

NYC Environmental Justice Alliance

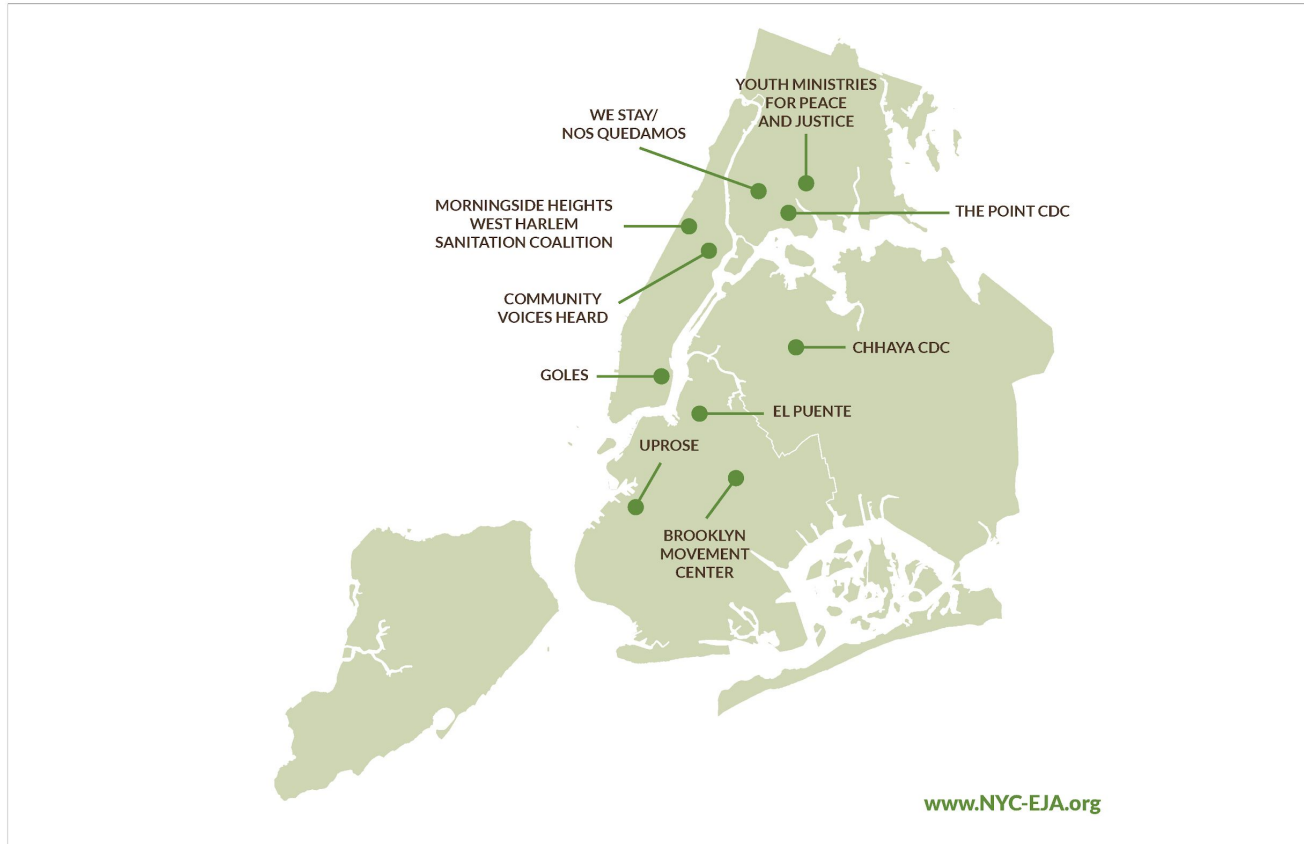
Resiliency Briefing



April 2020



NYC-EJA Members





NYC Climate Justice Agenda 2020

NYC CLIMATE JUSTICE AGENDA 2020

**A CRITICAL DECADE FOR
CLIMATE, EQUITY, & HEALTH**



NEW YORK CITY ENVIRONMENTAL JUSTICE ALLIANCE
APRIL 2020

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Environmental Justice Alliance

- **Reduce Greenhouse Gases and Localized Emissions**
- **Advance a Just Transition Towards an Inclusive, Regenerative Economy**
- **Cultivate Healthy and Resilient Communities**



