



2017 NACo LEGISLATIVE CONFERENCE

WASHINGTON, D.C. / FEBRUARY 25–MARCH 1, 2017



HAVE YOU BEEN THROUGH A DISASTER?

- I have been through a federally declared disaster.
- I have been through a federally declared disaster, not including Matthew.
- I have been through a state declared disaster.
- I have been through a non-declared disaster.
- I have not been through a disaster.



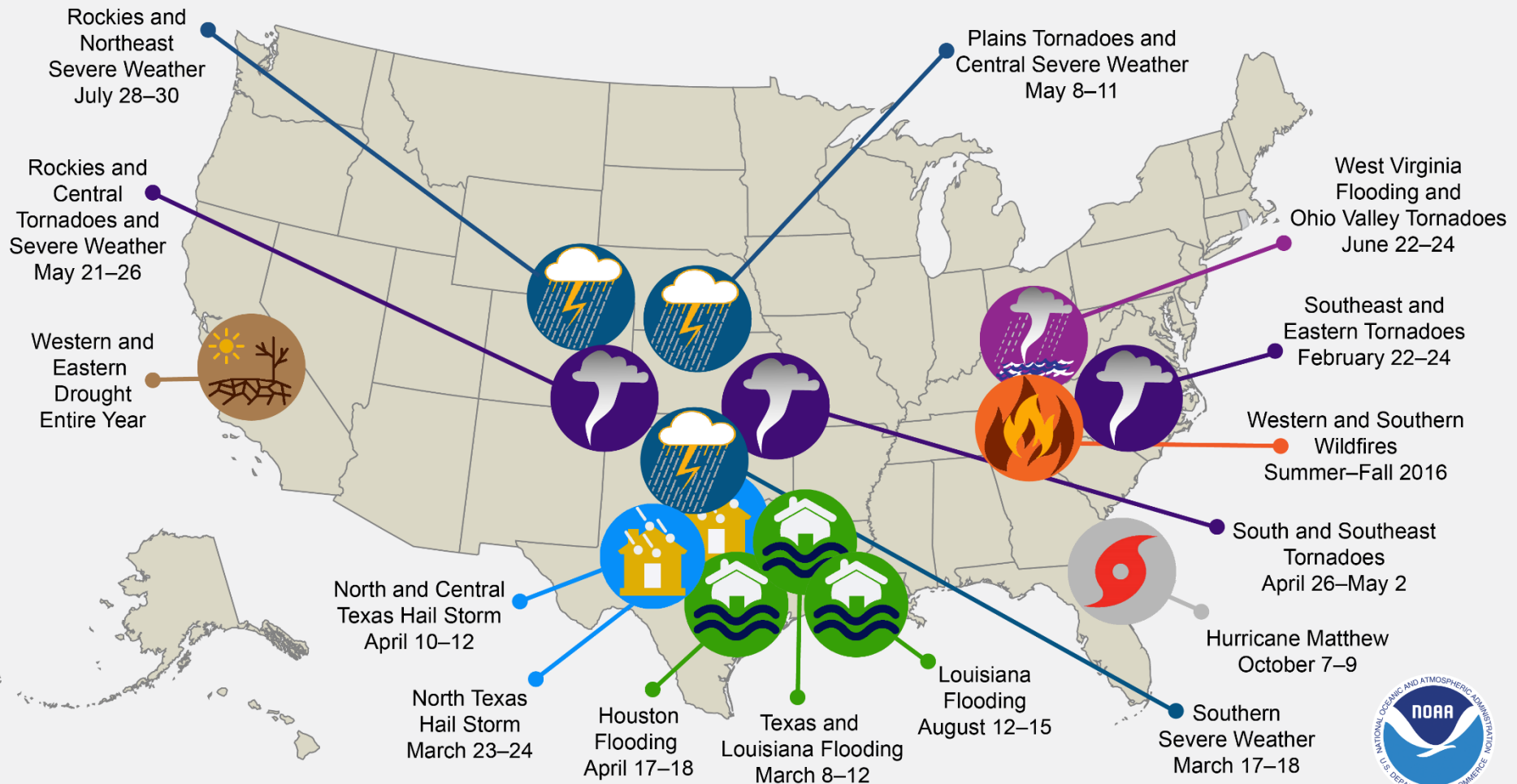
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U.S. 2016 Billion-Dollar Weather and Climate Disasters



This map denotes the approximate location for each of the 15 billion-dollar weather and climate disasters that have impacted the United States during 2016.



