**Planning a Resilient NEW YORK CITY**

The Department of City Planning is working with other agencies and with communities throughout the floodplain to plan a more resilient New York City.

Hurricane Sandy was a stark reminder of the serious risks New York City faces as a coastal city. The storm also served as a call to action to make sure that the city's neighborhoods, economy, and public services can withstand and emerge stronger from future storms, as well as other climate events.

Managing these risks and increasing the city's resiliency requires action on many fronts. Where feasible, coastal protection plans result in a first line of defense, while building-scale resiliency enable properties to withstand rare but major flood events like Sandy.

DCP's work includes proposing zoning changes that can better enable buildings to meet building code requirements for the flood zone, while also meeting other long-term planning goals.

For more information, visit: www.nyc.gov/resilientneighborhoods
To get involved, write to us at resilientneighborhoods@planning.nyc.gov

**RESILIENT BUILDINGS**

Buildings can be designed to better withstand and recover from flooding. This can help keep contents secure and enable people to get back into their homes more quickly.

**WETLANDS**

Wetlands help limit flooding from heavy rains and may help to slow down flood waters from coastal storms.

**COMMUNITY PREPAREDNESS**

The city plans and prepares for evacuations in advance of severe coastal storms. It also coordinates response and recovery, and collects and disseminates emergency information.

**INFRASTRUCTURE HARDENING**

Protecting critical systems from flooding helps prevent disruption to power, communications, and transportation networks when storms occur.

**COASTAL PROTECTION**

The city can reduce the vulnerability of coastal communities by enhancing coastal protection structures, such as breakwaters, levees, or berms, as well as through natural features like dunes and wetlands.
NYC is highly vulnerable to flooding from coastal storms due to its extensive coastal geography and highly urbanized waterfront. Flooding has the potential to destroy homes and businesses, impact infrastructure, and threaten human safety. With climate change and sea-level rise, these risks are expected to increase. In the future, flood resilience insurance is another strategy for reducing flood risk.

### Flood Risk in NYC

NYC is highly vulnerable to flooding from coastal storms due to its extensive coastal geography and highly urbanized waterfront. Flooding has the potential to destroy homes and businesses, impact infrastructure, and threaten human safety. With climate change and sea-level rise, these risks are expected to increase. In the future, flood resilience insurance is another strategy for reducing flood risk.

#### Current Flood Risks

- **Hurricanes, Tropical Storms, Storms, Other Severe Weather**: Floods are a major threat to NYC’s infrastructure and economy. Heavy rainfall and high tide levels can cause significant damage in low-lying areas. Old Boynton Beach Dam (now baking) is one of the largest levee breaches in the country, causing widespread flooding.
- **Sea Level Rise**: Sea levels in NYC have already risen a foot over the last century. By the 2050s, sea levels are expected to increase by an additional 2 feet, and as much as 4 feet by the end of the century. As sea levels rise, low-lying areas become more vulnerable to flooding.
- **Tidal Inundation**: Tidal inundation events are common in NYC, especially during high tides, and can cause significant damage in low-lying areas. These events can occur multiple times within a single day.
- **A Zone Shaded X**: The Department of City Planning is implementing new measures to protect NYC from flood damage. The A Zone Shaded X is a part of a broader effort to reduce flood risk in NYC.

#### Future Flood Risks

- **With climate change the risk of coastal storm surges, floods, and storms will increase**: NYC has already seen a trend of increasing storm severity and frequency. This trend is expected to continue in the future. The risk of coastal storm surges, floods, and storms will increase.
- **Sea levels are expected to rise**: According to the New York City Panel on Climate Change, sea levels in NYC are expected to rise by an additional 2 to 4 feet by the end of the century. This rise in sea level will exacerbate the risk of coastal storm surges, floods, and storms in NYC.
- **Tidal Inundation**: Tidal inundation events will become more frequent and severe in the future. These events can cause significant damage in low-lying areas and will become more common.
- **A Zone Shaded X**: The Department of City Planning is implementing new measures to protect NYC from flood damage. The A Zone Shaded X is a part of a broader effort to reduce flood risk in NYC.

### Flood Resilience in NYC

NYC is implementing a range of strategies to reduce flood risk, including:

1. **Coastal Storm Risk Assessment**: The city is conducting an assessment of coastal storm risk to identify areas that are most vulnerable to flooding.
2. **Flood Risk Mapping**: The city is creating detailed flood risk maps to identify areas that are at risk of flooding.
3. **Inundation Mapping**: The city is using inundation mapping to identify areas that are likely to experience flooding.
4. **Flood Insurance Rates**: The city is working with the insurance industry to develop flood insurance rates that are based on flood risk.
5. **Flood Resilience Zoning**: The city is implementing new zoning regulations that require buildings to be designed to withstand flood risk.
6. **Resilient Building Design**: The city is implementing new building codes that require buildings to be designed to withstand flood risk.
7. **Flood Risk Mitigation**: The city is implementing flood risk mitigation measures, such as elevating buildings or creating flood barriers, to reduce the risk of flooding.

### Flood Insurance

Flood insurance coverage damages to property or personal contents from flooding caused by excessive rainfall, flood, or which driven storm surge. Changes to flood maps and returns to the National Flood Insurance Program will lead to increases in flood insurance rates over time. In some cases, flood insurance rates can be increased by 12% or more. Flood insurance is another strategy for reducing flood risk.

#### Why is Flood Insurance Important?

- **Floods can cause significant damage to your home or business**: Floods can be a major threat to homes and businesses, causing significant damage to structures and contents.
- **Insurance and property losses are not covered by standard homeowners policies**: Floods are not covered by standard homeowners policies, which can leave property owners vulnerable to significant losses.
- **Flood insurance is not included in the National Flood Insurance Program (NFIP)**: Flood insurance is not included in the NFIP, which is managed by the Federal Emergency Management Agency (FEMA).
- **A higher deductible may lower your flood insurance rates**: Flood insurance rates can be increased by 12% or more, and a higher deductible may lower your rates.

#### Flood Insurance Requirements

- **Flood insurance is not required for buildings outside the 1% annual chance floodplain**: Flood insurance is not required for buildings outside the 1% annual chance floodplain, but it is highly recommended. Flood insurance is another strategy for reducing flood risk.

### Flood Resilient Construction

Flood resilient construction reduces potential damages from flooding and can lower flood insurance premiums. New buildings in the floodplain are required to meet flood resilient standards. Existing buildings can reduce their risk by retrofitting or remodeling to meet these standards, or can take partial, short-term measures to address safety concerns.

#### Requirements for New Buildings

- **Floodproofing**: Floodproofing can help to minimize damage to buildings from floodwaters. Floodproofing involves raising buildings above the Design Flood Elevation (DFE) and requires that buildings be designed to withstand floodwaters.
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#### Requirements for Existing Buildings

- **Modifying underlying zoning regulations**: The city is implementing new zoning regulations that require buildings to be designed to withstand flood risk.
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### Summary of the Flood Text

Flood insurance can be measured from the flood zone to the street level. Floodproofing is an important strategy for reducing flood risk. Flood insurance rates can be increased by 12% or more, and a higher deductible may lower your rates. Flood insurance is another strategy for reducing flood risk.

### Flood Risk Assessment

Flood Risk Assessment is a critical step in determining the flood risk to your property. Flood Risk Assessment is the process of identifying the flood risk to your property and determining the appropriate measures to reduce that risk.

#### Resilient Buildings

- **Resilient Buildings**: Resilient Buildings are buildings that are designed to withstand flood risk. Resilient Buildings are designed to withstand floodwaters, and are rated based on a variety of factors, including:
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### Flood Risk Zoning

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