



ALL-HAZARDS MITIGATION PLANNING

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What is Mitigation?

- Mitigation is any action taken to eliminate or reduce the long-term risk to human life and property from natural and technological hazards



Break the Cycle

- Mitigation is one of the phases of emergency management (preparedness, response and recovery)
- Can occur in any phase
- Only phase that breaks the cycle
 - Damage, repair, damage



Mitigation Examples



- Structural (dams, retention ponds, levees)
- Land-use planning
- Stronger building codes
- Removing persons out of harms way



More Examples

- Raise appliances and utilities
- Install back-flow valves
- Proper landscaping
- Retrofit for wind resistance
- Residential and Community Safe Rooms
- Mobile Home Tie-Downs
- Defensible Space
- NOAA Weather Radios
- Education and Public Awareness
- INSURANCE (flood and sewer)

Why Mitigation?

- \$140 Billion in the last 25 years responding to disasters
- \$10 Billion per year in flood damages
- Costs continue to rise
- People continue to build and live in high-risk areas



2011

- 14 disasters that topped \$1 Billion (more than all disasters in the 80's)
- \$52 Billion in damages
- 646 people died
- More people and stuff in harm's way
- "What we're seeing this year is not just an anomalous year, but a harbinger of things to come," *NOAA Administrator Jane Lubchenco.*

Here in Wisconsin

- \$3 billion in disaster-related damages over the last 3 decades
- 12 Federal Disaster Declarations in the 90's compared to 6 in the 80's
- 2000, 2001, 2 in 2002, 2004, 2007, 2008, and 2 snow emergencies
- 2 in 2010, 2011

2008 Floods

- 31 counties declared
- \$763,618,860+ in damages
- Over 40,000 applied for Individual Assistance with over \$56 million disbursed
- Nearly 2,000 SBA low-interest disaster loans for over \$48 million

2010 July Flood

- 3 counties declared
- Over 33,000 applied for Individual Assistance with over \$53 million disbursed
- 679 SBA low-interest disaster loans for nearly \$12 million

2008 Floods

- Estimated \$78 million in eligible damages to public infrastructure and emergency response costs
- 844 applicants (local and state governments and PNPs) for assistance

2010 July Flood

- Estimated \$37 million in damages to public infrastructure and emergency response costs
- 87 applicants (local and state governments and PNPs)

Hazard Mitigation

- 2008 Flood:
 - \$30.9 million
 - Acquisition and demolition of 218 properties
 - Hazard Mitigation Plans
- 2010 July Flood
 - \$21.3 million



For every dollar spent on mitigation, \$4 are saved in future damages.

(Per the National Institute of Building Sciences -2005)



Loss Avoidance Study: Wisconsin, Property Acquisition and Structure Demolition, September 2009

- Jefferson, Kenosha and Crawford County
- Project Costs: \$11 million
- Losses Avoided: \$14.5 million
- Return of Investment 132%

Mitigation - WEM

- **\$87 million** in last 21 years through HMGP/FMA/PDM with \$20 million pending
- 636 properties acquired
- 84 properties floodproofed
- 2 structures relocated
- Wind retrofit
- Safe Rooms
- Education
- Structural (detention ponds, stormwater management, etc.)
- All-Hazards Mitigation Plans

Reasons to Plan

- Disasters cost too much
- State/Federal aid insufficient
- Can prevent damages
- Less impact and speed response and recovery process
- Mitigation happens at the local level



Benefits

- Protect the health/safety of citizens
- Preserve or expand tax base
- Attract or retain business/industry
- Revitalize a depressed area
- Enhance recreation and tourism
- Increase community pride & improve quality of life
- Save tax dollars



Advantages of Pre-Disaster Mitigation Planning

- Use skills, experience, and expertise of wide range of groups
- Address a broad range of hazards
- Involve and educate citizens
- Identify the best mitigation projects
- Gain public and political support
- Support other goals of the community

Advantages of Pre-Disaster Mitigation Planning (continued)

- Capitalize on mitigation opportunities after a disaster
- Identify sources of technical and financial assistance
- Fewer constraints on time and resources vs. post-disaster



