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planNYC

UPDATE APRIL 2011

**A GREENER,
GREATER
NEW YORK**



Updated in 2011, PlaNYC addresses ten key issues



Housing & Neighborhoods



Parks & Public Space



Brownfields



Waterways



Water Supply



Transportation



Energy



Air Quality



Solid Waste



Climate Change

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Climate Change



**Increase the resilience of our communities,
natural systems, and infrastructure to climate risks**

- 1. Assess vulnerabilities and risks from climate change**
- 2. Increase the resilience of our built and natural environments**
- 3. Protect public health from the effects of climate change**
- 4. Increase the city's preparedness for extreme climate events**
- 5. Create resilient communities through public information and outreach**



**PlaNYC outlines a five-pronged approach
to increase our climate resilience**

Climate Change Projections for New York City¹

	BASELINE 1971-2000	2020s	2050s	2080s
Air Temperature²	55°F	+ 1.5 to 3°F	+ 3 to 5°F	+ 4 to 7.5°F
Precipitation²	46.5 in	+ 0 to 5%	+ 0 to 10%	+ 5 to 10%
Sea Level Rise^{2,3}	NA	+ 2 to 5 in	+ 7 to 12 in	+ 12 to 23 in
Rapid Ice-Melt Sea Level Rise⁴	NA	+ 5 to 10 in	+ 19 to 29 in	+ 41 to 55 in
Number of Days Per Year With Temperature Over 90°F	14	23 to 29	29 to 45	37 to 64
1-in-100 Year Flood to Reoccur, On Average⁵	once every 100 years	once every 65 to 85 years	once every 35 to 55 years	once every 15 to 35 years

1 Based on 16 Global Climate Models (GCMs) (7 GCMs for Sea Level Rise) and three emissions scenarios. Baseline is 1971-2000 for temperature and precipitation and 2000-2004 for sea level rise. Data from National Weather Service (NWS) and National Oceanic and Atmospheric Administration (NOAA). Temperature data are from Central Park; precipitation data are the mean of the Central Park and La Guardia Airport values; and sea level data is from the Battery at the southern tip of Manhattan (the only location in NYC for which comprehensive historic sea level rise data are available).

2 Projections represent the middle 67% of values from model-based probabilities; temperatures ranges are rounded to the nearest half-degree, precipitation to the nearest 5%, and sea level rise to the nearest inch.

3 The model-based sea level rise projections may represent the range of possible outcomes less completely than the temperature and precipitation projections.

4 Rapid ice-melt scenario is based on acceleration of recent rates of ice melt in the Greenland and West Antarctic Ice sheets and paleoclimate studies.