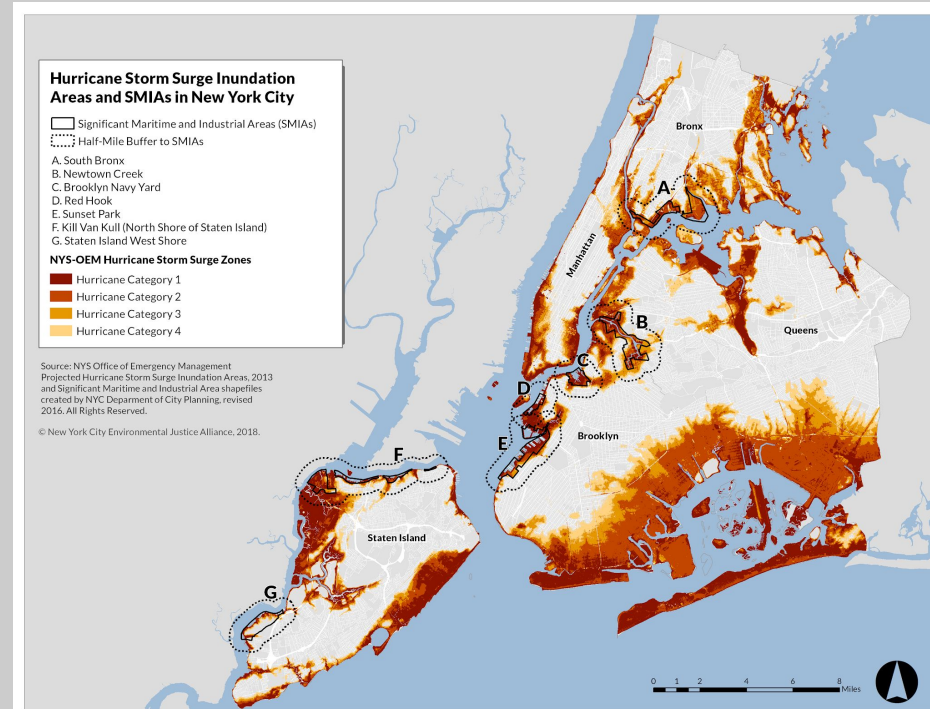
Waterfront Justice

Climate Risks

- NPCC 2019 report's projections demonstrate that sea-level rise, tidal patterns, flooding, and storm surge will increasingly threaten NYC's coastlines.

