

## **SECTION 3: MITIGATION STRATEGY**

The Wisconsin Silver Jacket Hazard Mitigation Team (WSJHMT) prepared the goals, mitigation actions, and Mitigation Action Plan included in Wisconsin's State Hazard Mitigation Plan. The goals and mitigation actions were developed based on the experience of WSFHMT members, presentations and discussions about the natural hazards that impact the State, information from the State Risk Assessment, review and discussion of previous mitigation planning and activities, and review and discussion of the mitigation goals of the state's local mitigation plans. For the 2021 version of the Plan, Wisconsin Emergency Management (WEM) met one-on-one with representatives of the other agencies to review and update their contributions.

Through the WHMT's planning process, the mitigation goals below were developed for State Hazard Mitigation Plan. The goals guided the development of mitigation actions and the Mitigation Action Plan and will foster a vision for hazard mitigation and disaster resistance throughout the state.

### **3.1 State Mitigation Goals**

1. Minimize human, economic, and environmental disruption from natural, technological, and manmade hazards.
2. Enhance public education about disaster preparedness and resistance, and expand public awareness of natural, technological, and manmade hazards.
3. Encourage hazard mitigation planning.
4. Support intergovernmental coordination and cooperation among federal, state, and local authorities regarding hazard mitigation activities.
5. Improve the disaster resistance of buildings, structures, and infrastructure whether new construction, expansion, or renovation.

Goals were initially developed during the planning process for the original State Hazard Mitigation Plan completed in 2001. Through the planning processes for the 2008 and 2011 updates, the WHMT revised the goals to more accurately encompass the purpose of hazard mitigation in the state and the mission of the WHMT. In 2016, the WSJHMT further revised goals 1 and 2 to include technological and manmade hazards. No additional changes were made in 2021.

As of November 11, 2021, 72 counties, two single jurisdictions, and ten Tribal Nations in Wisconsin have developed or are developing hazard mitigation plans. After reviewing these plans, WEM Mitigation staff determined that the goals of these local plans closely mirror the goals of the State Plan. Section 4 discusses this in more detail. The plans and the areas they represent provide information to ensure that the Mitigation Strategy of the State Hazard Mitigation Plan reflects the goals and strategies of all types of local plans in Wisconsin.

## **3.2 Capability Assessment**

### **3.2.1 State Capability Assessment**

As part of the Mitigation Strategy, the State Hazard Mitigation Plan includes a discussion of the state's pre- and post-disaster hazard management capabilities, including an evaluation of state laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas, and a discussion of state funding capabilities for hazard mitigation projects.

For development of the initial plan, a capability assessment survey was developed to collect information on policies, programs, regulations, authorities, agency initiatives, training, and technical assistance provided by state agencies that address hazard mitigation. Members of the WHMT coordinated with staff in their agencies to obtain information on all relevant activities. This inventory assisted the WHMT in identifying what capabilities existed, which were working well, and where there were unmet needs. For the three-year plan updates in 2008 and 2011, the members of the WHMT were asked to review and evaluate the state capability assessment. Revisions and additions were made. In both 2011 and 2016, WEM Mitigation staff met with each agency individually to obtain this information. This led to much more robust insights than using a survey or conducting a large-group meeting. WEM continued this in 2021.

Completing a thorough capability assessment led to the identification and development of many specific mitigation recommendations and actions. By evaluating the effectiveness of the existing state capabilities with respect to capabilities of local governments, the state discovered the need for additional programs to assist communities in their mitigation efforts, and included those mitigation action items in the Mitigation Action Plan.

WEM has identified the following programs as having the greatest impact on mitigating damage from natural hazards:

- The Pre-Disaster Mitigation Competitive (PDM-C) program provides mitigation grants to state and local governments, and Tribal Nations for comprehensive all-hazards mitigation planning and to implement cost-effective mitigation projects. FEMA ended this program in the 2020 Federal Fiscal Year, but grants were provided in 2016-2019 to Wisconsin communities.
- The Hazard Mitigation Grant Program (HMGP) provides mitigation grants to state and local governments, eligible private non-profit organizations, and tribal organizations for comprehensive all-hazards mitigation planning and to implement cost-effective mitigation projects.
- The Building Resilient Infrastructure and Communities (BRIC) program provides mitigation grants to state and local government, and Tribal Nations, for all-hazards mitigation planning and to implement cost-effective mitigation projects that support resiliency to infrastructure and community lifelines.

- Increased Cost of Compliance (ICC) coverage pays insurance claims for the cost of compliance with state or community floodplain management laws or ordinances after a direct physical loss by flood. When a building in the floodplain covered by a Standard Flood Insurance Policy under the NFIP sustains a flood loss and the state or community declares the building to be substantially or repetitively damaged, ICC will pay up to \$30,000 for the cost of elevation, floodproofing, demolition, or relocation that will bring the structure into compliance with the state or local floodplain ordinance.
- The Flood Mitigation Assistance (FMA) program provides annual funding for the development of comprehensive flood mitigation plans and implementation of cost-effective mitigation measures on NFIP-insured properties. The former Repetitive Flood Claims and Severe Repetitive Loss programs have been rolled into the FMA program. Mitigation of repetitive loss and severe repetitive loss properties as defined by FEMA is the highest priority for the program.
- NR 116 Local and State Floodplain Standards prohibits construction in floodways and requires elevation and dry-land access in flood fringe areas. It limits improvements to non-conforming structures and requires compensatory storage in flood storage areas.
- Comprehensive planning legislation requires local governments to have comprehensive plans to guide them in making good land-use decisions. It complements mitigation planning and has added momentum to the mitigation planning movement by requiring the incorporation mitigation elements into comprehensive plans by 2010.
- The Home Safety Act requires the state's Uniform Dwelling Code (UDC) be enforced throughout the state. It includes the imperative to have all new construction inspected for compliance with the UDC. This law will improve the disaster resistance of homes by requiring implementation of safety standards at the time of construction. The effect will be a reduction in injury and property loss from all types of natural hazards.
- The Municipal Flood Control and Riparian Restoration Program provides grants for the mitigation of flood-prone property, the restoration of riparian areas, and the construction of flood control projects.
- The Firewise Communities program is intended to serve as a resource for agencies, tribes, organizations, fire departments, and communities across the US who are working toward a common goal: reduce loss of life, property, and resources to wildland fire by building and maintaining communities in a way that is compatible with our natural surroundings. Firewise Communities is part of the National Wildland/Urban Interface Fire Program.

Because of their length, Tables 3.2-1 and 3.2-2 are at the end of this section. Table 3.2-1 identifies and assesses state agency activities that support hazard mitigation. Table 3.2-2 identifies and lists potential funding sources for mitigation activities. The state relies heavily upon federal hazard mitigation programs available through FEMA to fund state and local hazard mitigation projects.

### **3.2.2 Local Capability Assessment**

As part of the state's mitigation strategy, the State Hazard Mitigation Plan shall include a general description and analysis of the effectiveness of local mitigation policies, programs, and capabilities.

As of November 2021, all 72 counties and ten of the eleven federally recognized Tribal Nations in Wisconsin have completed or are developing all-hazards mitigation plans. The local plans are discussed further in Section 4 of the Plan.

There are several local regulations or programs that assist counties and communities in addition to several key statewide regulations or initiatives that provide for mitigation capabilities at the local level. They are identified in Table 3.2-3, Local Capability Assessment, at the end of this section.

In addition to the policies and/or regulations identified in the table, WEM Mitigation staff has been actively working with local governments to develop an awareness of mitigation opportunities and to further identify policies, programs and capabilities that exist that may advance mitigation efforts at the local level. This is done through the following activities:

- Providing information and guidance regarding the benefits of comprehensive hazard mitigation planning and implementation of long-term or permanent mitigation measures. WEM, with assistance of the Association of Wisconsin Regional Planning Commissions, developed mitigation planning guidance, the Resource Guide to All Hazards Mitigation Planning in Wisconsin, which has been widely distributed.
- Developing and conducting All-Hazards Mitigation Planning Workshops for interested communities. In addition, hazard mitigation has been included in WEM's training curriculum in other courses such as the Disaster Response and Recovery Course, Local Damage Assessment, New Directors Series Workshop, and Municipal Planning Course. The G-393 Introduction to Mitigation for Emergency Managers course has also been added to WEM's curriculum. Hazard mitigation is included in the Local Officials Applicant Briefings held after each disaster declaration. WEM staff has teamed up with Wisconsin DNR staff in presenting at Substantial Damage Workshops.
- Developing and publishing articles regarding all-hazards mitigation in various newsletters such as the WEM Digest; Department of Natural Resource's Floodplain and Shoreland Management Notes; Wisconsin Association for Floodplain, Stormwater, and Coastal Managers' (WAFSCM's) Water Matters; Wisconsin League of Municipalities' newsletter, as well as others when requested.
- Making presentations on all-hazards mitigation whenever the opportunity presents itself. This includes at the Annual Governor's Conference on Homeland Security and Emergency Management; Wisconsin Emergency Management Association; WAFSCM's Annual Conference; Wisconsin Land Information Association; Association of Wisconsin Regional Planning Commissions; Wisconsin Utilities Association; Wisconsin State Bar

Association; the UW-Madison; Great Lakes Tribal Organization; and Wetlands, Wildlife Habitat and Flood Hazards in the Rock River Basin; as well as others upon request.

- Utilizing WEM’s website to publish information and guidance on all-hazards mitigation. This includes information on the federal mitigation programs, state and local all-hazards mitigation planning, mitigation success stories, and other general information on mitigation. Documenting successful local mitigation stories demonstrates the long-term benefits of mitigation to other communities and the public as well as local policy- and decision-makers. Documenting success stories has generated an increase in awareness and interest in mitigation at the local level. Most of the presentation materials from the various workshops (Planning Workshop, Governor’s Conference, and Buyout Workshop) are located on WEM’s website.
- Effectively administering the federal mitigation grant programs (FMA, HMGP, and PDM) to fund cost-effective, environmentally-sound, long-term mitigation measures as well as comprehensive all-hazards mitigation planning.
- Performing outreach activities to the public, emergency management professionals, and policymakers since the last Plan update. More is detailed in Section 6.

### **3.3 Mitigation Action Plan**

In developing the mitigation actions, the WSJHMT considered the following:

- WEM’s mission, as identified in the 2021 Draft Strategic Plan, is, “WEM builds capabilities and coordinates resources to support a safe and resilient Wisconsin.”
- WEM’s vision, as identified in the 2021 Draft Strategic Plan is, “Wisconsin’s communities are served by a strong and responsive emergency management organization that achieves success through effective partnerships.”
- Issues, concerns, and recommendations of the Post-Event Mitigation Strategies or Action Plans for major disaster declarations 4343, 4383, 4402, 4459, and 4477.
- The mitigation goals and objectives from local plans.
- Impacts of past disaster events.
- Recommendations from FEMA staff.
- The state’s priority hazards: floods, tornadoes and high winds, wildfires, and coastal erosion. (See Appendix A, THIRA, for more information.)

For the 2021 Plan update, members of the WSJHMT met individually with WEM Mitigation staff to review and revise the Action Plan, specifically those items for which their agency is responsible. They also provided new action items, amended existing action items, or deleted items that are no longer relevant, as appropriate.

The Plan lists the Action Items by lead agency for two reasons: 1) it is easier for agencies to find their contributions, especially when updating the Plan; and 2) many of the Action Items satisfy more than one of the State Mitigation Goals, making it difficult to sort by goal. The order the Action Items are in under each agency does not reflect priority. Listed with each Action Item:

- Background information
- Supporting agencies – agencies that help ensure this action is implemented
- Anticipated timeframe for implementation
- Changes across plan updates, including since the 2016 plan through this 2021 update process

The Action Items are summarized in Table 3.3-1 for quick reference at the end of this section. The table includes a priority level (high, medium, or low) for each Action Item as specified by the lead agency. In addition, the table describes how each Action Item contributes to the overall State Mitigation Strategy and which of the State Mitigation Goals it meets.

### 3.3.1 Lead Agency: Department of Administration (DOA)

#### Division of Energy, Housing, and Community Resources (DEHCR)

**1.1 Action:** Distribute hazard mitigation materials at housing workshops and training sessions.

**Supporting Agency:** WEM

**Implementation:** Continue to distribute hazard mitigation materials annually.

**Background:** WEM will provide hazard mitigation materials and the DEHCR will distribute these materials at CDBG workshops and training sessions.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**1.2 Action:** Include the Wisconsin Disaster Fund as a topic at workshops and trainings that also discuss the Emergency Assistance Program.

**Supporting Agency:** WEM

**Implementation:** Ongoing.

**Background:** WEM will present information about the Wisconsin Disaster Fund at Emergency Assistance Program and Bureau of Community Development workshops and trainings. WEM and the DEHCR will work together to provide mitigation information to recipients of housing rehabilitation and community development assistance.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**1.3 Action:** Incorporate mitigation practices into the DEHCR's Emergency Assistance Program.

**Supporting Agency:** WEM

**Implementation:** The Division of Housing (now DEHCR) began incorporating mitigation practices into its housing rehabilitation programs in June 2001.

**Background:** The Eligible Activities List includes floodproofing, which is required for certain rehabilitation projects. Safe rooms where a need is identified and retrofitting for greater wind resistance where property conditions require the replacement of roofing or siding, are also eligible activities.

**2011 Update Status:** Delayed because CDBG funds are not usually used for the type of substantial rehabilitation necessary for the incorporation of mitigation practices. However, mitigation remains an eligible activity.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Mitigation as a stand-alone activity is not eligible for CDBG Emergency Assistance. We can incorporate sustainability/resiliency measures into the repair of damages caused by the EAP event. Mitigation is eligible for our CDBG Housing programs.

**1.4 Action:** Do not approve grants or loans to communities to construct critical facilities in floodplains or other hazard-prone areas.

**Supporting Agencies:** WEM, DNR

**Implementation:** Ongoing.

**Background:** Community development programs within the DEHCR, such as the CDBG Public Facilities program, help disadvantaged communities finance the construction of community facilities and infrastructure. These are key components of the community and need to be disaster resistant. The DEHCR will follow federal and state standards for flood risk mitigation and address other natural hazards as applicable when funding the construction of community facilities.

**2011 Update Status:** Action delayed because CDBG funds are not typically used for the type of substantial rehabilitation necessary for critical facility construction.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**1.5 Action:** Administer and promote the Wisconsin Weatherization Assistance Program.

**Implementation:** Ongoing.

**Background:** Very low-income households in Wisconsin can qualify for assistance in weatherizing their homes. This can not only keep heating and cooling costs down, but also protect structures from damages and save the lives of vulnerable individuals.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** Unchanged.

**1.6 Action:** Chair the Housing Subcommittee on the Wisconsin Recovery Task Force (WRTF).

**Supporting Agency:** WEM

**Implementation:** Ongoing, as needed following disasters.

**Background:** Upon direction of Governor Doyle, WEM created the Wisconsin Recovery Task Force (WRTF) to assist individuals, businesses, and communities to recover quickly, safely, and with more resilience from future disasters. All WSJHMT members are on the Mitigation Subcommittee. Some WSJHMT members also chair the other subcommittees.

**2016 Update Status:** New action item for 2016 update; the WRTF was convened following two disasters in the state in 2016.

**2021 Update Status:** DEHCR supports the WRTF and will continue to participate as a member.

### **Division of Intergovernmental Relations: Wisconsin Land Information Program (WLIP)**

**1.7 Action:** Coordinate and incorporate hazard mitigation planning concepts in future updates to the State Guide on Developing the Natural Resources Element of the Comprehensive Planning Guides.

**Supporting Agencies:** WEM, DNR, UW-Sea Grant Institute

**Implementation:** Ongoing.

**Background:** Wisconsin Comprehensive Planning legislation was created in 1999 to address the planning needs of Wisconsin communities. Many communities had outdated plans, inconsistent plans, or no plans at all. This legislation requires communities that want to enact or change zoning, subdivision regulations, or official mapping to have a comprehensive plan in place by January 1, 2010. Communities must address nine elements within the

comprehensive plan. DOA drafted guides for each element. Hazard mitigation planning is mentioned briefly in the guide for the Natural Resources Element.

**2011 Update Status:** Mitigation planning information was provided to DOA by WEM. The Planning Guides are now only available online.

**2016 Update Status:** The Comprehensive Planning program no longer exists, but the Department of Administration continues to provide information on comprehensive planning.

**2021 Update Status:** Unchanged.

**1.8 Action:** Promote hazard mitigation planning by maintaining a close relationship with the Comprehensive Planning program.

**Supporting Agencies:** WEM, Regional Planning Commissions

**Implementation:** Staff will provide an annual update on communities developing comprehensive plans so that, if possible, the information from the comprehensive plans can be used in the development or update of local hazard mitigation plans.

**Background:** Comprehensive plans for local communities contain information that is useful in hazard mitigation planning such as floodplain maps, future land use maps, contaminated site information, wetlands maps, stream corridors, etc.

**2011 Update Status:** WEM is preparing to update the Resource Guide to All Hazards Mitigation Planning in Wisconsin.

**2016 Update Status:** The Comprehensive Planning program no longer exists, but the Department of Administration continues to provide information on comprehensive planning.

**2021 Update Status:** Unchanged.

**1.9 Action:** Work toward establishing a community for GIS and LiDAR data sharing.

**Supporting Agencies:** DNR, NWS, USGS, WEM, UW

**Implementation:** The WLIP is nearing completion of a statewide parcel data layer. LiDAR is also being pursued.

**Background:** GIS data layers can be very expensive when not available publicly. This project would allow users to access many types of GIS data for various purposes in the public interest including mitigation planning and mitigation project development.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** WLIP funded county data is publicly available through the University of Wisconsin's Geodata@Wisconsin data portal. <https://geodata.wisc.edu/> Lidar data is available through the UW WisconsinView archive <https://www.sco.wisc.edu/data/elevationlidar/>

### **Division of Intergovernmental Relations: Wisconsin Coastal Mgmt. Program (WCMP)**

**1.10** The WCMP will continue to raise awareness of coastal hazards through such activities as Coastal Awareness Month, and workshops and trainings that include concepts of disaster-resilient communities to promote hazard mitigation.

**Supporting Agencies:** WEM, DNR

**Implementation:** Ongoing.

**Background:** The WCMP seeks to prevent and minimize potential threats posed by coastal

hazards through outreach efforts, grant programs, and agency partnerships.

**2011 Update Status:** Unchanged. WAFSCM, WEM, and WCMP will try to schedule a Coastal Hazards Workshop in fall 2011 or spring 2012.

**2016 Update Status:** Unchanged. WCMP worked with WEM staff and other members of the Coastal Hazards Work Group to organize and hold Great Lakes Coastal Processes and Best Management Practices workshops in 2011-2012.

**2021 Update Status:** Unchanged. WCMP coordinated a Coastal Processes and Permitting Workshop in October 2019. WCMP staff presented at multiple meetings and webinars hosted by FEMA and other agencies, with a focus on coastal hazards and resilience.

**1.11 Action:** The WCMP will help communities develop and implement shoreline and bluff erosion policies.

**Supporting Agencies:** WEM, DNR, UW-Sea Grant Institute

**Implementation:** Current and ongoing. The WCMP will seek to increase the number and effectiveness of policies regulating coastal hazards in Wisconsin.

**Background:** The WCMP continues to work to update methodologies and technical information regarding coastal erosion in the Great Lakes. This information is intended to help devise mitigation activities, update current ordinances and other policies, and raise stakeholders' awareness of risks posed by coastal erosion.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Changes to state rules regarding Shoreland Zoning, Wisconsin Admin. Code Ch. NR 115, may affect communities' shoreline policies. The WCMP will work with communities to assess and address the potential impacts.

**2021 Update Status:** WCMP led, with University of Wisconsin Sea Grant Institute, Southeastern Wisconsin Regional Planning Commission, the University of Wisconsin-Madison Department of Civil and Environmental Engineering, and other partners, the Southeastern Wisconsin Coastal Resilience Project. The SEWI Resilience project provided significant, guided outreach to communities to identify needs and opportunities to address coastal hazards in southeastern Wisconsin. WCMP provided funding for a related effort in the Bay-Lake Region. This work will be continued through an upcoming project that will create a community of practice for Wisconsin communities on Lake Michigan.

**1.12 Action:** The Wisconsin Coastal Hazards Work Group (CHWG) will work with local governments in the state's 15 coastal counties to develop and revise policies relevant to coastal hazards.

**Supporting Agencies:** UW-Sea Grant Institute, DNR

**Implementation:** Ongoing.

**Background:** The most recent GIS effort that supports the work of the CHWG involves the visualization of coastal erosion processes. The UW-Sea Grant Institute collaborated on a project funded by NASA to apply remote sensing to local government problems. The Wisconsin State Cartographer approached the Sea Grant Institute and the UW-Madison Geography Department about the use of visualization software to communicate the risks of coastal erosion to development in Ozaukee County, WI. Their work has helped make sense of a large volume of scientific and spatial data while emphasizing the role that imagery and

animation have in the public understanding of coastal erosion. The work has also helped identify the most suitable software tools for representing dynamic coastal processes.

**2011 Update Status:** The CHWG continues to develop tools and convey challenges of coastal erosion and flooding to coastal communities.

**2016 Update Status:** A CHWG member updated a document titled *Managing Coastal Hazard Risks on Wisconsin's Dynamic Great Lakes Shoreline* and provided supporting documents regarding Coastal Ordinance Provisions in Wisconsin communities and the Coastal Erosion Model Ordinance.

**2021 Update Status:** The CHWG continues to work with local communities and to coordinate efforts. The CHWG assisted WCMP in developing the 2021-2025 Coastal Hazards Needs Assessment and Strategy. WCMP has provided funding, and CHWG members have provided time and efforts to the Wisconsin Shoreline Viewer. In addition to layers showing various conditions of the shoreline, the viewer has historical and recent photos of the shoreline, many obtained by Wisconsin Wing Civil Air Patrol. The photos have been very useful to communities' understanding of coastal erosion:

[http://floodatlas.org/asfpm/oblique\\_viewer/](http://floodatlas.org/asfpm/oblique_viewer/)

**1.13 Action:** The WCMP will coordinate the CHWG to expand hazard mitigation activities in those coastal areas vulnerable to destruction.

