



Before

Aerial image by Google Earth



Thursday

Wilfredo Lee/Associated Press

Education & Preparation = Resiliency

Agenda

Overview– The definition of a “Flood” & Mitigation, and the Cost of Flood damage.

Education

Benefits of The Policy

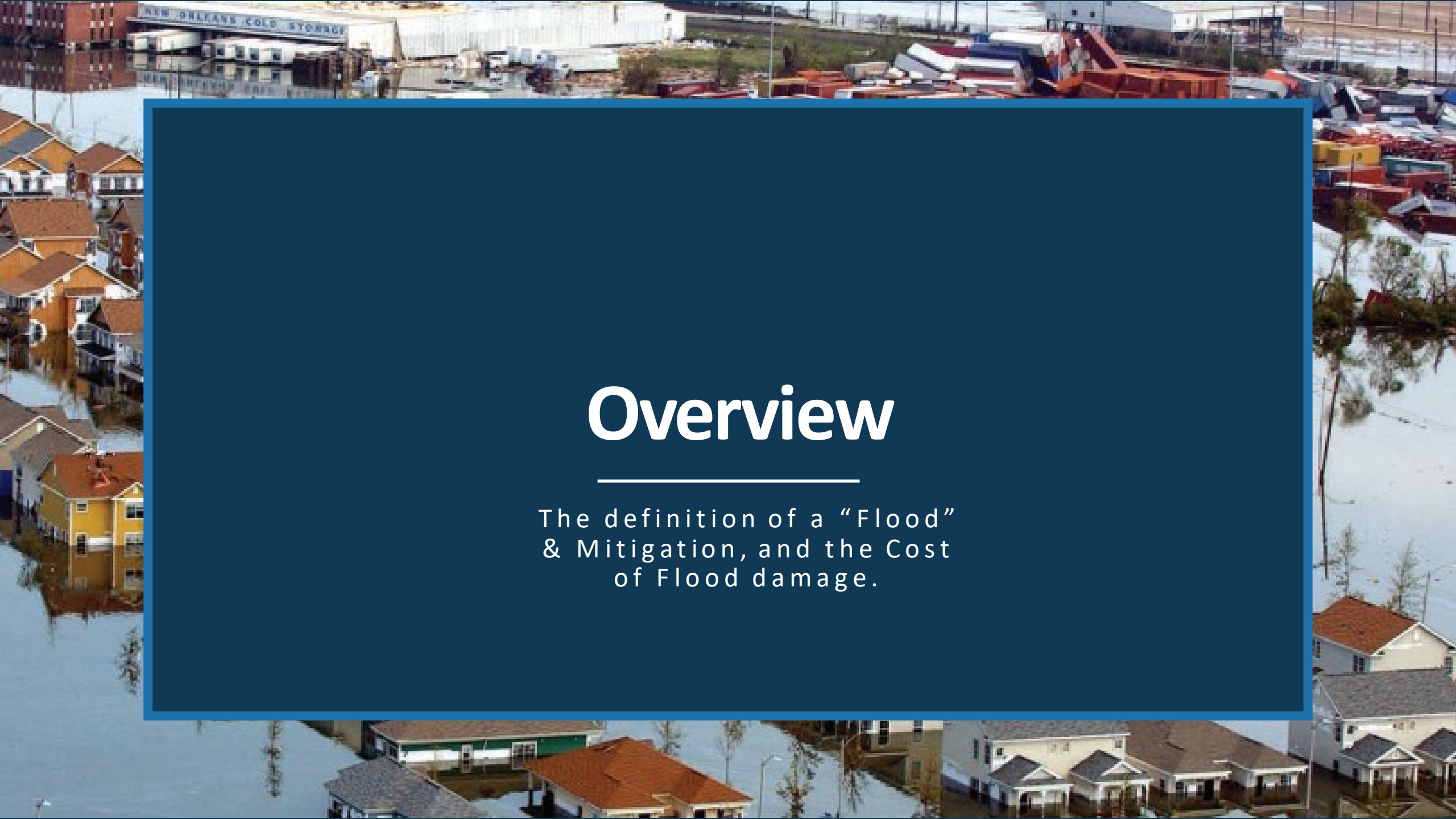
- Coverages
- Mitigation
- Discounts

Preparation–

- Before, During, & After

Resiliency– The Results





Overview

The definition of a “Flood”
& Mitigation, and the Cost
of Flood damage.