**"You are aware, of course, of the urgency
of this meeting."**

DMA2K

- Disaster Mitigation Act of 2000
- PL 106-390 signed into law 10/30/00
- Established a national disaster hazard mitigation program
 - Section 203 – Pre-Disaster Mitigation Program
 - Section 322 – Mitigation Planning Requirement

Vision

- To reduce disaster losses thru pre-disaster mitigation planning by pre-identifying cost-effective mitigation
- Mitigation planning would then streamline and speed up the recovery process

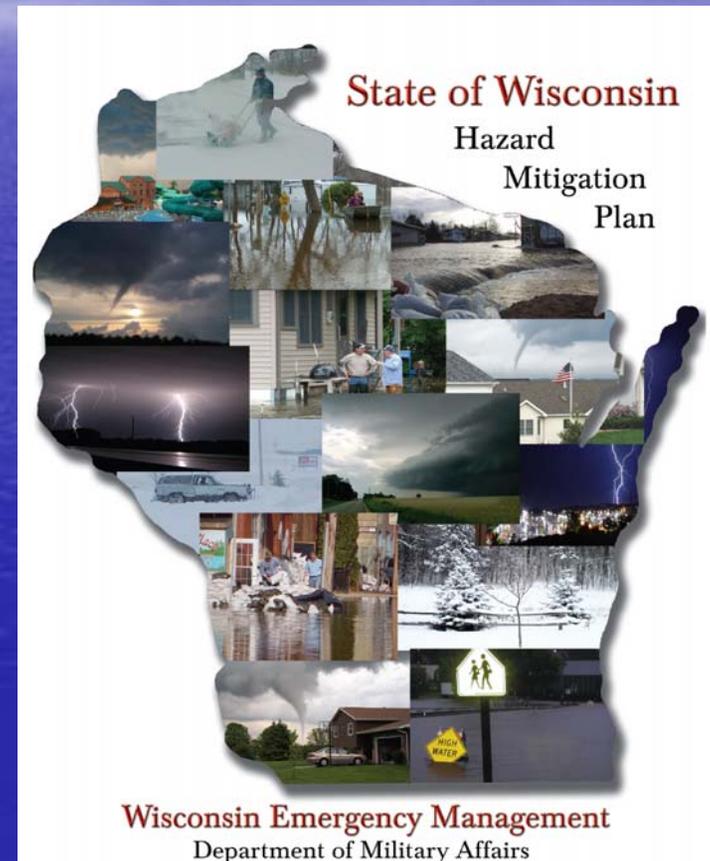
Mitigation Planning



- Describe actions to mitigate hazards, risks, and vulnerabilities
- Establish a strategy to implement those actions
- Pre-identify projects to ensure comprehensive, integrated approach to hazard reduction

State Plan Requirement

- “Standard” Plan Criteria (44 CFR Part 201.4)
- “Enhanced” Plan Criteria (44 CFR Part 201.5)
 - Demonstrate State capabilities
 - Additional 5% HMGP funding
- Update required every 3 years



State Goals 2011

- Minimize human, economic, and environmental disruption and loss of life from natural hazards;
- Enhance public education about disaster preparedness and resilience, and expand public awareness of natural hazards;
- Encourage and promote comprehensive hazard mitigation planning and subsequent project implementation;

State Goals 2011 (continued)

- Support coordination and collaboration between federal, state, and local authorities and non-governmental agencies regarding hazard mitigation activities; and
- Improve the disaster resistance of buildings, structures, and infrastructure whether new construction, expansion, or renovation.

Local/Tribal Mitigation Plan Criteria

- Local Planning – 44 CFR Part 201.6
- Tribal Planning – 44 CFR Part 201.7
- Components
 - Planning Process
 - Risk Assessment
 - Mitigation Strategy
 - Plan Maintenance Process
 - Plan Adoption
 - Plan Review

Local Planning Options

- Stand-alone plan
- Countywide, multi-jurisdictional, watershed, regional
- Integration into other planning mechanisms
 - Comprehensive, Sustainability, or Long-Term Recovery Planning