2017

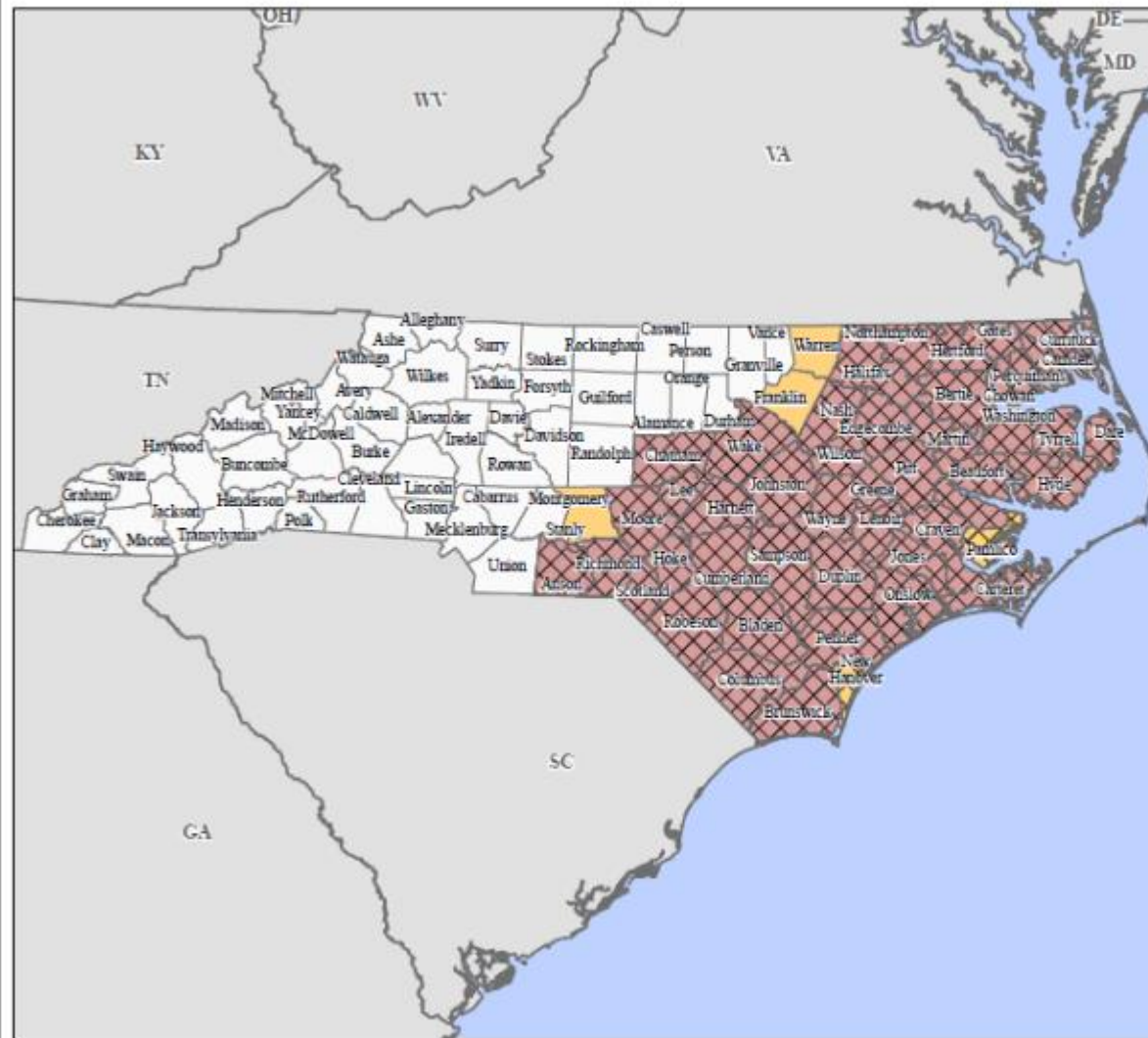


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FEMA-4285-DR, North Carolina Disaster Declaration as of 12/23/2016

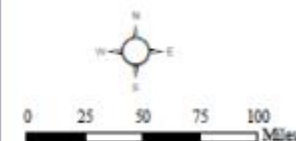


Data Layer/Map Description:
The types of assistance that have been designated for selected areas in the State of North Carolina.

All areas in the State of North Carolina are eligible to apply for assistance under the Hazard Mitigation Grant Program.