**Supporting Agencies:** WEM, UW-Sea Grant Institute, DNR

**Implementation:** The WCMP will continue to hold CHWG meetings as needed.

**Background:** The WCMP works with its partner agencies in the CHWG. The CHWG provides an opportunity for agencies to discuss current challenges and potential projects relevant to coastal hazards. They have developed various tools to convey the challenges of coastal erosion including an educational web site: <http://www.geography.wisc.edu/coastal>. Using 3-D animations of bluff erosion, coastal landowners can see the complex changes that happen as coastal bluffs erode. This successfully bridges the gap between scientific understanding and public perception of coastal hazards.

**2011 Update Status:** The CHWG continues to develop tools and convey to coastal communities the challenges of coastal erosion and flooding.

**2016 Update Status:** The CHWG has helped to develop a number of online resources to assist communities in understanding coastal processes. CHWG members continue to work with local communities in addressing their information needs. The WCMP and UW-Sea Grant Institute will host a Coastal Fellow who will review and begin revisions of the Coastal Processes Manual, a document that provides important information and recommendations for coastal engineering. Members of the CHWG are contributing to an "Integrated Assessment for Water Level Variability and Coastal Bluff Erosion in Northern Milwaukee County and Southern Ozaukee County," led by the UW-Sea Grant Institute.

**2021 Update Status:** The CHWG continues to provide meetings several times a year. WCMP and UW-Sea Grant have hosted several J Philip Keillor Coastal Hazards fellows, who have continued revising and improving the Coastal Processes Manual. Work on the Integrated Assessment (above) led to the Southeastern Wisconsin Coastal Resilience Project. CHWG members are participating in similar efforts in the Bay Lake region. In the Lake Superior Region, CHWG members are participating in a Project of Special Merit, that seeks to address

flooding by identifying and mapping culverts. Other CHWG members are involved in projects utilizing wetlands to address flooding.

### 3.3.2 Lead Agency: Department of Agriculture, Trade, and Consumer Protection (DATCP)

**2.1 Action** Encourage communities to sign up for and participate in the Conservation Reserve Enhancement Program (CREP) to reduce crop losses.

**Supporting Agencies:** County Land Conservation Departments, USDA: Farm Services Agency and Natural Resources Conservation Service.

**Implementation:** Ongoing; the program began in 2001. Continuous sign up authorized under the Farm Bill.

**Background:** The CREP is a federal and state program that focuses on improving water quality. The program promotes reducing non-point pollutant runoff from agricultural lands; reducing sediment, nutrient, and pesticide loads; installing riparian buffers, filter strips, and grassed waterways; and restoring wetlands and prairie grasses. The program helps reduce runoff and peak flows in streams. The project goal was to set aside 100,000 acres. While primarily a water quality program, removing flood-prone cropland from production is a secondary benefit.

**2011 Update Status:** State funding was reduced from the \$40 million estimate to \$28 million in bonding authority in 2009 Wisconsin Act 28.

**2016 Update Status:** Of the \$28 million in bonding authority, about \$14 million has been spent. Almost 50,000 acres are currently enrolled under about 4,000 contracts. Half of the contracts will expire over the next three years; about 75% are expected to re-enroll.

**2021 Update Status:** Of the \$28 million in bonding authority, about \$21 million has been spent. Almost 42,000 acres are currently enrolled under about 3,500 contracts.

**2.2 Action:** Chair the Agriculture Subcommittee on the Wisconsin Recovery Task Force (WRTF).

**Supporting Agency:** WEM

**Implementation:** Ongoing, as needed following disasters.

**Background:** Upon direction of Governor Doyle, WEM created the Wisconsin Recovery Task Force (WRTF) to assist individuals, businesses, and communities to recover quickly, safely, and with more resilience from future disasters. All WSJHMT members are on the Mitigation Subcommittee. Some WSJHMT members also chair the other subcommittees.

**2016 Update Status:** New action item for 2016 update; the WRTF was convened following two disasters in the state in 2016.

**2021 Update Status:** Unchanged.

### 3.3.3 Lead Agency: Department of Natural Resources (DNR)

#### Division of External Services

**3.1 Action:** Give extra points to communities applying for DNR Stewardship programs if their proposal includes mitigation elements.

**Implementation:** 2005; ongoing.

**Background:** DNR's Stewardship grant program allocates additional points for projects that acquire, enhance, or protect natural areas that provide water quality and water quality benefits. Many of these projects often also serve as flood mitigation measures. Adding specific mitigation actions, such as increasing floodwater storage capacity, to the project ranking criteria would help conserve natural resources while reducing flood losses.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**3.2 Action:** Promote the No Adverse Impact (NAI) floodplain management approach statewide.

**Supporting Agencies:** WAFSCM, WEM

**Implementation:** 2005; ongoing.

**Background:** With over \$6 billion in flood damages annually, the drain on all levels of resources needs to be reduced. With intensifying development in watersheds and floodplains, the rationale is to manage that type of development more fervently. The NAI approach makes sense and will result in reduced damages. NAI increases support for watershed management by promoting multiple objectives through management strategies. This means it appeals to a wider range of interests and will broaden approval of flood management actions.

**2011 Update Status:** An NAI training session was held at the 2008 WAFSCM conference. The session promoted NAI activities including higher regulatory standards, to ensure that the actions of property owners are not allowed to adversely affect the rights of other property owners. It also discussed the adverse effects or impacts within communities such as increased flood peaks, increased flood stages, higher flood velocities, increased erosion and sedimentation, and other impacts communities consider important.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**3.3 Action:** Promote substantial damage inspections.

**Supporting Agency:** WEM

**Implementation:** 2011; ongoing.

**Background:** To maintain membership in the NFIP, communities must have substantial damage inspection requirements in their floodplain zoning code. Substantial damage inspections following flood events help determine eligibility for state and federal disaster assistance, so it is crucial that communities enforce the inspection requirements in the zoning code and that they have qualified individuals performing the inspections. The DNR sends letters to communities affected by floods advising them on substantial damage

determinations and proper outreach to potentially impacted residents. The DNR also discusses substantial damage inspection requirements at workshops and other public speaking venues; stresses that the requirements are in the community's floodplain zoning code and are a minimum standard for NFIP compliance; discusses training opportunities and assistance available from state and federal sources after a flood event; promotes the use of the new Substantial Damage Estimator Tool; and encourages cooperation among neighboring communities.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Substantial damage inspection has been a topic in floodplain workshops held in 2014, 2015, and 2016. Substantial damage workshops were held in northern Wisconsin in response to 2016 flood events. Substantial damage letters were sent in 2016 to all communities impacted by the summer and fall flooding.

**2021 Update Status:** Unchanged.

**3.4 Action:** Promote more efficient methods of detecting non-compliant structures in the floodplain and reviewing local floodplain management procedures.

**Supporting Agency:** FEMA

**Implementation:** Ongoing.

**Background:** Flood damages are increasing annually. Limiting non-compliant floodplain development will decrease potential damages. Developing more efficient methods of identifying non-compliant structures and reviewing local floodplain management procedures will facilitate the limiting of non-compliant development, thus reducing the number of structures and individuals at risk during flood events.

**2011 Update Status:** New action item for 2011 update. In 2008, a method of conducting aerial photo comparisons was developed and implemented. It resulted in an increase in the number of non-compliant structures identified and mitigated. The aerial photo process will be refined and other tools developed and implemented.

**2016 Update Status:** The aerial photo review comparison has been used to support the majority of Community Assistance Visits conducted since 2011. The comparisons identify more areas of potential concern than could typically be found with just a floodplain drive through. Most communities find that the resulting maps make it very easy to pull the information for the property and resolve the issue. Efforts are underway to refine the process and develop templates so that staff less familiar with GIS can help with the comparison exercise. The aerial photo review method may be used to assist WEM with open space compliance enforcement as well.

**2021 Update Status:** Unchanged.

**3.5 Action:** Encourage restoration of natural wetland functions.

**Supporting Agencies:** NRCS, USFWS, local communities, property owners

**Implementation:** Ongoing.

**Background:** Wetlands provide natural flood storage areas. Additionally, some incised streams can become disconnected from their floodplain which can magnify flood impacts. Restoring the natural function of these areas can reduce the flooding potential of other areas in the watershed. For many years, the DNR has been working with NRCS, USFWS, and

other entities interested in wetland restoration to streamline the regulatory processes of these activities. Efficient spending of federal funds also promotes access to future funding opportunities. The DNR has worked with partners on enabling legislation to develop a permitting process for certain classes of federally funded and -designed wetland restoration projects; to develop a general permitting process; and to train staff from impacted agencies. Staff from NRCS, USFWS, and DNR in cooperation with local governments, nonprofit groups and others are working to create a hydrologic restoration general permit to support these projects.

**2016 Update Status:** New action item.

**2021 Update Status:** DNR will continue to work with federal and other partners to develop the hydrologic restoration permitting process.

**3.6 Action:** Provide workshops and distribute informational materials to improve understanding and enforcement of floodplain, coastal, shoreline, and wetland regulations, including mitigation techniques.

**Supporting Agencies:** WCMP, UW-Sea Grant Institute, WEM

**Implementation:** Ongoing.

**Background:** Educating the public on flood hazards is one of the first duties and greatest challenges of any flood mitigation and prevention program. The DNR will coordinate with the WCMP to improve coastal hazards awareness; coastal hazards mitigation; and floodplain, shoreline, and wetland regulations. Staff will continue to have workshops on floodplain management regulations, substantial damage determinations, flood insurance, and compliance. They will conduct Community Assistance Visits to assess local floodplain management performance and compliance.

**2011 Update Status:** Will annually conduct ten floodplain management workshops and attend ten or more meetings of local government officials, realtors, insurance agents, and the general public to promote floodplain management.

**2016 Update Status:** The DNR sponsored the FEMA L-273 course, Managing Floodplain Development through the NFIP in 2014 in Eau Claire and co-sponsored the course with WAFSCM, WEM, and ASFPM in 2016 in Pewaukee. Shoreland Workshops are also held regularly.

**2021 Update Status:** Unchanged.

**3.7 Action:** Provide sewer back-flow prevention information and other floodproofing measures to affected communities through public information programs.

**Supporting Agency:** WEM, OCI

**Implementation:** Ongoing.

**Background:** Sewer back-flow has been identified as a major cause of damage during heavy rain events in Wisconsin's urbanized areas. Thus, it is important to provide information in these areas on how to prevent losses. Producing a pamphlet and/or web page about insurance and property protection options will assist in this.

**2011 Update Status:** Contacted MMSD staff to discuss enhanced distribution of informational materials. Plan to meet with appropriate staff before the end of FY2011.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**3.8 Action:** Compile and distribute the Floodplain/Shoreland Notes newsletter.

**Supporting Agencies:** FEMA, WEM

**Implementation:** Ongoing.

**Background:** The newsletter is an effective method of providing local officials and others with information on all aspects of the NFIP, shoreland issues, dam safety, and hazard mitigation. The newsletter is stored online, and past issues are used for reference by state and local officials and the public.

**2021 Update Status:** New action item. The newsletter is distributed electronically twice a year through GovDelivery.

**3.9 Action:** Provide workshops and distribute informational materials to improve understanding and awareness of flood insurance.

**Supporting Agency:** FEMA

**Implementation:** Ongoing.

**Background:** Workshops and visits will improve awareness of flood insurance and methods of reducing flood risks. Improving local awareness will increase the number of flood insurance policies. DNR provided media packages, outreach materials and press releases for the 2021 Flood Awareness Week. To encourage everyone in the state to be prepared, Gov. Tony Evers has declared March 15-19 Flood Safety Awareness Week in Wisconsin.

**2021 Update Status:** Virtual workshops continue to be held in partnership with FEMA including risk rating, substantial damage, and other critical trainings.

**3.10 Action:** Promote dam safety awareness through workshops, and the development of Emergency Action Plans (EAPs) and Inspection, Operations, and Maintenance (IOM) guidebooks, templates, and newsletters.

**Supporting Agency:** FEMA

**Implementation:** Ongoing.

**Background:** The number and increasing age of dams escalates the need to ensure dam owners understand their responsibilities and the risk a dam can pose to surrounding properties and infrastructure. By increasing the number of EAPs, IOMs, and public awareness, the overall level of risk from dam failure can be reduced. The DNR has held five Dam Safety Workshops throughout the state for owners of large dams. An EAP Guidebook and Template were developed and posted on the Dam Safety website. A Dam Safety News newsletter was sent to the owners of large dams.

**2011 Update Status:** New action item for 2011 update. Dam safety workshops will be held on an annual basis throughout the state on a rotating basis. A new IOM Guidebook and Template will be developed and posted on the DNR website. The Dam Safety News newsletter will be published twice a year.

**2016 Update Status:** Dam Safety workshops were held in 2011, 2012, 2013, 2014, and 2015. Two Dam Safety newsletters were published in each of those years. The IOM Template and Guidebook were completed in 2012 and are available on the website.

**2021 Update Status:** Three (3) in-person workshops were held in 2018, focusing on responsibilities of dam owners, how to complete inspections and operation practices, and permitting requirements. Four (4) in-person workshops were held in 2019, focusing on EAPs and how to interpret DFAs. One (1) recorded webinar was developed in 2020, geared towards DNR property owners on inspections of DNR-owned dams. In addition, one (1) Dam Safety newsletter was published in 2017, two (2) newsletters in 2018, five (5) newsletters in 2019, and three (3) in 2020. The EAP Guidebook and Template received a major update in 2019.

**3.11 Action:** Continue to provide technical assistance to non-National Flood Insurance Program (NFIP) communities that have had flood damage and encourage them to join the NFIP.

**Supporting Agency:** WEM

**Implementation:** Ongoing.

**Background:** Although most communities that are not in the NFIP are not at high risk for flooding, many of these communities do have some flood risk and need to establish a community flood mitigation program to clearly identify and mitigate flood risk. The DNR has coordinated with several communities interested in joining the NFIP. Community Assistance Visits (CAVs) were conducted in these communities. In addition, the department is working with other newly incorporated communities. DNR annually reaches out to a number of non-participating communities to communicate the importance of the NFIP and the benefits to participating.

**2011 Update Status:** Ongoing. 25 communities have joined the NFIP since 2006. Non-participating communities will continue to be contacted and encouraged to join the NFIP as part of the ongoing Risk MAP process.

**2016 Update Status:** 18 Communities have joined the NFIP since June 2011 and assistance has been provided to another 13 communities that are considering or in the process of joining. Outreach is complete for all non-participating communities located in Risk MAP watersheds. Assistance is provided to communities who inquire about joining the program.

**2021 Update Status:** Unchanged.

**3.12 Action:** Work with local communities to encourage mapping of floodplains and coastal areas. DNR will help identify flood hazard and coastal erosion areas, especially in those communities where mapping of hazard areas is most needed.

**Supporting Agencies:** WEM, RPCs, WCMP

**Implementation:** Ongoing.

**Background:** Many developing areas of Wisconsin have flood and erosion risk but are poorly mapped for these risks or not mapped at all. Promoting hazard mapping will empower local communities and individuals to manage and reduce their risks. Each year DNR will try to help at least one priority community map its flood hazard areas. DNR will coordinate with WCMP to identify areas of coastal erosion. Staff conducted a pilot project to update coastal erosion information for Bayfield County on Lake Superior. A statewide process is underway to completely update Wisconsin's floodplain map base. The desired outcome is that all Wisconsin NFIP communities receive new flood maps.

**2011 Update Status:** Since 2008, 43 counties have received updated mapping through the

Map Modernization process. DNR mapping staff produced many of the new countywide maps while floodplain management staff helps conduct outreach meetings and works with communities to adopt the maps into their floodplain zoning ordinances. DNR participated with FEMA to inventory all mapped floodplains in the state and determine if existing floodplain studies are valid or need updating. The results have been entered into FEMA's Community Needs Management System (CNMS) and will be used to prioritize future mapping efforts. Funding through the Risk MAP initiative will result in the production of maps on a watershed basis. Risk MAP will also provide communities with additional products that will help better identify risks and opportunities for mitigation. New meetings have also been added to the process that will encourage participation in the mapping process by emergency managers and planning agencies. This will establish better links among the maps, mitigation opportunities, and sound land management. CNMS will be integrated into the DNR's Floodplain Analysis Database so that new mapping needs for developing areas can be tracked and considered in funding priorities.

**2016 Update Status:** Since 2011 all the in-progress Map Modernization projects have been completed. A countywide mapping update has been completed for Rusk County along with Physical Map Revisions (PMR) for sections of the Chippewa River in Eau Claire and Chippewa County. A Risk MAP watershed mapping project has been completed for the nine counties and communities in the Upper and Lower Rock River Watershed. Discovery was completed and the Risk Map project is almost complete for the seven counties and communities in the Lower Wisconsin River Watershed, including countywide DFIRMs for three counties which had not been previously modernized. Discovery was completed and data development is in progress for the Upper Fox River Watershed (four counties and related communities) and the Milwaukee River Watershed (six counties and related communities). Discovery was also completed in the Wolf River Watershed. Four additional PMRs have been completed and four more are in progress. In 2016, the Kickapoo River Watershed was selected for Discovery. The CNMS is updated at critical points in each project. Into the future the DNR hopes to work with FEMA to continue the planned cycle of moving watershed projects through the phases of Discovery, Data Development, and Preliminary Maps & Post Preliminary Production. New Discovery will be prioritized on numerous factors including availability of high-resolution topographic data, known unmapped flood risk, population, development pressure, and mitigation potential. FEMA approved funding to modernize floodplain maps in Iron and Lafayette counties now that they have LiDAR. Additionally, FEMA is developing the Great Lakes Coastal Flood Study, which will update coastal flood zones on the Great Lakes to include V- and VE-zones to show potential wave action.

**2021 Update Status:** Since 2016, the Kickapoo Watershed has completed Discovery and been funded for data development, including revised detail studies along the mainstem of the Kickapoo River. This data development will be based on updated gage analysis and provide a better assessment of flood risk to communities within the watershed. Lafayette County map modernization and 5 Physical Map Revisions (PMR) were completed since 2016. In addition, FEMA funded 3 new PMRs in 2020. FEMA has also funded the DNR thru final FIRM map production and delivery for the Upper Fox (IL) Watershed and Milwaukee River Watershed. The DNR has completed data development for the Milwaukee River Watershed and is in process of producing preliminary FIRMs for the six counties. The Upper Fox

Watershed has also advanced to preliminary FIRM mapping for all four counties. Data development for FEMA's Great Lakes Coastal Flood Study is complete for Lake Michigan. The DNR has coordinated closely with FEMA to incorporate this analysis into the final FIRMs for coastal counties in the Milwaukee River Watershed (Sheboygan, Ozaukee, and Milwaukee) and Upper Fox Watershed (Racine and Kenosha). FEMA has also approved funding for new Discovery in the Castle Rock Watershed, map modernization for Florence, Shawano, and Taylor Counties, and countywide data development for Burnett, Price, Sawyer, Monroe, Chippewa, and Polk Counties. The CNMS continues to be updated at critical touch points for all active projects.

The DNR has also partnered with FEMA and the National Weather Service to produce 3 sets of interactive Flood Inundation Maps (FIMs). FIMs have been complete for 5 segments of the Rock River and 2 segments of the Milwaukee River. A FIM for a segment of the Wisconsin River is currently in progress. The maps show where flooding may occur over a range of river levels and are connected to real-time and forecasted river levels at stream gages. These maps improve planning, property protection measures and evacuation options prior to floods, as well as assist in identifying cost-effective mitigation measures, thus lowering future costs in response, repair, and recovery.

**3.13 Action:** Promote mandatory disclosure of hazard-prone property to potential buyers.

**Implementation:** Ongoing.

**Background:** The NFIP Community Rating System (CRS) already provides incentives via CRS points for communities that require full hazard disclosure in real estate listings because it promotes hazard awareness and helps individuals better manage their risk before making an investment in a home or other structure.

**2011 Update Status:** Ongoing outreach efforts to community officials; will include an article on this in the newsletter in the near future.

**2016 Update Status:** Information helping potential buyers understand flood risk information was provided in newsletters in 2012, 2013, and 2014.

**2021 Update Status:** DNR provides routine support to real estate agents, homeowners, and potential homeowners to provide flood risk information consistent with the CRS program through web mail upon request.

**3.14 Action:** Encourage sewer utilities to provide backup power sources at lift stations to help prevent sewer back-flow flooding.

**Implementation:** Ongoing.

**Background:** Some sewer back-flow problems occur only because power outages prevent lift stations from operating to pump sewage out of low-lying areas and into the main lines. Providing backup power sources for these lift stations would help reduce or eliminate back-flow problems in these areas.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**3.15 Action:** Encourage sewer utilities to provide public information regarding sewer back-flow prevention to reduce basement flooding.

**Supporting Agency:** WEM

**Implementation:** Ongoing.

**Background:** Since sewer back-flow has been identified as a problem in several urban areas of the state, promoting prevention at the local level would help reduce basement flooding.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**3.16 Action:** Promote the NFIP Community Rating System (CRS) to local governments.

**Supporting Agencies:** WEM, FEMA, WAFSCM

**Other Organizations:** ASFPM

**Implementation:** 2005; ongoing.

**Background:** A high CRS ranking will offer citizens of that locality reduced flood insurance premiums and other benefits. This action reduces flood risk by rewarding communities through lower premiums for their residents when they meet the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote awareness of flood insurance.

**2011 Update Status:** DNR sends out a CRS invitation letter to Wisconsin communities once a year. The City of Evansville joined the project in 2008.

**2016 Update Status:** Information on the CRS was routinely provided in the newsletter and at annual floodplain workshops. In addition, an annual letter is sent to all CRS communities thanking them for their participation and providing information relevant to their continued participation and improving their rating. Introduction to the CRS courses were held in three locations in the southern and eastern parts of the state. The purpose is to help communities in deployed Risk MAP watersheds understand the benefits of the CRS and help them join if they want to. A CRS workshop was also held at the 2016 WAFSCM Conference.

**2021 Update Status:** Unchanged.

**3.17 Action:** Participate in the USACE Annual National Flood Risk Management (FRM) Workshop

**Supporting Agencies:** WEM, USACE, FEMA

**Implementation:** Ongoing.

**Background:** The purpose of the FRM Workshop is to enable the federal, tribal, state, and local governmental partners to learn from each other and collaborate on flood risk management.

**2016 Update Status:** New action item for 2016 update. WEM or the DNR has sent a representative each year since 2010.

**2021 Update Status:** Unchanged.

**3.18 Action:** Implement the Municipal Flood Control and Riparian Restoration (MFC) grant program.

**Implementation:** Ongoing.

**Background:** Grants are available biennially, typically in the spring of even years, for projects that reduce flood risk. Projects shall minimize harm to existing beneficial functions of water bodies and wetlands, maintain natural aquatic and riparian environments, use stormwater detention and retention structures and natural storage to the greatest extent possible, and provide opportunities for public access to water bodies and to the floodplain.