Comprehensive Planning

- Issues and Opportunities
- Housing
- Transportation
- Utilities and Community Facilities
- Agricultural, Natural, and Cultural Resources
- Economic Development
- Intergovernmental Cooperation
- Land Use
- Implementation

Planning Deadlines

- Must have an approved All-Hazards Mitigation Plan to receive certain FEMA assistance
- Local plans must be reviewed, updated, and re-approved every 5 years
- State plan update every 3 years

Local Hazard Mitigation Planning

April 2012



Tribal Plans:

Forest County Potawatomi - New Plan
 Ho Chunk - Approved, Updating
 Menominee Nation - Expired, Updating
 Oneida - Approved
 St. Croix Chippewa - Approved
 Stockbridge-Munsee - Approved

Single Jurisdiction Plans:

Village of Avoca, Iowa County - Approved
 City of Crandon, Forest County - Expired, Updating
 City of Darlington, Lafayette County - Approved
 City of Milwaukee, Milwaukee County - Plan Update Meets Requirements
 City of Sheboygan, Sheboygan County - Expired, Plan Update Meets Requirements
 City of Superior, Douglas County - Approved

University Plans:

University of Wisconsin-Madison - New Plan
 University of Wisconsin-River Falls - Approved

Plan Updates Due

- 2010: 5
- 2011: 6
- 2012: 8
- 2013: 14
- 2014: 8
- 2015: 12
- 2016: 12
- 2017: 3 so far
- New plans in progress: 13
- Allow one year to 18 months for update
- Plan expires 5 years from FEMA's approval date

5-Year Plan Update Requirements

- Review recommended revisions from the review of the approved plan
- Follow Plan Maintenance Section of the approved plan; if different document the new process
- Evaluate, review, analyze, and update each section of the plan

5-Year Plan Update Requirements (continued)

- Follow Federal and state guidance
- Address any data deficiencies identified in the first plan
- Formally adopt (all participating jurisdictions)
- Acquire approval by the State and FEMA

Things to Consider

- Are goals and objectives still relevant?
- Update data in the risk assessment, especially regarding disasters since the previous plan
- Are there new floodplain maps?
- Have hazards changed? Any new hazards?
- Have conditions changed?
- Have priorities changed?

Things to Consider (continued)

- Have data deficiencies been addressed or do they still exist?
- Do mitigation recommendations need to be revised, added, or deleted based on changed conditions?
- Document progress on mitigation actions taken since last update
- Are there changes in levels or sources of funding?
- Implementation problems

Planning Tools and Resources

- Resource Guide to All-Hazards Mitigation Planning – April 2003
- WEM and FEMA websites
- State of Wisconsin Hazard Mitigation Plan
- HAZUS
- Training Workshops
 - Planning Workshops
 - Project Development
 - HAZUS
 - Benefit-Cost Analysis
 - Buyout Workshop

Planning Tools and Resources (continued)

- FEMA HOW-TO-GUIDES
 - Getting Started, Building Support for Mitigation Planning (386-1)
 - Understanding Your Risks, Identifying Hazards and Estimating Losses (386-2)
 - Developing a Mitigation Plan: Identifying Mitigation Measures and Implementation Strategies (386-3)
 - Bring the Plan to Life: Implementing the Hazard Mitigation Plan (386-4)

Planning Tools and Resources (continued)

- Using Benefit-Cost Review in Mitigation Planning (386-5)
- Integrating Historic Property and Cultural Resource Considerations into Hazard Mitigation Planning (386-6)
- Integrating Human-Caused Hazards into Mitigation Planning (386-7)
- Multi-Jurisdictional Mitigation Planning (386-8)
- Using the Hazard Mitigation Plan to Prepare Successful Mitigation Projects (386-9)

Planning Tools and Resources

(continued)

- Workshop CD
 - Power Point Presentations (Section 2)
 - Regulations (Section 3)
 - Local Multi-Hazard Mitigation Planning Guidance (7/1/08) (Section 5)
 - Local Hazard Mitigation Plan Review Tool and Guidance (Section 11 and 12)
 - Mitigations on-line resources (Section 7) Region V
 - Mitigation Planning Short Notes (Section 9)
 - Mitigation Ideas (Section 8)
 - Sample Action Plan (Section 10)