

**RESILIENT NEIGHBORHOODS
INITIATIVE: CANARSIE
FRESH CREEK ASSOCIATION
JUNE 17, 2017**





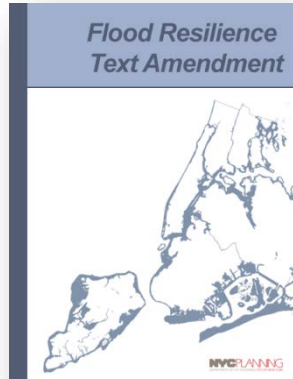
A more resilient NYC is one where neighborhoods, buildings and infrastructure can withstand and recover quickly from flooding and climate events.

#ONENYC

This requires **multiple lines of defense:**

- infrastructure hardening where feasible,
- emergency preparedness, and
- **utilizing building code and zoning** as tools so buildings are protected from future flooding due to sea level rise.

Flood Text (2013) initial, temporary regulations building off EO 230



SRNR (2015) provides additional zoning relief to expedite recovery



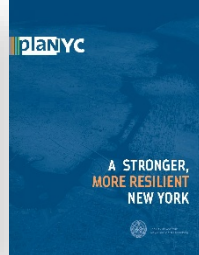
Flood Text II (2018) to be updated and made permanent



Executive Order 230 (2012) mayoral override of zoning



PFIRM + Freeboard (2012) DOB requires most restrictive map; additional elevation



SIRR Report (2013) long-term, citywide resiliency framework



Build it Back (2015) lessons learned in rebuilding effort inform zoning changes



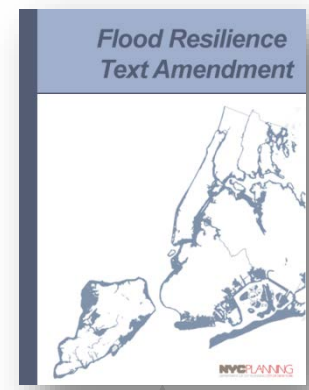
One New York (2015) moves from recovery to future resiliency



Neighborhood Studies (2014-17) will inform the text and local rezonings

Flood resilience zoning (DCP)

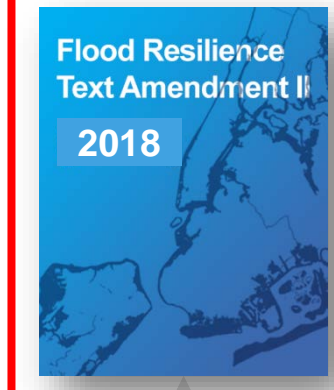
Flood Text (2013) initial, temporary regulations building off EO 230



SRNR (2015) provides additional zoning relief to expedite recovery



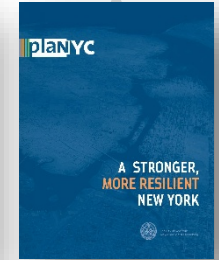
Flood Text II (2018) to be updated and made permanent



Executive Order 230 (2012) mayoral override of zoning



PFIRM + Freeboard (2012) DOB requires most restrictive map; additional elevation



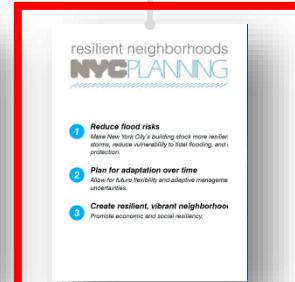
SIRR Report (2013) long-term, citywide resiliency framework