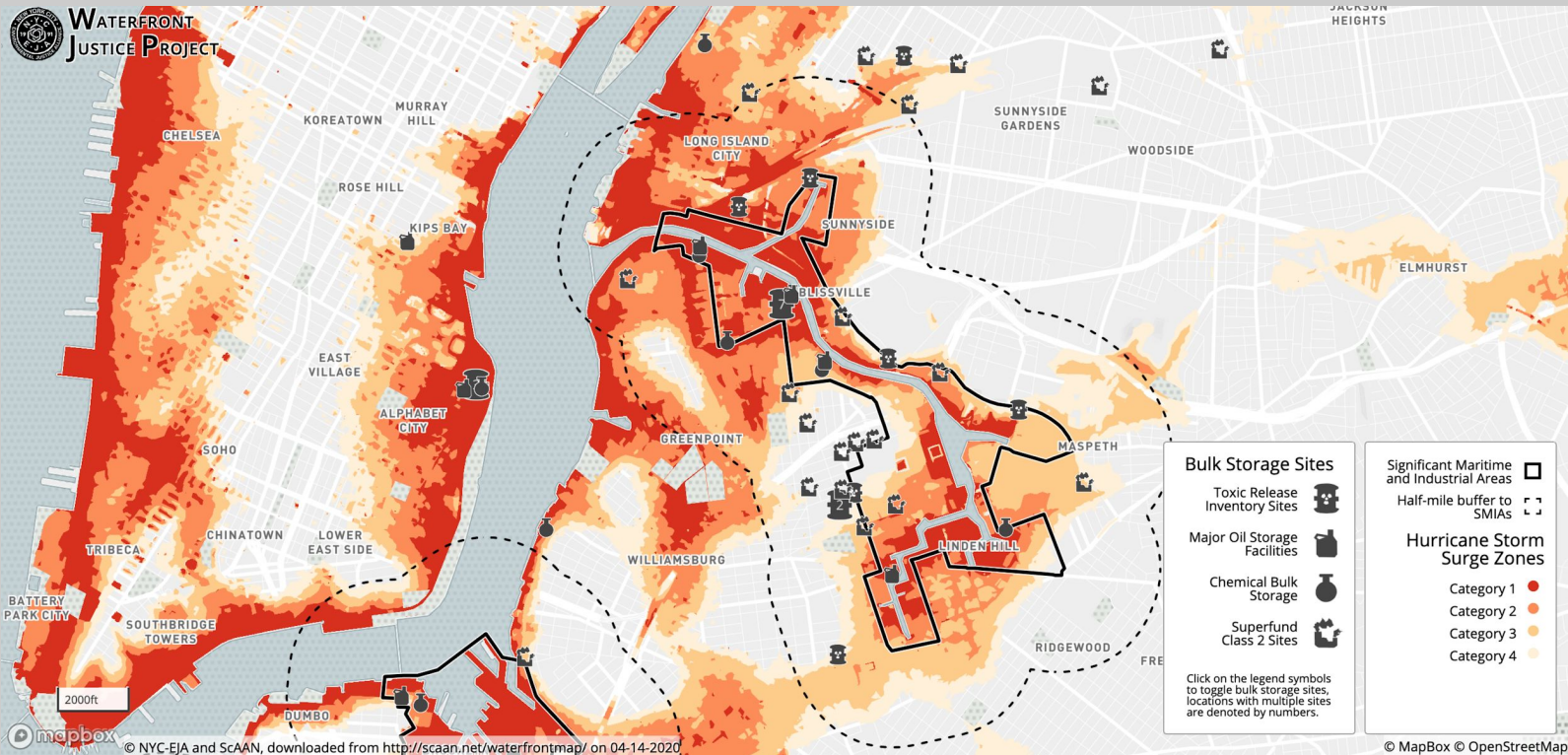
Waterfront Justice Project Goals

- Address climate change impacts in the industrial waterfront
- Support community-based research and actions that reduce environmental health risks in Sunset Park & South Bronx





Waterfront Justice Project Interactive Map





Five Borough Resiliency

Coastal Protections Priorities

- Prioritize flood-vulnerable communities across the city, including Hunts Point, East Harlem, North Brooklyn, and Sunset Park.
- NYC-EJA recommends incorporating nature-based infrastructure and shoreline interventions as an equitable solution for disproportionate climate vulnerabilities and negative public health outcomes.
- NYC-EJA opposed the \$119 billion sea wall proposal, one of the options put forth by USACE, but are troubled that the study did not receive continued federal funding.
- Coastal resiliency investments should benefit NYC's environmental justice communities every day of the year by maximizing the numerous co-benefits of green infrastructure.





Benefits of Green Infrastructure to Environmental Justice Communities

Green Infrastructure Equity

- Advocate for strong and timely ecologically-grounded coastal protections and resiliency investments
- Advance nature-based solutions in EJ communities, including: stormwater management, street trees, community gardens, bioswales, and open space.
- Improving the water quality of waterways
- Mitigating urban heat island effect
- Improving air quality
- Enhancing coastal resiliency
- Reducing energy demand
- Fostering community cohesion (recreational space/ education)
- Creating local workforce development opportunities

(GREEN) INFRASTRUCTURE TODAY, FOR RESILIENCE TOMORROW

HUNTS POINT, NEW YORK

The City of New York and the Hunts Point community have an important opportunity to build RESILIENCE and COMMUNITY while conserving precious tax dollars in the process. A long-standing focus on heavily engineered infrastructure for water management, transportation, power, coastal resiliency and other services has left Hunts Point with only scant traces of the rich wetland, shoreline, and forest ecosystems that thrived here historically. Today, though Hunts Point is a vital commerce hub for New York City, community members not only struggle with loss of nature and greenspace, but also many related effects like persistent flooding, air pollution, and noise.

THE OPPORTUNITY

The Hunts Point community is proactively looking to reintroduce nature-based solutions to help reduce pressing environmental challenges, like persistent flooding, while also providing broad community benefits like access to parks and recreation, better air quality and protection from extreme heat. Nature-based solutions have proven to be cost-effective for many resilience challenges throughout the world, often providing a high return-on-investment as measured through public and private benefits. Though the benefits are clear, progress in Hunts Point – and in many communities around the country – has been painfully slow. Natural infrastructure should be considered a fundamental feature of a healthy resilient community rather than an afterthought. Reintroduction of nature requires collaboration, creativity, and a new way of thinking about our communities and about nature's role in our future.

