

MCM Consulting Group Inc.

# Union County Hazard Mitigation Plan Update

Draft Hazard Mitigation Plan  
Public Meeting  
October 8<sup>th</sup>, 2024

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## Agenda

- What is hazard mitigation planning
- Review the update process
- Risk assessment section
- Capability assessment section
- Mitigation strategy section
- Next steps
- Conclusion

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### 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.

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### Current Hazard Mitigation Plan

- Adopted and promulgated by Union County Commissioners
- Municipality adoption of the Union County plan
- Used as support for pre-disaster and/or post-disaster funding since promulgation

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### 2025 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

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### 2025 Hazard Mitigation Plan Update

- Union County Hazard Mitigation Grant
- Hired MCM Consulting Group, Inc.
  - Kick-off meeting was (February 21<sup>st</sup>, 2024)
- Local Planning Team developed
  - Kick-off meeting on (March 14<sup>th</sup>, 2024)
- Update process
  - Capabilities assessment
  - Risk assessment
  - Mitigation strategy develop
  - Draft plan

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## 2025 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.

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## 2025 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://unioncountypa.org/public-safety-ema/hazard-mitigation-plan/>

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## Risk Assessment Review

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## Identifying Hazards

**Element B: Risk Assessment Requirements**

**B1.** Does the plan include a description of the type, location and extent of all natural hazards that can affect the jurisdiction? Does the plan also include information on previous occurrences of hazard events and on the probability of future hazard events? (Requirement 44 CFR § 201.6(c)(2)(i))

Source: FEMA, 2023

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## Identifying Hazards

- Note and document past presidential, gubernatorial, county and municipal disaster declarations
  - Severe winter storms: February 2014 (Presidential) and January 2015 and 2016 (Gubernatorial)
  - COVID-19: January 2020 (Presidential), March 2020 (Gubernatorial)
  - Flash Flooding: 2024 (Presidential)
  - Develop a list of natural and human-caused hazards
  - Review previous hazards in current plan
    - Drought, earthquake, flood hazards, hurricane/tropical storm, landslides, subsidence and sinkhole, tornado and windstorm, wildfire, winter storm
  - Identify new hazards
  - Use a hazard identification and risk evaluation worksheet
  - Municipality worksheet completed by municipalities
  - County worksheet completed by the local planning team

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## Profiling Hazards

**B1-a.** The plan must include a description of all natural hazards that can affect the jurisdiction(s) in the planning area and their assets, such as dams, located outside of the planning area. This requirement may be met with either a narrative description or definition.

The plan must provide the rationale if omitting any natural hazards that are commonly recognized to affect the participant(s) in the planning area. There is no prescribed method for explaining the omission, but the plan must demonstrate the lack of risk to the participant(s) that omits the hazard.

Source: FEMA, 2023

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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

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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

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Assessing Vulnerability

- Inventory and summarize vulnerable assets:
  - Existing buildings
  - Community lifeline facilities (PEMA/FEMA)
  - New development
  - Hazardous material facilities
  - Utility systems
- Utilize GIS data

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Assessing Vulnerability

- Review high risk groups
  - Elderly (aged 65 years and older)
  - Children (under the age of 5)
  - Special needs
  - Socially vulnerable populations
- Flooding hazards
  - Utilize flood insurance rate maps
  - Develop maps with critical facilities and impacted structures

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Assessing Vulnerability

- Estimate loss
  - Determine potential dollar loss estimates for hazards:
    - Flooding
  - HAZUS-MH software from FEMA

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Assessing Vulnerability

- Develop risk factor for hazards
  - Utilize a risk factor tool (next slide)
  - Relies on historical data
  - Relies on local planning team knowledge
  - 2025 Union County risk factor results on the following slide

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Summary of Risk Factor Approach Used to Rank Hazard Risk.

