What is Mitigation?

According to the Federal Emergency Management Agency (FEMA):

“Mitigation is any sustained action taken to eliminate or reduce the long-term risk to human life and property from natural and technological hazards”
Break the Cycle
Why Do We Mitigate?

- Disasters cost society too much
- State and Federal aid insufficient
- Can prevent future damages
- Less impact and speed response and recovery process
- Mitigation happens at the local level
Why Do We Mitigate?

Nationwide Trends

- $140 Billion in the last 25 years in responding to disasters
- $6 Billion per year in flood damages
- Costs continue to rise
- People continue to build and live in high-risk areas
Why Do We Mitigate?

In Wisconsin

- $3 billion in Disaster-related damages last 3 decades
- 12 Federal Disaster Declarations in the 90’s compared to 6 in the 80’s
WEM Hazard Mitigation

- Over $110 million in last 21 years through HMGP/FMA/PDM
- Acquisition and Demolition
- Floodproofing and elevation
- Relocation
- Wind Retrofit
- Safe Rooms
- River Gauges
- NOAA Weather Radios
- Mitigation of utilities
- Education
- Structural (detention ponds, stormwater management, etc.)
- All Hazard Mitigation Plans
Projects funded with HMGP
Funding DR-874 (1990) to DR-1944 (2010)

Participating Jurisdictions

Type of Project
- Green: Acquisition (74 projects)
- Yellow: Education (2 projects)
- Pink: Other (11 projects)
- Pink: Radios (7 projects)
- Orange: Safe Rooms (7 projects)
- Light Blue: Storm Sewer/Detention (12 projects)
- 653 properties acquired
- 42 structures floodproofed and/or retrofit
- 23 structures elevated
- 1 structure relocated
For every $1 spent on mitigation, $4 is saved in future damages.

(Per the National Institute of Building Sciences -2005)
Examples of Mitigation
Acquisition/Demolition

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

Images from Darlington, WI
Elevation raises a structure out of the floodplain. Wisconsin has specific regulations to follow with elevation projects. See DNR for more information.

Image from Soldiers Grove, WI
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

Image from Town of Dunn, WI
Detention ponds can store storm water runoff, decreasing flash flooding in urban areas.

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

Stream restoration allows watersheds to better manage flooding

Image from Theinsville, WI
River warning systems installed on conservation dams to warn county officials about expected dam breaching.

Images from Vernon County
Other Projects

- Raise appliances and utilities
- Install back-flow valves
- Retrofit for wind resistance
- Education and Public Awareness
- INSURANCE (flood and sewer)
- Land use planning
• Protect the health/safety of citizens
• Preserve or expand tax base
• Attract or retain business/industry
• Revitalize a depressed area
Benefits of Mitigation

- Enhance recreation and tourism
  - Parks
  - Trails
- Increase Community Pride & improve quality of life
- Save Tax Dollars

Darlington, WI
Chaseburg, WI
Mitigation Planning
Disaster Mitigation Act of 2000

- Public Law 106-390 signed into law 10/30/00
- Establishes a national disaster hazard mitigation program
  - Section 203: Pre-Disaster Mitigation Program
  - Section 322: Mitigation Planning Requirement
Vision of DMA 2000

- 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 strategy to implement those actions
- Pre-identify projects to ensure comprehensive, integrated approach to hazard reduction
Local/Tribal Mitigation Plan Criteria

- State Planning (standard) – 44 CFR Part 201.4
- State Planning (enhanced) – 44 CFR Part 201.5
- 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
State Mitigation Planning

- State of Wisconsin Hazard Mitigation Plan
- Updated every three years
- FEMA approved as “enhanced plan”
- [http://emergencymanagement.wi.gov/mitigation/planning.asp#state](http://emergencymanagement.wi.gov/mitigation/planning.asp#state)
State Goals

- Minimize human, economic and environmental disruption and reduce the potential for injury 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 continued comprehensive hazard mitigation planning and implementation of the plan.
- Support coordination and collaboration among federal, state, and local authorities, and non-governmental organizations regarding hazard mitigation activities.
- Improve the disaster resistance of buildings, structures, and infrastructure whether new construction, expansion or renovation.
Local Planning Options

- Stand alone plan
- Countywide, multi-jurisdictional, watershed, regional
- Integrate into other planning – Comprehensive Planning (Smart Growth)
The Planning Process

- Describes and documents the planning process (who, what, when)
- Review existing plans, studies, and laws
- Engage the public
- Basic demographics
- Description of land uses and development trends
Risk Assessment

- Description, location, and extent of hazards
- Past events
- Probability of future events
- Type and number of structures at risk
- Potential losses
- Potential impacts
Mitigation Goals and Strategies

- Long-term goals
- Objectives
- Mitigation actions (measures) and projects that will reduce risk for each identified hazard
- Action plan for implementing the identified actions

Darlington, WI
Plan Review, Maintenance and Adoption

- Monitoring, evaluation, and updating the plan every 5 years
- Incorporation into existing planning mechanisms
- Continued public participation
- Plan adoption
- Plan is reviewed by the State, certified, and sent to FEMA for approval.
• Must have an approved All Hazards Mitigation Plan to receive PDM, HMGP, FMA, SRL (exception RFC)
• Local Plans have to be reviewed, updated, and re-approved every 5 years
Hazard Mitigation Planning in WI

