



## Pamlico Sound Regional HMP

Hazard Mitigation Planning Committee Meeting  
February 12, 2019



## Participants

- Beaufort County\*
  - Aurora
  - Bath\*
  - Belhaven
  - Chocowinity
  - Pantego
  - Washington\*
  - Washington Park
- Carteret County\*
  - Atlantic Beach
  - Beaufort\*
  - Bogue
  - Cape Carteret
  - Cedar Point
  - Emerald Isle
  - Indian Beach\*
  - Morehead City
  - Newport
  - Peletier
  - Pine Knoll Shores
- Craven County
  - Bridgeton
  - Cove City
  - Dover\*
  - Havelock
  - New Bern\*
  - River Bend
  - Trent Woods
  - Vanceboro
- Pamlico County\*
  - Alliance\*
  - Arapahoe\*
  - Bayboro
  - Grantsboro
  - Mesic
  - Minnesott Beach
  - Oriental
  - Stonewall
  - Vandemere

## What is Hazard Mitigation?

“Hazard Mitigation is any action taken to reduce or eliminate the long-term risk to human life and property from natural hazards.” (44 CFR 206.401)



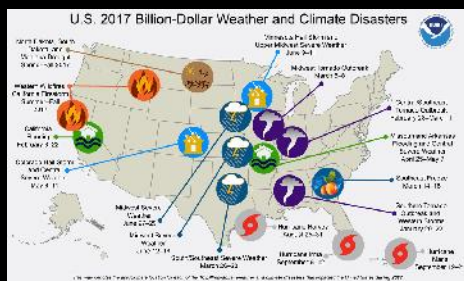
## Hazard Mitigation Plan Update Requirement

Disaster Mitigation Act of 2000: 44 CFR 201.6/HMGP Grant Process

- Communities are required to update their hazard mitigation plans every 5 years to remain eligible for federal disaster funding
  - Any federally declared disaster in the State of North Carolina means the county and municipal jurisdictions in the Pamlico Sound Region are eligible to apply for funding

Having an updated plan ensures that the county and municipal jurisdictions will be ready with mitigation project ideas whenever funding becomes available

## Trends in Disasters



- Population and Community Growth
  - More people living in hazardous areas
  - Greater exposure to risk
  - People, infrastructure, buildings
- More Hazards (technological, civil, terrorism)
- Continual increase in expenses
- More disaster declarations

## Trends in Disasters (cont.)

Hurricanes Katrina / Rita (TX, LA, MS, 2005)	\$165 billion
Hurricane Harvey (TX, 2017)	\$127.5 billion
Hurricane Maria (PR, 2017)	\$91.8 billion
Florida Hurricanes (4, in 2004)	\$73.2 billion combined
Super Storm Sandy (NJ, NY + others, 2012)	\$72.2 billion
Hurricane Irma (FL, SC, 2017)	\$51 billion
Hurricane Andrew (FL, LA, 1992)	\$49.4 billion
U.S. Drought/Heatwave (1988)	\$43.6 billion
Midwest Floods (9 states, 3 regions, 1993)	\$37.1 billion
Hurricane Ike (TX + 10 others, 2008)	\$35.7 billion
Northridge Earthquake (CA, 1994)	\$20 billion
Hurricane Hugo (NC, SC, PR, VI, 1989)	\$18.7 billion
Hurricane Matthew (East Coast, 2016)	\$10.6 billion
Hurricane Floyd (NC + 11 others, 1999)	\$9.9 billion

Estimated figures from NOAA's NCEI for all direct damages/costs, CPI adjusted to 2018 dollars

- Too early for estimates on Hurricanes Florence and Michael

## Federal and State Requirements

- DMA Planning – What it is and Why it's important
  - Continued eligibility for mitigation funds, pre- and post-disaster funding
  - Guide mitigation activities in a coordinated & economical manner
  - Incorporate into other existing planning mechanisms
  - Future development: plan and build wisely
  - Reduce losses
  - Make community more disaster resistant
  - Tied to public assistance

## Planning Requirements

### FEMA's DMA 4 Planning Phases:

- Phase 1: Organize Resources
- Phase 2: Risk Assessment
- Phase 3: Develop a Mitigation Plan
- Phase 4: Adoption and Implementation



## Planning Requirements (cont.)

- Blend of 3 planning processes
  - Disaster Mitigation Assistance
  - Flood Mitigation Assistance
  - Community Rating System
- 10 planning steps
  1. Organize to prepare the plan
  2. Coordinate with other agencies
  3. Involve the public
  4. Assess the hazards
  5. Assess the problem
  6. Set goals
  7. Review possible activities
  8. Draft an action plan
  9. Adopt the plan
  10. Implement, evaluate, revise

