



A STRONGER, MORE RESILIENT NEW YORK

EESI BRIEFING

July 25, 2014



The City of New York

A Greener, Greater New York

PlaNYC –released in 2007, updated in 2011 – addressed four key challenges and launched the City’s sustainability and resiliency efforts.

1. Growth

- Prepare for population growth
- Accommodate growth with smart development

2. Infrastructure

- Update or replace aging infrastructure assets
- Reduce lifecycle costs with proper maintenance

3. A Global Economy

- Attract hard-working people from the globe
- Improve quality of life / health for all New Yorkers

4. Climate Change

- Reduce our contribution to the causes and adapt our city to the inevitable effects of climate change



PlaNYC included the launch of the *New York City Panel on Climate Change* and the *Climate Change Adaptation Task Force* – both of which help the City to **identify future risks** and **modernize its infrastructure** to meet those risks.

Recovery, Rebuilding, and Resiliency

In the aftermath of Sandy, the City set up a climate resiliency task force.



The goals were to identify ways to

1. Rebuild neighborhoods not just as they were, but better; and
2. Strengthen critical infrastructure systems

by answering three key questions.

Question 1

What happened during Sandy and why?

Question 2

What could happen in the future?

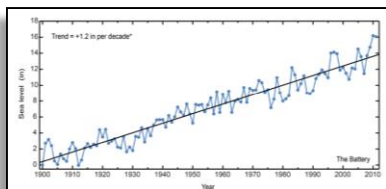
Question 3

How do we rebuild post-Sandy and prepare for a future with climate change?

The Risks of Climate Change

NYC already faces a range of risks from extreme weather and climate change, and those risks grow into the 2020s, 2050s, and beyond.

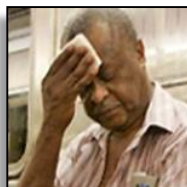
The NYC Panel on Climate Change (NPCC) projects increased chronic climate hazards...



By the 2050s:

- 4.1°F to 5.7°F increase in average temperature
- 4% to 11% increase in average annual precipitation
- Sea levels likely to rise 1-2 ft.; maybe 2½ ft.

...and increased impact from extreme weather events.



By the 2050s:

- Number of days in NYC above 90° could triple

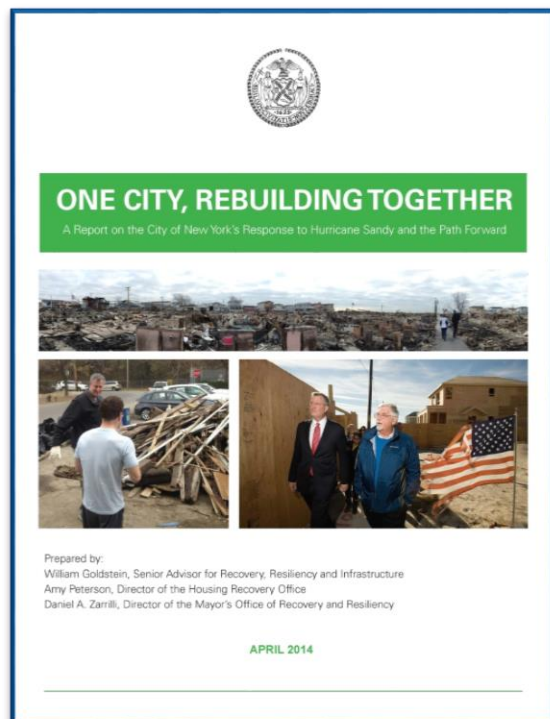
Even today:

- 100-year floodplain expanded by 17 square miles (51%) citywide; 2.3 ft. average increase in 100-year flood elevations; will increase with further sea level rise; now encompasses 68,200 structures

Clearly, Sandy only represents one type of threat to New York City.

One City, Rebuilding Together

In March 2014, Mayor de Blasio released *One City, Rebuilding Together* to accelerate the City's housing recovery program and expand the City's climate resiliency plan.



