

SECTION 4: LOCAL HAZARD MITIGATION PLANNING

The Mitigation staff at Wisconsin Emergency Management (WEM) works with counties and local jurisdictions to encourage and support all-hazards mitigation planning since publication of the hazard mitigation planning regulations (44 CFR Parts 201 and 206) in the Federal Register dated February 26, 2002. On July 1, 2008, the Final Rule was published to include local mitigation plan update requirements and the Tribal Multi-Hazard Mitigation Planning Guidance (44 CFR 201.7). The updated local and tribal guidance was designed for three major objectives:

1. To help local jurisdictions develop and adopt new mitigation plans or revise existing mitigation plans to meet the requirements of 44 CFR Part 201;
2. To help federal and state reviewers evaluate mitigation plans from different jurisdictions in a fair and consistent manner; and
3. To help local jurisdictions conduct comprehensive reviews and prepare updates to their plans to meet the requirements of 44 CFR Part 201.

On October 31, 2007, FEMA published amendments to the 44 CFR Part 201 and 72 Federal Register 61720 to incorporate mitigation planning requirements for the Flood Mitigation Assistance (FMA) program. The amendments impacted 44 CFR §201.6, Local Mitigation Plans, as follows:

1. Combined the Local Mitigation Plan requirement for all Hazard Mitigation Assistance programs under 44 CFR §201.6 to include the FMA program as well as the HMGP and PDM programs, thus eliminating duplicative mitigation plan regulations;
2. Incorporated the requirement for communities with National Flood Insurance Program (NFIP) insured properties that have been repetitively damaged from floods to address such properties in their risk assessment and mitigation strategy; and,
3. Incorporated the requirement for communities that participate in the NFIP to include a strategy for continued compliance with the NFIP.

As of October 1, 2008, these three amendments must be included in the DMA2K plans to be FEMA approved.

4.1 Funding of Local Planning Efforts

The State of Wisconsin has been very successful in securing hazard mitigation planning funds, especially through the PDM program and the HMGP. With 11 federally-recognized Tribal Nations and 72 counties updating plans on a five-year cycle, approximately 16 tribal and countywide plans must be updated annually. That number does not include municipal, or university plans, which have also been funded through the state in the past.

In Wisconsin there are 1,850 municipalities (585 cities and villages, and 1,265 towns). Due to the large number of municipalities, limited funds available for planning, and personnel limitations,

WEM has determined that tribal and countywide mitigation plans should be encouraged and will receive priority in funding decisions. The countywide plan refers to the hazard mitigation plan for the county and includes all the incorporated and unincorporated areas of the county, unless otherwise stated. It may also include other public agencies or non-profits, like school districts or rural electric cooperatives. Any municipality within a county may prepare a mitigation plan specific to that municipality, separate from the countywide mitigation plan. Municipal plans may be funded in extraordinary circumstances depending on the availability of funds.

As a result of amendments made by the Disaster Relief and Recovery Act of 2018, the Pre-Disaster Mitigation program (PDM) was replaced by the Building Resilient Infrastructure and Communities (BRIC) program. The 2020 Fiscal Year for BRIC closed on January 29, 2021 and 13 subapplicants were selected for further review of the 32 total applicants from Wisconsin. Even though PDM ceased to fund grants after the 2019 cycle, it did fund many planning updates from 2016 to 2019:

- 2016 PDM cycle funded 11 planning grants
- 2017 PDM cycle funded 19 planning grants
- 2018 PDM cycle funded two planning grants
- 2019 PDM cycle funded six planning grants

Tribal Nations can apply directly to FEMA for BRIC planning funds without the applications counting toward the state limit. This can be done using FEMA Grants Outcomes (FEMA GO), which is a system that allows users to apply, track, and manage all disaster and non-disaster grants. WEM encourages all Tribal Nations to do this, because there is available for greater amounts of funding to manage any grants awarded, while WEM commits to offer the same level of technical assistance to direct applicants as to subapplicants who apply to the program through the state.

DMA2K also authorized 7% of HMGP funds to be used for developing and updating mitigation plans. Depending on the size of a disaster, that can mean funding for dozens of plans or only a few. Because of the unpredictable nature of disasters, HMGP funding for local plans cannot be relied on, but is fully utilized when available. Based on the amount of funding available, since the previous State Plan update in 2016, WEM has applied for \$1.2 million in planning grants across federal declarations DR-4288, DR-4343, DR-4383, DR-4402, DR-4459, and DR-4477, accounting for 20 planning grants. WEM is in the process of soliciting additional planning subapplications under DR-4520, which had funding made available in August 2021, although it is not yet obligated at the time of writing the plan.