**2016 Update Status:** New action item for 2016 update. This program is 50% state funded with a 50% local match required. The DNR and WEM use MFC program and the FEMA HMA to match each other whenever possible.

**2021 Update Status:** Unchanged.

**3.19 Action:** Co-chair the Infrastructure Subcommittee on the Wisconsin Recovery Task Force (WRTF).

**Supporting Agency:** WEM

**Implementation:** Ongoing, as needed following disasters.

**Background:** Upon direction of Governor Doyle, WEM created the Wisconsin Recovery Task Force (WRTF) to assist individuals, businesses, and communities to recover quickly, safely, and with more resilience from future disasters. All WSJHMT members are on the Mitigation Subcommittee. Some WSJHMT members also chair the other subcommittees.

**2016 Update Status:** New action item for 2016 update; the WRTF was convened following two disasters in the state in 2016.

**2021 Update Status:** Unchanged.

**3.20 Action:** Work with the Cranberry agriculture community to develop a process for cranberry farms to be efficiently regulated under a county's floodplain ordinance.

**Supporting Agency:** FEMA

**Other Organizations:** Wisconsin Cranberry Growers Association, 29 counties with cranberry production

**Implementation:** 2017

**Background:** Cranberry farming is a water-dependent activity that often occurs in the floodplain. Most growers and the Cranberry Growers Association have resisted getting floodplain permits for their activities in the mapped floodplain under the assumption that they were exempt from both the underlying state and federal regulations due to certain exemptions for cranberry operations in state statute and federal agriculture exemptions. DNR has been working with FEMA and the Growers Association over the past five years to gain a base acceptance of the need for cranberry operations to get appropriate floodplain development permits and the consequences to the local municipality for doing so. An agreement has been reached on an amendment to the model ordinance which provides time to process and register existing farms (present on the effective floodplain map) so they will be allowed to conduct identified maintenance activities on those farms without permits. Development activities that will require a floodplain permit are also identified. A successful pilot project involving two farms was conducted in Wood County over the last year. A final draft of the addendum to the model ordinance is being finalized. It will go out for public comment in fall of 2016 and will hopefully be available for adoption by counties

in early 2017. Outreach efforts will be conducted in the fall of 2016 and beyond to encourage counties to adopt the cranberry addendum and growers to register their farms.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** Unchanged.

### **Division of Forestry**

**3.21 Action:** Maintain a burning permit process through which people are issued an annual permit but are required to check burning restrictions (via phone or internet) each day prior to burning debris. Permits are available in-person at DNR offices or Emergency Fire Warden locations, online, or over the phone.

**Implementation:** 2008; ongoing.

**Background:** In the past, the Wisconsin DNR required people to obtain a burning permit each time they want to burn debris or perform broadcast burns. The permit would then be effective for three days, after which a new permit had to be obtained. The local conditions could easily change over the three days of the permit, leaving the debris burner unaware of new dangers. Under the new system, people will be issued burning permits annually, but they must check burning restrictions each day they want to burn debris. This decreases effort and expense in the permitting process and results in individuals being better informed of the fire risk.

**2011 Update Status:** New action item for 2011 update.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**3.22 Action:** Promote wildfire prevention and homeowner preparedness all year long to bring awareness to wildfire occurrence in Wisconsin and the need for homeowners in high-risk areas to take action to reduce wildfire hazards around their properties. Acute messaging will occur during spring when most wildfires burn in our state. Tools will include media blitzes, publications, events, social media, and partnering efforts through the Firewise USA program and Community Wildfire Protection Plans.

**Supporting Agency:** WEM, NFPA, US Forest Service

**Implementation:** Ongoing.

**2011 Update Status:** New action item for 2011 update.

**2016 Update Status:** Unchanged, more effort will be made to coordinate with the Ready Wisconsin campaign including potentially linking to the current fire danger map from the Ready Wisconsin website. Additionally, the Ready, Set, Go! program, which seeks to improve dialog between firefighters and residents, will be promoted in the state.

**2021 Update Status:** Change this item from a focus on Fire Prevention Week to yearlong efforts.

**3.23 Action:** Create and maintain an interactive county map on the state DNR website to show the current fire danger in each county, including the cooperative areas.

**Supporting Agency:** WEM

**Implementation:** Ongoing.

**Background:** In the past, the public has had to call the DNR or their local officials to find out the local fire danger and burning restrictions. With the new interactive map, people can visit the DNR website and click on the county of interest to find the same information updated daily. The website is located at

<http://dnr.wi.gov/topic/ForestFire/restrictions.html?showfires>.

**2011 Update Status:** New action item for 2011 update.

**2016 Update Status:** Unchanged.

**2021 Update Status:** In 2017, a real-time wildfire occurrence map was added to the DNR website. In 2019, real-time prescribed fire occurrence was added. In 2021, current and historic wildfires and prescribed fires can now be viewed on a new Fire Management Dashboard. The dashboard features numerous map layers and data filters the user can select to view myriad combinations of wildfire and prescribed fire information.

**3.24 Action:** Promote the concept of Firewise Communities USA statewide.

**Supporting Agencies:** WEM, FEMA, USDA, USDI, National Fire Protection Association, International Association of Fire Chiefs, National Association of State Foresters, National Emergency Management Association, US Fire Administration

**Other Organizations:** WEMA, State Fire Chiefs Association

**Implementation:** 2005; ongoing.

**Background:** The Firewise USA recognition program enables communities to achieve a high level of protection against wildland/urban interface fires and maintain a sustainable ecosystem balance. The goal is to encourage and acknowledge action that minimizes home loss to wildfire. The program adapts well to small communities, developments, and residential associations. By promoting the concept and providing information to local governments, WEM hopes that more communities will join.

**2011 Update Status:** Four additional communities are now participating in the program bringing the total to 14 Firewise Communities in the state.

**2016 Update Status:** Unchanged; there are currently 12 Firewise Communities in the state. The decrease since 2011 is because of a change in the classification system.

**2021 Update Status:** NFPA changed the program name from Firewise Communities USA to just Firewise USA. Neighborhoods joining the recognition program are now referred to as "sites" rather than "communities." There are currently 22 recognized Firewise sites in the state.

**3.25 Action:** Promote the creation and implementation of Community Wildfire Protection Plans (CWPPs), particularly in communities at high risk of fire hazard and those near the wildland/urban interface (WUI).

**Supporting Agency:** WEM

**Other Organizations:** FEMA, USDA, USDI, National Fire Protection Association, International Association of Fire Chiefs, National Association of State Foresters, National Emergency Managements Association, US Fire Administration, WEMA, State Fire Chiefs Association

**Implementation:** Ongoing.

**Background:** Title I of the Healthy Forests Restoration Act, passed in 2003, authorizes and

defines CWPPs. It provides an opportunity to address fire hazards along the WUI. CWPPs are developed locally, and the format is flexible. They are required to include collaboration among levels of government and stakeholders, prioritized fuel reduction, and treatment of structural integrity. The adaptability of CWPPs to local conditions makes them excellent fire hazard mitigation tools for a wide variety of communities.

**2011 Update Status:** New action item for 2011 update; there are 11 CWPPs in the in the state covering 21 Communities-at-Risk.

**2016 Update Status:** There are 20 CWPPs in the state covering 39 Communities-at-Risk.

**2021 Update Status:** There are 22 CWPPs in the state covering 37 communities-at-risk. The change in numbers reflects nine CWPP communities converted in "inactive" status and the addition of seven new CWPP communities. Two CWPPs became entirely defunct and four new CWPPs were added. Going forward, we will prioritize Firewise sites over CWPPs.

**3.26 Action:** Update and distribute Communities-at-Risk and Communities-of-Concern maps.

**Supporting Agency:** WEM

**Implementation:** 2018

**Background:** The DNR created maps showing wildfire risk in 2008.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** The DNR is investigating the possibility of creating a Wildland Urban Interface Story Map. An updated and interactive Communities-at-Risk/Concern mapping feature will be included in this tool.

**3.27 Action:** Create a website template for storm response to assist private landowners with cleanup.

**Supporting Agency:** WEM

**Implementation:** 2011; ongoing.

**Background:** \$250,000 was donated to set up a website for Burnett County following a severe storm blow-down which created copious amounts of debris. The debris took a great effort to clean up and was a serious fire risk.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** Unchanged. The template exists for when another large-scale storm occurs.

### 3.3.4 Lead Agency: Department of Health Services (DHS)

**4.1 Action:** Survey healthcare facilities to determine if they have NOAA weather alert radios and severe weather response plans. Provide information about NOAA weather radios and seek sources of funding to obtain NOAA radios for facilities lacking them.

**Supporting Agency:** WEM

**Implementation:** Suspended.

**Background:** NOAA weather alert radios are a cost-effective way of alerting facilities of dangerous weather conditions. DHS, Division of Quality Assurance (DQA) will explore ways to provide NOAA radios in health care facilities that do not currently have them. DHS has surveyed the healthcare facilities that it regulates.

**2011 Update Status:** By December 31, 2011, DQA conducted a survey with regulated facilities and home health agencies about access to and use of NOAA weather radios. In 2012, DQA will work with WEM to acquire funding to support purchase of radios, installation, and training as needed.

**2016 Update Status:** Without access to match funds to purchase radios, DQA is unable to move this work forward, but it remains a priority.

**2021 Update Status:** It is currently unknown if additional funding was acquired for this action item. Healthcare facilities can purchase weather radios as needed.

**4.2 Action:** Conduct public health hazard risk assessments at all local and tribal health departments throughout the state.

**Supporting Agencies:** Centers for Disease Control and Prevention (CDC), WEM, Wisconsin Association of Local Health Departments and Boards, Emergency Medical Services (EMS), Hospital Preparedness Program, local and tribal health departments

**Implementation:** Completed.

**Background:** Local and tribal health departments will be required to complete a public health hazard risk assessment by mid-2012. They will work in conjunction with local hospitals, emergency management agencies, EMS, and trauma centers.

**2011 Update Status:** New action item for 2016 update. An inter-agency group has met several times to determine a methodology to recommend to local and tribal health departments for completing the hazard risk assessment.

**2016 Update Status:** In 2012, the Wisconsin Hazard Vulnerability Assessment Tool was created. The WI HVA tool used an all-hazards approach to address 15 national planning scenarios and 30 local planning scenarios. From the perspective of local public health jurisdictions and partners, the 2012 results show the top five scenarios that pose the greatest potential or relative threat were cyber-attacks (61%), power outages (56%), ice storms (54%), tornados (53%), and droughts (51%). In 2015, the WI HVA tool was used to develop a regional healthcare coalition (HCC) HVA in the 7 HCC areas in WI. Those results were compiled regionally and are being used to guide local and regional planning and exercise development.

**2021 Update Status:** Regional and county level hazard risk assessments are conducted on a yearly basis through the Healthcare Emergency readiness Coalitions. This is a federal

requirement that includes input from Emergency Medical Services, public health, healthcare, and emergency management entities within the region.

**4.3 Action:** Chair the Health and Social Services Subcommittee on the Wisconsin Recovery Task Force (WRTF).

**Supporting Agency:** WEM

**Implementation:** Ongoing, as needed following disasters.

**Background:** Upon direction of Governor Doyle, WEM created the Wisconsin Recovery Task Force (WRTF) to assist individuals, businesses, and communities to recover quickly, safely, and with more resilience from future disasters. All WSJHMT members are on the Mitigation Subcommittee. Some WSJHMT members also chair the other subcommittees.

**2016 Update Status:** New action item for 2016 update; the WRTF was convened following two disasters in the state in 2016.

**2021 Update Status:** Unchanged.

**4.4 Action:** Create extreme weather toolkits for local governments, local health departments, and citizens in Wisconsin about preparing for and responding to weather-related emergencies.

**Supporting Agencies:** CDC, WEM, local and tribal health departments

**Implementation:** Toolkits were created in 2014 and 2015 with ongoing updates as needed.

**Background:** Toolkits are available for nine topics: extreme heat, floods, winter weather, wildfires, chemical releases, harmful algal blooms, drought, thunderstorms and tornadoes, and vectorborne diseases. The toolkits provide background information, practical guidance, strategies, media releases, talking points, definitions, and reference materials.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** Extreme weather toolkits are on the DHS website and one-page summaries for the toolkits have been available for public health and emergency management use. The flood and extreme heat toolkits have been translated into Spanish. The Wisconsin Climate and Health Program will be updating the materials to include additional best practices and health equity considerations.

**4.5 Action:** Develop heat vulnerability indexes (HVIs) to identify areas of greatest risk for negative health impacts due to extreme heat in each county in Wisconsin as well as the state.

**Supporting Agencies:** CDC, WEM, City of Milwaukee Health Department

**Implementation:** The Wisconsin HVI was created in 2014. County and tribal HVI maps were created in 2015 and 2016.

**Background:** The statewide, county, and tribal HVI maps include four categories of data: population density, health factors, demographic, and socioeconomic factors, and natural and built environment factors. The maps can help identify areas of high vulnerability to receive targeted messaging and resources during heat events.

**2016 Update Status:** New action item for 2016 update; HVIs are being included in state and local mitigation planning efforts.

**2021 Update Status:** HVI is online and there is a planned update when 2020 census data has been published.

**4.6 Action:** Develop flood vulnerability indexes (FVIs) to identify areas of greatest risk for negative health impacts due to flood events in floodplains in Wisconsin.

**Supporting Agencies:** CDC, WEM, local stakeholders (e.g. local emergency managers)

**Implementation:** The Wisconsin FVI is expected to be created in 2017.

**Background:** The FVI maps will include the following categories of data: socioeconomic/demographic, health, and environmental. The maps will help identify areas of high vulnerability to receive targeted messaging and resources during flood events.

**2016 Update Status:** New action item for 2016 update; FVIs will be included in state and local mitigation planning efforts.

**2021 Update Status:** This project has gone through multiple iterations and is now known as the Wisconsin Risk Assessment Flood Tool (RAFT). In response to more frequent and intense floods in Wisconsin, the Department of Health Services and partners created the RAFT map to help local, regional, and state agencies prepare for and respond to floods. The tool includes:

- 32 data layers from 12 state and federal agencies
- FEMA flood hazard layer view in relation to health care locations
- Social vulnerability data by census tract
- LIVE precipitation data, 72-hour precipitation forecast, flood advisory feeds, and river flood level status

**4.7 Action:** Develop a checklist for local health departments to assess their community's vulnerability to negative health impacts due to flood events and provide them with tools to decrease vulnerability.

**Supporting Agencies:** CDC, WEM, local health departments, local stakeholders (e.g., local emergency managers)

**Implementation:** The checklist will be developed in 2017.

**Background:** A checklist will allow local policy makers and land-use planners to ascertain and understand their flood risk. The accompanying tools will help them steer their communities toward increased flood resilience.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** Improved the design and functionality of the Flood Resilience Scorecard. Built a database housing data for 31 flood resilience indicators for more than 600 Wisconsin municipalities. Developed public-facing data document and instruction manual to increase usability. Planned for outreach and assisted completion of the Flood Resilience Scorecard with approximately 30 municipalities, followed by an evaluation of the tool.

**4.8 Action:** Fund local health department pilot projects to increase the capacity to understand climate-related health impacts and incorporate climate adaptation strategies into local plans.

**Supporting Agencies:** CDC, local health departments, local stakeholders (e.g., local emergency managers)

**Implementation:** The pilot projects were funded from 2014-2016.

**Background:** Each of the local health department pilot projects invited a set of stakeholders to a community engagement meeting. During the community engagement meetings stakeholders prioritized climate-related health concerns and identified action steps to address these concerns.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** There has been no additional funding for more pilots available.

### 3.3.5 Lead Agency: Department of Safety and Professional Services (DSPS)

**5.1 Action:** Work with the municipal fire departments to collect all fire incidents occurring within the state. Train fire departments to use of the National Fire Incident Reporting System program. Data collected can be uploaded to FEMA directly and is then used to develop new policies and laws for fire-safe construction.

**Supporting Agency:** State Fire Chiefs Association

**Implementation:** Ongoing.

**Background:** The need for fire data was recognized in 1974 when the Fire Prevention and Control Act authorized the US Fire Administration (USFA) to gather and analyze fire data relevant to the nation's fire problem. The National Fire Prevention and Control Administration (NFPCA, the predecessor to USFA), through a contract with the National Fire Protection Association (NFPA) in the mid 1970's, established the first National Fire Incident Reporting System (NFIRS), Version 1. The latest version, Version 5, published in 2000 is used today. NFIRS is the largest source of fire data in the world.

**2011 Update Status:** Unchanged. 2007 Wisconsin Act 75 requires fire departments in Wisconsin to report specific building fire incident information to DSPS within 60 days using NFIRS.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**5.2 Action:** Require all fire departments within the state to inspect existing commercial buildings annually and provide them guidance in doing so. Routine inspections are performed to ensure the existing building still meets its design-specific building code requirements.

**Supporting Agency:** State Fire Chiefs Association

**Implementation:** Ongoing.

**Background:** The chief of every fire department will be responsible for having all public buildings and places of employment within their territory inspected annually. This inspection should ascertain whether any conditions liable to cause fire exist or whether there are any violations of laws or ordinances relating to fire hazards or prevention. If such conditions or violations are discovered, the fire chief is responsible for making sure they are corrected.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**5.3 Action:** Provide for Administrative Code changes to adopt the most current edition of the National Fire Prevention Association's National Electrical Code (NEC). The rule will affect any building or structure within the state in which electric wiring will be installed.

**Implementation:** Ongoing.

**Background:** The state electrical code has adopted the NEC by reference since 1972. Currently, the 2011 edition of the NEC is adopted in the Wisconsin Administrative Code (WAC) SPS 316.014. This action item will support the continual update of the state code to the most current edition of the NEC. The alternative to not updating WAC SPS 316.014

would result in the state electrical code being out-of-date with current nationally recognized standards for the design, installation, and operation of electrical conductors and equipment in all buildings and structures.

**2011 Update Status:** The Division of Safety and Buildings is now adopting the 2011 NEC with an estimated effective date of April 1, 2012.

**2016 Update Status:** The 2011 NEC was adopted with an effective date of April 1, 2012.

**2021 Update Status:** The 2017 NEC was adopted with an effective date of August 1, 2018.

**5.4 Action:** Adopt the 2009 editions of the national model codes from the International Code Council and the National Fire Protection Association.

**Implementation:** Adopted July 2011.

**Background:** The state adopted a model building code that became effective on July 1, 2011. This new code is actively enforced statewide.

**2011 Update Status:** Unchanged.

**2016 Update Status:** The state is still operating under the 2009 version of the model codes; they are in the review process for the 2015 version, but still enforcing the 2009 standards. The 2015 version incorporates language requiring safe rooms that meet FEMA 361 standards for certain buildings constructed in communities in the 250-mph wind zone (which includes the southern half of Wisconsin). The buildings requiring safe rooms are new schools, 911 call stations, emergency operations centers, and fire, rescue, ambulance, and police stations.

**2021 Update Status:** Wisconsin adopted the 2015 I-Codes, effective May 1, 2018. Although Wisconsin still uses its own codes, they are based on the I-codes, with some differences in the Uniform Dwelling Code and plumbing code (e.g. sprinkler requirements in the UDC). These differences, however, do impact the scoring that Wisconsin communities are able to receive in the BRIC national competition Technical Criteria, since the codes do not align with the 2015 IBC or later.

**5.5 Action:** Address the disaster resistance of manufactured homes by reviewing tie-down standards, installation standards, and inspection standards.

**Implementation:** Ongoing.

**Background:** Manufactured homes are particularly vulnerable to wind hazards. The state is committed to developing and enforcing tie-down standards to reduce the risk of property loss, injury, and death for people who live in manufactured homes.

**2011 Update Status:** Unchanged.

**2016 Update Status:** HUD 3285.402, the standards requiring tie-downs for manufactured homes, was first effective in 2007 and was updated in 2014. These are the most current standards.

**2021 Update Status:** An update to HUD 3285.402 was proposed in June 2020.

**5.6 Action:** Enforce the requirement to inspect structures and buildings when permitting construction projects to ensure compliance with state building codes and promote disaster resistance and public safety. Municipalities can apply to become designated agents to enforce building codes.

**Implementation:** Ongoing.

**Background:** Without inspection of new construction for compliance with state building codes, there is no insurance that structures will be built to the properly. As of January 1, 2005, all municipalities are responsible for enforcement of the Uniform Dwelling Code. This includes submitting building plans and inspections for electrical, construction, plumbing, and HVAC. All post-1980 dwellings were covered by the code; however, in communities under 2,500, there was the option not to enforce the code (i.e., plan review and inspections).

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**5.7 Action:** Create and maintain a tracking system for all Privately Owned Wastewater Treatment Systems (POWTS).

**Implementation:** Ongoing.

**Background:** 2005 Wisconsin Act 347 requires the development and maintenance of a database for tracking POWTS systems. This ensures that information on all existing POWTS systems is collected and all future maintenance actions on these systems are tracked. This will aid in determining the status of POWTS following a flood event.

**2011 Update Status:** The state tracks all POWTS established since 2007. County governments are required to maintain a system for tracking all POWTS in their county.

**2016 Update Status:** DSPS monitors compliance through audits of the county POWTS tracking systems. The statutory reference is Section 145.20(5) Wis. Stats. and WAC SPS 383.255.

**2021 Update Status:** DSPS POWTS program offers a POWTS update via zoom on the 2<sup>nd</sup> Tuesday of each month.

**5.8 Action:** Require carbon monoxide detectors in all existing residential occupancies with fuel burning appliances, including single family housing units.

**Implementation:** Ongoing.

**Background:** 2007 Wisconsin Act 205 mandated the development of rules requiring carbon monoxide detectors in all existing residential occupancies to protect occupants from unseen leaks. This will be particularly important following a disaster when fuel burning appliances may have been disturbed or damaged.

**2011 Update Status:** The rules requiring carbon monoxide detectors went into effect on January 1, 2011 and are now being implemented and enforced.

**2016 Update Status:** Unchanged; 101.149 Wis. Stats. requires carbon monoxide detectors.

**2021 Update Status:** Unchanged.

**5.9 Action:** Require the inspection of all electrical construction within commercial buildings through the statewide electrical inspection program.

**Implementation:** Ongoing.

**Background:** 2007 Wisconsin Act 63 requires electrical wiring is to be inspected in all construction involving public buildings, commercial properties, and farms. Municipalities may opt to be responsible for such inspections in their jurisdictions. The state will provide electrical inspections in municipalities that do not conduct such inspections. (Currently,

Uniform Dwelling Code electrical inspections are required to obtain building permits for new construction or remodeling of one- and two-family dwellings.)