Overview

Every year disasters put millions of Americans in danger and cause billions of dollars of property damage.

FEMA can help communities reduce their risk, help emergency officials prepare for all hazards, and assist the survivors on their road to recovery.

What is a Flood?



General and temporary condition of partial or complete inundation of 2 acres or 2 properties

An acre of land equals:

- 75% of a football field
- 43,560 square feet
- 18 suburban homes
- 242 sedans

What is a Flood?



Overflow of Inland or Tidal Waters

What is a Flood?



Unusual & Rapid Accumulation
or Runoff of Surface Waters

What is a Flood?



Mudflow

A river of liquid and flowing mud on the surface of normally dry land areas, as when earth is carried by a current of water.

Other earth movements, such as landslide, slope failure, or a saturated soil mass moving by liquidity down a slope, are not mudflows and are not covered.

What is a Flood?



Collapse or Subsidence of Land

What is a Flood?

What is Mitigation

Methods used to reduce or prevent the impacts of flood waters.



Good mitigation efforts during planning and construction allowed many homes to survive the storm.
FEMA photo by John Pilger, EIPA



Benefits of a Policy

What is Covered?

Why a Flood Policy?

Flooding is one of the costliest and most common natural disasters. Increasing American resilience starts one family, one home, one community at a time. Issuing more flood insurance policies leads to more resilient communities, which results in a stronger and more unified nation.



Resilience Starts with You

Common & Costliest Disaster

Resilient Communities

Build Back Faster

Coverages

Loss Avoidance

Coverage A:



Sandbags, Supplies, and Labor:

The Policy Covers: **up to \$1,000** for costs you incur to protect the insured building from a flood or imminent danger of flood, for the following:

1. Your reasonable expenses to buy:
 - a) Sandbags, including sand to fill them;
 - i. Fill for temporary levees;
 - ii. Pumps; and
 - iii. Plastic sheeting and lumber used in connection with these items.
 - b) The value of work, at the Federal minimum wage, that you or

We insure against direct physical loss by or from flood to:

Property Removed to Safety

Coverage A:



We insure against direct physical loss by or from flood to:

Property Removed to Safety:

1. The Policy pays: **up to \$1,000** for the reasonable expenses to move insured property outside of the high hazard zone, (other than the described location), to protect it from flood or the imminent danger of flood. (value of work at the Federal minimum wage).
2. We will cover such property while at that location **for a period of 45 consecutive days** from the date you begin to move it there. The **personal property** that is moved must be placed in a fully enclosed building or otherwise reasonably protected from the elements.

Mitigation

Options/Resources

ICC: Floodproofing

Coverage A

We insure against direct physical loss by or from flood to:

Floodproofing is a combination of structural and non-structural changes to a building that reduce or eliminate flood damage.

This includes:

Dry floodproofing

Closing or relocating openings in a building's foundation or walls to prevent flood water from entering.

Wet floodproofing

Anchoring the structure, using flood-resistant materials, protecting mechanical and utility equipment, and using openings or breakaway walls.

Ma'ayanot High School Teaneck, NJ

In September 2021, Superstorm Ida flooded the newly renovated first floor of Maayanot High School in northern New Jersey, causing significant damage. To protect the flood-prone building, an automatic 27-foot-wide by 3-foot-high flood gate was installed at the main lobby entrance. This nearly invisible system activates automatically, rising with the water level to seal the entrance securely. For added protection, custom flood doors were installed at the side entrances.