All 72 counties in Wisconsin have completed or are developing all-hazards mitigation plans as of October 2021. Additionally, ten of the 11 tribal governments in the state, seven municipalities, and two universities have current mitigation plans or are developing them.

The FMA program can also be used to fund flood-only mitigation plans. A number of plans were funded under this program between 1996 and 2006, but currently the state only funds all-hazards local and tribal mitigation plans, so FMA planning funds are no longer utilized.

Appendix C lists the FMA, PDM, and HMGP subawards funded in the state, separated into plans and projects. The tables list the funding source, subrecipient, and dollar amount of the subawards.

Figure 4.1-1 shows the planning status of all counties in Wisconsin as of October 2021. Tribal plans are listed at the bottom.

4.2 Hazard Mitigation Planning Program Process

In 2021, almost all counties and Tribal Nations in the State of Wisconsin have completed initial plan development. In addition, all counties and Tribal Nations with expired plans and many with approved plans are in the five-year plan update process.

WEM gives funding priority to those communities that have yet to develop a plan and/or are in a county included in the most recent federal disaster declaration. Additional priority is given to counties with plans expiring in the next two years. The ranking and prioritization of grant applications is based on the following criteria:

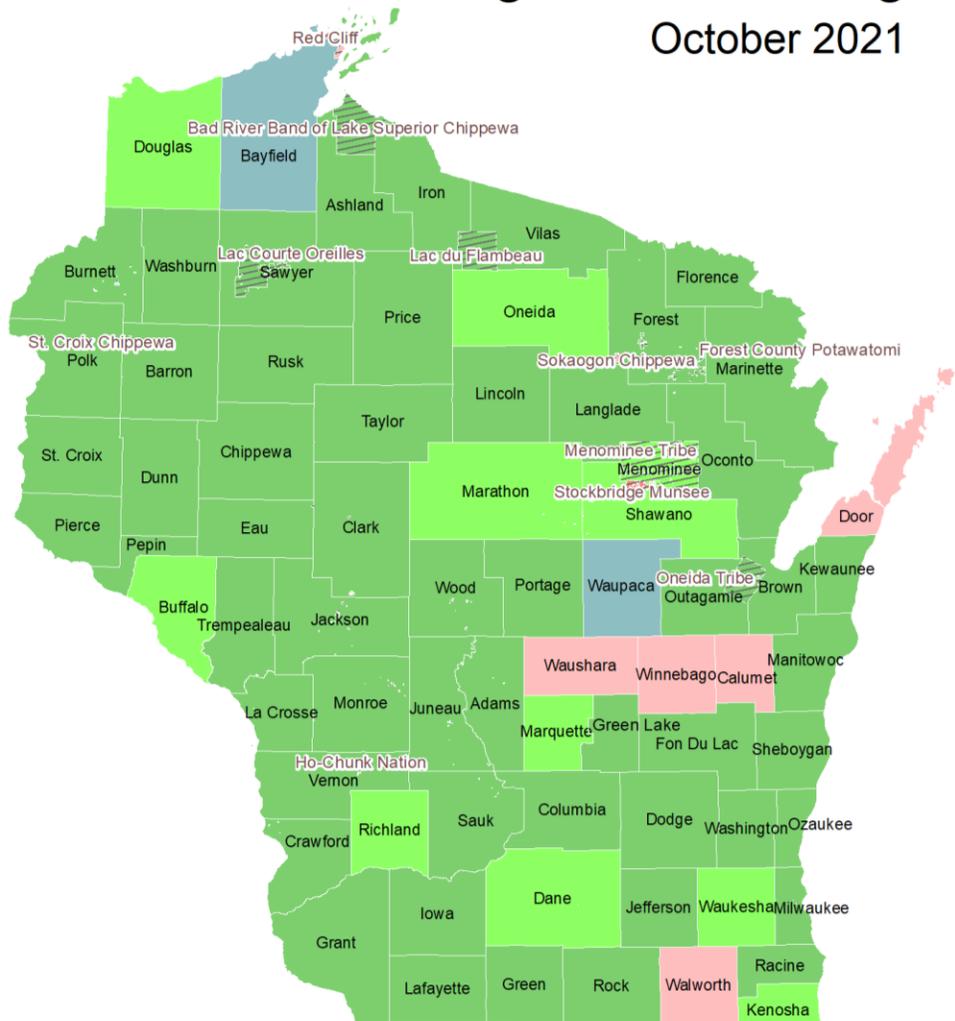
- Does not have a plan
- Plan expiration date (e.g. plans that expire soonest receive highest priority)
- Is the community eligible for increased cost share due to various metrics related to social-vulnerability and small population?
- Is the subapplicant located in a disaster-declared area?
- Geographic and political areas to be covered in the plan
- Population to be covered by the planning area
- Expected benefits of the planning process
- Description of the hazards to be included
- Budget and local share secured
- Reasonable work schedule
- Description of the planning process
- Reference maps attached
- Description of the problems
- Other community planning initiatives