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**5.10 Action:** Develop and implement rules requiring statewide electrical inspection for all buildings.

**Implementation:** Ongoing.

**Background:** 2007 Wisconsin Act 63 mandates the development of rules requiring statewide inspection of all electrical wiring. Rules are also being developed to allow municipalities to assume authority on behalf of the state to perform all electrical inspections in their jurisdiction. The state will be responsible for inspections in areas where municipalities do not assume authority.

**2011 Update Status:** New action item for 2011 update.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**5.11 Action:** Consider the adoption of the International Residential Code written by the International Code Council.

**Implementation:** Ongoing.

**Background:** Over 40 states and hundreds of municipalities across the country use the International Residential Code as a standard for building one- and two-family homes. Currently the state drafts its own code for these types of occupancies. This change would align Wisconsin with the national standards and most recent initiatives used for the safety of homeowners.

**2011 Update Status:** Unchanged.

**2016 Update Status:** The state has not adopted the International Residential Code and continues to use the state Uniform Dwelling Code, which is current as of 2016.

**2021 Update Status:** Unchanged. The Uniform Dwelling Code, is still being used.

### 3.3.6 Lead Agency: Office of the Commissioner of Insurance (OCI)

**6.1 Action:** Distribute hazard mitigation materials to insurance companies, agents, and consumers to support the Wisconsin Silver Jackets Hazard Mitigation Team (WSJHMT) in developing, establishing, and implementing permanent and viable statewide mitigation programs.

**Implementation:** Ongoing.

**Background:** As the regulatory agency for insurance and insurance carriers, OCI staff members serve as experts in the field of insurance. Staff cooperates with other agencies to encourage loss prevention and enhance consumer protection through the licensing and education of insurance agents and carriers. They inform businesses and individuals on insurance matters. OCI requires continuing education for agents. Credit can be obtained through flood insurance courses provided by the National Flood Insurance Program (NFIP).

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**6.2 Action:** Investigate the possibility of increasing the emphasis on flood insurance in trainings and exams for insurance agent licensing.

**Supporting Agencies:** WEM, DNR, FEMA

**Implementation:** Ongoing.

**Background:** Insurance agents are required to pass an exam to receive their license. There are few, if any, questions on the exam regarding flood insurance. With recent premium increases in the NFIP and following flood events, consumers may need more assistance regarding flood and homeowner's insurance. Trainings offered to insurance agents before and after licensing would benefit from covering flood insurance topics.

**2016 Update Status:** New action item for 2016 update; examiners refer flood insurance questions back to FEMA, however with the NFIP rate increases, private insurance companies may look at providing flood insurance at actuarial rates.

**2021 Update Status:** Unchanged.

**6.3 Action:** Maintain and update information regarding flood and other hazard insurance and the NFIP via the OCI website and press releases.

**Supporting Agencies:** WEM, DNR, FEMA

**Implementation:** Ongoing.

**Background:** OCI is the primary source of insurance information for many of the state's insurance providers. To increase the visibility of, emphasize the importance of, and provide general information about flood and other hazard insurance, OCI should maintain flood insurance, homeowners/renter's insurance, and NFIP information on their website and issue press releases at appropriate times, like after disasters and when new legislation regarding the NFIP is enacted.

**2016 Update Status:** New action item for 2016 update; insurance agents look to OCI for information. OCI currently maintains information about flood and other hazard insurance and the NFIP on their website. They also issue press releases about at pertinent times.

**2021 Update Status:** OCI has launched an outreach campaign called Stronger Wisconsin for consumers and industry stakeholders regarding climate resiliency efforts. A focus of this work is around flooding risk mitigation with includes continued support for getting flood insurance coverage for both homeowners and renters.

**6.4 Action:** After flood events, distribute flood and homeowner's insurance information in the affected areas and provide assistance with questions regarding filing claims, registering complaints, and what to expect. Be available to potentially staff a Disaster Recovery Center when the state qualifies for FEMA's Individual Assistance program.

**Supporting Agencies:** WEM, DNR, FEMA

**Implementation:** Ongoing.

**Background:** OCI provides information to insurance providers and customers. In post-disaster situation, insurance issues can be complicated. When community resources are already stretched thin, it is beneficial for them to receive any assistance possible, especially in highly technical matters, from the state.

**2016 Update Status:** New action item for 2016 update; OCI attended several open houses in Ashland and Sawyer counties following the July 2016 flooding to distribute information and field questions about insurance policies, claims, and complaint procedures.

**2021 Update Status:** New Action Item; OCI participated in a community outreach session for business owners in the Viroqua area in September 2018 to provide resources, distribute information and field questions after severe weather and flooding affected the area.

**6.5 Action:** Develop and maintain post-disaster outreach procedures.

**Supporting Agencies:** WEM, DNR, FEMA

**Implementation:** Ongoing.

**Background:** OCI is a valuable resource for communities that have experienced disasters. Formalizing post-disaster procedures that include triggers for deployment, methods of information distribution and outreach, and guidelines for setting up disaster-specific websites will streamline OCI response and speed recovery for impacted communities.

**2016 Update Status:** New action item for 2016 update; following the deployments for the July 2016 floods, OCI decided to formalize their response procedures.

**2021 Update Status:** OCI attended a community outreach session in July 2018 in Sun Prairie following a large explosion in the downtown area to provide resources, distribute information and field questions from affected and concerned citizens. OCI participated in a community outreach session for business owners in the Viroqua area in September 2018 to provide resources, distribute information and field questions after severe weather and flooding affected the area. At the request of the Mayor of Kenosha, OCI attended a community outreach session in October 2020 in Kenosha following a several occurrences of civil unrest that caused significant property damage to provide resources, distribute information and field questions from affected and concerned citizens, and business owners.

### 3.3.7 Lead Agency: Public Service Commission (PSC) of Wisconsin

**7.1 Action:** Encourage telecommunications utilities to obtain information about floodplains in advance of construction and to avoid construction in these areas. If construction in floodplains is unavoidable, the utilities will be encouraged to use alternative methods or technologies for plant additions. The utilities will be encouraged to know and use construction practices that avoid or minimize loss of service.

**Implementation:** Ongoing.

**Background:** The PSCW is an independent regulatory agency responsible for the regulation of Wisconsin public utilities. PSCW prior-approval of construction by telecommunications utilities is not required. However, the PSCW will work with the Wisconsin State Telecommunications Association to alert telecommunications utilities to the hazards of construction in the floodplain.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**7.2 Action:** Perform hazard mitigation reviews for electric, natural gas, and water utility construction projects.

**Implementation:** Ongoing.

**Background:** All reviews and approvals of electric, natural gas, and water utility construction projects must include a determination of floodplain impacts and mitigation.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**7.3 Action:** Continue to educate the public about safety issues related to natural hazards at electric and natural gas utilities.

**Implementation:** Ongoing.

**Background:** The PSCW prepares a wide variety of public information brochures and makes them available to the public on its website at <http://psc.wi.gov/theLibrary/publications.htm>. These brochures are updated and others are produced on an as-needed basis.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**7.4 Action:** Redundancy is built into the electric system so loss of any electric system element does not result in loss of load.

**Implementation:** Ongoing.

**Background:** Each line, substation, and plant has individual protections that automatically localize outages. To address potential problems in transmission, redundancy is built into the electric system. Redundancy is required to meet North American Electric Reliability Corporation (NERC) reliability standards.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** Unchanged.

**7.5 Action:** PSC regulates wind energy development and looks at alternatives for each project. The priorities in order of preference are conservation and energy efficiency, non-combustible renewable resources, combustible renewable resources, and combustible non-renewable resources.

**Implementation:** Ongoing.

**Background:** Facilities with generating capacity of 100 MW or more require approval. Facilities less than 100 MW may also require approval if the cost exceeds certain thresholds.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** Unchanged.

**7.6 Action:** State utilities must comply with a Renewable Portfolio Standard which requires them to obtain about 10% of energy sales from renewable resources. The PSC monitors this requirement.

**Implementation:** Ongoing.

**Background:** To address changing weather patterns, 196.378 Wis. Stats. requires Wisconsin electric providers to provide their customers with 10% of electricity from renewable resources.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** Unchanged.

### 3.3.8 Lead Agency: Department of Transportation

**8.1 Action:** When requested by Wisconsin County Highway Association (WCHA), present information about the Disaster Damage Aids, Public Assistance and Hazard Mitigation Assistance programs at the annual WCHA commissioner training meeting and other training opportunity meetings.

**Supporting Agency:** WEM

**Implementation:** Ongoing.

**Background:** WCHA conducts an annual training session for new highway commissioners and those with minimal experience as a commissioner, which provides an opportunity to disseminate information about how the above referenced programs work. This will not only keep the highway commissioners informed about the programs but will also keep mitigation involved in discussions of future highway projects.

**2011 Update Status:** New action item for 2011 update.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**8.2 Action:** DOT will coordinate with WEM to sponsor annual workshops for DOT engineers, technicians, and other staff to review the components of post-disaster damage and mitigation programs.

**Supporting Agency:** WEM

**Implementation:** Ongoing; DOT will coordinate with WEM to plan a disaster damage mitigation workshop to review mitigation components of the Public Assistance, Emergency Relief, and Disaster Damage Aids programs. WEM and DOT will provide support to the workshop with presentations and materials.

**Background:** DOT provides engineers and technicians to assist local governments with post-disaster damage assessments of roads, bridges, and public works facilities. Their expertise is needed to implement the three highway emergency aid programs mentioned above, which all include mitigation components.

**2011 Update Status:** On hold due to higher work priorities. If time and resources become available this project may move forward.

**2016 Update Status:** New staff will look at implementing in the future.

**2021 Update Status:** [Kathy Jennings](#) (608-261-8976) in the Bureau of Highway Maintenance at DOT has taken over the lead-worker role for this function. As she becomes more familiar with the programs, she plans on reviewing and developing/revising training materials as needed. These materials will be shared with new DOT region staff that work with these programs after they begin their new duties. If there are enough new staff at a particular time, BHM will schedule a training session for everyone including WEM and FHWA representatives.

**8.3 Action:** As a disaster is unfolding, send an email alert to DOT field staff to remind them to keep track of their time and costs for possible reimbursement from the Public Assistance program and to alert them to the possibility of assisting Wisconsin Emergency Management with a Preliminary Damage Assessment.

**Supporting Agency:** WEM

**Implementation:** Ongoing.

**Background:** As a state agency, the DOT can apply to the Public Assistance program for reimbursement of expenses under a federal disaster declaration. To receive reimbursement, accurate records must be kept of staff time and related expenses to submit to WEM. In addition, DOT field staff often assists WEM with Preliminary Damage Assessments. An email alert will prepare staff for that possibility.

**2011 Update Status:** New action item for 2011 update.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**8.4 Action:** Present information about the Disaster Damage Aids and Emergency Relief Programs annually at WEM's Disaster Response and Recovery Operations (DRRO) workshop and at applicant briefings which occur in communities throughout the state when they are involved in a Presidential Disaster Declaration.

**Supporting Agency:** WEM

**Implementation:** Ongoing.

**Background:** The workshop and applicant briefings provide opportunities to reach the audience that may be eligible for the Disaster Damage Aids and Emergency Relief programs.

**2016 Update Status:** New action item for 2016 update; DOT has presented at the 2015 and 2016 DRRO workshop and at Applicant Briefings following the July and September 2016 flood events.

**2021 Update Status:** Unchanged.

**8.5 Action:** Co-chair the Infrastructure Subcommittee on the Wisconsin Recovery Task Force (WRTF).

**Supporting Agency:** WEM

**Implementation:** Ongoing, as needed following disasters.

**Background:** Upon direction of Governor Doyle, WEM created the Wisconsin Recovery Task Force (WRTF) to assist individuals, businesses, and communities to recover quickly, safely, and with more resilience from future disasters. All WSJHMT members are on the Mitigation Subcommittee. Some WSJHMT members also chair the other subcommittees.

**2016 Update Status:** New action item for 2016 update; the WRTF was convened following two disasters in the state in 2016.

**2021 Update Status:** Unchanged.

**8.6 Action:** Perform a statewide culvert inventory to evaluate and prioritize which culverts on state roads should be replaced and/or upsized.

**Implementation:** 2016; ongoing.

**Background:** To use resources wisely, the DOT is evaluating all culverts on state roads in Wisconsin. This evaluation will allow them to prioritize culverts most in need of replacement and identify mitigation opportunities.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** DOT's culvert inventory is now available as a GIS application at the following link: <https://data-wisdot.opendata.arcgis.com/maps/culvert-inventory-1>

### 3.3.9 Lead Agency: University of Wisconsin-Madison Division of Extension (Extension)

**9.1 Action:** Perform education, outreach, and planning about how businesses could plan to continue their operations if they were affected by the following situations:

- Loss of electrical power, gas, telephone and/or other utilities;
- Inaccessible because of flooding, debris, road or bridge damage, chemical spills, transportation accidents, etc.;
- Partially or completely destroyed by fire, flood, tornado, etc.; and
- A major supplier (of materials, transportation, information, etc.) was put out of action by disaster.

**Implementation:** Ongoing.

**Background:** Businesses, organizations, and local governments can often continue to operate either at full capacity or a portion thereof, if they have planned for contingencies prior to the event(s).

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**9.2 Action:** Integrate hazard mitigation concepts into Extension programs for community development, lake and watershed management, farm management, and housing.

**Supporting Agencies:** WEM, WCMP, DOA, and DNR

**Implementation:** Ongoing. Update the information as appropriate. Locally based extension educators and emergency management directors are forming new partnerships to accomplish these efforts.

**Background:** Extension develops and provides educational programming for community, agricultural, family, youth, business, and non-profit organizations, and local governments statewide. Important programming areas that can support hazard mitigation include community, natural resource, and economic development; lake and watershed management; farm management; and housing. Extension programs are delivered via face-to-face presentations, distance learning, printed material, and the media. When appropriate, Extension educators integrate material on major state initiatives into educational programs. Extension staff will prepare and adapt materials and update educational programs to include information on hazard mitigation.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

### 3.3.10 Lead Agency: Wisconsin Emergency Management (WEM)

**10.1 Action:** Administer the Hazard Mitigation Grant Program (HMGP), the Flood Mitigation Assistance (FMA) program, Pre-Disaster Mitigation (PDM), and Building Resilient Infrastructure and Communities (BRIC) program by providing grants for planning and long-term, permanent, cost-effective mitigation measures.

**Supporting Agencies:** FEMA, Wisconsin Silver Jackets Hazard Mitigation Team (WSJHMT), Regional Planning Commissions (RPCs)

**Implementation:** Ongoing.

**Background:** WEM has administered over \$40 million in HMGP, FMA, and PDM funds for projects that eliminate or reduce disaster damages and protect lives and property. WEM, together with the WSJHMT, will continue to encourage communities to apply for mitigation planning grants and fund cost-effective projects that reduce disaster costs. WEM will coordinate with other agencies through the WSJHMT to identify potential funding sources for projects and “package” funding to facilitate implementation of these projects.

**2011 Update Status:** WEM has now administered over \$86 million in HMGP, FMA, and PDM funds. The RFC and SRL programs have not yet been administered in the state, but remain in WEM’s mitigation toolkit.

**2016 Update Status:** WEM has now administered over \$120 million in HMGP, FMA, and PDM funds. The RFC and SRL programs have been rolled into FMA and WEM has mitigated repetitive loss properties using FMA funds.

**2021 Update Status:** PDM was replaced by the BRIC program in 2020. WEM has now administered over \$170 million in HMGP, FMA and PDM funds. WEM received about \$600,000 in planning and Capability & Capacity Building (C&CB) grants in the inaugural 2020 BRIC program.

**10.2 Action:** Develop uniform guidance for providing relocation payments and supplemental housing assistance.

**Supporting Agencies:** DOA-Division of Housing, DNR

**Implementation:** Ongoing.

**Background:** After a disaster, individuals and communities may be eligible for replacement and/or supplemental housing assistance. The guidelines for administering assistance have not been clearly defined in the past. This can lead to delays and incorrect approvals or denials of claims. Developing uniform guidance will streamline the process and keep all agencies involved operating in a consistent manner. This will result in a faster recovery.

**2011 Update Status:** New action item for 2011 update.

**2016 Update Status:** WEM, DNR, and DOA-Division of Housing have met with the State Relocation Specialist to clarify state and federal regulations regarding replacement and supplemental housing assistance. When the State Relocation Specialist issues her formal opinion, WEM, DNR, and DOA-Division of Housing will draft guidance.

**2021 Update Status:** Wording of Action updated to reflect current HMA program guidance. WEM received the formal opinion and will draft guidance prior to the next plan update.

**10.3 Action:** Promote mitigation for the general public using the WEM website. Link to other agencies' websites as appropriate.

**Supporting Agencies:** DATCP, DNR, DOA, FEMA, OCI

**Implementation:** Ongoing.

**Background:** There is useful information appropriate for managing natural hazard risk currently available through various state agencies' websites. Advertising these links helps address many hazard awareness objectives. WEM's web page will be utilized to the fullest extent to educate all on the benefits of mitigation. The State Hazard Analysis, the State Hazard Mitigation Plan, including mitigation activities, are included on the website. Staff will foster linkages between the following agencies and areas of expertise:

- DATCP – Conservation Reserve Enhancement Program (CREP)
- DNR – Municipal Flood Control and Riparian Restoration Program, Wisconsin Waters Initiative, Dam Safety, NFIP, Floodplain Mapping, Stewardship Programs, Forestry
- DOA – Comprehensive Planning, CDBG-EAP
- FEMA – Map Service Center, FIMA
- OCI – Flood Insurance and Homeowners Insurance

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**10.4 Action:** Develop and document mitigation success stories. Publish reports and include on WEM's website and in WEM's Mitigation Display.

**Supporting Agency:** FEMA

**Implementation:** Ongoing.

**Background:** By 2004, WEM had administered over \$40 million in mitigation planning and project grants. In some instances, those mitigation measures have been tested through recent events. It is important to document the damages that have been avoided through these mitigation measures by publishing these success stories. Documentation of the damages averted by these mitigation measures is provided to Congress to validate the continuation of mitigation programs. In addition, 44 CFR Part 201.5(b)(2)(iv) requires the state to have a system and strategy by which it will conduct an assessment of completed mitigation actions.

**2011 Update Status:** WEM has now administered over \$86 million in mitigation grants. Loss avoidance studies were conducted for mitigation projects in Kenosha, Jefferson, Crawford, and Milwaukee counties. Best practices articles and success stories continue to be developed and are published on the WEM and FEMA websites.

**2016 Update Status:** WEM has now administered over \$120 million in mitigation grants. Best practices articles and success stories continue to be developed and published. The technical expertise required to complete formal loss avoidance studies is beyond the capabilities of the state, so WEM will work with FEMA to complete them. Several communities where extensive mitigation was done were significantly impacted by the September 2016 flooding and would make good case studies.

**2021 Update Status:** Overall, WEM has administered over \$11 million in mitigation planning grants, and \$170 million in total mitigation funding. WEM hired GIS analysts to

update loss avoidance studies and identify other opportunities to share success with interactive web-based tools. WEM Mitigation Staff is working with the DMA Public Affairs Office to re-do the Mitigation website so that success stories are more interactive and play a bigger role in the website.

**10.5 Action:** Work with the Office of the Commissioner of Insurance to promote public education about flood insurance during Flood Safety Awareness Week.

**Supporting Agency:** OCI

**Implementation:** Annually during the third week of March.

**Background:** The National Weather Service started Flood Safety Awareness Week in 2006. It is held the third week of March each year. Its purpose is to teach people about flood risks and how to save lives and protect property from flooding. WEM already promotes public education about flood safety during Flood Safety Awareness Week. Flood insurance participation is very low throughout the state. Incorporating education about flood insurance into Flood Safety Awareness Week will encourage more people to purchase flood insurance and thus protect their assets from flood losses.

**2011 Update Status:** New action item for 2011 update.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Working with OCI to submit a grant application for outreach under HMGP.

**10.6 Action:** Create an online flood insurance education course for insurance agents.

**Supporting Agency:** OCI

**Implementation:** Ongoing.

**Background:** Flood insurance participation in the state is very low. Insurance agents who provide flood insurance through the National Flood Insurance Program are required to take a continuing education course in flood insurance. The availability of an online course would facilitate agents meeting this requirement. The agents will then be able to encourage consumers to purchase flood insurance which will help them recover after a flood event.

**2011 Update Status:** New action item for 2011 update.

**2016 Update Status:** Unchanged; OCI offers flood insurance information on their website and issues press releases about flood insurance after disasters and when regulations change.

**2021 Update Status:** Unchanged. FEMA Region V has been delivering weekly webinars in Fall 2021 on RiskRating 2.0 for insurance agents and officials. WEM has been promoting these trainings and has participated in several.

**10.7 Action:** Research the possibility of requiring all insurance agents to complete a course in flood insurance periodically.

**Supporting Agency:** OCI

**Implementation:** Ongoing.

**Background:** Flood insurance participation in the state is low. Currently insurance agents who provide flood insurance through the National Flood Insurance Program are required to complete a one-time flood insurance course. Extending this requirement to all agents

would increase the promotion of flood insurance to potential consumers. In addition, requiring that the course be taken periodically would keep agents informed of changes to the program and serve as a reminder of the importance of flood insurance.

**2011 Update Status:** New action item for 2011 update.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**10.8 Action:** Research and identify GIS resources that would assist WEM and local governments in developing their mitigation programs.

**Supporting Agencies:** RPCs

**Implementation:** Ongoing.

**Background:** WEM recognizes that GIS can be a valuable tool for hazard mitigation planning, implementation of mitigation measures, and monitoring mitigation progress at both the state and local levels. To further this effort, WEM will continue to identify resources and provide for staff needs in the area of GIS development.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged; the Wisconsin Land Information Program has developed a statewide parcel layer. Several counties have incomplete parcel mapping. WEM is trying to assist with funding to complete the parcel mapping in those counties. FEMA has released a nationwide floodplain layer online. As LiDAR in the state becomes more complete, any communities without DFIRMs will receive them and be added to the national floodplain layer. Additionally, WEM has hired two GIS staff.

**2021 Update Status:** WEM contracted UW to conduct a statewide HAZUS-MH analysis for every county in the state as part of this plan update. WEM continues to conduct loss avoidance studies and pilot new Story Maps featuring local projects for use in local communities for outreach activities.