PRODUCTS: Automatic Flood Barrier/Pedestrian Flood Doors

FLOOD PROTECTION: 3'

COMPLETION YEAR: 2023



ICC: Relocation

Coverage A

We insure against direct physical loss by or from flood to:

You can relocate the building altogether. This method is typically chosen for historic buildings, schools, etc.. However, you can also utilize this method for residential structures as well.

This image is of a church in Tivoli, PA. It was flooded several times in the past five years, so to move the building out of harm's way, it was relocated 500 feet across the highway. The total cost was \$24,000.



ICC: Elevation

Coverage A

We insure against direct physical loss by or from flood to:

Elevating a structure so the lowest floor or lowest horizontal member is at or above the regulated flood level, per local ordinances.

This 100-year-old home in Independence, IA was elevated 8 feet, following a flood that damaged their home over 50% of the market value.

The image shows the process of how they can elevate an existing property.



ICC: Demolition

Coverage A

We insure against direct physical loss by or from flood to:

If the reconstruction costs exceed the value of the building, the city deems the structure condemned, etc... sometimes the best route for the owners is demolishing the building.

This building in Prattsville, NY was damaged in Hurricane Irene in 2011. This is a great example of a structure that would benefit from being demolished, rather than salvaged.



Acquisitions/Buyouts

Acquisitions/Buyouts is an option that FEMA will sometimes offer to communities for floodprone areas. This isn't necessarily specific to FEMA, as cities or counties can also take advantage of this mitigation option.

This area you see was once a residential area until FEMA included it in a buyout after a flooding destroyed many homes in 1993 (Crystal City, MO). Then in 2001 this same area was inundated with flood waters, attesting to the losses avoided.



Discounts

Statutory & Mitigation

Mitigation Discounts

Elevating Machinery

Floodproofing

Proper Openings (Venting)



Community Rating System (up to 45%)

Flood Awareness
Dams

Storm Water Management
Flood Control Structures
Levees

Construction Above BFE
Buyouts

Diversion Canals
Retaining Walls



Preparation = Resiliency

Before, During, & After

Historic Colorado College



occupational therapy building and job



Colorado State University



Google Street View

Aug 2017



Each state has designated an NFIP **State Coordinating Agency** as a point of contact for the National Flood Insurance Program (NFIP).

Floodplain Management

Many states have adopted floodplain management statutes and regulations and have established and funded their own floodplain management programs.

In addition, **FEMA offers funding** to states to provide technical assistance to communities on the flood insurance program requirements.



1



Before a Loss

Preparedness Grants

Given to first responders, tribal & local governments, non-profits to build the Infrastructure, sustain and improve our capabilities in highest-risk transit systems, ports and along our borders to prevent, prepare for, protect against, respond to, and recover after a disaster.





Before:

The Insured:

- 1. If you don't have a policy, get one! (30 day wait)**
 - 1. Nothing can take the place of what is covered on the policy.**
 - 2. You are able to build back faster!!!**
- 2. Take pictures of the inside of your property, your contents, your structures, etc...**
- 3. Ensure your coverages are still adequate.**



2



During a Loss



During:



1. **First Notice of Loss** - Within 24-48 hours - the claimant should expect to hear from their adjuster or adjusting company. **Take as many photos as possible to document damage.** This will also help in showing water lines on exterior and interior, and debris in the yard.
2. **Within 15 days** – **Adjuster at Site** – collects any photos and samples by the policyholder (including any receipts or related documents) to define a preliminary estimate of the claim.
3. **Within 30 days** – **Final Estimate.** This is the Proof of Loss that must be signed to initiate the final claims payment.

Emergency Food/Shelter Grants

This FEMA funded program supplements and expands ongoing work of local nonprofit and governmental social service organizations to **provide shelter, food and supportive services** to individuals and families who are experiencing, or at risk of experiencing, hunger and/or homelessness.



3



After a Loss



After:

Once policyholders receive their final payment for the loss, the claims process is complete.



