NYC’s flood risk is high.
The floodplain affects a large geography and most community and council districts.

100 Year Floodplain
FEMA 2015 PFIRM

Population: **400,000**
50 of 59 Community Boards
Buildings: **71,500**
45 of 51 Council Districts

- Buildings: 80% 1-4 units
- 7% 5+ units
- 13% nonresidential

- Residential Units:
  - 30% 1-4 units
  - 70% 5+ units
FEMA Flood Map
Flood Risk in Staten Island CB 1

<table>
<thead>
<tr>
<th></th>
<th>2015 PFIRMs</th>
<th>2050s Projected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Res Units in Floodplain</td>
<td>2,400</td>
<td>3,680</td>
</tr>
<tr>
<td>Buildings in Floodplain</td>
<td>1,150</td>
<td>2,200</td>
</tr>
</tbody>
</table>

91%
A more resilient NYC is one where neighborhoods, buildings and infrastructure can withstand and recover quickly from flooding and climate events.

Coastal defenses are strengthened as first line of defense against flooding and sea level rise.

Buildings are designed to withstand and recover from flooding.

Infrastructure is protected from climate hazards.

Residents and businesses are prepared.
How are buildings in the floodplain regulated?

FEMA

Flood Insurance Rate Maps (FIRMs)
Determine **where floodplain regulations apply**

National Flood Insurance Program
Set up **Insurance Rates** depending on building elevation and other requirements

Construction Standards (ASCE 24)
Design minimum **construction requirements** for flood hazard areas

Building Code (DOB)
**Requires** new buildings and substantial improvements to meet FEMA standards

Zoning Resolution (DCP)
Zoning **accommodates** these regulations and improves neighborhood character
Flood resilient construction
Required by DOB

**Required** for all **new** buildings

**Not required** for existing buildings (unless substantially damaged or improved)

Substantially Damaged: Restoring Cost $ \geq 50\%$ Market Value
Substantially Improved: Improvement Cost $\geq 50\%$ Market Value

Building Code (DOB)
Requires new buildings and substantial improvements to meet FEMA standards.
Flood resilient construction
Required by DOB

Flood resilient construction standards require certain buildings to elevate the lowest floor, as well as mechanical equipment, above the Design Flood Elevation (DFE).
Flood resilient construction standards require certain buildings to elevate the lowest floor, as well as mechanical equipment, above the Design Flood Elevation (DFE).

Living spaces are elevated above DFE.
Flood insurance rates
Set by FEMA

Raising or retrofitting your building or home will reduce costs

FEMA’s flood insurance premiums are lowest when the lowest inhabited floor (any area not used solely for storage, access or parking) is elevated above the Base Flood Elevation (BFE).

- 4 FEET OR MORE BELOW BFE: ~$9,000 Annual premium
- AT BFE: ~$1,400 Annual premium
- 3 FEET OR MORE ABOVE BFE: ~$450 Annual premium
Flood Resilience Zoning
Projects at DCP

2013
“Flood Text”
initial temporary regulations to facilitate recovery

2018
“Flood Text Update” improve upon, and make permanent, the Flood Text
2013 Citywide Flood Text
Amended zoning in six key areas

1. **Height**
   - Measured from flood elevation

2. **Access**
   - Flexibility for stairs, ramps, lifts

3. **Parking**
   - Flexibility to relocate parking

4. **Systems**
   - Flexibility to relocate/elevate

5. **Ground Floors**
   - Account for costs of new flood risk

6. **Streetscape**
   - Require features to mitigate blank wall
Flood Text Update
Need for a new citywide text amendment

**Goal 1**
Facilitate Recovery from Future Storms by making the provisions of the temporary Flood Text permanent

**Goal 2**
Promote Long-Term Resiliency by encouraging proactive retrofitting and development that is safe in the long run

**Goal 3**
Enhance Neighborhood Character By encourage good resilient design within coastal communities
Flood Text Update
Fix and improve provisions based on lessons learned

1 Height
Homeowners may face the loss of subgrade spaces when retrofitting

2 Height
Property 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 on Small Lots
Old homes on small lots may need more flexibility to rebuild in the future

6 Improve Streetscape
Mitigate the effects of elevated buildings on neighborhood character

Zoning Resolution (DCP)
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
Outreach Resources

FloodHelpNY.org

NYC’s flood risk is on the rise

Planning a Resilient NYC video with captions in English and Spanish

Info briefs on flood risk-related topics available in 7 languages
Thank you!

For more information, and to stay involved, email resilientneighborhoods@planning.nyc.gov
Resources for Homeowners

- FloodHelpNY.org
- Resiliency Home Audits
- Elevation Certificate (EC)
- NFIP Preferred Risk Policy (PRP)
NYC Federal Priorities

Ensure NFIP Affordability

Expand Mitigation Options and Premium Credits

Increase availability of mitigation funding for all building types

Improve communication to agents, real estate, property owners

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

Lloyd Dixon, Norreen Clancy, Benjamin M. Miller, Sue Hoagberg, Michael M. Lewis, Bruce Bender, Samantha Ebinger, Mel Hodges, Gayle M. Syck, Caroline Nagy, Scott R. Choquette
Key Takeaways for Homeowners

- NYC’s flood risk is rising; homeowners insurance does not cover floods

- Until the new maps are issued, flood insurance rates will continue to be based on the 2007 Effective FIRMs

- When revised maps are adopted, new flood insurance requirements will go into effect

- For those outside the high-risk floodplain, flood insurance can be as low as $500/year

- Flood insurance policy is tied to the property