The above criteria apply to BRIC and HMGP planning grant applications.

Figure 4.1-1: Local Mitigation Plan Status, October 2021

Local Hazard Mitigation Planning

October 2021



Status Legend	
	No Active Planning
	Approved - Updating
	Planning for the First Time
	Expired - Updating
	Meets Requirements
	Expired - Not Updating
	Approved

Tribal Statuses	
	St. Croix Chippewa
	Bad River
	Lac Courte Oreilles
	Lac de Flambeau
	Forest County Potawatomi
	Oneida Tribe
	Menominee
	Red Cliff
	Sokaogon Chippewa
	Stockbridge-Munsee
	Ho-Chunk Nation



Data Sources: U.S. Census Bureau 2014 American Indian/Alaska Native/Native Hawaiian Areas Shapefile
 Geodata@Wisconsin Wisconsin County Boundaries 2015 Shapefile

The mitigation plan can be a separate, stand-alone plan or part of a comprehensive plan. In addition, plan participation can be tribal, municipal, countywide, or other multi-jurisdictional such as by region or watershed. Some counties may develop their hazard mitigation plan as an annex to their Emergency Operations Plan.

WEM works closely with the local governments to provide technical assistance in plan development. Draft mitigation plans and completed Plan Review Tools are submitted to WEM Mitigation staff for review and comment. Based on the criteria and guidance, review comments are provided to the community. The review ensures that each plan meets the requirements of 44 CFR Part 201, complies with existing federal and state policies and regulations, and complements the State of Wisconsin Hazard Mitigation Plan and state mitigation priorities.

Plans are reviewed on a first-come, first-served basis with every effort to complete the review within 45 days of submission. Since WEM has a Program Administration by States (PAS) agreement in place with FEMA Region V, WEM reviews local plans to see that they meet the required criteria and submits the plan and the review crosswalk tool to FEMA Region V, stating that the plan meets requirements. FEMA Region V will conduct a thorough review on approximately 20% of the plans submitted to them. FEMA and WEM issue conditional approval letters to the subrecipient, alerting them that the county and participating jurisdictions can formally adopt the plan. This expedited process is because of the PAS agreement. In the event this agreement expires, FEMA Region V will conduct a review on all of the plans submitted.

Future mitigation projects and initiatives are based on those identified in the local hazard mitigation plans. Jurisdictions are allowed the flexibility to add and remove established mitigation projects as priorities, funding, and situations change. The ongoing mitigation strategy review process is vital for the state and local governments.

4.3 Technical Resources

WEM Mitigation staff provides ongoing support through technical assistance and guidance to tribes, counties, and communities developing or updating all-hazards mitigation plans.

Assistance provided includes, but is not limited to:

- Meeting with communities to review mitigation planning requirements.
- Conducting annual All-Hazards Mitigation Planning Workshops for communities and consultants developing or updating hazard mitigation plans. Since the 2004 plan, workshops have been held at least annually for a total of 22 general workshops and one tribal workshop. Class attendees receive all class and supplemental information in a binder and on a CD. In addition, the information is posted to WEM's Hazard Mitigation website.
- Conducting FEMA's G-393 Introduction to Mitigation for Emergency Managers course at least annually. It has been held seven times since 2011. It is a three-day course that looks at the mitigation planning process in great detail.