**10.9 Action:** Update the State Hazard Mitigation Plan to include technological and man-made hazards.

**Supporting Agency:** WSJHMT

**Implementation:** Ongoing.

**Background:** 44 CFR Part 201 requires that the State Hazard Mitigation Plan address natural hazards that impact the state. However, the state recognizes that technological and manmade hazards also pose a risk to citizens and facilities. Therefore, the State Hazard Mitigation Plan will begin to include technological and manmade hazards, based on available data, in future updates of the State Hazard Mitigation Plan.

**2011 Update Status:** Unchanged.

**2016 Update Status:** For the 2016 plan update, the Risk Assessment was merged with the state's Threat Hazard Identification and Risk Assessment (THIRA) because of the significant overlap in requirements. The THIRA includes technological and manmade hazards. For this update, few, if any, mitigation actions will be identified for the non-natural hazards, but they will be addressed in the risk assessment. For the next update, the plan will be expanded to the extent possible to include non-natural hazard mitigation actions. Incorporating technological and manmade hazards into the mitigation plan was also

required for EMAP accreditation, which WEM received in 2016.

**2021 Update Status:** Continued the Risk Analysis/THIRA merge in this plan update.

Working with the WEM Planning Section to identify ways to improve the technological and manmade hazards and try to better align THIRA with the WERP. Will continue to meet requirements for EMAP accreditation, which WEM is undergoing during this update.

**10.10 Action:** Incorporate mitigation into WEM's Strategic Plan (short-term) and work with other state agencies (long-term) to incorporate mitigation into their strategic plans where appropriate.

**Supporting Agency:** WSJHMT

**Implementation:** Ongoing.

**Background:** In 2004 WEM updated its Strategic Plan and included mitigation as a component. To further the state's mitigation efforts, mitigation should become part of the agency's day-to-day activities and considered in decision-making. Therefore, mitigation needs to become a component of all state agencies' strategic plans. This will be a long-term project for WEM to work with state agencies through the WSJHMT to further these efforts.

**2011 Update Status:** Status unchanged. The Department of Military Affairs is working on updating their Strategic Plan.

**2016 Update Status:** The 2014-2016 Strategic Plan focused on internal capacity building and communication, so mitigation was not included. Work is underway on a 2017-2019 Strategic Plan.

**2021 Update Status:** WEM completed its Strategic Plan and a new draft was presented to WEM Management in November 2011. The final draft will be presented in the Winter 2021 Division Meeting. The WEM Mitigation Section did not have additional areas of focus identified in the plan; however, intends to support the Recovery Section's efforts to engage the State with 406 mitigation outreach/education.

**10.11 Action:** As local and tribal plans are completed, incorporate pertinent information into the State Hazard Mitigation Plan.

**Supporting Agency:** WSJHMT

**Implementation:** Ongoing.

**Background:** 44 CFR Part 201 requires that the State Hazard Mitigation Plan and hazard mitigation actions coordinate with local hazard mitigation thus providing a complete assessment of state and local hazard mitigation priorities.

**2011 Update Status:** For this Plan update, additional jurisdictional plans were reviewed. A new portion in Section 5 highlights best practices in local mitigation plans from around the state.

**2016 Update Status:** For this Plan update, additional jurisdictional plans were reviewed. Section 4 highlights plans that incorporate climate change.

**2021 Update Status:** New analysis was included into Section 4 that focuses on hazard areas of focus in local/tribal planning efforts. This analysis was presented at the FEMA Region V Spring 2021 meeting.

**10.12 Action:** Develop a structure inventory of state-owned and -operated buildings, structures, and facilities and complete a risk assessment based on data collected specific to each building. Priority will be given to those structures considered a critical facility.

**Supporting Agencies:** DOA, other state agencies

**Implementation:** 2007; ongoing.

**Background:** 44 CFR § 201.4 requires that the State Hazard Mitigation Plan include an overview and analysis of potential losses to state-owned or -operated buildings, infrastructure, and critical facilities located in identified hazard areas. There are an estimated 6,500 state-owned buildings, structures, and facilities identified on the State Facility Database. WEM received a FFY05 PDM-C planning grant to begin conducting a structure inventory and risk assessment of state-owned buildings beginning with critical facilities. To date, the information to be collected has been determined and a database developed. This is a joint effort between WEM and DOA.

**2011 Update Status:** To date, only the Department of Corrections has provided WEM with information about their structures. This information is included in the State Structure Inventory in Section 3. WEM will continue to solicit information from other state agencies and update the Inventory as needed.

**2016 Update Status:** Using information on state-owned and -operated assets from DOA, WEM developed and followed a methodology consistent with the requirements of 44 CFR Part 201.4 for analyzing risk and potential losses. The methodology and results are described in the State Structure Inventory, an attachment to Appendix A, THIRA.

**2021 Update Status:** WEM updated the Risk Assessment/THIRA with relevant information for this plan update. WEM is providing feedback to the DOA for suggestions on improving a state-structure mapping endeavor undertaken at DOA.

**10.13 Action:** Continue to lead the WSJHMT in establishing and implementing a long-term, permanent, and viable statewide mitigation program.

**Supporting Agency:** WSJHMT

**Implementation:** Ongoing.

**Background:** The Wisconsin Interagency Disaster Recovery Group (IDRG) was organized in response to the 1993 Midwest Flood to coordinate relief and recovery efforts and to prevent duplication of efforts. The success of the group has been demonstrated by the various mitigation projects completed, often with multi-agency funding and technical assistance provided. The IDRG was a "reactive" group that was activated after a disaster. Staff recognized the need to formalize a group and thus designated the State Hazard Mitigation Team (SHMT) that would be a "pro-active" expansion of the IDRG with policy-making authority. The SHMT was responsible for the development of a statewide mitigation strategy as part of the State Hazard Mitigation Plan. Both groups played a vital role in furthering mitigation efforts in the state. In 2004, WEM consolidated these groups into the Wisconsin Hazard Mitigation Team (WHMT).

**2011 Update Status:** Status unchanged. WEM continues to lead the WHMT and schedules regular meetings to discuss and promote mitigation projects and opportunities and to update the State Hazard Mitigation Plan.

**2016 Update Status:** In 2015, the WHMT became a chapter of the USACE Silver Jackets

Hazard Risk Management program and changed its name to the Wisconsin Silver Jackets Hazard Mitigation Team (WSJHMT). The role and mission of the team remains unchanged.

**2021 Update Status:** Unchanged. WEM continues to lead the WSJHMT, although outreach/engagement has looked very different during and immediately following the COVID-19 Pandemic with meeting and travel restrictions, moving to virtual meeting/engagement.

**10.14 Action:** Encourage Emergency Management Directors to work with Local Emergency Planning Committees (LEPCs) to participate in local hazard mitigation planning activities.

**Supporting Agencies:** RPCs

**Implementation:** Ongoing.

**Background:** WEM is committed to promoting local all-hazards mitigation planning. Including the LEPCs in local mitigation planning will help address technological hazards and improve coordination between response and planning emergency functions.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**10.15 Action:** Promote use of FEMA's HAZUS hazard-analysis, GIS-based software as the modules become available. Continue staff training on HAZUS. The earthquake module became available in 2002, the flood module became available in 2004 and the hurricane module in 2006.

**Supporting Agencies:** FEMA, RPCs

**Implementation:** Ongoing.

**Background:** WEM has not used HAZUS to date because Wisconsin is not vulnerable to earthquakes. However, Wisconsin is vulnerable to flood and wind. Therefore WEM is exploring the use of HAZUS as a hazard-analysis tool for improving the State Risk Assessment. A WEM staff member attended HAZUS training at EMI in September 2004.

**2011 Update Status:** The Flood Risk Analysis in the 2008 plan was performed using HAZUS software. WEM staff is continuously updating the Flood Risk Analysis that was developed for that plan. Updates include re-running counties that did not have an available DFIRM. Completed HAZUS runs will continually be sent to counties, along with updated analysis to be included in their county mitigation plan.

**2016 Update Status:** In 2015, WEM conducted a HAZUS analysis for Washington County in support of their hazard mitigation planning process. Due to funding and data limitations, WEM chose to conduct the statewide flood risk analysis using a simplified GIS procedure rather than creating a HAZUS analysis for each county.

**2021 Update Status:** WEM contracted UW and the Polis Center at IUPUI to conduct an updated analysis for every county in the State as part of this update.

**10.16 Action:** Work with FEMA and appropriate state agencies to identify pre-disaster mitigation techniques that can be funded through Section 406. This may include identifying and establishing new standards in codes.

**Supporting Agencies:** FEMA, SOT, DOA, DNR, PSC, others

**Implementation:** Ongoing.

**Background:** In major disaster declarations, cost effective mitigation measures can be implemented through Section 406 of FEMA's Public Assistance program for damaged public facilities. The program is often underutilized because mitigation opportunities are not properly identified on a timely basis. By working with FEMA and appropriate state agencies, this action will attempt to pre-identify those items that will be included in the Section 406 program. Further, costs to bring a damaged site to current codes and standards are eligible. This process may lead to the identification and establishment of new or additional codes and standards.

**2011 Update Status:** Status unchanged. WEM has met with DOT to discuss the possibility of training DOT field staff to identify Section 406 mitigation measures prior to and immediately following events, but before repairs are made.

**2016 Update Status:** In DR-4288, WEM developed several mitigation training opportunities at the Joint Field Office with FEMA. WEM Recovery staff created a sample script to help guide conversations about mitigation in recovery field operations and provided training to FEMA field staff. Additionally, WEM worked with the DNR to issue a policy memorandum outlining the difference between DNR code- and standard-related upgrades and hazard mitigation.

**2021 Update Status:** WEM engaged with the new FEMA Region V 406 Mitigation team following DR-4459 and DR-4477, with enhanced engagement in DR-4477. WEM continues to identify the importance of 406 mitigation in the mitigation strategies for all disasters since the last plan update. WEM also sponsored training for Mitigation and Recovery staff on the BCA process and identifying/scoping 406 projects.

**10.17 Action:** Attend training and continue to build expertise in performing Benefit-Cost Analyses (BCAs), which is a major component of mitigation grant applications.

**Supporting Agency:** FEMA

**Implementation:** Ongoing.

**Background:** The BCA component of the FEMA grant application process requires the use of FEMA's BCA software. The software calculates benefits based on critical project information that is entered by staff performing the analysis. FEMA uses this information when determining if a project will receive funding. It is important for staff to attend training and build expertise in this area to ensure that they understand the important elements of the software to calculate accurate BCAs for hazard mitigation projects.

**2011 Update Status:** WEM hosted BCA workshops conducted by FEMA in 2009 and 2011. The focus of the workshops were the Flood module and the Damage Frequency Assessment module of the BCA software. Both workshops were well-attended.

**2016 Update Status:** In collaboration with the state's Rural Electric Cooperatives, WEM hosted a BCA workshop led by FEMA in May 2015 and held a meeting in 2016 to work through BCAs for utilities without previous damages. WEM staff also participated in a BCA webinar sponsored by the Region in June 2012 and in two other webinars: BCA for Drought and Ecosystem Services in May 2015 and BCAs for the new Climate Resilient Mitigation Activities in June 2016.

**2021 Update Status:** WEM sponsored training for Mitigation and Recovery staff on the BCA process and identifying/scoping 406 projects. WEM Hazard Mitigation Section Supervisor presented for three separate national webinars on FEMA mitigation BCAs, the challenges associated with them, and how to overcome documentation requirements.

**10.18 Action:** Provide training and technical assistance to local governments and tribal organizations on FEMA's eGrants system and new FEMA GO system.

**Supporting Agency:** FEMA

**Implementation:** Ongoing.

**Background:** FEMA requires electronic applications for its mitigation grant programs. WEM worked with local governments and tribal organizations to submit the 2003 Pre-Disaster Mitigation program applications. WEM will continue to train and work with subgrantees to successfully submit electronic applications as required by FEMA.

**2011 Update Status:** Unchanged; WEM provided technical assistance in the FFY 10, 11, and 12 funding cycles.

**2016 Update Status:** Unchanged; WEM provided technical assistance for the PDM and FMA program application periods in FFY 13, 14, 15, and 16 funding cycles.

**2021 Update Status:** WEM updated the Action to include FEMA's new Grants Outcome, or FEMA GO, system. Since FEMA stopped using eGrants with the sunset of the PDM program, WEM continues to develop and deliver technical assistance for the new FEMA GO program, as well as supporting subrecipients in the 17, 18, and 19 PDM program that still use eGrants to manage their subawards.

**10.19 Action:** Revise the Resource Guide to All-Hazards Mitigation Planning in Wisconsin and post the new version on the WEM and DOA websites to be available for both mitigation and comprehensive planning efforts.

**Supporting Agencies:** DOA, RPCs

**Implementation:** 2017

**Background:** The Resource Guide to All-Hazards Mitigation Planning in Wisconsin was published in 2003 to serve as a tool for mitigation and comprehensive planners. The Guide was not posted to the DOA website, which is a primary source of comprehensive planning information for communities around the state. Upon completion of the update, it will be reviewed by the DOA to be sure it conforms to state comprehensive planning requirements. Posting it to the DOA website will promote the inclusion of a mitigation element in communities' comprehensive plans.

**2011 Update Status:** New action item for 2011 update.

**2016 Update Status:** Unchanged; WEM plans to collaborate with the RPCs and apply for a FEMA grant in the FFY 17 funding cycle.

**2021 Update Status:** Unchanged. WEM delivered training in FFY18 and 19 cycles. WEM is developing a virtual training to support post-COVID-19 virtual learning platforms.

**10.20 Action:** Promote the purchase and use of NOAA weather radios (especially in critical facilities, daycare centers, schools, and hospitals) through the WEM website, public service announcements, etc.

**Implementation:** Ongoing.

**Background:** NOAA weather radios have been identified in the Plan as a valuable tool for warning people to take shelter during extreme weather events.

**2011 Update Status:** Unchanged. Mitigation presentations identify NOAA weather radios as a mitigation option. In addition, WEM has awarded seven HMGP grants with two more pending for the purchase and distribution of NOAA weather radios.

**2016 Update Status:** Unchanged; this remains a priority for the state. Since the previous update, three additional grants for the purchase and distribution of NOAA weather radios have been funded and three additional pre-applications have been submitted to WEM.

**2021 Update Status:** Unchanged. WEM has funded additional 5% initiative grants for NOAA weather radios in DR-4343, DR-4459 and is considering several under DR-4520.

**10.21 Action:** Participate in conferences and give presentations to promote mitigation to local interest groups and associations. These groups could include but are not limited to the Association of Wisconsin Regional Planning Commissions, Wisconsin Land Information Associations, Wisconsin Chapter of the American Planning Association, the League of Wisconsin Municipalities, Wisconsin Counties Association (WCA), Wisconsin Emergency Management Association, and the Wisconsin Manufactured Housing Association.

**Supporting Agencies:** DNR, UW-Extension, DOA-WCMP, RPCs

**Implementation:** Ongoing.

**Background:** While the awareness of the importance of mitigation has improved in recent years, more can be done. Recognizing that mitigation activities occur at the local level, WEM staff will be able to reach local audiences by attending and participating in conferences sponsored by various organizations.

**2011 Update Status:** WEM continues to promote mitigation whenever possible. This has included making presentations for the Southwest Building Inspectors Group, Wisconsin Claims Council, State Bar Association, University of Wisconsin Student Planning Association, GIS Day at the State Capitol, PRIMA (Risk Managers Association), LaFollette School of Public Affairs, Kickapoo River Seminar sponsored by the National Weather Service, Rural Electric Cooperatives Association, Wisconsin American Planning Association, and the Wetlands, Wildlife Habitat, and Flood Hazards in the Rock River Basin Workshop sponsored by the Environmental Law Institute.

**2016 Update Status:** Unchanged; Section 6 details outreach, education, and presentations/workshops WEM Mitigation staff are involved

**2021 Update Status:** Unchanged. See Section 6 for more detail.

**10.22 Action:** Include the Hazard Mitigation Planning Workshop and the G-393 Mitigation for Emergency Managers class into WEM's training curriculum and the CEM program, and hold at least one workshop annually.

**Implementation:** Annually or more often.

**Background:** Beginning November 1, 2004, communities are required to have an approved all-hazards mitigation plan that meets 44 CFR Part 201 in order to be eligible for funds through the FEMA mitigation programs. WEM Mitigation staff has developed a state-specific curriculum for an All-Hazards Mitigation Workshop. Since mitigation planning will

be a requirement, it is important that this workshop become a part of the Emergency Managers certification program. Therefore, the course must be held at least once a year to provide an opportunity for all Emergency Managers to participate. Additionally, the G-393 Introduction to Mitigation for Emergency Managers class focuses heavily on mitigation planning.

**2011 Update Status:** The Hazard Mitigation Planning Workshop is part of the CEM program and is held annually, usually in April. The workshop is held more often if requested. One workshop was held in 2009, two in 2010, and one in 2011.

**2016 Update Status:** The G-393 Introduction to Mitigation for Emergency Managers class is now also part of the CEM program. The Planning Workshop was held once in 2012, 2013, 2014, and 2016, and twice in 2015. The G-393 class was held twice in 2013 and 2014 and once in 2015 and 2016.

**2021 Update Status:** The Planning Workshop was held once in 2017, 2018, and 2019. WEM Mitigation Staff had to cancel the 2020 workshop due to the COVID-19 pandemic and is working on pivoting the course to be a virtual delivery. The G-393 class was held once in 2017, 2018, 2019, and 2021. G-393 was also cancelled in 2020 due to the COVID-19 pandemic.

**10.23 Action:** Identify and develop GIS applications to be used as a mitigation tool.

**Supporting Agencies:** FEMA, DNR, RPCs

**Implementation:** Ongoing.

**Background:** Once GIS resources have been identified and provided, WEM can begin to develop GIS applications. Possible GIS applications include mapping repetitive loss properties; grants management; public education and outreach activities; success stories; mitigation planning; and post-disaster project development and recovery.

**2011 Update Status:** Maps identifying repetitive loss properties as well as mitigation projects throughout the state were completed. The maps will need to be updated at least annually. Future projects can include mapping properties acquired with mitigation funds since GPS coordinates are available. In addition, WEM mitigation staff purchased a camera in 2011 with GPS capability. This camera can be utilized during damage assessment, project development, and final inspections among other activities.

**2016 Update Status:** WEM has hired two GIS specialists. The state now has a statewide parcel data layer and FEMA released a national floodplain layer. FEMA has assisted with mapping complete projects and open space parcels.

**2021 Update Status:** The Mitigation Section hired two LTE GIS Analysis to focus on mitigation-specific projects. WEM has presented their products/tools and analyses at FEMA Regional meetings in 2020 and 2021.

**10.24 Action:** Work with the University of Wisconsin system to develop Disaster Resistant University (DRU) plans.

**Implementation:** Ongoing.

**Background:** All University of Wisconsin facilities are owned by the state. By creating their own plans, the universities can target high-risk areas and structures for appropriate mitigation projects that WEM does not have the capacity to address. This will help meet 44

CFR Part 201 which requires an analysis of potential losses of state-owned and –operated facilities.

**2011 Update Status:** The University of Wisconsin-River Falls developed a hazard mitigation plan which was approved by FEMA. As a result, they applied for and were awarded a Pre-Disaster Mitigation grant to construct small storm shelters at two of their research farms. The University of Wisconsin-Superior has participated in the Douglas County Hazard Mitigation Plan. The University of Wisconsin-Madison, the largest UW campus, is presently developing a hazard mitigation plan and we expect a detailed structure inventory included in the plan. WEM will continue to work with other universities in the development of hazard mitigation plans.

**2016 Update Status:** The UW-River Falls updated their plan in 2014. The UW-Superior updated their plan in cooperation with the City of Superior in 2016. The UW-Madison completed their first plan in 2013.

**2021 Update Status:** UW-Superior participated in the City of Superior’s planning process, starting in 2019. UW-Madison is currently participating in the Dane County planning process which is underway.

**10.25 Action:** Maintain the Wisconsin Recovery Task Force (WRTF) as a standing task force for disaster recovery with defined expectations of duties for each subcommittee chair.

**Supporting Agencies:** WRTF

**Implementation:** Ongoing.

**Background:** The WRTF was established after the 2008 flooding to coordinate the recovery activities. Six subcommittees were established with identified chairs. The subcommittee chairs met bi-weekly. It is recommended that the WRTF continue and develop pre-disaster policies, standard operating procedures for the task force and the subcommittees, and assessment protocols. It is also recommended that semi-annual meetings be held to ensure preparedness and facilitate effective operational readiness.

**2011 Update Status:** The Wisconsin Recovery Task Force has not met since 2008. However, it is WEM’s intent to convene the group after large disasters to address short- and long-term recovery needs.

**2016 Update Status:** The WRTF was reconvened in February 2015. Subcommittee chairs were identified. Since then, the WRTF has met twice, once following each of the disasters in 2016. Collaboration has been excellent.

**2021 Update Status:** Unchanged. The WRTF was convened following the two disasters in 2018.

**10.26 Action:** Chair the Mitigation Subcommittee on the Wisconsin Recovery Task Force (WRTF).

**Implementation:** Ongoing, as needed following disasters.

**Background:** Upon direction of Governor Doyle, WEM created the Wisconsin Recovery Task Force (WRTF) to assist individuals, businesses, and communities to recover quickly, safely, and with more resilience from future disasters. All WSJHMT members are on the Mitigation Subcommittee. Some WSJHMT members also chair the other subcommittees.

**2016 Update Status:** New action item for 2016 update; the WRTF was convened following two disasters in the state in 2016.

**2021 Update Status:** Unchanged. The WRTF was convened following the two disasters in 2018.

**10.27 Action:** Develop, update, and implement a State Recovery Plan.

**Supporting Agencies:** WRTF

**Implementation:** Ongoing.

**Background:** Developing a State Recovery Plan before disaster strikes will allow agencies and citizens to work together efficiently and without duplicating efforts following a disaster to ensure the fastest, most complete recovery possible for impacted communities.

**2016 Update Status:** New action item for 2016 update; WEM staff began developing a State Recovery Plan in June 2015 which was finalized in May 2016. The Plan is being implemented for the recovery from both presidential disaster declarations in 2016 as well as another, non-declared flood event.

**2021 Update Status:** The Recovery Plan is undergoing significant revisions after WEM hired a specific all-hazards recovery planner.

**10.28 Action:** Develop and deploy Rapid Assessment Strike Teams (RASTs) to assist local governments in damage assessments following disaster events.