RISK ASSESSMENT CATEGORY	LEVEL	CRITERIA	INDEX	WEIGHT VALUE
PROBABILITY (Based on frequency of occurrence)	POSSIBLE	LESS THAN 1% ANNUAL PROBABILITY	2	10%
	LIKELY	BEYOND 1% TO 10% ANNUAL PROBABILITY	3	
	MORE LIKELY	10% ANNUAL PROBABILITY	4	
IMPACT (Based on degree of damage to property, loss of life, or disruption of services)	LIMITED	NEARLY COMPLETE LOSS OF LIFE, PROPERTY OR SERVICES; CONFINED TO LIMITED AREAS; LIMITED EFFECTS ON ADJACENT AREAS	1	10%
	MODERATE	MODERATE TO SEVERE LOSS OF LIFE, PROPERTY OR SERVICES; MODERATE TO SEVERE EFFECTS ON ADJACENT AREAS	2	
	SEVERE	SEVERE TO EXTREME LOSS OF LIFE, PROPERTY OR SERVICES; SEVERE TO EXTREME EFFECTS ON ADJACENT AREAS	3	
CATASTROPHIC (Based on degree of damage to property, loss of life, or disruption of services)	SEVERE	SEVERE TO EXTREME LOSS OF LIFE, PROPERTY OR SERVICES; SEVERE TO EXTREME EFFECTS ON ADJACENT AREAS	4	10%
	EXTREME	EXTREME TO SEVERE LOSS OF LIFE, PROPERTY OR SERVICES; EXTREME TO SEVERE EFFECTS ON ADJACENT AREAS	5	
	CATASTROPHIC	CATASTROPHIC LOSS OF LIFE, PROPERTY OR SERVICES; CATASTROPHIC EFFECTS ON ADJACENT AREAS	6	
FREQUENCY OF OCCURRENCE	RARE	LESS THAN 1% OF AREA AFFECTED	1	10%
	MODERATE	BEYOND 1% TO 10% OF AREA AFFECTED	2	
	COMMON	BEYOND 10% OF AREA AFFECTED	3	
WARNING TIME (Based on time between occurrence and detection)	LESS THAN 1 HOUR	SELF-DEFENDING	1	10%
	1 TO 2 HOURS	SELF-DEFENDING	2	
	2 TO 4 HOURS	SELF-DEFENDING	3	
EVACUATION (Based on time between occurrence and evacuation)	LESS THAN 1 HOUR	SELF-DEFENDING	1	10%
	1 TO 2 HOURS	SELF-DEFENDING	2	
	2 TO 4 HOURS	SELF-DEFENDING	3	

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Union County Risk Factor Assessment

Hazard	Probability	Impact	Spatial Extent	Warning Time	Evacuation	Risk Factor
Invasive Species (August 2024)	4	4	4	1	4	2.0
Terrorism (November 2024)	3	3	4	4	4	2.0
Pandemic and Infectious Disease (August 2024)	3	3	4	1	4	2.0
Chemical Terrorism (August 2024)	3	3	4	1	4	2.0
Nuclear War (October 2024)	3	3	4	1	4	2.0
Transportation Accidents	4	2	4	4	1	2.0
Tornado/Hurricanes	3	3	4	1	3	1.5
Water Storms	4	2	4	1	2	2.0
Environmental Hazards	4	2	3	4	1	1.5
Flood	3	3	3	1	3	1.5
Radon Exposure (August 2024)	3	2	4	1	4	1.5
Utility Interruptions	3	2	3	4	3	1.5
Harmful Tropical Storms	3	2	4	1	3	1.5
Dam Failure (August 2024)	2	3	3	3	1	1.5
Strong Wind	2	2	4	1	4	1.5
Flash Flood	4	2	3	4	1	1.5
Substance and Substance Abuse	3	1	4	4	1	1.0
Extreme Temperatures (August 2024)	2	2	4	1	3	2.4
Sea Level Rise	3	1	3	3	3	2.4
Wildfires	2	2	4	4	3	2.5
Unplanned Properties (August 2024)	2	1	2	1	4	1.0
Earthquake	1	1	2	4	1	1.0
Landslide	1	1	1	4	1	1.5

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## 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 2025 Union County Hazard Mitigation Plan.

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## Mitigation Strategy Review

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## Mitigation Strategy Review

C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement 44 CFR § 201.6(c)(3))

Source: FEMA, 2023

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## 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.

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## Mitigation Actions

C4. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement 44 CFR § 201.6(c)(3)(ii))

Source: FEMA, 2023

**What is a mitigation action?**  
 An action is more specific than an objective and should address previously identified objectives.

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## Mitigation Actions

- 2025 Mitigation actions:
  - 70 actions updated or developed.
  - Renumbered and evaluated all action numbers.
  - Located in section 6 of the mitigation plan.

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## Mitigation Actions

- 2025 Mitigation action plan:
  - Identifies a mitigation strategy and plan for future.
  - Identifies the following:
    - Category
    - Hazard vulnerability
    - Benefit/cost prioritization
    - Schedule
    - Funding
    - Responsibility

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## Mitigation Project Opportunities

- 2025 Mitigation opportunities:
  - 10 mitigation opportunities from
    - 5 municipalities
  - Information is in appendix G of the hazard mitigation plan


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## Next Steps

- Available for public comment: October 9, 2024 – November 8, 2024
  - Digital copies will be available at Union County website.
  - All public comments **MUST** be submitted in writing to the Union County Emergency Management Agency
- Or
- Submit via SurveyMonkey at:  
<https://www.surveymonkey.com/r/UnionPublicComment>
- Draft submit to PEMA
- FEMA review and approval pending adoption after PEMA
- County and municipality adoption



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## Questions?

Thank You

Adam Leister  
 MCM Consulting Group, Inc.  
[aleister@mcmconsultinggrp.com](mailto:aleister@mcmconsultinggrp.com)

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