A PROMISING START, BUT ONLY A START

Following the devastation of Hurricane Sandy, the Rebuild-by-Design competition was launched to award federal funding for resilience-building projects. The Hunts Point residents eagerly engaged and produced the Hunts Point Lifelines proposal, which ultimately received a total of \$45M in combined federal and local matching funds. These dollars have been invested in an energy pilot project that will increase the resiliency of critical facilities through a local in-generation microgrid for the Hunts Point Food Distribution Center, and rooftop solar and energy storage for two public schools. While this project will benefit the commercial hub and community at large, the severe flood risk remains, as do many other challenges within the community.

A TREE IS NOT JUST A TREE

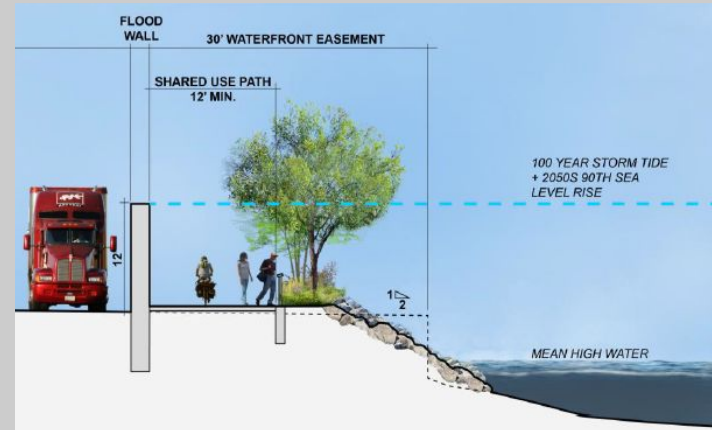
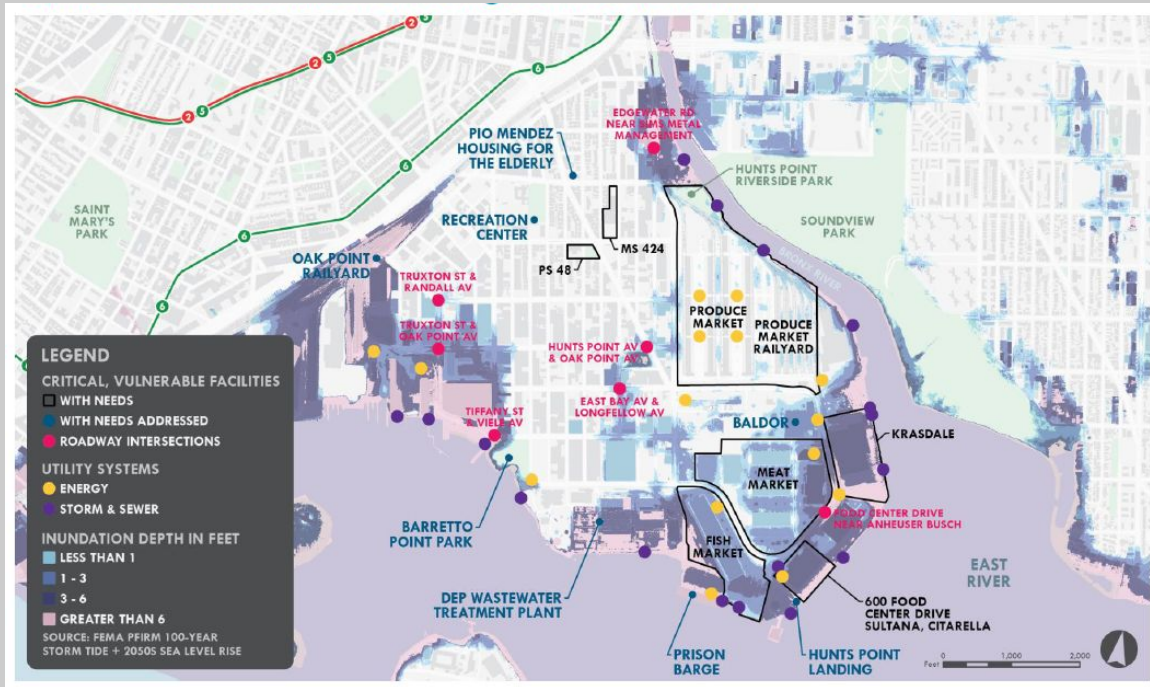
Trees are just one of many types of natural infrastructure that can address community challenges while building quality of life. This table highlights the value of trees in Hunts Point, based on information from The New York City Street Tree Map.