- Providing written and oral guidance. All communities developing or updating mitigation plans are provided a copy of the Resource Guide to All Hazards Mitigation Planning; the FEMA State and Local Hazard Mitigation Planning How-to-Guides; FEMA's Local Mitigation Planning Handbook, Plan Review Guide, and Plan Review Tool; and FEMA's Tribal Multi-Hazard Mitigation Planning Guidance as well as other planning documents.
- Delivering technical assistance through reviewing sections of plans under development and providing feedback.
- Relaying relevant information obtained from FEMA.
- Identifying information sources available through state and federal agencies, locally and nationally.
- Interpreting state and federal guidelines.
- Distributing planning best practices examples and making approved plans available.
- Providing information via WEM's website. The website provides:
 - Local Hazard Mitigation link:
 - Resource guides and tools for developing local all-hazards mitigation plans
 - Approved local hazard mitigation plans
 - Guidance and crosswalk
 - State Risks and Hazard Mitigation link:
 - Information on the hazards that impact the state
 - Repetitive loss information
 - State Hazard Mitigation Plan
- Writing and distributing via email planning updates to provide local governments with the latest information, guidance, and suggestions related to hazard mitigation planning.
- Providing information on repetitive loss properties and NFIP claim information as well as disaster payments for the community.
- Promoting all-hazards mitigation planning at various WEM trainings such as:
 - New Directors Series
 - Introduction to Emergency Management
 - Disaster Response and Recovery Operations Workshop
 - Pre-conference training session at the Governor's Conference
 - Local damage assessment classes
- Informing Wisconsin Association of Floodplain, Stormwater, and Coastal Managers membership on all-hazards mitigation programs and planning through the newsletter and annual conference.
- Writing hazard mitigation planning articles in various newsletters like the DNR Floodplain quarterly newsletter.

Publications

To assist communities in developing flood mitigation plans, in 1995 the Department of Natural Resources developed the Wisconsin Community Flood Mitigation Planning Guidebook. In addition to the guidebook, WEM developed additional planning guidance to meet FMA planning requirements.

In 2002 FEMA provided a grant to the states to assist in preparing for and developing processes and procedures for implementing the Pre-Disaster Mitigation (PDM) program. The state contracted with the Council of Regional Planning Commissions (now the Association of Wisconsin Regional Planning Commissions) to develop local mitigation planning guidance. The *Resource Guide to All Hazards Mitigation Planning in Wisconsin* was completed and has been widely distributed at planning workshops and upon request.

One of the mitigation action items of Wisconsin Emergency Management listed in the 2011 and 2016 State of Wisconsin Hazard Mitigation Plan is to update the 2003 *Resource Guide to All Hazards Mitigation Planning in Wisconsin* to include new planning regulations, guidance, and data sources.

4.4 State, Tribal, and Local Hazard Mitigation Planning

4.4.3 Process for State, Tribal, and Local Planning Coordination

As tribal and local plans are developed or updated and submitted to the state for review, WEM Mitigation staff read through the tribal/local mitigation goals and ensure that they align with state mitigation priorities. While it is not required that tribal/local goals exactly match the state's mitigation priorities, it is important for consistent mitigation program delivery and maximizing funding opportunities that they do not conflict. If a conflict was discovered, WEM Mitigation staff would work directly with the community in question to learn what influenced the community to select the conflicting goal or goals and whether the state's mitigation priorities should be re-evaluated based on new information.

Tribal and local mitigation actions are also reviewed to ensure compliance with the National Flood Insurance Program, if applicable, and to confirm they target the areas and hazards identified as having the highest potential losses in the tribal/local risk assessment. Each time a Hazard Mitigation Assistance grant application period opens (annually for the BRIC and FMA programs, following a disaster for the HMGP) and for each update of the state HMGP Administrative Plan and Hazard Mitigation Plan, the state's priorities are re-evaluated by WEM Mitigation staff and the Wisconsin Silver Jackets Hazard Mitigation Team. This is done to ensure that the priorities of the state match with tribal and local priorities and the projects they feel are important to implement.

In the annual All-Hazards Mitigation Planning Workshop and other courses and materials, the state's mitigation goals and priorities are shared with tribes and local communities. This allows them to ensure their goals and strategies complement the state's and to discuss any questions or concerns they have about the state's mitigation program. Additionally, the statewide risk assessment (Appendix A), is promoted as a tool for the tribes and local communities to use

when completing their risk assessments. Because the tribal and local risk assessments target relatively small areas of the state, most of the information is not appropriate for inclusion in the statewide risk assessment. However, certain areas of the state have higher populations, higher risks, or unique conditions that may warrant more in-depth coverage in the statewide risk assessment. For those areas, specific information may be extracted from local risk assessments for inclusion in the state plan.