Designated Counties

- No Designation
- Public Assistance
- Individual Assistance and Public Assistance (Categories A - G)
- Public Assistance (Categories A - G)



Data Sources:
FEMA, ESRI;
Initial Declaration: 10/10/2016
Disaster Federal Registry Notice:
Amendment #16 - 12/23/2016
Datum: North American 1983
Projection: Lambert Conformal Conic

Maple 1 3/16 15/2017 11/23/2016 17/24/2017



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www.readync.org

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Major Takeaways from Panel on North Carolina Counties' Response to and Early Recovery from Hurricane Matthew at 2017 Legislative Conference Resilient Counties Advisory Board Meeting

- Process/steps/stages directly after a disaster hits
 - Communications
 - Ensure public knows everything is in hand
 - One person in charge of all outward communications to ensure your message is consistent
 - One person to speak with state as a representative for the whole county (incl. the jurisdictions within the county)
 - Engaging and informing elected officials in advance of and throughout a disaster to make sure they are knowledgeable on key issues, what coming down the pipeline and what is being done to address them, and to make sure everyone is on the same, and right, page
 - Volunteers and Donations
 - Have someone in place to deal with volunteers
 - Need a plan to deal with donations
 - Role of state association/NCACC in recovery
 - Gathering information and people
 - Holding meetings
 - Answering questions
- What you need to have in place prior to a disaster
 - Whole board session with your emergency management department to go over:
 - The emergency management plan and what it entails
 - What people need (and don't need) to be at EOC
 - How to handle a situation (to understand you are not an island)
 - How to manage major issues (i.e. evacuation, declaring a state of emergency, contacting red cross, etc.)
 - City-county cooperation
 - Need to have good working relationships before a disaster takes place
 - "Need to have relationships, protocols and processes in place before the event."
 - Recommended mitigation and preparation efforts:
 - Hardening of utility infrastructure (Wayne County)
 - Preventative planning (Bertie County/Army Corps of Engineers)
 - Waterway/Dam management (regular dredging, etc.)
 - Mutual aid agreements
 - Insurance, reconstructions, elevation changes and buyouts

Naturally **RESILIENT** Communities Partnership and Siting Guide

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North America Water
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The Naturally **RESILIENT** Communities Partnership



Representing:

- 3000+ county governments
- 38,000+ planners
- 17,000+ floodplain managers
- 150,000+ engineers
- On-the-ground work in all 50 states

An aerial photograph of a coastal landscape. In the foreground, there's a large, light-colored sand dune or beach area. To the left, a body of water (possibly a pond or lagoon) is visible, surrounded by green vegetation. To the right, the ocean is visible with waves breaking on the shore. The sky is clear and blue.

Nature-based solutions are the intentional use of natural features and functions as integral part of addressing a human need.

The use of nature-based solutions includes the protection and restoration of natural processes and systems as an explicit part of the desired project outcome.

Virginia Coast Reserve

WHY NATURE-BASED SOLUTIONS?

Smart nature-based solutions give communities high returns on their investments in flood risk reduction strategies. They provide:



Healthier
Environments



Improved
Social Ties



Healthier
Communities



Stronger
Economies

Project GreenShores













Project GreenShores



USING NATURE TO ADDRESS FLOODING

We've created this guide of nature-based solutions and included case studies of successful projects from across the country to help communities learn more and identify which nature-based solutions might work for them.