BENEFIT	VALUE PER TREE	VALUE IN HUNTS POINT
STORMWATER INTERCEPTION	\$9	\$20,676
REDUCED BUILDING COOLING COSTS	\$84	\$286,096
REMOVAL OF AIR POLLUTION	\$6	\$21,824
CARBON SEQUESTRATION	\$2	\$6,778
TOTAL	\$103	\$353,152

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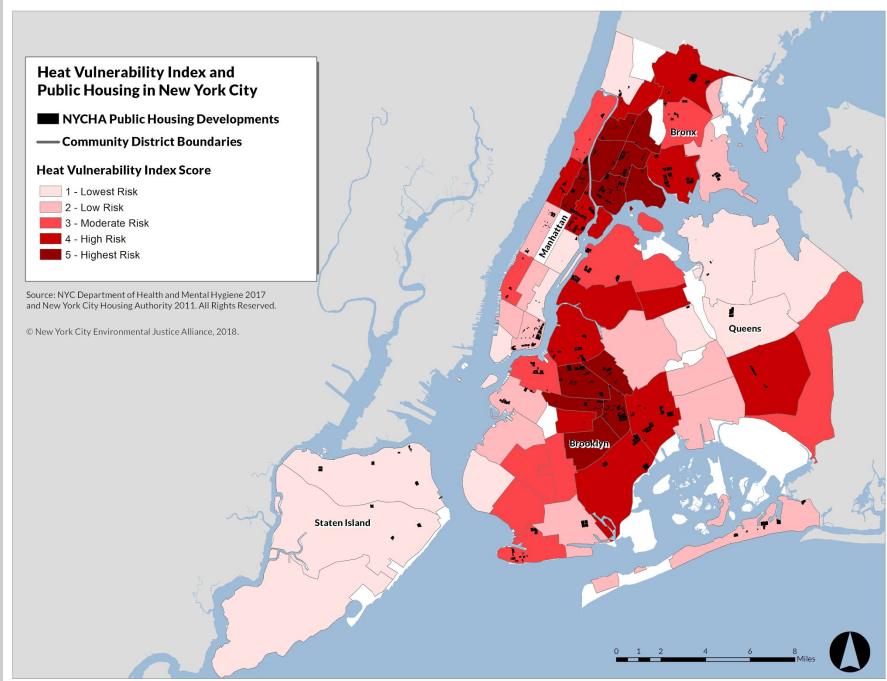


Hunts Point Resiliency





Extreme Heat & Community Preparedness




- Over half of NYCHA residents live in the city's most heat vulnerable neighborhoods
- Advocate for heat mitigation and community preparedness investments in heat-vulnerable communities
- Support the development of neighborhood level community preparedness plans
- Ensure that NYC is prepared for extreme heat by ensuring accurate heat mortality data, making cooling center locations available prior to events, and create a dedicated funding stream for extreme heat community preparedness.



Street Trees and Extreme Heat Mitigation

- Trees have the ability to store and absorb carbon emissions that are driving the climate crisis, and absorb harmful co-pollutants like particulate matter that affect respiratory health.
- Trees provide cooling by mitigating the urban heat island effect through evapotranspiration and shading.
- We continue to urge that the City expand the Cool Neighborhoods NYC street tree commitment, and renew the successful MillionTreesNYC program to increase urban canopy coverage and ensure the long-term maintenance and health of the city's urban forests.



**just nature
NYC**

HOW A HEALTHY AND EQUITABLE URBAN FOREST CAN HELP COMMUNITIES THRIVE

New York City's Urban Forest and Why It Matters


In a city filled with concrete and pollution from auto (or vehicle) exhaust, heatwaves and other environmental risks, our trees play an essential role in New York City. New York City's urban forest encompasses every tree in the city, including those along streets and greenways, in public parks, community gardens, cemeteries, yards, and other spaces, both publicly and privately owned.