Structural Drying: Most flood losses with interior inundation require drying. The tearing out and cutting of the drywall for treatment to be applied that prevents mold, then drying starts.

Resilience Grants

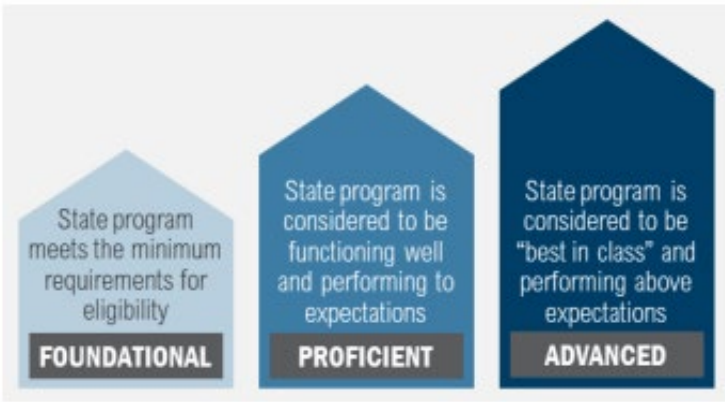
Supporting communities through capability and capacity building; encouraging and enabling innovation; promoting partnerships; enabling large infrastructure projects; maintaining flexibility; and providing consistency.



Hazard Mitigation Grants

Any sustainable action that reduces or eliminates long-term risk to people and property from future disasters. FEMA pays up to 75%. The remaining 25% is the responsibility of the owner, unless the local government also provides assistance.





A state's tier is based on assessments of the state's floodplain management program to benchmarks every three years.

A state's tier assignment influences their annual statement of work (SOW) **and their funding.**

Significant strengths in a state's TSF assessment enables funding, increased autonomy over workplans, strategies, and funding eligibility of certain non-traditional projects.



Community Assistance Program State Support Services Element

This is a Tiered State Framework (TSF) that helps FEMA recognize, invest in, and incentivize state efforts to develop the capabilities necessary to grow a state's broader floodplain management ability.

The TSF & it's assessment tool, will help to validate and support evidence to FEMA for funding.

<https://www.fema.gov/floodplain-management/community-assistance-program/tiered-state-framework#tool>

