

Hazard Mitigation Planning

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What is Mitigation?

- “Mitigation is any sustained action taken to eliminate or reduce the long-term risk to human life and property from natural and technological hazards” – FEMA definition
- Constructive actions to reduce damages prior to the next disaster



What is Mitigation?

- Mitigation is not
 - Emergency response
 - Crisis management
 - Disaster preparation and recovery
- Mitigation focuses on reducing the impacts of disasters when they occur



Why Do We Mitigate?

- ▶ Disasters cost society too much
- ▶ State and federal aid insufficient
- ▶ Can prevent future damages
- ▶ Reduce impacts of disaster and speed response and recovery process
- ▶ Mitigation happens at the local level



Why Do We Mitigate?

Nationwide Trends

- \$450 Billion since 2005 (GAO) responding to disasters
- Costs continue to rise
- Extreme weather more frequent and intense
- People continue to build and live in high-risk areas



Why Do We Mitigate?

In Wisconsin

- \$20 billion in disaster-related damages since 1980
- 12 Federal Disaster Declarations since 2010



Value of Mitigation

- In 2019, the National Institute of Building Sciences found that for every \$1 spent on mitigation, \$6 are saved in avoided future damages
- Increases to \$7 for FEMA-funded flood mitigation projects



Examples of
Mitigation
Measures
(mostly related
to flooding)



Acquisition/Demolition



Communities acquire land, demolish structures, and keep the land in open space.

Elevation

➤ Elevation raises a structure out of the floodplain. Wisconsin has specific regulations to follow with elevation projects. See DNR for more information.

Floodwall



Floodwalls can prevent water from inundating structures that cannot be elevated, relocated, or demolished.

Image from Darlington, WI

Community Safe Room



► Community safe rooms built to FEMA-361 standards can withstand winds up to 250 MPH.

Stormwater Detention

► Detention ponds can store stormwater runoff, decreasing flash flooding in urban areas.

► Image from MMSD Stormwater Detention Project (Wauwatosa, WI)



Stormwater Management



Stream restoration allows watersheds to better manage flooding.

Image from Thiensville, WI

River Warning Systems`

- River warning systems installed on conservation dams to warn county officials about expected dam breaching.



Other Projects



Mobile Home Tie-Downs

Raise appliances and utilities

Install back-flow valves

Retrofit for wind resistance

Education and public awareness

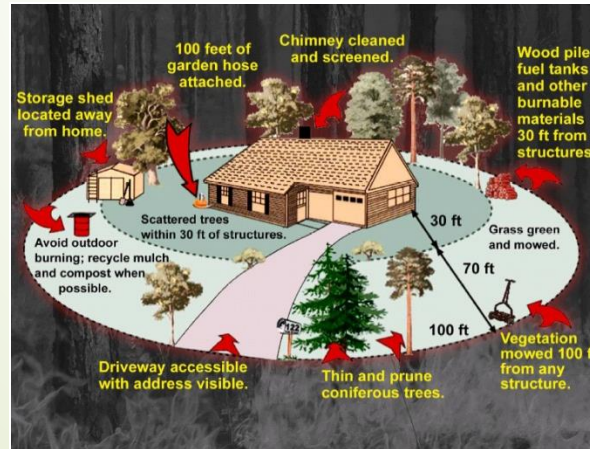
Insurance (flood and sewer backup)

Land use planning



Wind Retrofit Guide for Residential Buildings

FEMA P-804 / December 2010



Proper Landscaping

Benefits of Mitigation



Enhance recreation and tourism

Parks
Trails



Darlington, WI



Increase community pride and quality of live



Chaseburg, WI



Save tax dollars



Updating Hazard Mitigation Plans

Disaster Mitigation Act of 2000

- Established a national disaster mitigation program
- Communities must have an approved hazard mitigation plan to be eligible to receive Federal funds through:
 - Hazard Mitigation Grant Program (HMGP)
 - Pre-disaster Mitigation Program (PDM)
 - Flood Mitigation Assistance Program (FMA)
- Plans must be reviewed and updated every five years

- ▶ Vision of the Disaster Mitigation Act of 2000
- ▶ Communities will have all hazards mitigation plans that identify and prioritize cost-effective mitigation measures that can be implemented prior to a disaster or quickly after a disaster
- ▶ Having a plan would speed up the recovery process

Disaster Mitigation Act of 2000

Plan Components

Documentation
of the planning
process

Description of
study area

Hazard
mitigation goals
and objectives

Analysis of
hazard
conditions

Hazard
mitigation
strategies

Plan adoption,
implementation,
and
maintenance



1. Documentation of the Planning Process

- Chapter 1 and Appendix A
- Incorporated municipalities must participate in plan development and adopt the plan in order to be covered
 - County adoption covers the towns
- Public and adjacent communities must be given an opportunity to comment during the drafting stage