Additionally, as plans are reviewed, WEM Mitigation staff look for best practices and trends. The best practices are distributed in the annual All-Hazards Mitigation Planning Workshop and upon request. The trends are monitored and noted for potential discussion in upcoming workshops and inclusion in the State Plan. In the five years since the previous plan update, it was noted that climate change was seen in tribal and local plans more and more often. That along with FEMA's new requirement to include climate change in state plans, prompted WEM Mitigation staff to look more closely at climate change both in tribal and local plans and for inclusion the state plan (see Appendix A, Threat Hazard Identification and Risk Assessment).

4.4.2 Climate Change in the State Plan

There has been a documented change in weather patterns over time in Wisconsin. Mean annual temperatures have increased over the last 50 years and more high magnitude precipitation events are occurring. It is also likely that the state will see more extreme weather events.¹ Section 3.1 of Appendix A, Threat Hazard Impacts and Risk Assessment (THIRA), further discusses national and statewide climate change projections and mitigation potential. Because a change in climate has the propensity to affect the severity and extent of the natural hazards addressed in the THIRA, the potential impacts of climate change are addressed in each natural hazard section.

As a state-level agency, WEM does not do brick-and-mortar mitigation projects; that is a local responsibility. However, WEM has the opportunity to influence and encourage local mitigation efforts through training, technical assistance, and resource allocation. To reflect this, WEM included action items in the Mitigation Strategy in Section 3 of the Plan that focused on enhancing the way that climate change and resiliency are incorporated into planning, grant funding decisions, and training available:

- Incorporating information on planning for future conditions into trainings
- Incorporating Climate Resilient Mitigation Activities into the scoring system for project applications
- Updating WEM's local mitigation plan review document to include criteria on the assessment of changing future conditions, including weather patterns

¹ Wisconsin Initiative on Climate Change Impacts report, http://www.wicci.wisc.edu/report/2011_WICCI-Report.pdf, 2011.

4.4.3 Climate Change in Local Plans

WEM Mitigation staff looked at all approved local and tribal plans from 2015 through 2021 and all plans in process for which a draft has been submitted. Only one plan was evaluated for each county, tribe, municipality, or university, so for plans in process, the current draft was evaluated and the previous plan was not. Of the 80 total plans evaluated, 71 were countywide plans, seven were tribal plans, two were municipal plans, and one was a university plan.

The tables in Figures 4.4.3-1 and 4.4.3-2 show the breakdown of plans by year and type, respectively, in relation to whether they included climate change. There are three categories: plans with no mention of climate change; plans that mentioned climate change only in passing, possibly in relation to how it may affect one hazard in the future; and plans that fully addressed climate change. The Percent Including Climate Change was calculated as those plans that mention climate change and those that fully discuss climate change divided by the total plans in that category. The decision was made to do this because communities that mention climate change are at least thinking about it and have the opportunity to address it more fully in future plan updates.

Figure 4.4.3-1: Inclusion of Climate Change in Local Plans by Year of Approval

	2015	2016	2017	2018	2019	2020	2021	In Process
No Climate Change	12	5	7	4	4	8	1	0
Mentions Climate Change	0	1	1	2	1	3	1	0
Fully Addresses Climate Change	3	4	10	6	6	9	3	5
TOTAL	15	10	18	12	11	20	5	5
Percent Including Climate Change by Year of Approval	20.0%	50.0%	61.1%	66.7%	63.6%	60.0%	80.0%	100.0%

Figure 4.4.3-2: Inclusion of Climate Change in Local Plans by Type of Jurisdiction

	Counties	Tribes	Municipalities	Universities	TOTAL
No Climate Change	26	3	0	0	29
Mentions Climate Change	8	1	0	0	9
Fully Addresses Climate Change	37	3	2	1	42
TOTAL	71	7	2	1	80
Percent Including Climate Change	63.4%	57.1%	100.0%	100.0%	63.8%

From 2012 to the 2021, local and tribal plans in Wisconsin have increasingly been incorporating climate change. As of 2021, 63.8% of approved plans and plans in process either mention or fully address climate change.

Common themes among the plans that mentioned and fully addressed climate change were discussions of probability, impacts to the community, and impacts to other hazards, including discussions of hazards becoming more severe and frequent in the future.