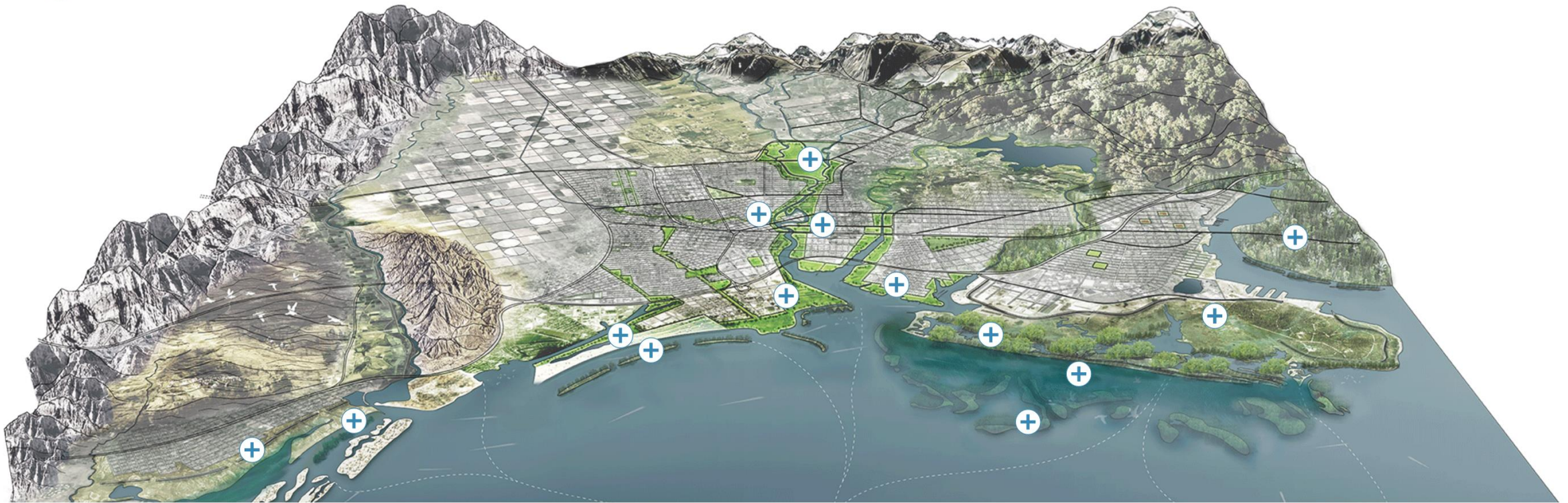


Credit: Darryl Boudreau

WHAT ARE NATURE-BASED SOLUTIONS?

Nature offers a powerful set of tools for addressing hazards like flooding and erosion. Nature-based solutions use natural systems, mimic natural processes, or work in tandem with traditional approaches to address these specific hazards. Communities across the country— along rivers or coasts, large or small,

EXPLORE THE DIFFERENT TYPES OF NATURE-BASED SOLUTIONS



COASTAL FLOODING & EROSION

RIVER FLOODING & EROSION

URBAN STORMWATER FLOODING

FIND YOUR SOLUTION

SOLUTIONS

30 Results

CASE STUDIES

22 Results

HELP ME CHOOSE

Hazard Types

- ☐ Coastal Erosion
- ☐ Tidal Flooding
- ☐ Coastal Flooding
- ☐ Riverine Erosion
- ☐ Riverine Flooding
- ☐ Stormwater Flooding

Region

- ☐ Coastal West
- ☐ Great Lakes
- ☐ Gulf of Mexico
- ☐ Mid-Atlantic
- ☐ Midwest
- ☐ Northeast
- ☐ Pacific Northwest
- ☐ Rocky Mountain West
- ☐ Southeast
- ☐ Southwest

Community Type

- ☐ Rural
- ☐ Suburban
- ☐ Urban

Scale



Rivers, Streams, and Floodplains

- Coastal Erosion
- Riverine Flooding**
- Riverine Erosion**
- Coastal Flooding
- Stormwater Flooding
- Tidal Flooding

Floodplains are the areas of low-lying ground adjacent to rivers, formed mainly...



Coastal Marshes

- Coastal Erosion**
- Riverine Flooding
- Riverine Erosion
- Coastal Flooding**
- Stormwater Flooding
- Tidal Flooding

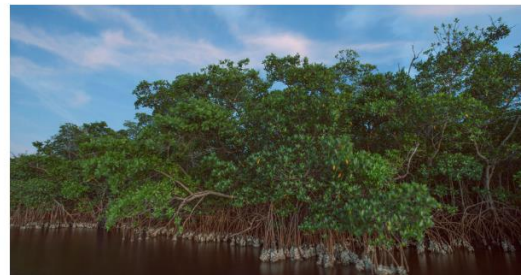
Coastal wetlands occur along marine, estuarine, and freshwater coastlines and may be...



Beaches and Dunes

- Coastal Erosion**
- Riverine Flooding
- Riverine Erosion
- Coastal Flooding**
- Stormwater Flooding
- Tidal Flooding

Beaches and dunes occur in a variety of shapes, sizes, compositions, and...



Mangroves

- Coastal Erosion**
- Riverine Flooding
- Riverine Erosion
- Coastal Flooding**
- Stormwater Flooding
- Tidal Flooding

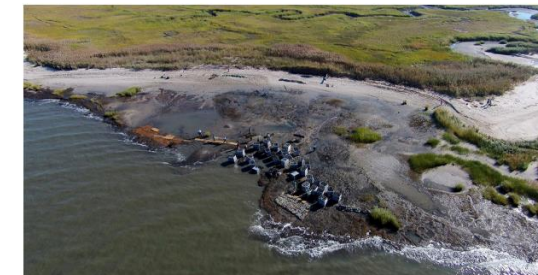
Mangroves are a type of coastal or estuarine wetland, characterized by the...



Seagrasses

- Coastal Erosion**
- Riverine Flooding
- Riverine Erosion
- Coastal Flooding
- Stormwater Flooding
- Tidal Flooding

Seagrasses are a type of submerged aquatic vegetation that evolved over time...



Oyster Reefs

- Coastal Erosion**
- Riverine Flooding
- Riverine Erosion
- Coastal Flooding**
- Stormwater Flooding
- Tidal Flooding

Oysters are a bivalve shellfish that are often referred to as "ecosystem..."

FIND YOUR SOLUTION at
NRCSolutions.org



Naturally **RESILIENT** Communities