Build it Back (2015) lessons learned in rebuilding effort inform zoning changes



One New York (2015) moves from recovery to future resiliency



Neighborhood Studies (2014-17) will inform the text and local rezonings

Resilient Neighborhoods Initiative

Reduce flood risks

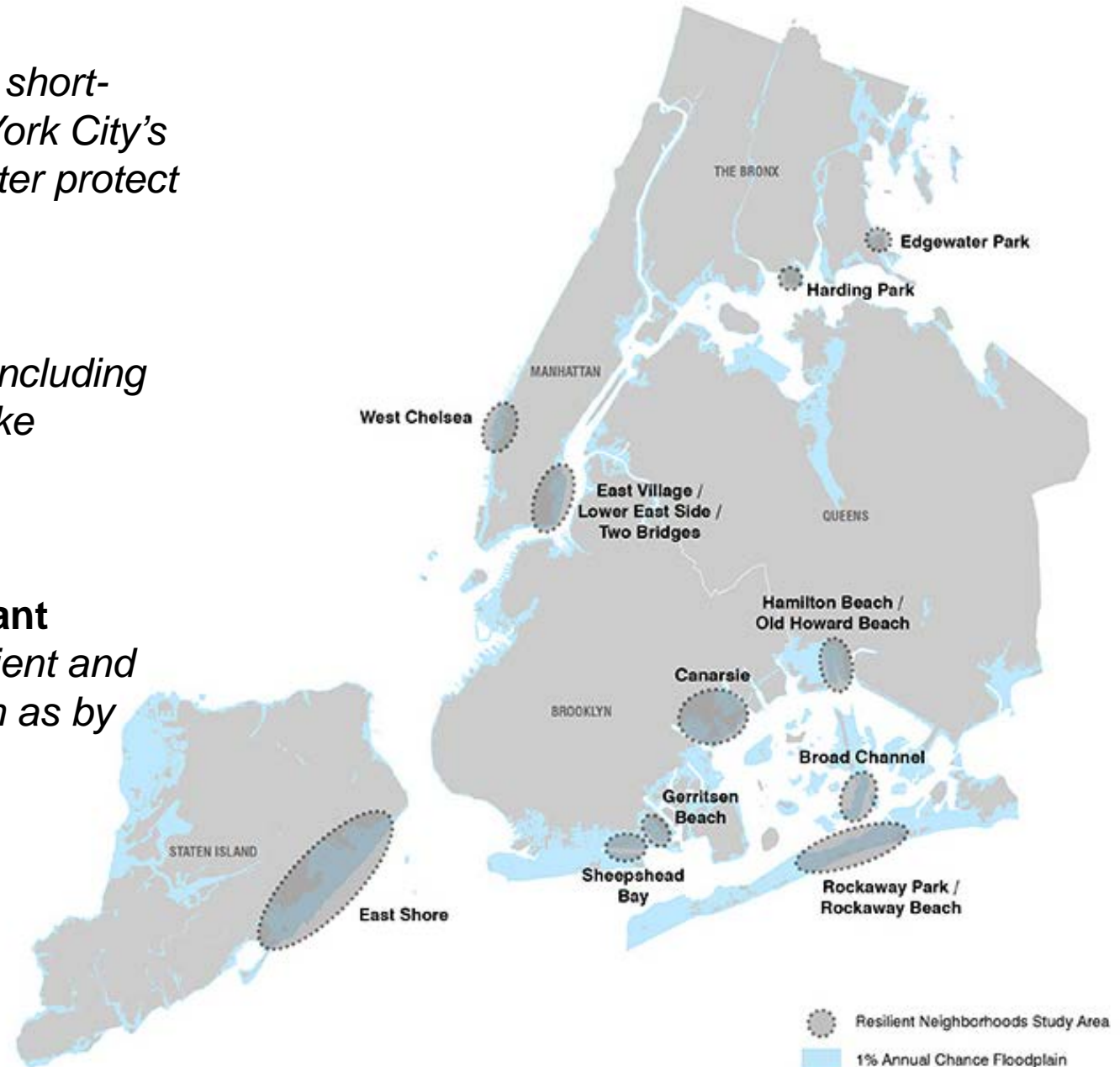
Develop zoning strategies and other tools to advance short-term, cost-effective investments that can make New York City's building stock more resilient to severe storms and better protect our coastline.

Plan for adaptation over time

Climate change will increase coastal risks over time, including more tidal flooding in some areas. It is important to take measures to reduce the long-term vulnerabilities that neighborhoods will face over time.