**Supporting Agencies:** Wisconsin Chapter of the American Institute of Architects (AIA)

**Implementation:** Ongoing.

**Background:** Rapid, accurate damage assessments will expedite the disaster declaration process and allow recovery to begin as quickly as possible following a disaster. RASTs with appropriate training and the ability to deploy quickly

**2016 Update Status:** New action item for 2016 update; WEM and AIA drafted the Wisconsin Disaster Assessment Plan from 2014 to 2016. Two sessions of Disaster Assistance: Building Evaluator Training were held, one in 2014, one in 2016 in conjunction with the release of the Plan.

**2021 Update Status:** RASTs were deployed after AIA just-in-time training following DR-4402. WEM worked with AIA to capture lessons learned to improve future trainings.

**10.29 Action:** Incorporate Climate Resilient Mitigation Activities (CRMAs) as defined by FEMA (including Aquifer Storage and Recovery; Floodplain and Stream Restoration; Flood Diversion and Storage; and Green Infrastructure) into WEM's scoring system for pre-applications.

**Implementation:** 2016; ongoing.

**Background:** Climate resilience is a state and national priority. FEMA has identified several new project types (CRMAs) that are eligible for funding under the HMA grant programs. BCA guidance for these new project types has also been released. To show the importance of these types of projects, WEM will adjust the scoring for the pre-applications for the HMA grant programs to include points for CRMAs.

**2016 Update Status:** New action item for 2016 update; starting with DR-4276, declared in August 2016, WEM's Pre-Application Ranking Form includes points for CRMAs.

**2021 Update Status:** Ranking/Scoring form changed to place more emphasis on climate change resiliency. Included in the Admin Plan for DR-4459 and beyond, after receiving approval from WSJHMT.

**10.30 Action:** Research ways to quantify resilience to changing future conditions and use those methods to give additional points to pre-applications submitted for projects that incorporate resilience.

**Implementation:** 2017; ongoing.

**Background:** To support the concept of resilient communities, WEM should include resilience to changing future conditions in the criteria for selecting mitigation projects. It is easy enough to add points for resilience to the Pre-Application Ranking Form, but it is difficult to define and quantify resilience in a way that can be scored. To incorporate resilience into the scoring, the state must first determine a standard definition.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** Ranking/Scoring form changed to place more emphasis on climate change resiliency. Included in the Admin Plan for DR-4459 and beyond, after receiving approval from WSJHMT. New BRIC program pre-application changed to help communities emphasize this in their scope of work development

**10.31 Action:** Include information on planning for changing future conditions in the All-Hazards Mitigation Planning Workshop.

**Implementation:** 2014; ongoing.

**Background:** As communities throughout the state begin to incorporate changing future conditions into their hazard mitigation plans, the state should offer training, guidance, and best practices to assist them.

**2016 Update Status:** New action item for 2016 update; a map showing the potential percent change in floodplains throughout the US for the next 100 years is in the training materials. Over time, more information will be included.

**2021 Update Status:** WEM Mitigation working on updating curriculum since this is a point of emphasis in the BRIC program.

**10.32 Action:** Include points for CRS participation in the Pre-Application Ranking Form.

**Supporting Agencies:** DNR, FEMA

**Implementation:** 2017; ongoing.

**Background:** Participating in the CRS means that a community has higher floodplain management standards than legally mandated. Rewarding those communities with extra points on WEM's Pre-Application Ranking Form will further encourage participation in the CRS. The number of points received will be based on the CRS class the community has achieved.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** Ranking/Scoring form changed to include this. Included in the Admin Plan for all disasters including DR-4459 and beyond, after receiving approval from WSJHMT.

**10.33 Action:** Work with other state and federal agencies to prioritize watersheds around the state that are most appropriate for and would benefit the most from Flood Inundation Mapping.

**Supporting Agencies:** DNR, FEMA, NWS, USACE, USGS

**Implementation:** 2013; ongoing.

**Background:** Flood inundation maps are an extremely effective way to convey risk to responders, policy makers, and residents. Real-time river stages and the associated flood risk is communicated visually through these maps. Additionally, the maps are so detailed that specific addresses and intersections can be found. There are many watersheds in Wisconsin that have the necessary river gauges and topographic data to produce flood inundation maps. However, staff time and funding for these efforts is limited, so the suitable watersheds must be evaluated and prioritized.

**2016 Update Status:** New action item for 2016 update; the Rock River Flood Inundation Mapping project mapped five stretches of the Rock River in Dodge, Jefferson, and Rock counties that have a high flood risk and serious potential impacts. The final interactive maps were posted to the NWS website. DNR filmed a tutorial video DNR showing how to use the maps. Outreach was done through press releases and in person at numerous events, conferences, and workshops. Currently the Upper Fox River in Kenosha and Racine counties is being mapped.

**2021 Update Status:** WEM has worked with additional communities via the DNR, USGS, and USACE.

**10.34 Action:** Consider updating WEM's Local Mitigation Plan Review Tool to include criteria on the assessment of changing future conditions and on the analysis of projects that reduce or eliminate the future vulnerability to these conditions. These could start out as recommended criteria.

**Supporting Agencies:** FEMA

**Implementation:** 2017.

**Background:** Requiring communities to consider the risk of changing future conditions and actions they can take to reduce that risk will help communities be better prepared and more resilient when future conditions change.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** FEMA is releasing a new mitigation plan review guide and will incorporate this after the release of the new update. WEM anticipates this document will be released in 2022.

### 3.3.11 Lead Agency: Wisconsin Historical Society (WHS)

**11.1 Action:** WHS is using GIS to identify and map locations of known historical and archeological sites in floodplains (cultural properties and burial sites).

**Supporting Agencies:** DNR, FEMA

**Implementation:** Ongoing; the WHS completed digitizing historical and archeological site locations in 2001 (cultural properties and burial sites).

**Background:** Section 106 of the National Historic Preservation Act requires federal agencies and the programs that they fund to really consider the potential for adverse impacts, avoid the alteration, damage to, or destruction of significant historical and archeological sites. Knowing that an area contains significant historical or archeological sites is considered when determining the appropriate treatment of these resources before, during, and after a disaster. This statewide GIS database contains the locations of significant historical and archeological sites making information on these resources more widely available. Mitigation planning can help protect these resources and critical historical facilities. The WHS databases site lists and maps all properties listed in the National Register of Historic Places as the data becomes available. Staff has developed agreements on data access and use.

**2011 Update Status:** Unchanged.

**2016 Update Status:** All WHS historic building sites, structures, and burial sites are geocoded. The national floodplain layer from FEMA can be overlaid to show where historic and archaeological sites are in floodplains. Knowing where burial sites are can lead to appropriate installation of certain flood response measures like temporary levees.

**2021 Update Status:** Unchanged.

**11.2 Action:** Provide ongoing support and coordination with the WSJHMT in developing, establishing, and implementing a permanent and viable statewide mitigation program while protecting historical and cultural resources.

**Supporting Agencies:** WEM, WSJHMT, FEMA

**Implementation:** Ongoing.

**Background:** Section 106 of the National Historic Preservation Act requires federal agency programs to (really take into account the potential for adverse impacts) avoid the alteration of, damage to, or destruction of significant historical and archeological sites. Coordination with WEM on hazard mitigation activities will help fulfill this mission.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged; the WHS is looking at making the whole Section 106 process electronic to streamline historic preservation reviews.

**2021 Update Status:** 2021 the databases are now online. The Compliance database now streamlines the reviews online.

**11.3 Action:** Identify historic properties and structures in the floodplain to target for mitigation (at-risk sites).

**Supporting Agencies:** WEM, DNR, FEMA

**Implementation:** Ongoing.

**Background:** All historic and archaeological sites are now geocoded. Overlaying a floodplain layer will show the properties and structures most at risk. Then WEM and WHS can work together to develop mitigation strategies and implement the most appropriate options.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** Unchanged.

**11.4 Action:** Provide technical assistance with mitigation projects (historic preservation review) through annual training. In the future, the archaeological interests may have a separate workshop from others that go through 106 and other historic preservation review.

**Supporting Agency:** WEM, FEMA, and tribes

**Implementation:** Ongoing.

**Background:** All mitigation projects are required to perform a thorough environmental and historic preservation review. Training to understand the subject matter more fully will enhance WEM's ability to perform historic preservation reviews and assess effects in a timely manner. (and THPOs when needed)

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** Unchanged.

**11.5 Action:** Develop a Programmatic Agreement (PA) for historic preservation and archaeological reviews. Schedule and hold an annual meeting to review the agreement and ensure it's still applicable.

**Supporting Agency:** WEM, FEMA, Tribes

**Implementation:** Ongoing.

**Background:** Having a PA in place detailing the exact level of review required for each potential mitigation project will expedite the review process and eliminate additional staff time.

**2016 Update Status:** New action item for 2016 update; the PA is currently in draft form and under review by all interested parties. Upon adoption and approval, annual meetings will be held to ensure the PA remains current and applicable.

**2021 Update Status:** Unchanged.

### 3.3.12 Lead Agency: National Weather Service (NWS)

**12.1 Action:** Achieve near 100% NOAA weather radio tower coverage in the state. WEM will work with the Educational Communications Board to pursue this goal.

**Supporting Agency:** WEM

**Implementation:** Ongoing.

**Background:** NOAA weather radios have been identified in the plan as a valuable tool for warning people during extreme weather events. As near as possible to 100% coverage would help warn people in all areas of Wisconsin.

**2011 Update Status:** Status unchanged. There is 95% coverage statewide. New transmitters are currently being installed, but are not yet operational.

**2016 Update Status:** There is nearly 100% coverage. The bluff areas along the Mississippi River will never achieve full coverage because the steep topography prevents a signal reaching certain low points.

**2021 Update Status:** No new towers added as there is nearly 100% coverage.

**12.2 Action:** Implement the Storm Spotter program and continue to recruit and educate new Storm Spotters.

**Supporting Agency:** WEM

**Implementation:** Ongoing.

**Background:** Knowing what is happening on the ground is a vital part of the National Weather Service's severe weather operational process. For many years, storm spotters have helped the NWS by reporting what is happening on the ground during hazardous weather. These reports have triggered warnings which inform the public that severe weather has been occurring with the storms. Every year in early spring, the NWS provides training to spotters on the procedures for reporting severe weather and also tries to recruit new volunteers. Promoting these trainings and asking the public to participate in storm spotting helps to improve the severe weather operations in every NWS office in Wisconsin.

**2016 Update Status:** New action item for 2016 update; while the total number of storm spotters in the state is unknown, the NWS estimates that they train between 3,000 and 5,000 people statewide each year.

**2021 Update Status:** Recruitment for the NWS storm spotter program continues. Due to COVID, the past two years of training sessions have all been offered online with no in-person option. Normally, half of the attendees are new spotters and the other half are spotters wanting a refresher training.

**12.3 Action:** Implement the StormReady program and continue to recruit and educate new participating agencies.

**Supporting Agency:** WEM

**Implementation:** Ongoing.

**Background:** The National Weather Service's StormReady program recognizes communities and other organizations that have gone above and beyond to make sure that their location or organization is prepared for hazardous weather. The StormReady

program encourages these communities to develop ways to receive weather alerts, monitor the weather, disseminate alerts, and engage in local preparedness activities. The more work that is done up front to ensure that people are ready for severe weather, the more prepared they will be when it occurs.

**2016 Update Status:** New action item for 2016 update; in Wisconsin there are currently 20 StormReady Sites, including Wisconsin Emergency Management, and 22 StormReady Supporters (less strict guidelines).

**2021 Update Status:** There currently are 29 StormReady Sites and 31 StormReady Supporters.

**12.4 Action:** Implement the Weather Ready Nation Ambassador program and continue to recruit and educate new Ambassadors.

**Supporting Agency:** WEM

**Implementation:** Ongoing.

**Background:** Since the devastating tornadoes in 2011 in Joplin, Missouri, and Alabama, the National Weather Service has been making an effort to develop a Weather Ready Nation to save more lives and livelihoods. By increasing the nation's weather-readiness, the country will be prepared to protect, mitigate, respond to, and recover from weather-related disasters. The Weather Ready Nation Ambassador initiative is an effort to formally recognize NOAA partners who are improving the nation's readiness, responsiveness, and overall resilience against extreme weather, water, and climate effects.

**2016 Update Status:** New action item for 2016 update; there are currently 126 Weather Ready Nation Ambassadors in Wisconsin including Wisconsin Emergency Management.

**2021 Update Status:** Continue to recruit new ambassadors throughout the state. We are targeting some non-typical weather partners to become ambassadors and help us spread the word of hazardous weather.

**12.5 Action:** Educate the public through a variety of weather and natural hazard awareness days and weeks each year.

**Supporting Agency:** WEM

**Implementation:** Ongoing.

**Background:** The two main awareness weeks held in Wisconsin are Severe Weather Awareness Week and Winter Weather Awareness Week. During Severe Weather Awareness week, the National Weather Service and its partners share many safety tips regarding what people can do to stay safe when severe weather hits. It also features a pair of tornado drills on the Thursday of that week, one in the afternoon and another in the evening hours, where people can rehearse their tornado safety plans. Other awareness campaigns include Heat Awareness Day, Lightning Safety Day, and other seasonal campaigns.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** No changes to the awareness week/day program. Main update to the Tornado Drill day is that we are no longer doing a live code test of the Tornado Warning.

### 3.3.13 Lead Agency: Wisconsin Economic Development Corporation (WEDC)

**13.1 Action:** Develop and maintain an economic recovery framework to help businesses recover following a disaster.

**Supporting Agencies:** DOA-Division of Housing, WEM

**Implementation:** 2011; ongoing.

**Background:** A deeper understanding of the impact to a community of job loss and business failure following disaster is emerging. A business recovery toolkit will help leaders minimize job losses, thereby shortening recovery time. This not only provides disaster preparedness tools to communities and reduces the potential for business failure following a disaster, but it also integrates economic stability into long-term community recovery.

**2011 Update Status:** New action item for 2011 update.

**2016 Update Status:** Unchanged; in 2012 the Community Economic Recovery Guidebook received an Innovation Award from the National Association of Development Organizations.

**2021 Update Status:** Unchanged.

**13.2 Action:** Target business-related mitigation materials to Wisconsin businesses, especially in vulnerable areas.

**Implementation:** Ongoing.

**Background:** Businesses are excellent and important partners to community mitigation efforts. To encourage business participation in disaster mitigation activities, it will be useful to concentrate efforts in areas with flood vulnerability to reduce future losses and build strong partnerships.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

**13.3 Action:** Chair the Business Subcommittee on the Wisconsin Recovery Task Force (WRTF).

**Supporting Agency:** WEM

**Implementation:** Ongoing, as needed following disasters.

**Background:** Upon direction of Governor Doyle, WEM created the Wisconsin Recovery Task Force (WRTF) to assist individuals, businesses, and communities to recover quickly, safely, and with more resilience from future disasters. All WSJHMT members are on the Mitigation Subcommittee. Some WSJHMT members also chair the other subcommittees.

**2016 Update Status:** New action item for 2016 update; the WRTF was convened following two disasters in the state in 2016.

**2021 Update Status:** Unchanged.

**13.4 Action:** Develop a Memorandum of Understanding regarding the provision of technical assistance when dispensing disaster funds to businesses.

**Supporting Agency:** DOA

**Implementation:** Ongoing.

**Background:** Having an agreement and procedures in place prior to a disaster will expedite

the disbursement of disaster funds following an event and lower the instances of duplication of efforts and misunderstandings.

**2016 Update Status:** New action item for 2016 update.

**2021 Update Status:** Unchanged.

**13.5 Action:** Continue to work with WEDC's Nine regional organizations to administer the Disaster Recovery Microloan Program.

**Supporting Agency:** 9 regional economic development organizations

**Implementation:** Ongoing.

**Background:** The goal of the Disaster Recovery Microloan (DRM) Program is to provide short-term assistance to businesses affected by disaster events in the state of Wisconsin. The program provides grants to pre-approved regional entities with the capacity to deploy rapid response microloans to businesses affected by disasters, either natural or manmade. The microloans are to assist the business with necessary restoration and operating expenses until more long-term recovery funding can be secured.

**2021 Update Status:** New action item.

### 3.3.14 All State Agencies

**14.1 Action:** Provide incentives such as awarding additional points for grant proposals competing for state funds when proposals address hazards with appropriate mitigation measures.

**Implementation:** Ongoing.

**Background:** Many projects funded by state agencies can fulfill multiple objectives. For example, a storm water project that addresses water quality issues can also address flood issues. A bike trail along a river can prevent more intense development in a flood-prone area and therefore prevent flood damage. Although state programs are funded as directed by the state legislature and with formulas that cannot be altered by agency staff, it would be beneficial to recognize those projects that accomplish mitigation objectives.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** WSJHMT approved a change to the Mitigation Ranking/Scoring process for HMGP to award additional points for projects that incorporate climate resiliency and nature-based solutions.

**14.2 Action:** Seek out opportunities to sponsor low-cost hazard mitigation demonstration projects.

**Implementation:** Ongoing.

**Background:** Organizing low-cost mitigation demonstration projects at the state level helps lead by example and epitomizes a disaster-resilient community approach.

**2011 Update Status:** Unchanged.

**2016 Update Status:** Unchanged.

**2021 Update Status:** Unchanged.

### **3.3.15 Prioritizing Mitigation Action Items**

The Mitigation Action Plan consists of Action Items identified by the Wisconsin Silver Jackets Hazard Mitigation Team (WSJHMT) for state government to pursue over the next five years and beyond. The actions include developing and/or enhancing state programs, policies, regulations, planning, or other practices that will assist the local governments in furthering hazard mitigation goals. Each WSJHMT member prioritized the actions for their respective agency as high, medium, or low with the caveat that the priority may change based on circumstances such as: 1) availability of funds; 2) availability of resources; 3) legislative or programmatic changes; and 4) disaster events that may have occurred.

Wisconsin has a home-rule style of government. As a home-rule state, control of government services and actions is maintained at the most local level possible. The state recognizes that decisions for implementing local mitigation measures remain at the local level. Therefore, this plan does not identify and prioritize site-specific mitigation projects. It is left to the communities to identify and prioritize those mitigation measures that are best for their community. WEM encourages communities to develop comprehensive plans that include all potential mitigation measures instead of simply listing projects that are eligible for the federal hazard mitigation programs.

Since 1993, WEM and the WSJHMT (formerly WHMT) have given priority to acquisition, demolition, relocation, and/or floodproofing of flood prone properties, especially substantially damaged or repetitive loss properties, and have approved projects for these activities. The state's funding priorities are listed in Section 6 of this Plan.

When mitigation projects are proposed, WEM performs an initial review to ensure that the projects are eligible for FEMA's Hazard Mitigation Assistance grant programs. If the projects are eligible, WEM reviews, scores, and ranks them according to the criteria set forth in the State Administrative Plan for the Hazard Mitigation Grant Program (Appendix F). The criteria reflect state priorities, so non-structural projects such as acquisition, demolition, relocation, and/or floodproofing receive the highest ranking and the greatest consideration for funding. Based on the evaluation and funding availability, a list of recommended projects is submitted to the WEM Administrator. Some projects may be referred to other agencies for appropriate funding. In addition, WEM will work with WSJHMT members to "package" funding for projects where possible to maximize available funding. The state's criteria for evaluating proposed projects are listed in Section 6.3 of this Plan.

### **3.3.16 Addressing Cost-Effectiveness, Environmental Soundness, Technical Feasibility**

In addition to the above priorities and considerations, the hazard mitigation programs administered by WEM require all mitigation projects proposed for funding (including state agency projects) to meet the following criteria:

1. Solve a repetitive problem.

2. Be cost-effective.
3. Be a permanent, long-term solution.
4. Be environmentally sound.
5. Be technically feasible.

In 2000, a Memorandum of Understanding (MOU) was signed by FEMA and WEM recognizing the state as a Hazard Mitigation Grant Program (HMGP) Managing State. The responsibilities this entailed are listed in Section 6 of this Plan update. Because FEMA failed to develop criteria under which the state was to manage the HMGP, six years later the MOU was terminated. Although the MOU is no longer in effect, the state continues to perform all of the activities identified in the MOU. The responsibilities of the state and FEMA for benefit-cost analyses (BCAs) and environmental reviews are outlined in Section 6 and are executed in the PAS Agreement between FEMA Region V and WEM. WEM's success in performing both BCAs and environmental review components is evidenced by the large number of projects funded and the low number of projects submitted that are not approved by FEMA.

### **3.4 Hazard Mitigation Funding**

As stated previously in this section, the primary funding sources for state and local hazard mitigation projects have been federal hazard mitigation programs available through FEMA. Funds for the state match or state contribution toward the local match (12.5% for the Hazard Mitigation Grant Program) come from the state's general fund budget. Local governments have used a variety of other sources to fund hazard mitigation projects including local revenues, local in-kind goods and services, Community Development Block Grants, grants through the Department of Natural Resources Stewardship programs and the Municipal Flood Control and Riparian Restoration program, and others.

The State Capability Assessment, Section 3.2, and Tables 3.2.1-1 and 3.2.1-2 identifies a variety of sources that have been and will continue to be used to fund hazard mitigation projects, plans, and other initiatives by local and state governments. Additionally, other federal agencies and related organizations have been identified as potential funding sources to further hazard mitigation efforts in the state.

To help relieve the debt of some \$4 billion, the state government has cut back on programs and services. With a slow economic recovery, a limited long-term state GPR budget, and diminishing federal funding, it may be more difficult to fund mitigation efforts in the future.

A majority of state tax revenue is transferred to local governments. General purpose state taxes are combined with locally collected revenues to fund local government in Wisconsin. In addition to the state's general purpose tax collection, local governments rely heavily on property taxes to fund their programs and services.

With fiscal challenges facing both the federal and state governments, not only will it be more difficult for local governments to secure funding for mitigation projects, but it will also be more

difficult for them to raise matching funds. This short-term lack of money to fund mitigation projects may cause larger long-term losses if a disaster occurs, because mitigation projects that would have protected life and property were not implemented.