According to the U.S. Forest Service, there are nearly seven million trees across the five boroughs,¹ but we

anticipate there is space to plant and maintain more, and an opportunity to improve care of this valuable resource which can directly benefit the health and wellbeing of all New Yorkers.

The urban forest provides multiple benefits that include improving human health, environment, mitigating climate change impacts, and increasing community resilience, particularly in communities that generally lack green and open space.² When trees are planted and maintained equitably, the urban forest can help address

systemic inequalities and improve the quality of life for New York City's most vulnerable residents, often part of environmental justice communities. As we face the increasingly challenging and dangerous reality of climate change locally, New York City must realize a creative, robust, and equitable vision for leveraging nature-based solutions.³



THIS PAGE: Community residents on a shaded street on a weekend morning in Brooklyn © PM10/istock.com

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Just Nature NYC

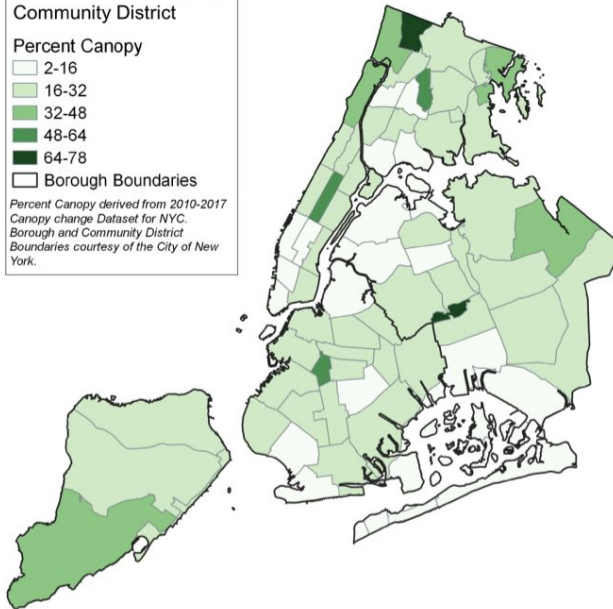
Percent Tree Canopy by Community District

Percent Canopy

- 2-16
- 16-32
- 32-48
- 48-64
- 64-78

□ Borough Boundaries

Percent Canopy derived from 2010-2017 Canopy change Dataset for NYC. Borough and Community District Boundaries courtesy of the City of New York.



Heat Vulnerability Index by Community District

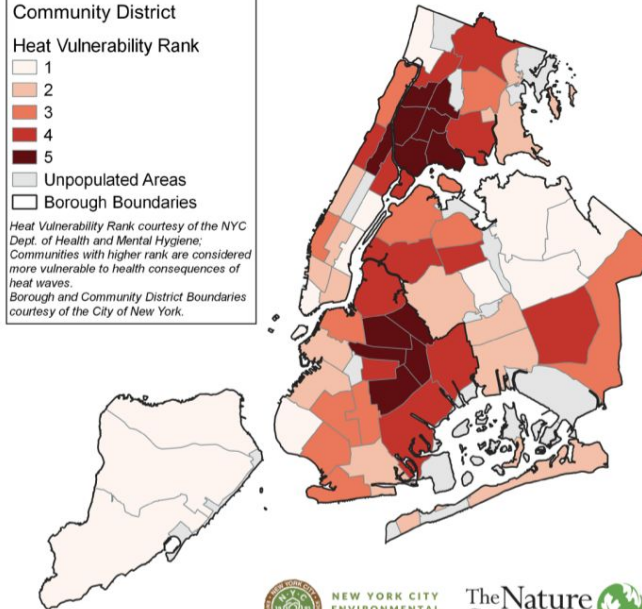
Heat Vulnerability Rank

- 1
- 2
- 3
- 4
- 5

□ Unpopulated Areas

□ Borough Boundaries

Heat Vulnerability Rank courtesy of the NYC Dept. of Health and Mental Hygiene. Communities with higher rank are considered more vulnerable to health consequences of heat waves. Borough and Community District Boundaries courtesy of the City of New York.



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Figure 1. Maps of Tree Canopy Coverage (left) and Heat Vulnerability (right) by NYC Community District.



Integrated Climate Resiliency



Thank You!