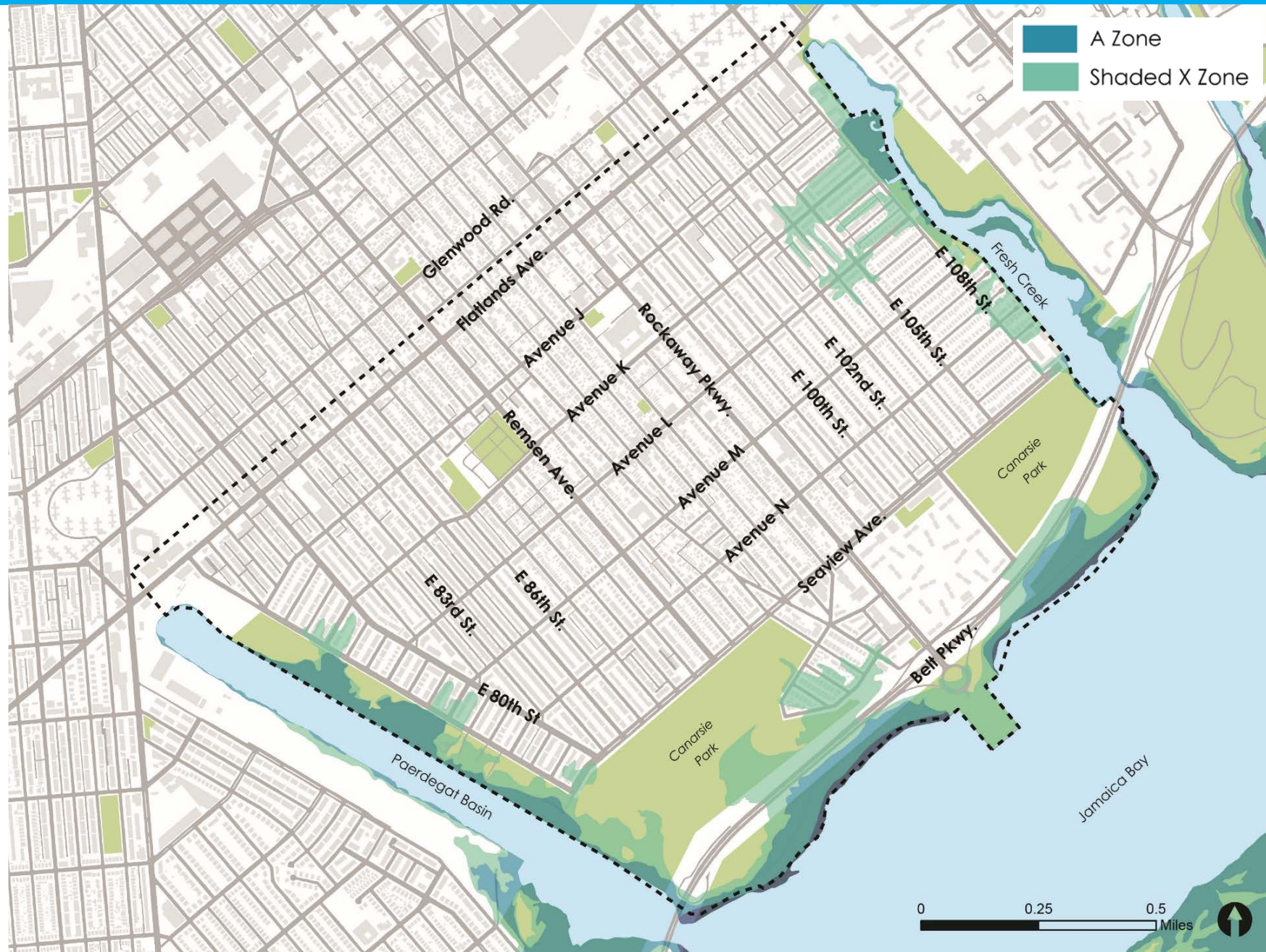
Ensure neighborhoods are both resilient and vibrant

Encourage high-quality development that is both resilient and respects each neighborhood's built environment, such as by limiting building height and improving public space.