5 Does not include the rapid ice-melt scenario.

Source: New York City Panel on Climate Change

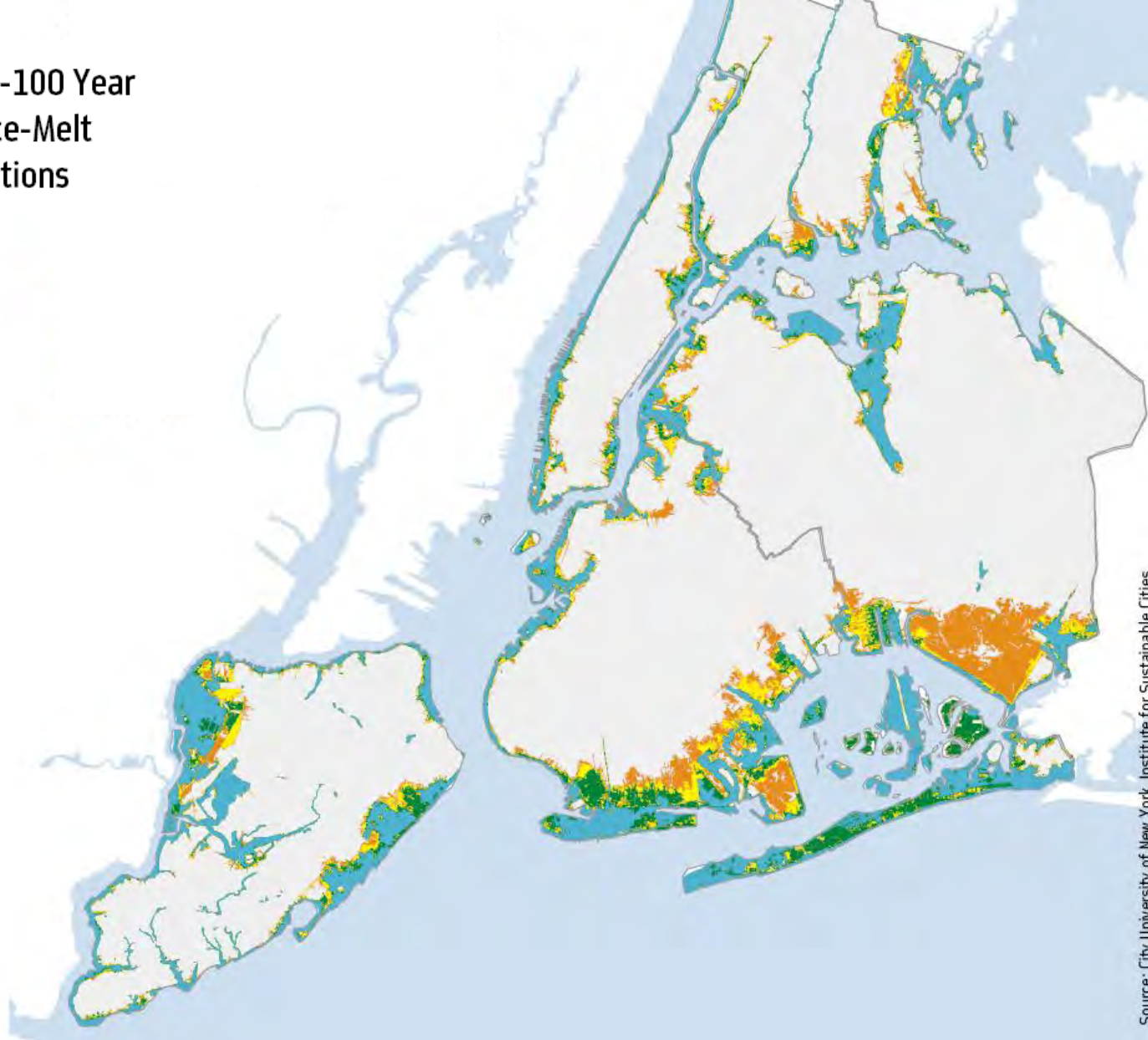


Assess vulnerabilities and risks from climate change:
Regularly assess climate change projections

Potential Future 1-in-100 Year Flood Zones: Rapid Ice-Melt Sea Level Rise Projections