Tribal Plans:
- Forest County Potawatomi - Approved
- Ho Chunk - Approved, Updating
- Menominee Nation - Expired, Updating
- Oneida - Approved
- St. Croix Chippewa - Approved
- Stockbridge-Munsee - Approved

University Plans:
- University of Wisconsin-Madison - New Plan
- University of Wisconsin-River Falls - 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 Eau Claire, Eau Claire County - Expired, Updating
- City of Milwaukee, Milwaukee County - Approved
- City of Sheboygan, Sheboygan County - Approved
- City of Superior, Douglas County - Approved

Legend
- Counties With Approved Plans
- Counties With No Approved Plan
- Counties With No Plan, Not Active in Planning Process
- Counties With an Expired Plan
- Counties Active in Planning or Updating Process
- Counties with Plans that Meet Requirements
Incorporate cost-effective mitigation measures when repairing damaged public facilities.
Unified Hazard Mitigation Assistance Program

Hazard Mitigation Grant Program
Pre-Disaster Mitigation Program
Flood Mitigation Assistance Program
Repetitive Flood Claims Program
Severe Repetitive Loss Program
## Eligible Sub-Applicants

<table>
<thead>
<tr>
<th>Entity</th>
<th>Program Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Agencies</td>
<td>HAZARD MITIGATION GRANT PROGRAM</td>
</tr>
<tr>
<td></td>
<td>PRE-DISASTER MITIGATION</td>
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<tr>
<td></td>
<td>FLOOD MITIGATION ASSISTANCE</td>
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<td>REPETITIVE FLOOD CLAIMS</td>
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<td>SEVERE REPETITIVE LOSS</td>
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<td>Tribal Governments</td>
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<td>Local Governments</td>
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<tr>
<td>Private Non-Profit Organizations (PNPs)</td>
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## Cost Sharing

<table>
<thead>
<tr>
<th>Programs</th>
<th>Mitigation Activity Grant (Percent of Federal/Non-Federal Share)</th>
<th>Management Costs (Percent of Federal/Non-Federal Share)</th>
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<tbody>
<tr>
<td></td>
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<td>Grantee</td>
</tr>
<tr>
<td>HMGP</td>
<td>75/25</td>
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<tr>
<td>PDM</td>
<td>75/25</td>
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<tr>
<td>PDM – Sub-grantee is a small impoverished community</td>
<td>90/10</td>
<td>75/25</td>
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<tr>
<td>PDM – Tribal grantee is small impoverished community</td>
<td>90/10</td>
<td>90/10</td>
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<tr>
<td>FMA</td>
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<tr>
<td>FMA – severe repetitive loss property with Repetitive Loss Strategy</td>
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<tr>
<td>RFC</td>
<td>100/0</td>
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<tr>
<td>SRL</td>
<td>75/25</td>
<td>75/25</td>
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<tr>
<td>SRL – with Repetitive Loss Strategy</td>
<td>90/10</td>
<td>90/10</td>
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</table>
Hazard Mitigation Grant Program

- Post-Disaster
- 15% (20% with Enhanced Plan) of the total federal funds allocated for Public and Individual Assistance Programs for each disaster
Pre-Disaster Mitigation Program

- State base amount of $575,000
- Annual, national competition
- Subgrants projects capped at $3 million federal share; Planning $800,000 million for new plan, $400,000 plan update
- Program reauthorized through 9/30/13
Flood Mitigation Assistance Program

- Annual allocation (approx. $250,000)
- # of flood insurance policies and repetitive loss properties in the state
- Flood Mitigation only
- Mitigation to NFIP insured structures
Repetitive Flood Claims Program

- Mitigation to NFIP insured structures
- At least one paid flood insurance claim
- Flood Mitigation Only
- No plan requirement
- Inability to manage sub-grant or lack of 25% match
- National Competition
Severe Repetitive Loss Program

- Mitigation to NFIP insured structures
- Flood mitigation only
- At least 4 NFIP claim payments over $5,000 each, and cumulative exceeds $20,000; or 2 payments exceeds the value of the structure
- Allocations for target states; otherwise competition
- 11 properties (4 validated) in WI
  - 3 mitigated
  - 1 included in a pending application
  - 1 cannot locate
## Eligible Activities

<table>
<thead>
<tr>
<th>Mitigation Projects</th>
<th>HMGP</th>
<th>PDM</th>
<th>FMA</th>
<th>RFC</th>
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<tbody>
<tr>
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<td>Property Acquisition &amp; Structure Relocation</td>
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<td>Mitigation Reconstruction</td>
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<td>Dry Floodproofing of Historic Residential Structures</td>
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<tr>
<td>Dry Floodproofing of Non-Residential Structures</td>
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<tr>
<td>Eligible Activities</td>
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<td>Safe Room Construction</td>
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<td>Infrastructure Retrofit</td>
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</tbody>
</table>
- Participating in the NFIP and in good standing
- Cost-Beneficial
- Environmentally Sound
- Considered other alternatives
- Best alternative
- Solve the problem
- Plan requirement (except RFC)
Questions?

Contact Info:

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WEM Hazard Mitigation Planning:
http://emergencymanagement.wi.gov/mitigation/planning.asp

FEMA Hazard Mitigation Assistance:
http://www.fema.gov/hazard-mitigation-assistance