

# Mercer County Hazard Mitigation Plan Update

DRAFT Hazard Mitigation Plan

Public Meeting

February 1, 2023

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### Agenda

- What is Hazard Mitigation Planning
- Review the update process
- Risk Assessment Section
- Capability Assessment Section
- Mitigation Strategy Section
- Next Steps
- Conclusion

# Mercer County Hazard Mitigation Plan Update Draft Plan Presentation Public Meeting

## Why is a Hazard Mitigation Plan necessary?

Disaster Mitigation Act of 2000 (DMA 2000) which amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Stafford Act), requires **all local jurisdictions** to have a mitigation plan in order to receive certain types of disaster assistance and hazard mitigation funding.

# Mercer County Hazard Mitigation Plan Update Draft Plan Presentation Public Meeting

## Current Hazard Mitigation Plan

- Adopted and Promulgated by Mercer County Commissioners
- Municipality Adoption of the Mercer County Plan
- Used as support for pre-disaster and/or post-disaster funding since promulgation

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **2023 Hazard Mitigation Plan Update**

- Required to be updated every 5 years
- Update process is continuous
- All plans are reviewed annually:
  - County reviews all mitigation actions.
  - Municipalities provide progress reports on project opportunities.
  - Capture any major emergency or disaster information.
- Annual progress reports are required by PEMA

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **2023 Hazard Mitigation Plan Update**

- Mercer County Hazard Mitigation Grant
- Hired MCM Consulting Group, Inc.
  - Kick-off meeting was (October 5<sup>th</sup>, 2022)
- Local Planning Team Developed
  - Kick-off meeting on (October 17<sup>th</sup>, 2022)
- Update process
  - Capabilities Assessment
  - Risk Assessment
  - Mitigation Strategy Develop
  - Draft Plan

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **2023 Hazard Mitigation Plan Update**

- Municipality involvement:
  - Complete surveys and assessments:
    - Capability Assessment Survey
    - Hazard Identification Worksheet
    - Mitigation Opportunity Form
  - Provide input into the draft plan.
  - Participate in meetings.
  - Adopt the County Plan as the Municipal Plan.

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **2023 Hazard Mitigation Plan Update**

- Public involvement:
  - Identify hazard areas in your municipality.
  - Participate in surveys and assessments.
  - Provide input into the draft plan.
  - Participate in meetings.
  - Hazard Mitigation Plan Website:  
<https://www.mercercountypa.gov/hazard.mitigation/default.htm>

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **2023 Hazard Mitigation Plan Update**

#### **Capabilities Assessment**

- Assessed the county and municipalities
- Capability assessment forms provided.
- Assessed the following:
  - Planning and regulatory capability
  - Administrative and technical capability
  - Fiscal capability
  - Community political capability
- Capability assessment information is in section 5 of the 2023 Mercer County Hazard Mitigation Plan.

# Mercer County Hazard Mitigation Plan Update Draft Plan Presentation Public Meeting

## Risk Assessment Review Identifying Hazards

### **44 CFR Requirement**

*Part 201.6(c)(2)(i):* The risk assessment shall include a description of the type of all [hazards] that can affect the jurisdiction.

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **Risk Assessment Identifying Hazards**

- Note and Document Past Presidential, Gubernatorial, County and Municipal Disaster Declarations
  - Severe Winter Storms: February 2014 (Presidential) and January 2016 (Presidential)
  - COVID-19: January 2020 (Presidential), March 2020 (Gubernatorial)
  - Develop a List of Natural and Human-Caused Hazards
  - Review previous hazards in current plan
    - Flooding, Winter Storms, Drought, etc.
  - Identify new hazards
    - Radon Exposure
    - Wildfire
    - Emergency Services
    - Opioid Epidemic
- Use a Hazard Identification and Risk Evaluation Worksheet:
  - Municipality Worksheet completed by Municipalities.
  - County Worksheet completed by the local planning team.