FEMA Phases	Hazard Mitigation Grant and Pre-Disaster Mitigation Grant Programs (DMA, 44 CFR 201)	Flood Mitigation Assistance Program (44 CFR 78.5)	Community Rating System Floodplain Management Planning (10-Step Process)
Phase I Organize Resources	Coordination among agencies	Coordinate with other agencies or organizations	Organize to prepare the plan
	Integration with other planning efforts	Involve the public, including a description of the planning process. Public involvement may include workshops, public meetings, or hearings.	Coordinate with other agencies
Phase II Assess Risks	Involve public throughout the planning process		Involve the public
	Identify all hazards	Flood hazard area inventory that identifies the flood risk, including estimates of the number and types of structures at risk and repetitive-loss properties	Assess the (flooding) hazard
	Profile hazard events		
Phase III Develop the Mitigation Plan	Assess vulnerability	Problem identification, including a description of the existing flood hazard, the extent of flood depth and damage potential, and the applicant's floodplain management goals.	Assess the problem
	Estimate potential losses		
Phase IV Implement and Monitor Progress and Project Management/Project Tracking	Documentation of planning process		Set goals
	Capability assessment	Review of possible mitigation actions, including the identification and evaluation of cost-effective and technically feasible mitigation actions	Review possible activities
	Develop hazard mitigation goals		
	Identification and analysis of mitigation measures		Draft an action plan
Phase IV Implement and Monitor Progress and Project Management/Project Tracking	Funding sources		
	Adoption		Adopt the plan
	Implementation of mitigation measures	Documentation of the formal plan adopted by the legal entity submitting the plan (e.g., governor, mayor, county executive)	Implement, evaluate, and revise the plan
Phase IV Implement and Monitor Progress and Project Management/Project Tracking	Monitoring, evaluating, and updating the plan		
Phase IV Implement and Monitor Progress and Project Management/Project Tracking	Continued public involvement		

## Scope of Work

- The plan will include all required elements, as defined in the FEMA Local Mitigation Plan Review Guide
- The plan will meet or exceed the final rule for local mitigation planning found in 44 CFR, Section 201.6, in order to be approved by FEMA
- Natural hazards assessed in the plan coordinate with the current FEMA-approved State Mitigation Plan
- The plan will include natural and human-caused hazards and mitigation measures
- The plan will incorporate local climate adaptation data and findings.

## Risk Management Tool (RMT)

- Vulnerability Assessment: Findings will be cross-referenced with NCEM Integrated Hazard Risk Management data that is provided through the tool
- Document Preparation: Plan will be drafted in the RMT so that all data can be collected and compiled digitally
- Plan Maintenance: Monitoring and updates will be able to easily reference the data from this plan

## Project Schedule

- HMPC Meetings
  - Kickoff Meeting – February 12, 2019 (New Bern)
  - HMPC Meeting #2 – February 28, 2019 at 2:00 pm
  - HMPC Meeting #3 – Mid-March
  - HMPC Meeting #4 – Early April
- Public Meetings
  - Public Meeting #1 – February 28, 2019 at 6:00 pm
  - Public Meeting #2 – Following 4<sup>th</sup> HMPC Meeting
- Submit Final Draft Plan to NCEM for review by July 1st

## Plan Website

[www.PamlicoHMP.com](http://www.PamlicoHMP.com)

- Upcoming Meeting Announcements
- Meeting Agendas & Minutes
- Public Survey
- Draft Documents
- Information on the Identified Hazards
- Opportunity to Provide Comments and Feedback



## Additional Next Steps

- Share the link to the plan website ([www.PamlicoHMP.com](http://www.PamlicoHMP.com)) on your local community webpages
- Next meeting is scheduled for February 28<sup>th</sup> at 2:00 pm in Emerald Isle
- Review existing actions and bring updated status reports to the next meeting
- Prepare to discuss goals at the next meeting
- Complete plan survey
- Questions?

## Contacts

### Wood Group PLC

David A. Stroud, CFM  
Emergency & Hazard  
Mitigation Lead  
[david.stroud@woodplc.com](mailto:david.stroud@woodplc.com)

Abby Moore  
Hazard Mitigation &  
Resiliency Planner  
[abigail.moore@woodplc.com](mailto:abigail.moore@woodplc.com)

[www.woodplc.com](http://www.woodplc.com)

### Holland Consulting Planners, Inc.

Landin Holland, AICP, MPA, CZO  
Senior Planner  
[lholland@hcpplanning.com](mailto:lholland@hcpplanning.com)

Cindy M. Anderson  
Office Manager  
[canderson@hcpplanning.com](mailto:canderson@hcpplanning.com)

[www.hcpplanning.com](http://www.hcpplanning.com)

## Thank You!

<http://www.pamlicohmp.com/>

### Next Meeting:

February 28, 2019  
Emerald Isle Commissioners Board Room  
7500 Emerald Drive, Emerald Isle, NC

HMPC Meeting – 2:00 pm  
Public Input Meeting – 6:00 pm