1-in-100 Year Flood Zones

- TODAY
- 2020s
- 2050s
- 2080s



Source: City University of New York, Institute for Sustainable Cities

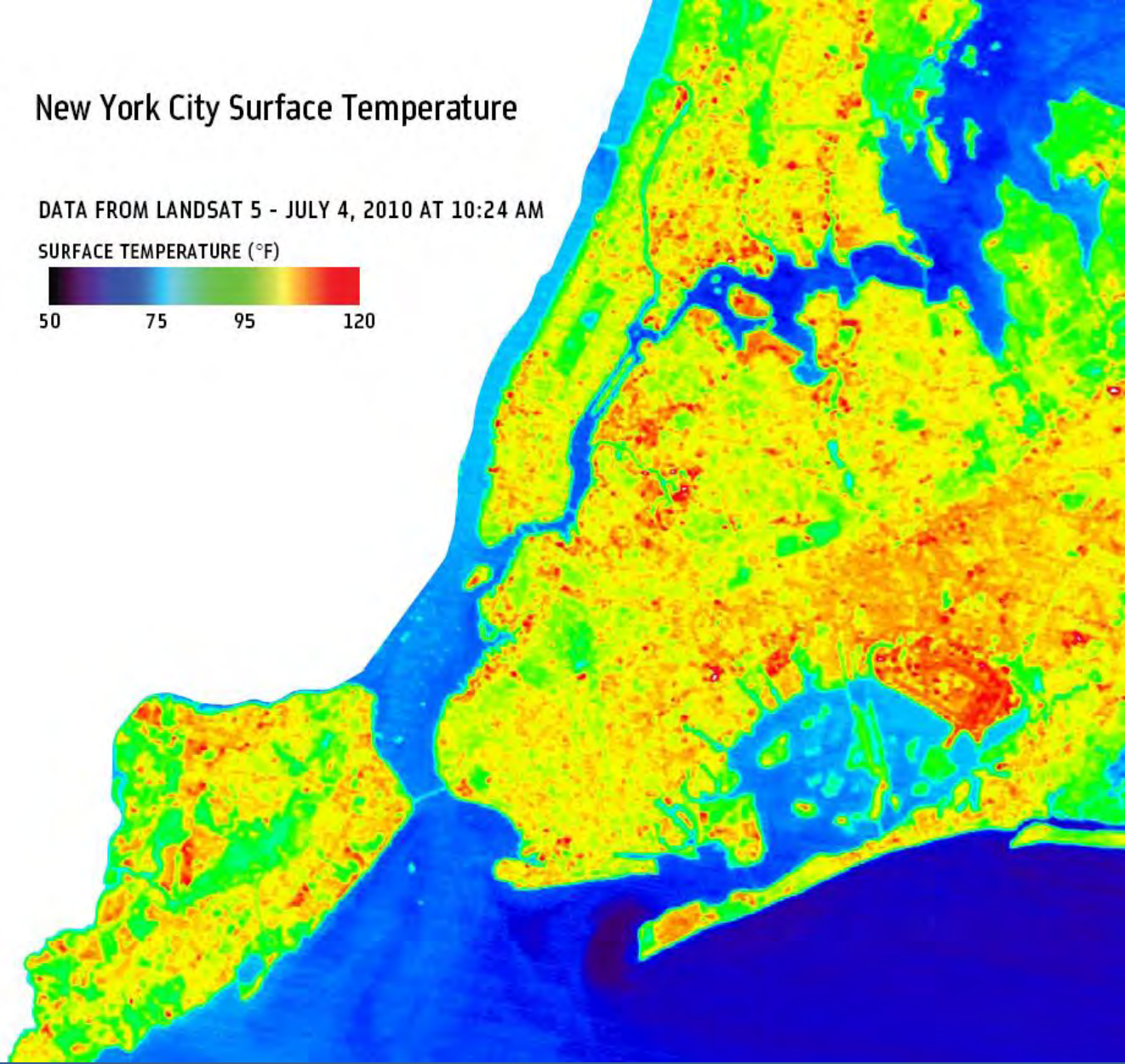


Assess vulnerabilities and risks from climate change:
Update the City's Flood Insurance Rate Maps

New York City Surface Temperature

DATA FROM LANDSAT 5 - JULY 4, 2010 AT 10:24 AM

SURFACE TEMPERATURE (°F)



Assess vulnerabilities and risks from climate change:
Develop tools to measure our current and future climate exposure

Selected 311 Calls for Service Community District #2 Queens, New York (Pilot Phase, SMSA #2)

Density surface generated from x,y coordinates of DEP food related Service Requests. 4,948 points were used as input. The surface is based on a 1000 foot search radius and a resolution of 25 feet. Data provided by DoITT-311 for the following storm dates: 9/8/04, 4/15/07, 7/18/07, 8/8/07



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**Increase the resilience of our built and natural environments:
Protect New York City's critical infrastructure**

Over 200 technical experts identified 111 ways to “green” NYC’s construction codes.

Recommendations include:

- Create and tie codes to flood maps with sea level rise
- Safeguard toxic materials in flood zones
- Ensure toilets and sinks can operate during blackouts
- Enhance building water supply
- Investigate passive survivability strategies

