grant Program / Agency	Focus	Date	Status
Expanding the Urban Forest for Community Health*	U.S. Environmental Protection Agency (EPA) Community Change Grant	Expand urban tree canopy in heat- and pollution-vulnerable communities	Summer 2024	Not advanced
Nature-Based Solutions (NYC Shoreline Study)*	New York State Department of State (DOS) Local Waterfront Revitalization Program (LWRP)	Identify opportunities for nature-based shoreline strategies to reduce coastal storm risk	Summer 2024; resubmitted Summer 2025	Not advanced
Stormwater Building Codes	New York State Department of Environmental Conservation (DEC) Climate Smart Communities (CSC)	Develop building code amendments to address stormwater flooding	Summer 2025	Not advanced
	Federal Emergency Management Agency (FEMA) Building Resilient Infrastructure and Communities (BRIC)		Fall 2024	Undergoing further review by FEMA before the BRIC program was cancelled in 2025
Resilience Innovation Incubator (Flood + Heat Sensors)	National Science Foundation (NSF) Regional Resilience Innovation Incubator (R2I2)	Deploy sensors to measure flood and heat mitigation effectiveness	Winter 2025	Not advanced
Urban Forest LiDAR Analysis*	Allen Family Foundation	Use LiDAR data to support citywide urban forest planning	Winter 2026	Under review (as of Spring 2026)

*CSC advised on or reviewed this application but did not author it.

Thank you!