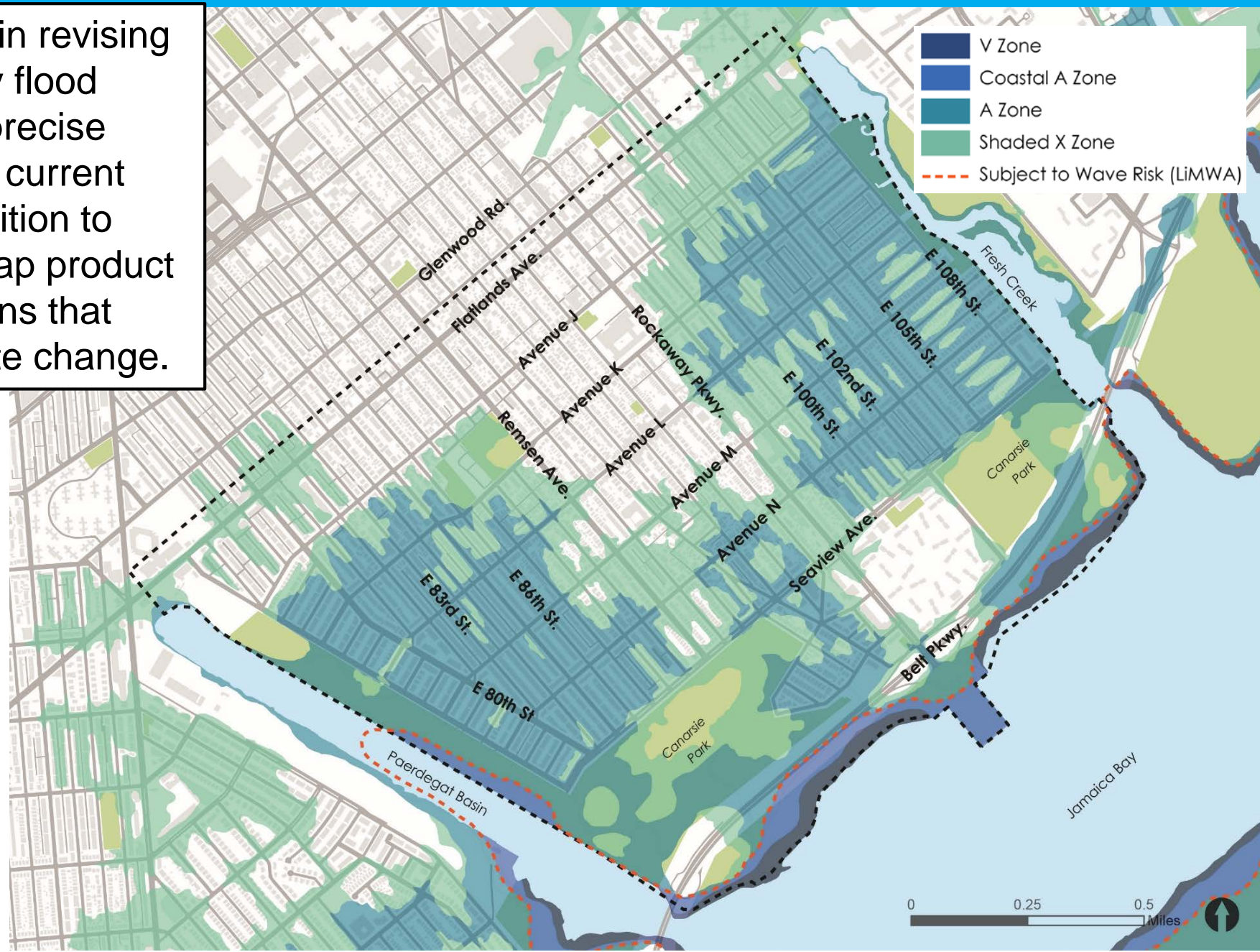
- **Spring 2013 – Winter 2014** Canarsie New York Rising Program
- **June 2014** Canarsie Resilient Neighborhoods Initiative Kickoff at CB18
- **Fall 2014 – Spring 2015** Community Advisory Committee Meetings
- **June 2016** Fresh Creek Civic Association
- **November 2016** Councilmember Maisel Briefing
- **March 2017** Canarsie Climate Forum
- **April 2017** Brooklyn Borough Board/CB 18 Presentation

2007 Flood Insurance Rate Map



2015 Preliminary Flood Insurance Rate Map

FEMA is working in revising the New York City flood maps with more precise flood risk data for current conditions, in addition to creating a new map product for future conditions that account for climate change.