Enhance policy and planning

- Place-based coordination of land use and infrastructure
- Disclosure of key information via the Sandy Tracker

Expedite efforts to secure Federal funds

- Work to secure additional USACE authorizations
- Accelerate FEMA and HUD investments

Continue collaboration with State efforts

- Secure hazard mitigation funds
- Collaborate with NY Rising community planning process

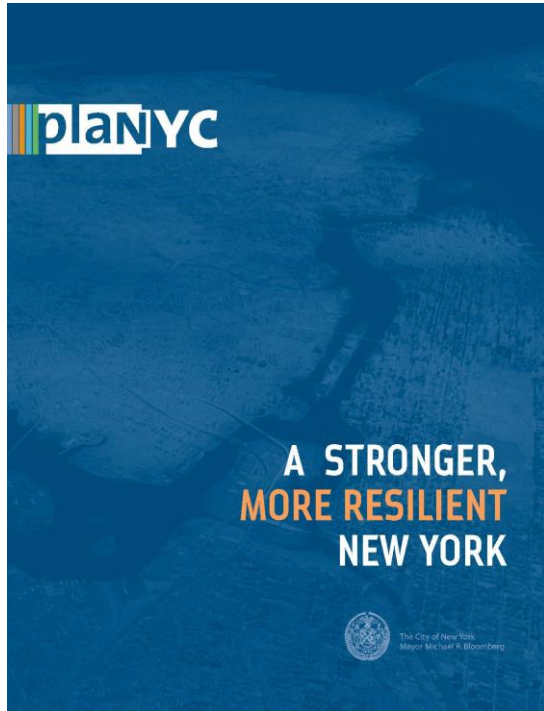
Expand economic opportunity for New Yorkers

- Expand workforce development opportunities
- Ensure local hiring opportunities in resiliency projects

These changes will accelerate delivery of key resiliency projects and ensure that the Sandy recovery works better for all New Yorkers and will be run through a new Mayor's Office of Recovery and Resiliency.

A Stronger, More Resilient New York

Including this roadmap, released in June 2013, to make all New Yorkers safer using a multi-layered approach and based on the best available science.



Strengthen coastal defenses

- Complete existing USACE coastal risk reduction projects
- Expand protections citywide

Upgrade buildings

- Amend the building code to strengthen new construction
- Incent investments in existing buildings

Protect infrastructure and services

- Harden critical assets and supply chains
- Expand natural infrastructure systems

Make neighborhoods safer and more vibrant

- Advocate for flood insurance affordability
- Address underlying social and economic challenges

The City's 257 initiatives comprise **a comprehensive plan** to reduce the risk of extreme weather and climate change. This innovative plan includes funding, an implementation schedule, and **can be achieved over the next ten years.**

Physical Resiliency

Taken together, the plans call for investing in new infrastructure that can reduce the risk to our neighborhoods, critical services, businesses, and vulnerable populations...



Beach nourishment in the Rockaways

Critical Infrastructure

- Coastal Protection
- Buildings
- Insurance
- Utilities
- Liquid Fuels
- Healthcare
- Telecommunications
- Transportation
- Parks
- Water and Wastewater
- Food Supply
- Solid Waste

Social and Economic Resiliency

...while land use changes, economic development, community engagement, job creation, and capacity-building can also promote quicker and more sustained recovery...



- Citywide focus
- Prioritize rebuilding, but seek to address underlying challenges
- Conduct land use studies to promote resiliency
- Cooperate with State and federal rebuilding programs
- Enhance community preparation

Rebuild by Design: BIG on the Lower East Side

A Resilient Transformation

...and bold thinking about resiliency can transform neighborhoods and provide for enhanced safety, economic opportunities, and stronger communities.



Lower Manhattan Multipurpose Levee

Implementation Progress

In April 2014, the City issued this report card showing that it has already taken important steps, with many partners, to launch and advance many of its key initiatives.



Strengthen coastal defenses

- Launched \$3.7 billion coastal protection plan
- Placed over 2.8 million cubic yards of sand on city beaches

Upgrade buildings

- Passed 16 local laws to upgrade the building code
- Developed building resiliency investment program

Protect infrastructure and services

- Secured \$1 billion for electric grid resiliency investments
- Funded stormwater management and bluebelt projects

Make neighborhoods safer and more vibrant

- Secured flood insurance affordability reforms
- Coordinated Federal and State resiliency programs citywide

Of the City's 257 initiatives, 202 are underway and another 29 have already been completed as of April 2014. With this **substantial early progress**, the City is poised to continue its difficult work to achieve **long-term success**.

These Risks Demand Leadership

New York City continues to lead the way in adapting to the risks of extreme weather and a changing climate.



- Though New York has always been **vulnerable to coastal flooding**, Sandy and FEMA's maps show this **vulnerability** to be **greater than previously understood**.
- The City's work shows that not only is this **vulnerability likely to grow with climate change**, but that it also will involve **more than just coastal storms**.
- An economic analysis shows a **real cost of inaction**
- According to FEMA, **every \$1 invested now saves \$4 later** through reduced damage

We have a unique opportunity to buy down these future risks; New York City will not ignore this opportunity.



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