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **Risk Assessment Review**

#### **Profiling Hazards**

#### **44 CFR Requirement**

*Part 201.6(c)(2)(i):* The risk assessment shall include a description of the location and extent of all [hazards] that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **Risk Assessment**

#### **Profiling Hazards**

- Identify the location and geographic extent
  - Mapping utilized
  - Local knowledge
- Define the range and magnitude
  - Use of Scales or Measuring Tools
  - Defines Intensity and Impact
- Past occurrences
  - Dates
  - Impact

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **Risk Assessment**

#### **Profiling Hazards**

- Establish probability of future occurrences
  - Based on past occurrence frequency
  - Special Flood Hazard Area (Previously 100 year flood data)
- Determine environmental impacts
  - Flooding causes polluted streams
  - Tornado causes scattering of debris over large areas
  - Droughts kill crops and trees

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **Risk Assessment**

#### **Assessing Vulnerability**

- Inventory and summarize vulnerable assets:
  - Existing buildings
  - Critical facilities
  - New development
  - Hazardous material facilities
  - Utility Systems
- Utilize GIS data

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **Risk Assessment**

#### **Assessing Vulnerability**

- Review high risk groups
  - Elderly
  - Children
  - Special needs
- Flooding hazards
  - Utilize Flood Insurance Rate Maps
  - Develop maps with critical facilities and impacted structures

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **Risk Assessment**

#### **Assessing Vulnerability**

- Estimate loss
  - Determine potential dollar loss estimates for hazards:
    - Flooding
      - Building Losses: \$133 million
      - Business Losses: \$162 million
      - Total Loss: \$295 million
  - HAZUS-MH Software from FEMA

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **Risk Assessment**

#### **Assessing Vulnerability**

- Develop risk factor for hazards
  - Utilize a risk factor tool (next slide)
  - Relies on historical data
  - Relies on local planning team knowledge

**Summary of Risk Factor Approach Used to Rank Hazard Risk.**

RISK ASSESSMENT CATEGORY	DEGREE OF RISK			WEIGHT VALUE	
	LEVEL	CRITERIA	INDEX		
<b>PROBABILITY</b> <i>What is the likelihood of a hazard event occurring in a given year?</i>	UNLIKELY	LESS THAN 1% ANNUAL PROBABILITY	1	30%	
	POSSIBLE	BETWEEN 1 & 10% ANNUAL PROBABILITY	2		
	LIKELY	BETWEEN 10 & 100% ANNUAL PROBABILITY	3		
	HIGHLY LIKELY	100% ANNUAL PROBABILITY	4		
<b>IMPACT</b> <i>In terms of injuries, damage, or death, would you anticipate impacts to be minor, limited, critical, or catastrophic when a significant hazard event occurs?</i>	MINOR	VERY FEW INJURIES, IF ANY. ONLY MINOR PROPERTY DAMAGE & MINIMAL DISRUPTION ON QUALITY OF LIFE. TEMPORARY SHUTDOWN OF CRITICAL FACILITIES.	1	30%	
	LIMITED	MINOR INJURIES ONLY. MORE THAN 10% OF PROPERTY IN AFFECTED AREA DAMAGED OR DESTROYED. COMPLETE SHUTDOWN OF CRITICAL FACILITIES FOR MORE THAN ONE DAY.	2		
	CRITICAL	MULTIPLE DEATHS/INJURIES POSSIBLE. MORE THAN 25% OF PROPERTY IN AFFECTED AREA DAMAGED OR DESTROYED. COMPLETE SHUTDOWN OF CRITICAL FACILITIES FOR MORE THAN ONE WEEK.	3		
	CATASTROPHIC	HIGH NUMBER OF DEATHS/INJURIES POSSIBLE. MORE THAN 50% OF PROPERTY IN AFFECTED AREA DAMAGED OR DESTROYED. COMPLETE SHUTDOWN OF CRITICAL FACILITIES FOR 30 DAYS OR MORE.	4		
<b>SPATIAL EXTENT</b> <i>How large of an area could be impacted by a hazard event? Are impacts localized or regional?</i>	NEGLIGIBLE	LESS THAN 1% OF AREA AFFECTED	1	20%	
	SMALL	BETWEEN 1 & 10% OF AREA AFFECTED	2		
	MODERATE	BETWEEN 10 & 50% OF AREA AFFECTED	3		
	LARGE	BETWEEN 50 & 100% OF AREA AFFECTED	4		
<b>WARNING TIME</b> <i>Is there usually some lead time associated with the hazard event? Have warning measures been implemented?</i>	MORE THAN 24 HRS	SELF-DEFINED	(NOTE: Levels of warning time and criteria that define them may be adjusted based on hazard addressed.)	1	10%
	12 TO 24 HRS	SELF-DEFINED		2	
	6 TO 12 HRS	SELF-DEFINED		3	
	LESS THAN 6 HRS	SELF-DEFINED		4	
<b>DURATION</b> <i>How long does the hazard event usually last?</i>	LESS THAN 6 HRS	SELF-DEFINED	(NOTE: Levels of warning time and criteria that define them may be adjusted based on hazard addressed.)	1	10%
	LESS THAN 24 HRS	SELF-DEFINED		2	
	LESS THAN 1 WEEK	SELF-DEFINED		3	
	MORE THAN 1 WEEK	SELF-DEFINED		4	