Canarsie's Building Types

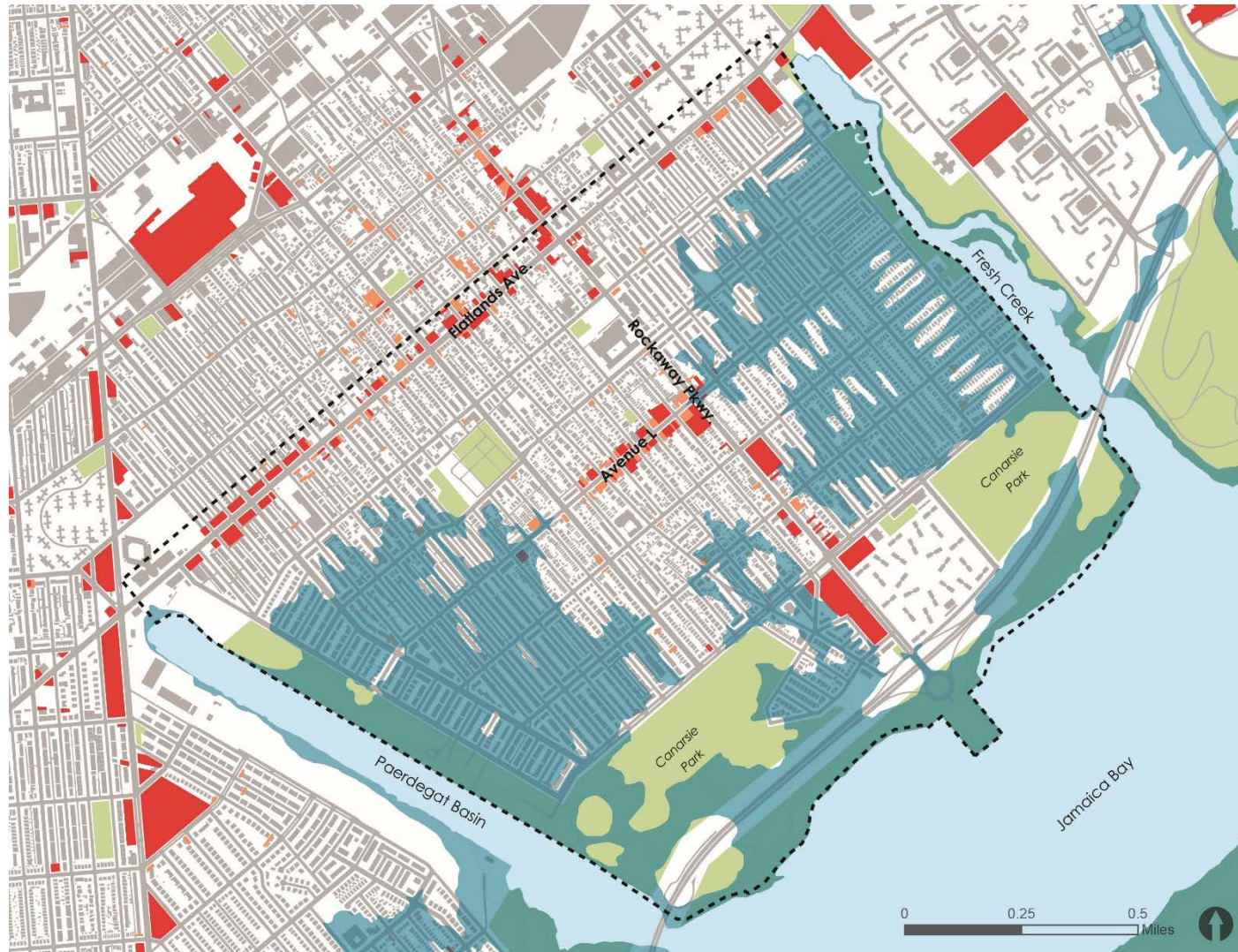


easier to retrofit



harder to retrofit

Canarsie's Retail Corridors



Commercial Uses

- Mixed Commercial/Residential
- Commercial/Office
- PFIRM 1% Annual Chance Floodplain