**Table 3.3-1: Mitigation Action Items**

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
1.1 – Distribute hazard mitigation materials at housing workshops and training sessions.	1, 2	High	WEM	Expands and promotes public awareness.	Unchanged.
1.2 – Include the Wisconsin Disaster Fund as a topic at workshops and trainings that also discuss the Emergency Assistance Program.	1, 2, 4	High	WEM	Conferences, trainings, and workshops are effective venues for reaching multiple agencies and citizens with mitigation information.	Unchanged.
1.3 – Incorporate mitigation practices into the DEHCR’s Emergency Assistance Program.	4, 5	Medium	WEM	Maintaining consistency within state and federal programs regarding planning, preparation and mitigation is evidence of cooperation and coordination.	Mitigation as a stand-alone activity is not eligible for CDBG Emergency Assistance. We can incorporate sustainability/resiliency measures into the repair of damages caused by the EAP event. Mitigation is eligible for our CDBG Housing programs.
1.4 – The DEHCR will not approve grants or loans to communities to construct critical facilities in floodplains or other hazard-prone areas.	5	Medium	DNR, WEM	Constantly looking at ways to improve and incorporate mitigation actions into state and local government legislation is a key to successful mitigation.	Unchanged.
<i>1.5 – Administer and promote the Wisconsin Weatherization Assistance Program.</i>	1, 5	High		Weatherizing homes can protect structures from damage and save the lives of vulnerable individuals.	Unchanged.
<i>1.6 – Chair the Housing Subcommittee on the Wisconsin Recovery Task Force (WRTF).</i>	1, 4, 5	High	WEM, RPCs	The WRTF assists individuals, businesses, and communities in recovering quickly, safely, and with more resilience from future disasters.	DEHCR supports the WRTF and will continue to participate as a member.
1.7 – Coordinate and incorporate hazard mitigation planning concepts in future updates to the State Guide on Developing the Natural Resources Element in the Comprehensive Planning Guides.	3, 4	Low	WEM, DNR, UW-Sea Grant Institute	Integrating hazard mitigation into comprehensive planning will strengthen communities’ commitments to mitigation and allow collaboration on mutual goals instead of conflict.	Unchanged.

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
1.8 – Promote hazard mitigation planning by maintaining a close relationship with the Comprehensive Planning program.	3, 4	Medium	WEM, RPCs	Staff from the Department of Administration and WEM will work together to encourage communities that are updating comprehensive plans to include hazard mitigation.	Unchanged.
<i>1.9 – Work toward establishing a community for GIS and LiDAR data sharing.</i>	3, 4	Medium	DNR, NWS, USGS, WEM, UW	GIS data layers are helpful when mapping risk, but can be very expensive when not available publicly.	WLIP funded county data is publicly available through the University of Wisconsin's Geodata@Wisconsin data portal. <a href="https://geodata.wisc.edu/">https://geodata.wisc.edu/</a> Lidar data is available through the UW WisconsinView archive <a href="https://www.sco.wisc.edu/data/elevationlidar/">https://www.sco.wisc.edu/data/elevationlidar/</a>
1.10 – Promote hazard mitigation and raise awareness of coastal hazards.	1, 2	High	WEM, DNR	Education of mitigation and coastal hazards will lead to wise decision-making for local officials and property owners.	Unchanged. WCMP coordinated a Coastal Processes and Permitting Workshop in October 2019. WCMP staff presented at multiple meetings and webinars hosted by FEMA and other agencies, with a focus on coastal hazards and resilience.

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
1.11 – Help communities develop and implement shoreline and bluff erosion policies.	1, 3	High	WEM, DNR, UW-Sea Grant Institute	New ordinances and other policies will serve to establish revised setbacks and minimize future damages.	WCMP led, with University of Wisconsin Sea Grant Institute, Southeastern Wisconsin Regional Planning Commission, the University of Wisconsin-Madison Department of Civil and Environmental Engineering, and other partners, the Southeastern Wisconsin Coastal Resilience Project. The SEWI Resilience project provided significant, guided outreach to communities to identify needs and opportunities to address coastal hazards in southeastern Wisconsin. WCMP provided funding for a related effort in the Bay-Lake Region. This work will be continued through an upcoming project that will create a community of practice for Wisconsin communities on Lake Michigan.

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
1.12 – The Coastal Hazards Work Group (CHWG) will work with local governments in the state’s 15 coastal counties to develop and revise policies relevant to coastal hazards.	1, 3	High	UW-Sea Grant Institute, DNR	This increases local official and public awareness and will result in better managed shorelines throughout the state.	The CHWG continues to work with local communities and to coordinate efforts. The CHWG assisted WCMP in developing the 2021-2025 Coastal Hazards Needs Assessment and Strategy. WCMP has provided funding, and CHWG members have provided time and efforts to the Wisconsin Shoreline Viewer. In addition to layers showing various conditions of the shoreline, the viewer has historical and recent photos of the shoreline, many obtained by Wisconsin Wing Civil Air Patrol. The photos have been very useful to communities’ understanding of coastal erosion: <a href="http://floodatlas.org/asfpm/oblique_viewer/">http://floodatlas.org/asfpm/oblique_viewer/</a>

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
1.13 – Continue to coordinate Coastal Hazards Work Group (CHWG) to expand hazard mitigation activities in those coastal areas vulnerable to destruction.	1, 4	High	WEM, UW-Sea Grant Institute, DNR, RPCs	Expanding mitigation activities in coastal areas will reduce storm and erosion-related damage and protect lives and property.	The CHWG continues to provide meetings several times a year. WCMP and UW-Sea Grant have hosted several J Philip Keillor Coastal Hazards fellows, who have continued revising and improving the Coastal Processes Manual. Work on the Integrated Assessment (above) led to the Southeastern Wisconsin Coastal Resilience Project. CHWG members are participating in similar efforts in the Bay Lake region. In the Lake Superior Region, CHWG members are participating in a Project of Special Merit, that seeks to address flooding by identifying and mapping culverts. Other CHWG members are involved in projects utilizing wetlands to address flooding.
2.1 – Encourage communities to sign up for and participate in the Conservation Reserve Enhancement Program (CREP) to reduce crop losses.	1	High	CLCDs, USDA: FSA and NRCS	The CREP focuses on improving water quality by reducing runoff and peak flows in streams which prevents pollution. A secondary benefit is removing flood-prone cropland from production. It also can allow haying in drought years.	Of the \$28 million in bonding authority, about \$21 million has been spent. Almost 42,000 acres are currently enrolled under about 3,500 contracts.
2.2 – Chair the Agriculture Subcommittee on the Wisconsin Recovery Task Force (WRTF).	1, 4, 5	High	WEM, RPCs	The WRTF assists individuals, businesses, and communities in recovering quickly, safely, and with more resilience from future disasters.	Unchanged.
3.1 – Give extra points to communities applying for DNR Stewardship programs if their proposal includes mitigation elements.	1	Medium		Promoting flood mitigation values to acquisition criteria (i.e. flood water storage capacity removes floodplain from development) consideration can conserve natural resources while helping to reduce flood losses.	Unchanged.

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
3.2 – Promote the No-Adverse Impact (NAI) floodplain management approach statewide.	1	High	WAFSCM, WEM	The NAI approach makes sense and will result in reduced damages. By using NAI you have a tool to increase support for watershed management as it promotes multi-objective management strategies, which appeal to a wider range of interests. This increases support for any actions proposed or taken for flood management.	Unchanged.
3.3 – Promote substantial damage inspections.	1, 5	High	WEM	Substantial damage inspections are required to maintain membership in the NFIP. DNR will promote these to assist communities in remaining compliant.	Unchanged.
3.4 – Promote more efficient methods of detecting non-compliant structures in the floodplain and reviewing local floodplain management procedures.	1, 5	High	FEMA	Limiting non-compliant floodplain development will decrease potential damages.	Unchanged.
3.5 – Encourage restoration of natural wetland functions.	1	High	USDA: NRCS, UWFWS, local communities, property owners	Restoring the natural function of wetlands can reduce flooding potential of other areas in the watershed.	The DNR will continue to work with federal and other partners to develop the hydrologic restoration permitting process.
3.6 – Provide workshops and distribute informational materials to improve understanding and enforcement of floodplain, shoreline, coastal, and wetland regulations.	1, 2	High	DOA: WCMP, UW-Sea Grant Institute, WEM	Assessing and improving local floodplain management and coastal hazard awareness is a key component of the outreach program efforts.	Unchanged.
3.7 – Provide sewer back flow prevention information and other flood proofing measures to affected communities through public information programs.	1, 2	High	WEM, OCI	Using this mitigation technique decreases residential damage during major storm events.	Unchanged.
3.8 – Compile and distribute Floodplain/ Shoreland Notes newsletter.	2	High	FEMA, WEM	The newsletter provides local officials and others with information on the NFIP, shoreland issues, dam safety, and hazard mitigation.	The newsletter is distributed electronically twice a year through GovDelivery.

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
3.9 – Provide workshops and distribute informational materials to improve understanding and awareness of flood insurance.	1, 2	High	FEMA	Distributing information on flood insurance will help reduce risks by increasing the number of flood insurance policies.	Virtual workshops continue to be held in partnership with FEMA including risk rating, substantial damage, and other critical trainings.
3.10 – Promote dam safety awareness through workshops, the development of EAPs and IOM guidebooks, templates, and newsletters.	1, 2	High	FEMA	Increasing the number of EAPs and IOM plans will reduce the overall risk of dam failure.	Three (3) in-person workshops were held in 2018, focusing on responsibilities of dam owners, how to complete inspections and operation practices, and permitting requirements. Four (4) in-person workshops were held in 2019, focusing on EAPs and how to interpret DFAs. One (1) recorded webinar was developed in 2020, geared towards DNR property owners on inspections of DNR-owned dams. In addition, one (1) Dam Safety newsletter was published in 2017, two (2) newsletters in 2018, five (5) newsletters in 2019, and three (3) in 2020. The EAP Guidebook and Template received a major update in 2019.
3.11 – Continue to provide technical assistance to non-NFIP communities that have had flood damage and encourage them to join the NFIP.	1, 2, 4	High	WEM	To raise awareness of the NFIP to Wisconsin citizens and squelch misconceptions will only enhance the mitigation program.	Unchanged.
3.12 – Work with communities to encourage mapping of floodplains and coastal areas.	1, 2, 4	High	WEM, RPCs, WCMP	Promoting hazard mapping will empower communities and individuals to manage and reduce their risks.	Kickapoo Watershed completed Discovery and move into data analysis/study. FEMA funded multiple physical map revisions, detailed in the Mitigation Strategy. DNR working with FEMA and NWS to produce Flood Inundation Maps.

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
3.13 – Promote mandatory disclosure of hazard-prone property to buyers.	1, 2, 4	Low	DNR	This allows homeowners to make informed decisions about mitigation.	DNR provides routine support to real estate agents, homeowners, and potential homeowners to provide flood risk information consistent with the CRS program through web mail upon request.
3.14 – Encourage sewer utilities to provide back-up power sources at lift stations to help prevent sewer back-flow flooding.	1, 4	Low	DNR	Some sewer backflow problems occur because of power outages at lift stations. Back-up power sources would reduce this type of flood risk.	Unchanged.
3.15 – Encourage sewer utilities to provide public information regarding sewer back-flow prevention	1, 4	Low	DNR, WEM	Promoting sewer back-flow prevention at the local level will help reduce this type of flood risk.	Unchanged.
3.16 – Promote the NFIP CRS to local governments.	1, 2, 4	High	WEM, FEMA, WAFSCM, ASFPM	This reduces flood risk by rewarding communities for meeting CRS goals with lower insurance premiums.	Unchanged.
3.17 – Participate in the USACE Annual National Flood Risk Management (FRM) Workshop.	1, 4	Medium	WEM, USACOE, FEMA	The purpose of the workshop is to enable federal, tribal, state, and local government partners to learn from each other and collaborate on FRM.	Unchanged.
3.18 – Implement the Municipal Flood Control and Riparian Restoration grant program.	1, 5	High		Projects protect water resources and habitat. This includes flood mitigation and can be used to match federal grants.	Unchanged.
3.19 – Co-chair the Infrastructure Subcommittee on the Wisconsin Recovery Task Force (WRTF).	1, 4, 5	High	WEM, RPCs	The WRTF assists individuals, businesses, and communities in recovering quickly, safely, and with more resilience from future disasters.	Unchanged.
3.20 – Work with the cranberry agriculture community to develop a process for cranberry farms to be efficiently regulated under a county's floodplain ordinance.	1	Medium	FEMA	Many cranberry growers have not been getting permits for their activities in the mapped floodplain. Regulating their activities efficiently is beneficial to them and any potential impacts to the floodplain.	Unchanged.
3.21 – Maintain a burning permit process through which people are issued an annual permit but are required to check burning restrictions each day prior to burning debris.	1, 2	Medium		People will be required to check burning restrictions daily which will reduce the risk of fire.	Unchanged.

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
3.22 – Promote wildfire prevention and homeowner preparedness all year long throughout the state.	1, 2	Medium	WEM	Public education about fire prevention will help reduce the risk of fire.	Change this item from a focus on Fire Prevention Week to yearlong efforts.
3.23 – Create and maintain an interactive county map on the DNR website showing the current fire danger.	1, 2	Medium	WEM	Public access to the most current fire danger information will help reduce the risk of fire.	In 2017, a real-time wildfire occurrence map was added to the DNR website. In 2019, real-time prescribed fire occurrence was added. In 2021, current and historic wildfires and prescribed fires can now be viewed on a new Fire Management Dashboard. The dashboard features numerous map layers and data filters the user can select to view myriad combinations of wildfire and prescribed fire information.
3.24 – Promote the concept of Firewise Communities USA statewide.	1, 2, 4	Low	WEM, FEMA, USDA, State Fire Chiefs' Association	This program encourages action that minimizes home loss to wildfire and protects lives.	NFPA changed the program name from Firewise Communities USA to just Firewise USA. Neighborhoods joining the recognition program are now referred to as "sites" rather than "communities." There are currently 22 recognized Firewise sites in the state.
3.25 – Promote the creation of Community Wildfire Prevention Plans.	1, 3	Low	WEM	This provides an opportunity to address fire hazards along the wildland/urban interface.	There are 22 CWPPs in the state covering 37 communities-at-risk. Going forward, we will prioritize Firewise sites over CWPPs.
3.26 – Identify permanent fire mitigation projects that can be supplemented by ongoing temporary fire mitigation projects.	1, 4	Low	WEM	Permanent fire mitigation projects will help reduce the risk of fire.	The DNR is investigating the possibility of creating a Wildland Urban Interface Story Map. An updated and interactive Communities-at-Risk/Concern mapping feature will be included in this tool.
3.27 – Create a website template for storm response to assist private landowners with cleanup.	1, 2	Medium	WEM	Blowdowns or other debris-creating events increase the wildfire risk. Expediting cleanup will reduce the risk.	Unchanged. The template exists for when another large-scale storm occurs.

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
4.1 – Survey healthcare facilities for the use of NOAA weather radios and severe weather response plans to enable DHS and WEM to pursue funding for these activities.	1	High	WEM	This project further advances the goal of saving lives in severe weather events.	It is currently unknown if additional funding was acquired for this action item. Healthcare facilities can purchase weather radios as needed.
4.2 – Conduct public health hazard risk assessments at all local and tribal health departments throughout the state.	1, 4	High	CDC, WEM, WAHL DAB, EMS, HPP, local and tribal health departments	This will identify risks to health departments, allowing them to take action to reduce the risks.	Regional and county level hazard risk assessments are conducted on a yearly basis through the Healthcare Emergency readiness Coalitions. This is a federal requirement that includes input from Emergency Medical Services, public health, healthcare, and emergency management entities within the region.
4.3 – Chair the Health and Social Services Subcommittee of the Wisconsin Recovery Task Force (WRTF).	1, 4, 5	High	WEM, RPCs	The WRTF assists individuals, businesses, and communities in recovering quickly, safely, and with more resilience from future disasters.	Unchanged.
4.4 – Create extreme weather toolkits about preparing for and responding to emergencies in Wisconsin.	1, 2	High	CDC, WEM, local and tribal health departments	The toolkits educate local officials and the public about actions to take in a variety of extreme weather events. This knowledge will help people make good decisions and save lives and property.	Extreme weather toolkits are on the DHS website and one-page summaries for the toolkits have been available for public health and emergency management use. The flood and extreme heat toolkits have been translated into Spanish. The Wisconsin Climate and Health Program will be updating the materials to include additional best practices and health equity considerations.
4.5 – Develop heat vulnerability indexes (HVIs) for each county in Wisconsin and the whole state.	1, 2, 3	High	CDC, WEM, City of Milwaukee	The HVIs show areas most at risk from heat so local officials and the public can target messaging and take appropriate protective measures, saving lives and property.	HVI is online and there is a planned update when 2020 census data has been published.

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
4.6 – Develop flood vulnerability indexes (FVIs) to identify areas of greatest risk due to flood events in Wisconsin.	1, 2, 3	High	CDC, WEM, local and tribal health departments	The FVIs show areas most at risk during flood events so local officials and the public can target messaging and take appropriate protective measures, saving lives and property.	This project has gone through multiple iterations and is now known as the Wisconsin Risk Assessment Flood Tool (RAFT). The RAFT map to help local, regional, and state agencies prepare for and respond to floods.
4.7 – Develop a checklist for local health departments to assess their community’s vulnerability to negative health impacts due to flood events and provide tools to decrease vulnerability.	1, 3	High	CDC, WEM, local and tribal health departments	A checklist will allow local policy-makers and land use planners to understand their flood risk, and make good decisions. The tools will help them steer their communities toward increased flood resilience.	Improved the design and functionality of the Flood Resilience Scorecard. Built a database housing data for 31 flood resilience indicators for more than 600 Wisconsin municipalities. Developed public-facing data document and instruction manual to increase usability. Planned for outreach and assisted completion of the Flood Resilience Scorecard with approximately 30 municipalities, followed by an evaluation of the tool.
4.8 – Fund local health department pilot projects to increase the capacity to understand climate-related health impacts and incorporate climate adaptation strategies when planning.	1, 3	High	CDC, local health departments	Understanding the risk related to climate change will allow communities to plan appropriately for future conditions.	There has been no additional funding for more pilots available.
5.1 – Train municipal fire departments on the use of the National Fire Incident Reporting System (NFIRS) and work to collect information on all fire incidents in the state. Data collected is directly uploaded to FEMA and then used to develop new policies and laws for fire-safe construction.	1, 4, 5	High	State Fire Chiefs Association	Effective regulations for fire-safe construction will decrease fire hazards and losses.	Unchanged.

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
5.2 – Require all fire departments within the state to inspect existing commercial buildings annually and provide them guidance in doing so. Routine inspections are performed to ensure the existing building still meets its design-specific building code requirements.	1, 4, 5	High	State Fire Chiefs Association	Fire-safe buildings are at a lower risk of fire hazards and losses.	Unchanged.
5.3 – Provide for Administrative Code changes to adopt the 2011 edition of the National Electrical Code (NEC). The rule will affect any building or structure within the state in which electrical wiring will be installed.	1, 4, 5	High		Fire-safe installation of electric wiring decreases the risk of fire hazards and losses.	The 2017 NEC was adopted with an effective date of August 1, 2018.
5.4 – Adopt the 2009 editions of the national model codes from the International Code Council and the National Fire Protection Association.	1, 5	High		Constantly looking at ways to improve and incorporate mitigation actions into government legislation is a key to successful mitigation.	Wisconsin adopted the 2015 I-Codes, effective May 1, 2018. Although Wisconsin still uses its own codes, they are based on the I-codes, with some differences in the Uniform Dwelling Code and plumbing code (e.g. sprinkler requirements in the UDC). These differences, however, do impact the scoring that Wisconsin communities are able to receive in the BRIC national competition Technical Criteria, since the codes do not align with the 2015 IBC or later.
5.5 – Address the disaster resistance of manufactured homes by reviewing tie-down standards, installation standards, and inspection standards.	1, 5	Medium		Constantly looking at ways to improve and incorporate mitigation actions into government legislation is a key to successful mitigation.	An update to HUD 3285.402 was proposed in June 2020.

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
5.6 – Enforce the requirement to inspect structures and buildings when permitting construction projects to ensure compliance with state building codes. Municipalities can apply to become designated agents to enforce building codes.	1, 5	High		These safety inspections promote disaster resistance and ensure public safety.	Unchanged.
5.7 – Create and maintain a tracking system for all Privately Owned Wastewater Treatment Systems (POWTS).	1, 5	Medium		Having this information will aid in determining the status of POWTS systems following flood events.	DSPTS POWTS program offers a POWTS update via zoom on the 2 <sup>nd</sup> Tuesday of each month.
5.8 – Require carbon monoxide detectors in all existing residential occupancies with fuel burning appliances.	1, 5	Medium		This will protect occupants of residential occupancies against possible carbon monoxide leaks during the recovery period after a disaster.	Unchanged.
5.9 – Require the inspection of all electrical construction within commercial buildings through the statewide electrical inspection program.	1, 5	Medium		Ensuring all electrical wiring within commercial structures meets the minimum national code requirements will enhance building survivability and life safety in the event of a disaster.	Unchanged.
5.10 – Develop and implement rules requiring statewide electrical inspection for all buildings.	1, 5	Medium		This will ensure that wiring meets appropriate codes, reducing the risk of damages in a disaster.	Unchanged.
5.11 – Consider the adoption of the International Residential Code written by the International Code Council.	1, 5	Medium		Use of the International Residential Code would improve the level of construction of all one- and two-family homes within Wisconsin. This standard is proven to enhance the survivability of structures and the safety of occupants.	Unchanged. The Uniform Dwelling Code, is still being used.
6.1 – Distribute hazard mitigation materials to insurance companies, agents, and consumers to support the Wisconsin Hazard Mitigation Team in developing, establishing and implementing permanent and viable statewide mitigation programs.	1, 2, 4	Low		This will expand mitigation education in Wisconsin.	Unchanged.

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
6.2 – Investigate the possibility of increasing the emphasis on flood insurance in trainings and exams for insurance agent licensing.	1	Medium	WEM, DNR, FEMA	Having better knowledge of flood insurance will help insurance agents give customers the best information so customers will make the best insurance decisions, protecting their investments adequately.	Unchanged.
6.3 – Maintain and update flood and other hazard insurance information via the OCI website and press releases.	1, 2	High	WEM, DNR, FEMA	The OCI website is where many people get information from after a disaster. Having thorough, accurate, and up-to-date information is crucial for helping individuals obtain the appropriate insurance and file claims and complaints.	OCI has launched an outreach campaign called Stronger Wisconsin for consumers and industry stakeholders regarding climate resiliency efforts. A focus of this work is around flooding risk mitigation with includes continued support for getting flood insurance coverage for both homeowners and renters.
6.4 – After flood events distribute flood and homeowners insurance information in the affected areas. Be available at DRCs if FEMA Individual Assistance is granted.	1, 2, 4	High	WEM, DNR, FEMA	In post-disaster situations, insurance issues can be complicated. It will be beneficial to have OCI information and representatives available to help expedite the recovery.	New Action Item; OCI participated in a community outreach session for business owners in the Viroqua area in September 2018 to provide resources, distribute information and field questions after severe weather and flooding affected the area.