URBAN
GREEN



Executive Summary
February 2010

NYC GREEN CODES TASK FORCE

A REPORT TO MAYOR MICHAEL R. BLOOMBERG & SPEAKER CHRISTINE C. QUINN

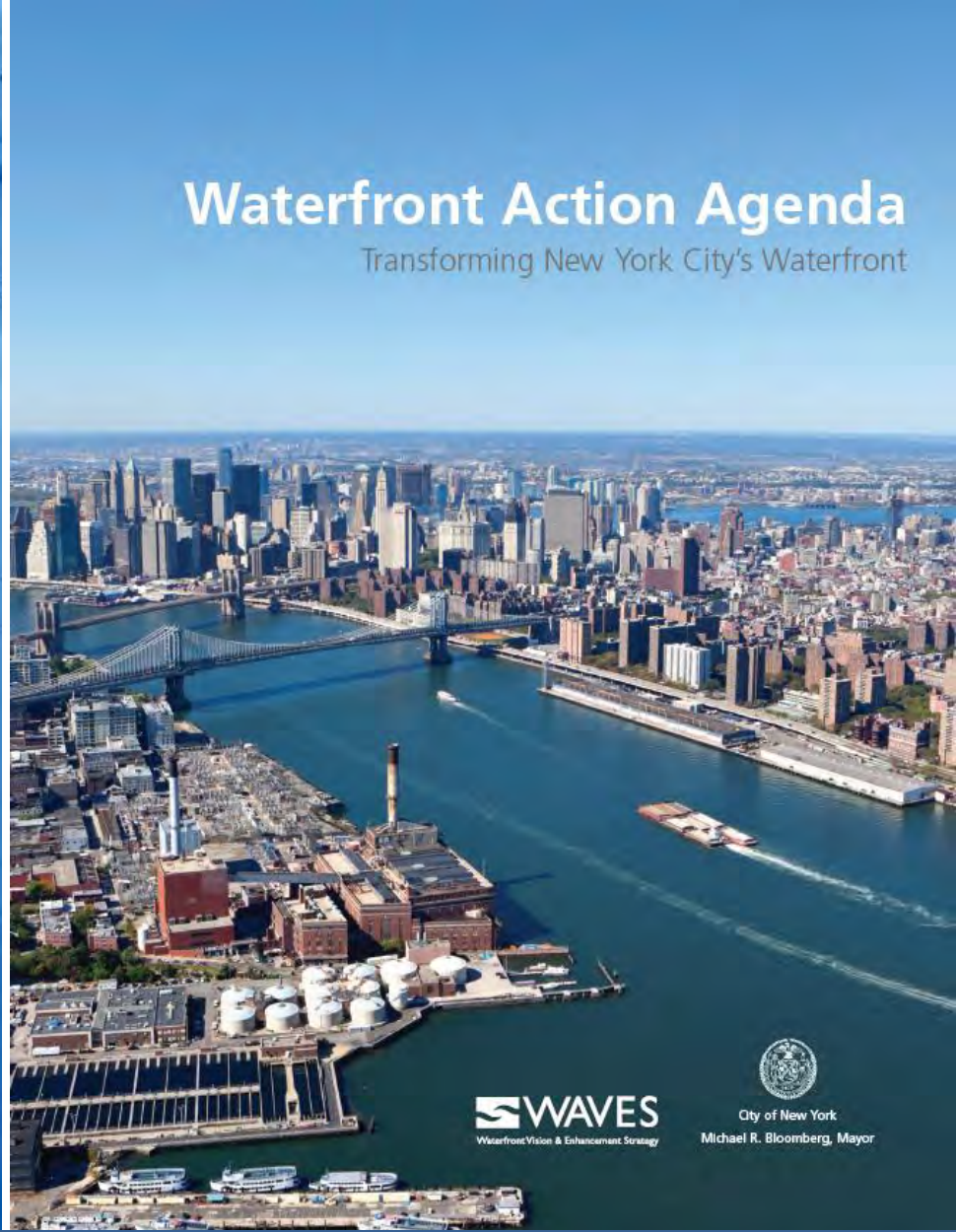


Increase the resilience of our built and natural environments:
Update regulations to increase the City’s resilience



Waterfront Action Agenda

Transforming New York City's Waterfront



**Increase the resilience of our built and natural environments:
Update regulations to increase the City's resilience**



Increase the resilience of our built and natural environments:
Identify and evaluate citywide coastal protective measures



Protect public health from the effects of climate change:
Mitigate the urban heat island effect

**WHY SHOULD YOU WORRY
ABOUT A HURRICANE?**



**IT'S NOT LIKE YOU
LIVE ON AN ISLAND.**

NYC OFFICE OF EMERGENCY MANAGEMENT

**READY NEW YORK
BEAT THE HEAT**

OEM
New York City
Office of Emergency Management
Michael R. Bloomberg, Mayor
Joseph F. Bruno, Commissioner



**Increase the city's preparedness for extreme climate events:
Integrate climate change projections into emergency management**



HOUSING AND NEIGHBORHOODS

- Foster the creation of Greener, Greater Communities
- Increase the sustainability of City-financed and public housing

PARKS AND PUBLIC SPACE

- Create a network of green corridors
- Plant one million trees
- Support ecological connectivity
- Incorporate sustainability through the design and maintenance of all public space

WATERWAYS

- Complete cost-effective grey infrastructure projects to reduce CSOs and improve water quality
- Expand the sewer network
- Optimize the existing sewer system
- Expand the Bluebelt program
- Build public green infrastructure projects
- Engage and enlist communities in sustainable stormwater management
- Provide incentives for green infrastructure
- Enhance wetlands protection
- Restore and create wetlands

WATER SUPPLY

- Maintain and upgrade dams
- Increase operational efficiency with new technology
- Increase water conservation

ENERGY

- Implement the Greener, Greater Buildings Plan
- Improve our codes and regulations to increase the sustainability of our buildings
- Improve compliance with the energy code and track green building improvements citywide
- Improve energy efficiency in smaller buildings
- Improve energy efficiency in historic buildings
- Provide energy efficiency financing and information
- Support cost-effective repowering or replacement of our most inefficient and costly in-city power plants
- Encourage the development of clean distributed generation
- Foster the market for renewable energy in New York City
- Ensure the reliability of New York City power delivery
- Develop a smarter and cleaner electric utility grid for New York City