- Dense residential area of over **83,000 residents and 17,900 residential units**
- **80% of units are in attached or semi-detached buildings**
- **86% of homeowners have mortgages**
- Many homes in Canarsie have **critical systems such as heaters in cellars and basements that are below the DFE and subject to flooding**
- Some homeowners have converted garages and storage spaces to residential areas such as dens or separate residential units

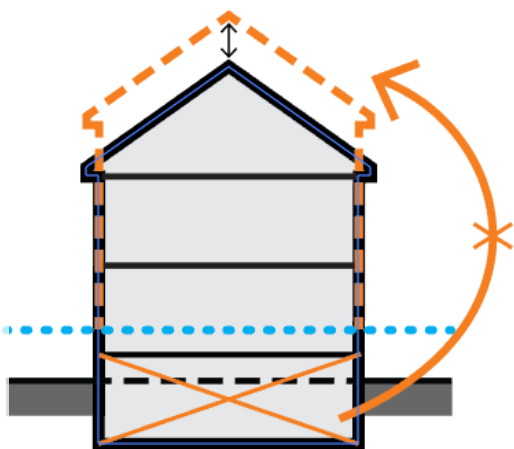
What We've Learned

Based on our work in Canarsie, and other floodplain communities, we've learned:

1

Height

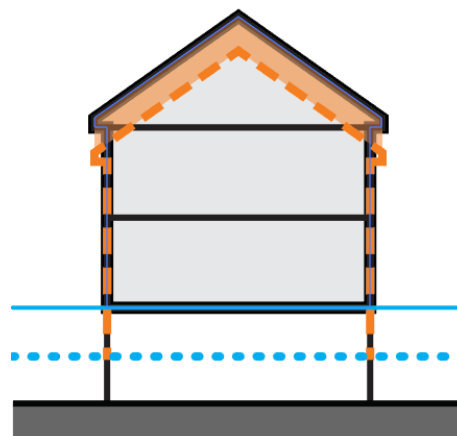
Homeowners may face the loss of subgrade spaces when retrofitting



2

Height

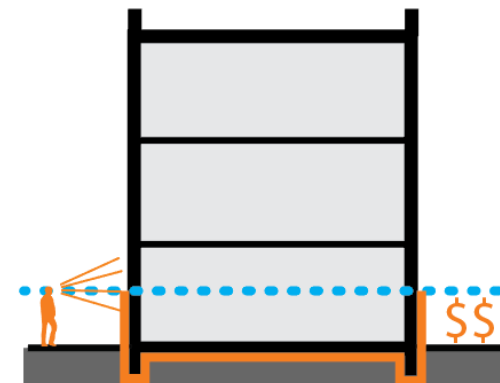
Properties owners may want to address future risk by over-elevating



3

Ground Floors

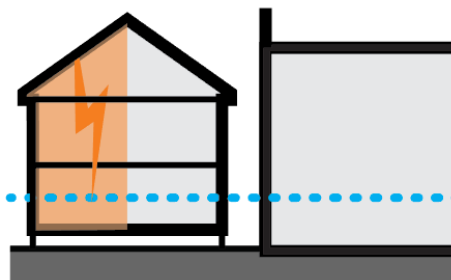
Current incentives to keep active ground floors may not be enough



4

Homes in M Districts

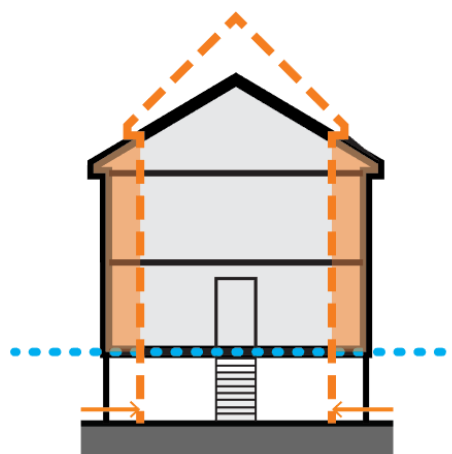
Existing homes in M. Districts, if damaged, may not be able to rebuild



5

Old Homes in Small Lots

Old bungalow homes on small lots may need more flexibility to rebuild in the future



ZONING STRATEGIES

Attached/Semi-detached Housing

Identify citywide zoning modifications that make it easier to undergo retrofitting and replace ground floor uses in vertical additions.