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6.5 – Develop and maintain post-disaster outreach procedures.	1, 2	Medium	WEM, DNR, FEMA	Procedures will help OCI respond quickly and efficiently after a disaster to provide insurance information to residents and insurance agents in impacted communities.	OCI attended a community outreach session in July 2018 in Sun Prairie following a large explosion in the downtown area to provide resources, distribute information and field questions from affected and concerned citizens. OCI participated in a community outreach session for business owners in the Viroqua area in September 2018 to provide resources, distribute information and field questions after severe weather and flooding affected the area. At the request of the Mayor of Kenosha, OCI attended a community outreach session in October 2020 in Kenosha following a several occurrences of civil unrest that caused significant property damage to provide resources, distribute information and field questions from affected and concerned citizens, and business owners.
7.1 – Encourage telecommunication utilities to obtain information about floodplains in advance of construction and avoid construction in these areas.	1, 5	Medium		Continuing oversight will help to keep telecommunications utilities focused on mitigation and will minimize service disruptions.	Unchanged.
7.2 – Perform hazard mitigation reviews for electric, natural gas, and water utility construction projects.	1, 5	High		Continuing oversight will help to keep utilities focused on mitigation and will minimize service disruptions.	Unchanged.
7.3 – Continue to educate the public about safety issues related to natural hazards at electric and natural gas utilities.	1, 2	High		Public education and outreach will be improved by this activity.	Unchanged.

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7.4 – Redundancy is built into the electric system so loss of any electric system element does not result in loss of load.	1	High		Having this redundancy will help prevent power loss which, depending on weather conditions, can have a moderate to severe impact on lives and property.	Unchanged,
7.5 – PSC regulates wind energy development and looks at alternatives for each project.	1	Medium		The top priorities are conservation and energy efficiency, and non-combustible, renewable resources. This addresses changing weather patterns.	Unchanged.
7.6 – State utilities must comply with a Renewable Portfolio Standard which requires about 10% of energy sales to come from renewable resources.	1	Medium		To address changing weather patterns, the state requires energy providers to meet the Renewable Portfolio Standard.	Unchanged,
8.1 – Present information about the DDA, PA, and HMA programs at the annual County Highway Association Commissioner training.	1, 2, 4	Medium	WEM	This will keep Highway Commissioners informed about the programs and keep mitigation involved in discussions of future highway projects.	Unchanged.
8.2 – DOT will coordinate with WEM to sponsor a workshop for DOT engineers, technicians, and other staff to review the components of post-disaster damage and mitigation programs.	1, 2, 4	Low	WEM, FEMA	Conferences, workshops, and trainings are ways to reach multiple agencies and citizens to advance mitigation knowledge.	<a href="#">Kathy Jennings</a> (608-261-8976) in the Bureau of Highway Maintenance at DOT has taken over the lead-worker role for this function. As she becomes more familiar with the programs, she plans on reviewing and developing/revising training materials as needed. These materials will be shared with new DOT region staff that work with these programs after they begin their new duties. If there are enough new staff at a particular time, BHM will schedule a training session for everyone including WEM and FHWA representatives.

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8.3 – As a disaster unfolds, send an email alert to DOT field staff reminding them to keep track of costs for possible reimbursement from the PA program and to keep in mind the possibility of assisting with Preliminary Damage Assessments.	1, 4	Medium	WEM	This will allow DOT to claim as much reimbursement as possible and prepare them for assisting with Preliminary Damage Assessments.	Unchanged,
8.4 – Present information about the Disaster Damage Aids program at WEM's annual DRRO workshop and at Applicant Briefings following a disaster.	1, 2, 4	High	WEM	The workshop and Applicant Briefings allow people who work in emergency management and/or whose communities were impacted by a disaster to learn about the programs available to help them recover and mitigate.	Unchanged.
8.5 – Co-chair the Infrastructure Subcommittee on the Wisconsin Recovery Task Force (WRTF).	1, 4, 5	High	WEM, RPCs	The WRTF assists individuals, businesses, and communities in recovering quickly, safely, and with more resilience from future disasters.	Unchanged,
8.6 – Perform a statewide culvert inventory to evaluate and prioritize which culverts on state roads should be replaced and/or upsized.	1, 5	High		Prioritizing culverts for replacement or upsizing means funds will be spent responsibly and areas in need of mitigation will be identified prior to construction.	DOT's culvert inventory is now available as a GIS application at the following link: <a href="https://data-wisdot.opendata.arcgis.com/maps/culvert-inventory-1">https://data-wisdot.opendata.arcgis.com/maps/culvert-inventory-1</a>
9.1 – Perform education, outreach, and planning for businesses for a variety of scenarios that could be caused by disasters.	1, 2	Medium		Making businesses aware of planned contingencies and options during major operational disruption can minimize human and economic loss.	Unchanged.
9.2 – Integrate hazard mitigation concepts into local extension programs for community development, lake and watershed management, farm management, and housing development.	1, 3	Medium	WEM, WCMP, DOA, DNR	The more efforts made to expand mitigation awareness and proper land management, the more damage prevention and preparation will occur within the state.	Unchanged.
10.1 – Administer the HMGP, FMA, and PDM programs.	1, 3, 5	High	WHMT, RPCs	WEM will continue to solicit applications for these funds in order to reduce property losses and save lives in Wisconsin caused by disasters.	PDM was replaced by the BRIC program in 2020. WEM has now administered over \$170 million in HMGP, FMA and PDM funds. WEM received about \$600,000 in planning and Capability & Capacity Building (C&CB) grants in the inaugural 2020 BRIC program.

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10.2 – Develop uniform guidance for providing replacement and supplemental housing assistance.	1, 4	Medium	DOA-DH, DNR	This will streamline the process of receiving replacement and/or supplemental housing assistance, making recovery quicker.	Wording of Action updated to reflect current HMA program guidance. WEM received the formal opinion and will draft guidance prior to the next plan update.
10.3 – Promote mitigation for the public using the WEM website.	1, 2, 3	High	DNR, DOA, WCMP, OCI, DHS, DATCP, RPCs	Public education and outreach will be improved by this activity.	Unchanged.
10.4 – Develop and document mitigation success stories. Publish them on the WEM website.	2, 4	High	FEMA	The goal in sharing success stories is to motivate communities to come up with solutions to better withstand the next disaster and prevent future damage.	Overall, WEM has administered over \$11 million in mitigation planning grants, and \$170 million in total mitigation funding. WEM hired GIS analysts to update loss avoidance studies and identify other opportunities to share success with interactive web-based tools. WEM Mitigation Staff is working with the DMA Public Affairs Office to re-do the Mitigation website so that success stories are more-interactive and play a bigger role in the website.
10.5 – Work with the OCI to promote public education about flood insurance during Flood Safety Awareness Week	1, 2, 4	High	OCI	Promoting flood insurance education will increase the number of policies which will in turn decrease losses from flood events.	Working with OCI to submit a grant application for outreach under HMGP.
10.6 – Create an online flood insurance education course for insurance agents.	1, 2	High	OCI	Agents will be able to encourage consumers to purchase flood insurance which will decrease losses from flood events.	Unchanged. FEMA Region V has been delivering weekly webinars in Fall 2021 on RiskRating 2.0 for insurance agents and officials. WEM has been promoting these trainings and has participated in several.

Action	Goal(s) Met	Priority	Supporting Agencies	Contribution to Mitigation Strategy	2021 Update Status
10.7 – Research the possibility of requiring all insurance agents to complete a course in flood insurance periodically.	1, 2	High	OCI	This will increase the promotion of flood insurance to consumers which will increase flood insurance participation, thereby decreasing losses from flood events.	Unchanged.
10.8 – Research and identify GIS resources that would assist WEM and local governments in developing their mitigation programs.	1, 3	High	RPCs	Ongoing mitigation efforts lessen the impact that disasters have on people's lives and property through damage prevention.	WEM contracted UW to conduct a statewide HAZUS-MH analysis for every county in the state as part of this plan update. WEM continues to conduct loss avoidance studies and pilot new Story Maps featuring local projects for use in local communities for outreach activities.
10.9 – Update the State Hazard Mitigation Plan to include technological and man-made hazards.	1, 3	High	WHMT	Identifying and subsequently mitigating man-made and technological disasters will be of benefit to the citizens of Wisconsin and reduce risk to property and life.	Continued the Risk Analysis/THIRA merge in this plan update. Working with the WEM Planning Section to identify ways to improve the technological and manmade hazards and try to better align THIRA with the WERP. Will continue to meet requirements for EMAP accreditation, which WEM is undergoing during this update.
10.10 – Incorporate mitigation into WEM's Strategic Plan and work with other agencies to do the same.	1, 3, 4	Medium	WHMT	Cooperation and communication between agencies and sharing of goals and priorities is one way to accomplish the strategy set forth in this document.	WEM completed its Strategic Plan and a new draft was presented to WEM Management in November 2011. The final draft will be presented in the Winter 2021 Division Meeting. The WEM Mitigation Section did not have additional areas of focus identified in the plan; however, intends to support the Recovery Section's efforts to engage the State with 406 mitigation outreach/education.

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10.11 – As local and tribal plans are completed, incorporate pertinent information into the State Hazard Mitigation Plan.	1, 3	High	WHMT	Providing an assessment of state and local hazard mitigation priorities ensures that efforts complement each other, and don't duplicate or conflict.	New analysis was included into Section 4 that focuses on hazard areas of focus in local/tribal planning efforts. This analysis was presented at the FEMA Region V Spring 2021 meeting.
10.12 – Develop a structure inventory and risk assessment for state-owned and -operated buildings.	1, 3, 5	High	DOA	A state structure inventory will inform hazard preparation for state-owned and -operated buildings.	WEM updated the Risk Assessment/THIRA with relevant information for this plan update. WEM is providing feedback to the DOA for suggestions on improving a state-structure mapping endeavor undertaken at DOA.
10.13 – Continue to lead the WHMT in establishing and implementing a statewide mitigation program.	1, 4	High		Interagency cooperation in expanding mitigation education in Wisconsin accomplishes several goals in the Mitigation Strategy.	Unchanged. WEM continues to lead the WSJHMT, although outreach/engagement has looked very different during and immediately following the COVID-19 Pandemic with meeting and travel restrictions, moving to virtual meeting/engagement.
10.14 – Encourage EM directors to work with LEPCs to participate in local hazard mitigation planning activities.	1, 3	Medium	RPCs	Mitigation planning at the local level is required by statute.	Unchanged.
10.15 – Promote use of FEMA's HAZUS hazard-analysis, GIS-based software.	1, 3	Medium	RPCs	With the addition of the flood and wind module, HAZUS-MH may provide Wisconsin with a hazard-specific analysis tool for estimating potential losses.	WEM contracted UW and the Polis Center at IUPUI to conduct an updated analysis for every county in the State as part of this update.

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10.16 – Identify pre-disaster mitigation techniques that can be funded through Section 406.	1, 4	Medium	FEMA, DOT, DOA, DNR, PSCW	Identifying techniques prior to a disaster will allow field staff to be properly trained to recognize opportunities for mitigation through Section 406.	WEM engaged with the new FEMA Region V 406 Mitigation team following DR-4459 and DR-4477, with enhanced engagement in DR-4477. WEM continues to identify the importance of 406 mitigation in the mitigation strategies for all disasters since the last plan update. WEM also sponsored training for Mitigation and Recovery staff on the BCA process and identifying/scoping 406 projects.
10.17 – Attend training and continue to build expertise in Benefit-Cost Analyses.	1, 4	High	FEMA	BCA is a required element of applying for mitigation funds.	WEM sponsored training for Mitigation and Recovery staff on the BCA process and identifying/scoping 406 projects. WEM Hazard Mitigation Section Supervisor presented for three separate national webinars on FEMA mitigation BCAs, the challenges associated with them, and how to overcome documentation requirements.
10.18 – Provide training and technical assistance to local governments and tribal organizations on FEMA’s e-grants system.	1, 4	Medium	FEMA	The e-grant process will be a required element for applying for FEMA’s mitigation funds.	WEM updated the Action to include FEMA’s new Grants Outcome, or FEMA GO, system. Since FEMA stopped using eGrants with the sunset of the PDM program, WEM continues to develop and deliver technical assistance for the new FEMA GO program, as well as supporting subrecipients in the 17, 18, and 19 PDM program that still use eGrants to manage their subawards.

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10.19 – Revise the Resource Guide to All-Hazards Mitigation Planning in Wisconsin and post it on the WEM and DOA websites.	1, 3, 4	High	DOA	The guide functions to assist local communities in mitigation and comprehensive planning efforts. It is outdated. An update will make it more useful and posting it on the websites will make it more accessible.	Unchanged. WEM delivered training in FFY18 and 19 cycles. WEM is developing a virtual training to support post-COVID-19 virtual learning platforms.
10.20 – Promote the purchase and use of NOAA weather radios.	1, 2	High		Reducing the threat to lives will be realized by the use of radios in private residences and in schools, critical facilities, and daycare centers.	Unchanged. WEM has funded additional 5% initiative grants for NOAA weather radios in DR-4343, DR-4459 and is considering several under DR-4520.
10.21 – Participate in conferences and give presentations to promote mitigation to local interest groups and associations.	1, 2, 3, 5	Medium	DNR, UW-Extension, WCMP, RPCs	WEM staff can reach local audiences and reinforce that mitigation planning and activities occur at the local level. More education can always be accomplished.	Unchanged. See Section 6 for more detail.
10.22 – Include the Hazard Mitigation Planning Workshop and the G-393 course in WEM's training curriculum and the EM certification program.	1, 3, 4	High	RPCs	This action enables mitigation measures through planning efforts.	The Planning Workshop was held once in 2017, 2018, and 2019. WEM Mitigation Staff had to cancel the 2020 workshop due to the COVID-19 pandemic and is working on pivoting the course to be a virtual delivery. The G-393 class was held once in 2017, 2018, 2019, and 2021. G-393 was also cancelled in 2020 due to the COVID-19 pandemic.
10.23 – Identify and develop GIS applications to be used as a mitigation tool.	1, 3, 4, 5	High	DNR, RPCs	This will help minimize damages.	The Mitigation Section hired two LTE GIS Analysis to focus on mitigation-specific projects. WEM has presented their products/tools and analyses at FEMA Regional meetings in 2020 and 2021.
10.24 – Work with Wisconsin universities to develop Disaster Resistant University Plans.	1, 3, 4	Medium		These plans will guide mitigation actions which help save lives and property.	UW-Superior participated in the City of Superior's planning process, starting in 2019. UW-Madison is currently participating in the Dane County planning process which is underway.

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10.25 – Maintain the Wisconsin Recovery Task Force as a standing task force.	1, 4, 5	High	WRTF	It is recommended that semi-annual meetings be held to ensure preparedness and facilitate effective operational readiness of the task force following a disaster declaration.	Unchanged. The WRTF was convened following the two disasters in 2018.
10.26 – Chair the Mitigation Subcommittee on the Wisconsin Recovery Task Force (WRTF).	1, 4, 5	High		The WRTF assists individuals, businesses, and communities in recovering quickly, safely, and with more resilience from future disasters.	Unchanged. The WRTF was convened following the two disasters in 2018.
10.27 – Develop, update, and implement a State Recovery Plan.	1, 4, 5	High	WRTF	Developing the plan before disaster strikes will allow impacted communities to recover more quickly.	The Recovery Plan is undergoing significant revisions after WEM hired a specific all-hazards recovery planner.
10.28 – Develop and deploy Rapid Assessment Strike Teams after disaster events.	1, 4, 5	High		Rapid, accurate damage assessments will expedite the disaster declaration process and allow recovery to begin as quickly as possible.	RASTs were deployed after AIA just-in-time training following DR-4402. WEM worked with AIA to capture lessons learned to improve future trainings.
10.29 – Incorporate Climate Resilient Mitigation Activities (CRMAs) into WEM's scoring system for pre-applications.	1, 5	High		Giving extra points for CRMAs will encourage development of that type of activity. It is a priority for FEMA.	Ranking/Scoring form changed to place more emphasis on climate change resiliency. Included in the Admin Plan for DR-4459 and beyond, after receiving approval from WSJHMT.
10.30 – Research ways to quantify resilience to changing future conditions to allow extra points for pre-applications that incorporate resilience.	1, 5	Medium		Giving extra points for activities that incorporate resilience will encourage development of that type of activity, but that is difficult to quantify, so figuring that out should come first.	Ranking/Scoring form changed to place more emphasis on climate change resiliency. Included in the Admin Plan for DR-4459 and beyond, after receiving approval from WSJHMT. New BRIC program pre-application changed to help communities emphasize this in their scope of work development
10.31 – Include information on planning for changing future conditions in the All-Hazards Mitigation Planning Workshop	3, 5	High		Providing information and resources about planning for changing future conditions will make it easier for communities to include that in their planning efforts.	WEM Mitigation working on updating curriculum since this is a point of emphasis in the BRIC program.

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10.32 – Include points for CRS participation in the Pre-Application Ranking Form.	1, 5	High		Including points for CRS participation will encourage communities to participate. The CRS credits flood risk management activities.	Ranking/Scoring form changed to include this. Included in the Admin Plan for all disasters including DR-4459 and beyond, after receiving approval from WSJHMT.
10.33 – Work with other agencies to prioritize watersheds for Flood Inundation Mapping efforts.	1, 2, 3	High		Flood inundation mapping is a very effective way to communicate risk. Prioritizing communities allows those with the highest flood risk to be completed first.	WEM has worked with additional communities via the DNR, USGS, and USACE.
10.34 – Consider updating WEM’s Local Plan Review Tool to include criteria on assessing changing future conditions and on the analysis of projects that reduce vulnerability to these conditions.	1, 2, 3	Medium		Including recommended criteria for changing future conditions may encourage communities to put it in their plan.	FEMA is releasing a new mitigation plan review guide and will incorporate this after the release of the new update. Expected in 2021.
11.1 – WHS is using GIS to identify and map locations of known historical and archaeological sites in floodplains.	1, 5	Medium	DOA, DNR	By decreasing the impact to these historical sites in the disaster recovery phase, preservation of Wisconsin’s historical and archeological areas will be secured.	Unchanged,
11.2 – Provide ongoing support and coordination with the WSJHMT in developing, establishing, and implementing a permanent and viable statewide mitigation program while protecting historical and cultural resources.	1, 4, 5	High	WEM, WSJHMT	Interagency cooperation in expanding mitigation education in Wisconsin accomplishes several goals in the Mitigation Strategy.	2021 the databases are now online. The Compliance database now streamlines the reviews online.
11.3 – Identify historic properties and structures in the floodplain to target for mitigation.	1, 5	Medium	WEM, DNR, FEMA	To preserve the historic nature of certain sites, creative mitigation should be pursued.	Unchanged.
11.4 – Provide technical assistance with mitigation projects through annual training.	1, 2, 4, 5	Medium	WEM, FEMA	All HMA projects must go through the environmental review process. Providing technical assistance and training will expedite this.	Unchanged.
11.5 – Develop a Programmatic Agreement for historic preservation and archaeological reviews.	1, 4	High	WEM, FEMA, tribes	A Programmatic Agreement will allow for expedited reviews and quicker project approval and completion.	Unchanged,

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12.1 – Achieve near 100% NOAA weather radio tower coverage in the state.	1, 2	High	WEM	This action will help protect people during severe weather events.	No new towers added as there is nearly 100% coverage.
12.2 – Implement the Storm Spotter program and continue to recruit and educate new Storm Spotters.	1, 2	High	WEM	Storm Spotters allow the NWS to know what's going on on the ground so they can issue the proper alerts and warnings.	Recruitment for the NWS storm spotter program continues. Due to COVID, the past two years of training sessions have all been offered online with no in-person option. Normally, half of the attendees are new spotters and the other half are spotters wanting a refresher training.
12.3 – Implement the StormReady program and continue to recruit and educate new agencies.	1, 2, 4	High	WEM	The StormReady program encourages communities and organizations to be prepared for hazardous weather.	There currently are 29 StormReady Sites and 31 StormReady Supporters.
12.4 – Implement the Weather Ready Nation Ambassador program and continue to recruit and educate new Ambassadors.	1, 2, 4	High	WEM	Weather Ready Nation Ambassadors improve the nation's readiness, responsiveness, and resilience to extreme weather.	Continue to recruit new ambassadors throughout the state. We are targeting some non-typical weather partners to become ambassadors and help us spread the word of hazardous weather.
12.5 – Educate the public through a variety of weather and natural hazard awareness days and weeks each year.	2	High	WEM	Educating the public about severe weather and natural hazards better prepares them for when events occur.	No changes to the awareness week/day program. Main update to the Tornado Drill day is that we are no longer doing a live code test of the Tornado Warning.
13.1 – Develop and maintain an economic recovery framework to help businesses recover following a disaster.	1, 2, 4	Medium	DOA-DH, WEM	This will hasten business recovery, thereby minimizing losses.	Unchanged.
13.2 – Target business-related mitigation materials to Wisconsin businesses, especially in vulnerable areas.	1, 2	Medium		This action is further advancing the goal of saving lives and reducing damage in severe weather events.	Unchanged.
13.3 – Chair the Business Subcommittee on the Wisconsin Recovery Task Force (WRTF).	1, 4, 5	High		The WRTF assists individuals, businesses, and communities in recovering quickly, safely, and with more resilience from future disasters.	Unchanged.

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13.4 – Develop a Memorandum of Understanding regarding the provision of technical assistance when dispensing disaster funds to businesses.	1	Medium	DOA	Having an agreement in place prior to a disaster will expedite the disbursement of funds and overall recovery.	Unchanged.
13-5 Continue to work with WEDC's Nine regional organizations to administer the Disaster Recovery Microloan Program.	1, 2, 4	High	Regional Economic Development Organizations	These microloans are funded by regional grants to help ensure that the impacts of disasters do not disrupt local economies, so that individuals and communities may more effectively recover from disaster events.	New action item.
14.1 – Provide incentives when grant proposals address hazards with appropriate mitigation measures.	1, 4, 5	High		State funded mitigation grant proposals can only benefit the residents of Wisconsin and further the goals in the State Mitigation Plan.	
14.2 – Seek out opportunities to sponsor low-cost hazard mitigation demonstration projects.	1, 2, 4, 5	Medium		Implementing mitigation demonstration projects sets an example to all communities that mitigation clearly reduces damage.	