2. Description of Study Area

Chapter 2

- ▶ Demographic
- ▶ Surface waters
- ▶ Transportation
- ▶ Public facilities
- ▶ Police facilities
- ▶ Fire facilities
- ▶ EMS facilities
- ▶ Related regulations and programs
- ▶ Land use
- ▶ Flood hazard areas
- ▶ Utility systems
- ▶ Critical community facilities
- ▶ Hazardous material use and storage
- ▶ Emergency operation planning



3. Hazard Mitigation Goals

Chapter 3

- Express what the plan is trying to achieve
- Ties the plan to other active plans
 - e.g. The County comprehensive plan
- Fairly general
- See Attachment 1 for 3rd Ed. goals



4. Analysis of Hazard Conditions

Chapter 4

- ▶ Vulnerability and risk analysis for each covered hazard
 - ▶ Historical and recent incidents
 - ▶ Vulnerabilities and community impacts
 - ▶ Human lives, property damages, crop damages
 - ▶ Potential for future changes in hazard conditions
 - ▶ Multijurisdictional aspects

5. Hazard Mitigation Strategies

Chapter 5

- Develop a range of actions and projects to reduce the impacts of each hazard
 - Structural, nonstructural, educational
- Prioritize actions for implementation
- Identify responsible parties
- Examine costs and benefits
- Consider multi-jurisdictional aspects



Plan Components

6. Plan Adoption, Implementation, and Maintenance-Chapter 6

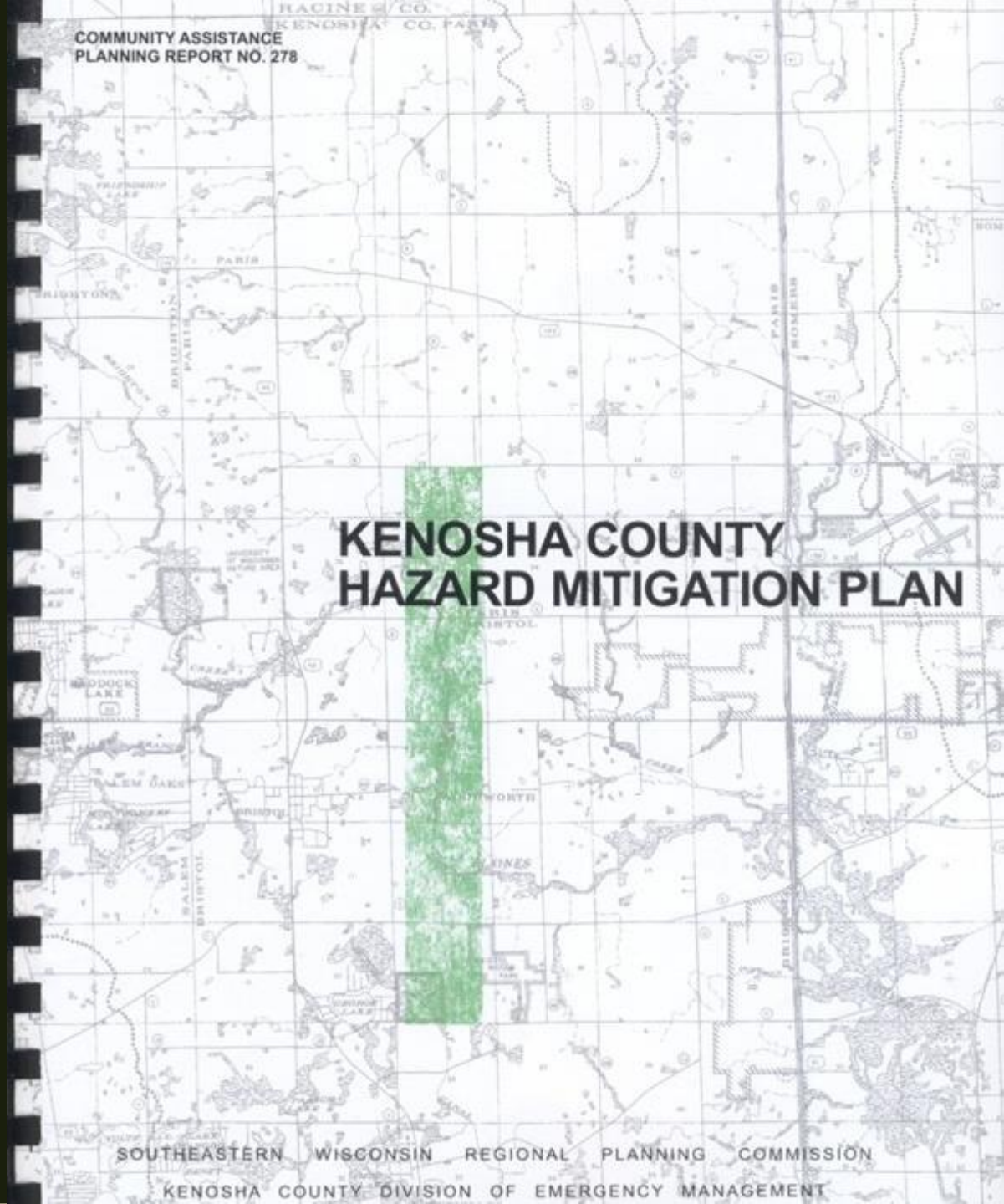
- ▶ County and incorporated municipalities must formally adopt the plan
 - ▶ Towns are covered by County adoption
- ▶ Detail available funding and technical assistance
- ▶ Monitoring of plan implementation
- ▶ Incorporation of the plan into existing planning mechanisms