Detached Housing

Identify citywide zoning modifications that make it easier for detached homes to elevate to a height that allow for use of ground floor for parking and storage.



ADDITIONAL RESILIENCY STRATEGIES

Retail Corridors

Canarsie's retail corridors are not in the floodplain. Strategies should be pursued to strengthen existing and future businesses.



Potential for Coastal Protection

Canarsie is surrounded by city and federally owned parkland which could be leveraged to create coastal protection against serious flooding events



Flood Text II



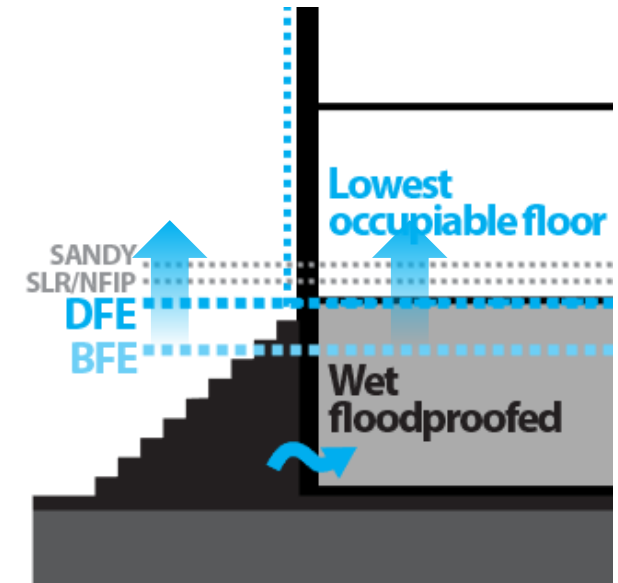
1

Make the provisions of the current, temporary 2013 Flood Text **permanent**



2

Fix and improve provisions based on lessons learned from Resilient Neighborhood Studies and other areas in the floodplain



3

Begin to **promote** new development + proactive retrofitting to high resiliency standards



Given the difficult issues involved, DCP plans a robust public engagement process:



As part of this outreach process, DCP will:

- **Partner with stakeholders** to educate and promote awareness of flood risk and resiliency issues
- **Explain how zoning tools** relate to resiliency
- **Explore unique neighborhood issues** through in-depth public presentations and workshops
- Develop a proposal through an **iterative process** that is shaped by feedback

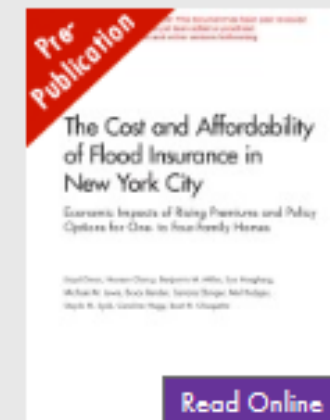
* Schedule is tentative and subject to change

The Cost and Affordability of Flood Insurance in New York City

Economic Impacts of Rising Premiums and Policy Options for One- to Four-Family Homes

by Lloyd Dixon, Noreen Clancy, Benjamin M. Miller, Sue Hoegberg, Michael M. Lewis, Bruce Bender, Samara Ebinger, Mel Hodges, [Gayle M. Syck](#), Caroline Nagy, Scott R. Choquette

Related Topics: [Community Resilience](#), [Flooding](#), [Insurance](#), [New York City](#), [Residential Housing](#)



Key Findings/Next Steps

- Many neighborhoods including Canarsie will be especially hard hit when risk increases and rates move toward actuarial rates. Rates could reach up to \$4000 a year.
- City is advocating that FEMA explore more cost-effective retrofitting strategies.



- Report released in May
- Flood Risk Atlas
- 2017-2018 outreach on Flood Text II
- Proposed zoning modifications will be part of Flood Text II

www.nyc.gov/resilientneighborhoods

Flood risk information and address lookup

floodhelpny.org

Free Home Resiliency Audit Program (includes professional engineering audit, elevation certificate, and personalized home resiliency plan)

floodhelpny.org/en/rtapp_landing

For more information and updates visit our website:

www.nyc.gov/resilientneighborhoods

or email us:

ResilientNeighborhoods@planning.nyc.gov