**30 additional initiatives in other chapters
will increase our climate resilience**

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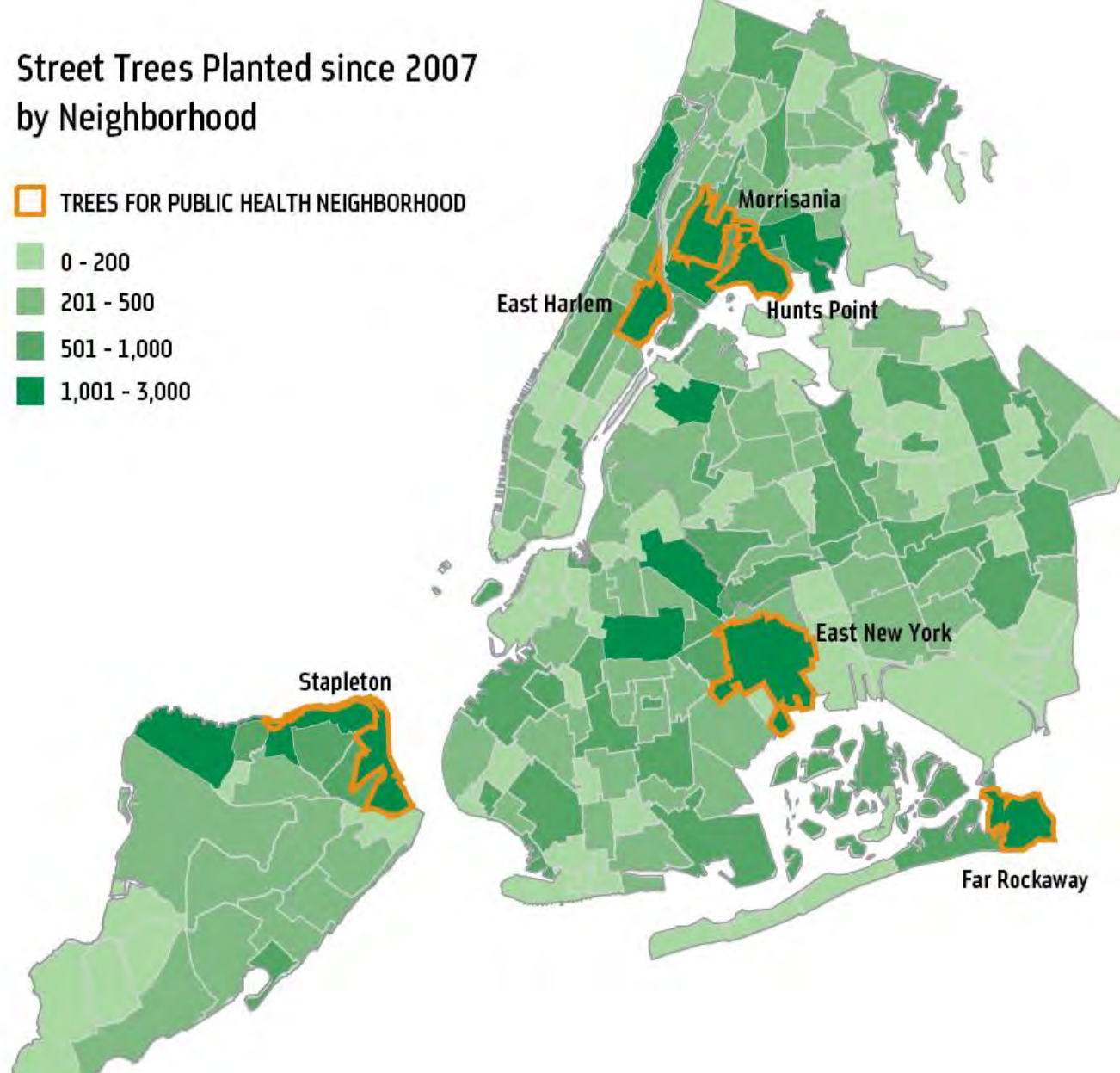
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Street Trees Planted since 2007 by Neighborhood



**Planted over 500,000 trees
as part of MillionTreesNYC**



**Designing parks and waterfront areas
to accommodate water**



**Investing \$1.5 billion as part of
Green Infrastructure Plan**



**Developing a wetland
protection strategy**



Source: dlandstudios



Restoring and creating new wetlands in Jamaica Bay



**Launched “Solar Empowerment Zones”
to increase the use of solar energy**

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