Background
on 4th
Edition
Update

The slide features a light green background with a dark green vertical bar on the left. On the right side, there are several thin, curved green lines that sweep across the page, adding a modern, abstract design element.

Initial Plan (1st Edition)

- Study conducted 2004-2005
- Report published 2005





2nd Edition Update

- Study conducted 2009/2010
- Coordinated with development of the County comprehensive plan
- Reviewed and revised
 - Goals
 - Vulnerability and risk analysis
 - Mitigation strategies
- Report published 2010



3rd Edition Update

- Study conducted 2015-2017
- Reviewed and revised
 - Goals
 - Vulnerability and risk analysis
 - Mitigation strategies
- Report published 2017

Plan Components to Review and Revise for 4th Edition

- ▶ Review implementation activities
- ▶ Update inventories of natural and built features
- ▶ Review and reevaluate identification of hazards
- ▶ Update and reevaluate risk analysis
- ▶ Review and revise mitigation goals
- ▶ Review and revise mitigation strategies
- ▶ Update plan implementation and maintenance

Tentative Schedule

Task	Estimated Completion Timeframe
Update Planning Team Membership	January 2022
Kickoff Meeting	March 2022
Initial Public Participation and Outreach	April-October 2022
Survey Management Agencies Regarding Status of Initial Plan	April-May2022
Develop Updated Community Profile	April-October 2022
Review and Update Identification and Description of Hazards	April-November 2022
Update Risk and Vulnerability Assessments	April-December 2022
Local Planning Team Meeting	January/February 2023
Public Meeting to Review Hazard Identification and Risk Assessment	February 2023
Revise Draft Plan Based on Public Comment	March 2023
Review and Update Established Hazard Mitigation Goals and Objectives	November 2022-April 2023
Develop Updated Mitigation Actions	November 2022-May 2023
Develop Updated Plan Maintenance Process	December 2022- May 2023
Local Planning Team Meeting	June 2023
Public Meeting to Review Draft Plan	June/July 2023
Revise Draft Plan Based on Public Comment	July/August 2023
Submit Draft Plan Update to WEM for Review	July/August 2023
Revise Plan Based on State Review	August-November 2023
Submit to FEMA for Approval	December 2023
Formal Adoption	April 2024

- ▶ Local Planning Team Meetings
 - ▶ March 2022, Jan/Feb 2023, May/June 2023
- ▶ Public Meetings
 - ▶ February 2023, June 2023
- ▶ Submit for Review – Wisconsin DEM
 - ▶ July 2023
- ▶ County Adoption
 - ▶ April 2024

Key Dates
(all tentative)



Local Planning Team Role

Weigh in

Weigh in on hazard identification



Review

Review the plan chapters



Help

Help us get needed information

- Recent and historical problems with hazards Location, occurrence, damages
- Recent projects, planned and contemplated projects, recent hazard-related outreach
- Inventory data

Project Website

<http://www.sewrpc.org/SEWRPC/communityassistance/Hazard-Mitigation-Planning.htm>

- Copy of the 2017 plan update
- Agendas and other meeting materials
- Presentations
- Draft chapters as they are completed
- Comment screen
- Other ways to send a comment/question:
 - cparisey@sewrpc.org
 - (262) 953-3236



Questions?

- ▶ Evaluate the potential that specific hazards may occur, the likely severity of impacts resulting from these hazards, and the extent to which these impacts may be mitigated by current levels of preparedness.
- ▶ First step in identifying which hazards will be addressed by the plan

Hazard and Vulnerability Assessment Exercise