Hazard	Probability	Impact	Spatial Extent	Warning Time	Duration	Risk Factor
Pandemic, Epidemic and Infectious Disease	4	4	4	1	4	3.7
Flash Flood	4	3	3	4	4	3.5
Winter Storm	4	3	4	3	3	3.5
Emergency Services (Suggested 2023)	4	3	4	1	4	3.4
Opioid Epidemic (Suggested 2023)	4	3	4	1	4	3.4
Windstorm	4	3	3	3	3	3.3
Environmental Hazards: Transportation	4	3	3	4	2	3.3
Transportation Accidents	4	3	3	4	2	3.3
Tornado	3	3	3	4	4	3.2
Terrorism and Cyberterrorism (Suggested)	4	3	3	4	1	3.2
Utility Interruptions (Suggested 2023)	4	2	4	3	3	3.2
Radon Exposure (Suggested 2023)	4	2	4	1	4	3.1
Subsidence and Sinkhole	3	2	3	4	4	2.9
Dam and Levee Failure	1	4	3	3	4	2.8
Flood	2	3	3	1	4	2.6
Hurricane	3	2	4	1	2	2.6
Invasive Species	4	1	3	1	4	2.6
Tropical Storm	3	2	4	1	2	2.6
Nuclear Incident	1	3	3	4	4	2.6
Drought	2	2	4	1	4	2.5
Environmental Hazards: Fixed Facility	2	2	2	4	1	2.1
Ice Jam Flood	2	1	3	3	2	2
Civil Disturbance	2	2	2	2	2	2
Wildfire (Suggested 2023)	1	2	1	4	3	1.8
Earthquake	1	1	2	3	3	1.6
Landslide	1	2	1	1	4	1.6

# Mercer County Hazard Mitigation Plan Update Draft Plan Presentation Public Meeting

## Mitigation Strategy

### **44 CFR Requirement**

*Part 201.6(c)(3)(i):* [The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

# Mercer County Hazard Mitigation Plan Update Draft Plan Presentation Public Meeting

## Mitigation Strategy Goals and Objectives Review

### **What is a goal?**

A general guideline that describes what your community would like to achieve.

### **What is an objective?**

Defines strategies that must be implemented to achieve the goals. Objectives are specific and measurable.

# Mercer County Hazard Mitigation Plan Update Draft Plan Presentation Public Meeting

## Mitigation Strategy

## Mitigation Actions

### **44 CFR Requirement**

*Part 201.6(c)(3)(ii):* [The mitigation strategy shall include a section that identifies] a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

### **What is a Mitigation Action?**

An action is more specific than an objective and should address previously identified objectives.

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **Mitigation Strategy**

#### **Mitigation Actions**

- 2023 Mitigation Actions:
  - 61 actions updated or developed.
  - Renumbered and evaluated all action numbers.
  - Located in Section 6 of the mitigation plan.

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### **Mitigation Strategy**

#### **Mitigation Actions**

- 2023 Mitigation Action Plan:
  - Identifies a mitigation strategy and plan for future.
  - Identifies the following:
    - Category
    - Hazard Vulnerability
    - Benefit/Cost Prioritization
    - Schedule
    - Funding
    - Responsibility

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### Mitigation Strategy

#### Mitigation Project Opportunities

- 2023 Mitigation Opportunities:
  - 46 mitigation opportunities from
    - 22 municipalities
  - Information is in Appendix G

# Mercer County

## Hazard Mitigation Plan Update

### Draft Plan Presentation Public Meeting

#### Next Steps

- Available for public comment: February 1, 2023 – March 1, 2023
  - Digital copies are available at:  
<https://www.mercercountypa.gov/hazard.mitigation/default.htm>
  - All public comments **MUST** be submitted in writing to the Mercer County Department of Public Safety at: [dhartley@mercercountypa.gov](mailto:dhartley@mercercountypa.gov)  
Or
  - Submit via SurveyMonkey at:  
<https://www.surveymonkey.com/r/Mercer2023PublicComment>
  - Draft submit to PEMA: 03/03/2023
- FEMA review and approval pending adoption after PEMA
- County and municipality adoption

Mercer County  
Hazard Mitigation Plan Update  
Draft Plan Presentation Public Meeting

**Conclusion**

**Questions??**

**Thank You**

**Adam Leister**

**MCM Consulting Group, Inc.**

**[aleister@mcmconsultinggrp.com](mailto:aleister@mcmconsultinggrp.com)**