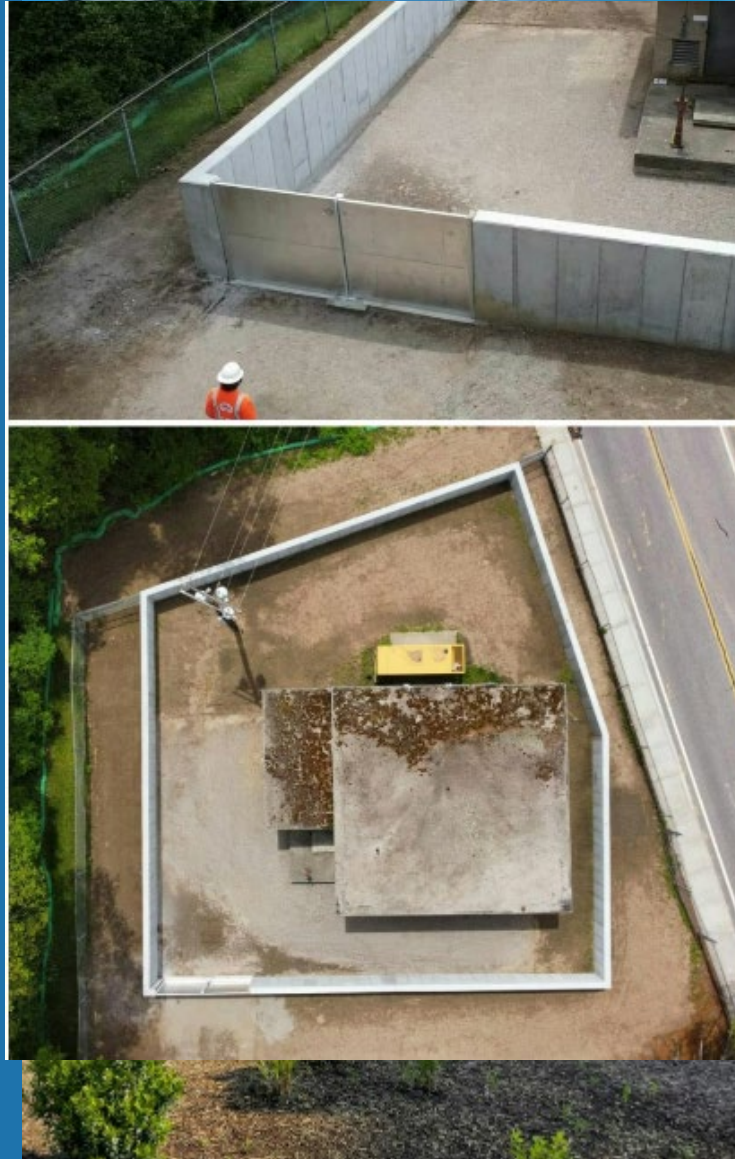


FEMA uses characteristics and benchmarks across four categories to assess and assign states to a tier.



Mitigation Ideas/Options

- **Flood barriers, sea walls, and increased pumping capacity**
- Devices to **prevent seawater from backflowing into storm drains**
- **Rainwater storage, reducing paved areas, or changing to water-permeable pavements,**
- Adding **water-buffering vegetation, underground storage tanks, and subsidizing household rain barrels.**
- Raising pumps at wastewater treatment plants
- Buying out homeowners in flood-prone areas



Mitigation Ideas/Options

- Adding a freeboard requirement for new construction
- Creating a retrofitting program for structures
- Raising street level to prevent flooding
- Using and protecting mangroves
- Glacial lakes can have their moraines replaced with concrete dams to provide protection. This may also provide hydroelectric power
- Increasing the capacity of stormwater systems.

Grant Summary

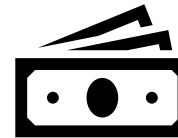
Grant funds are available for pre and post emergency or disaster related projects. These funds support critical recovery initiatives, innovative research and many other programs.



Preparedness Grants - to Community Officials



Hazard Mitigation Grants - to Community Officials



Resilience Grants – to Community Officials



Emergency Food & Shelter Program – local community organizations

An aerial photograph showing a coastal development. In the foreground, there are waves breaking on a sandy beach. Behind the beach is a long, low building with a dark roof. Further back, there is a large green lawn with many palm trees and other vegetation. In the background, there are several multi-story buildings, some with balconies. The overall scene depicts a modern, well-maintained coastal area.

Resiliency – The Result

New York



IDA FACTS:

- 9in of rain at a high rate per hour.
- Record-breaking 3.5 inches per hour of rainfall fell in some areas, exceeding NYC's sewer capacity of 1.75 inches per hour
- The first-ever flash flood emergency warning for New York City. Fourteen people died. Most of them by drowning in unregulated (illegal) basement apartments.

Some Lessons Learned:

- Better Stormwater infrastructure
- Better Disaster Response

New Jersey



Pennsylvania



Future Plans

The City's approach considers present and future flooding risks. The Department of Environmental Protection is improving New York's drainage systems so that when it rains very hard, the water can drain faster.

Data collection

- Measurements of wind, waves, and tides can be used to update urban planning and bolster levees.
- FloodNet: Data will be collected from more than 500 sensors around the city to help understand and prevent flooding impacts.

- PlaNYC and Adapt NYC: Comprehensive climate action and adaptation plans.
- FloodHelpNY: Educates New Yorkers about protecting their homes from flooding.
- Climate strong communities: Conducts local workshops to guide priorities and learn to protect themselves and their families.

What is a Flood?

We



Are



Flood





Thank You!!

www.wrightflood.com