Figure 4.4.3-3: Local Plans and Climate Change, March 2021

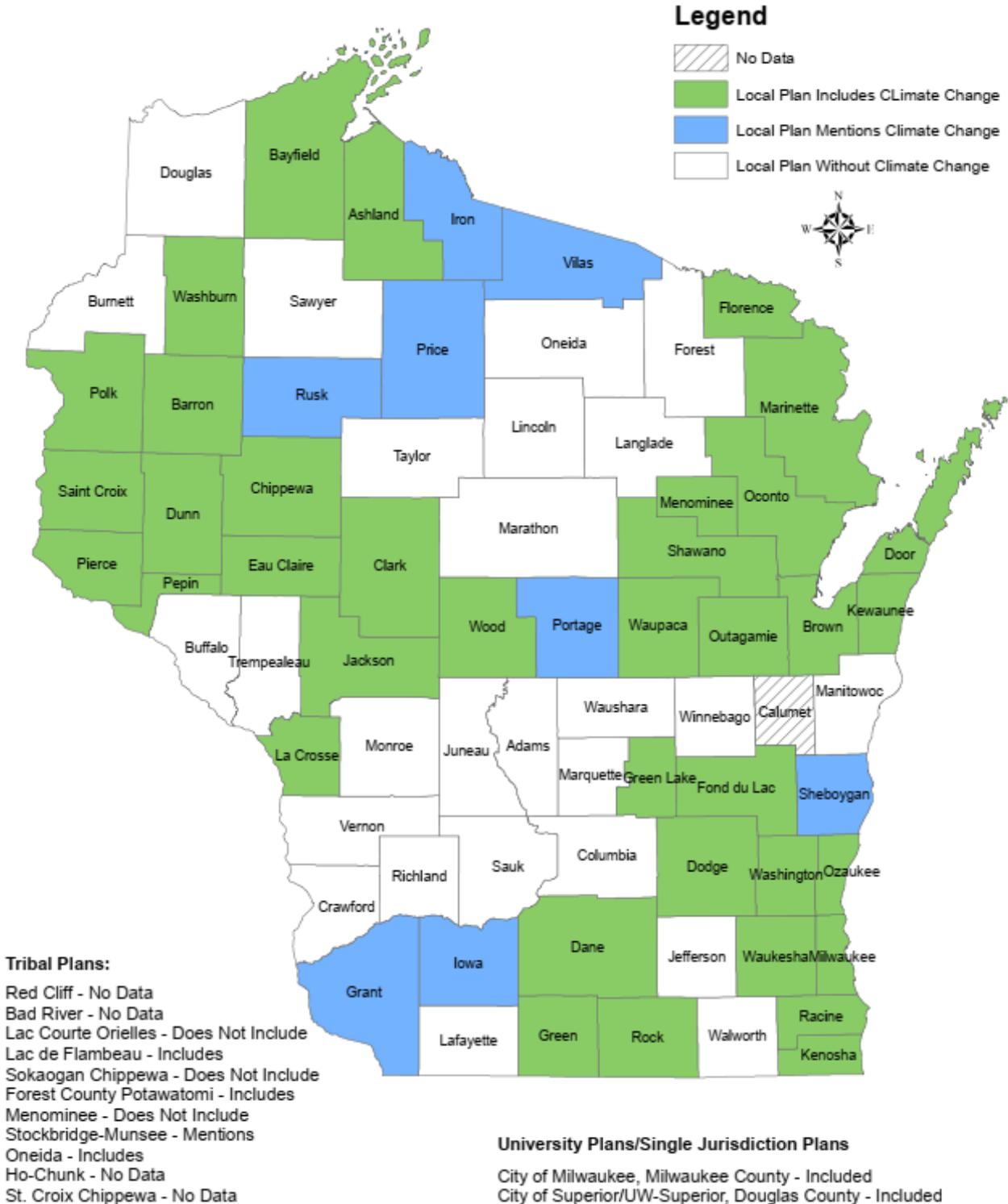


Figure 4.4.3-3 shows which communities have fully included, mentioned, and not included climate change in their local mitigation plans. 63% of county hazard mitigation plans mention or address climate change. The major population centers and areas of the state experiencing the most growth (Brown County, Madison/Dane County, southeast counties, St. Croix County, Eau Claire County) are covered by mitigation plans that include climate change.

Many communities around the state are engaging in other planning and activities in preparation for climate change:

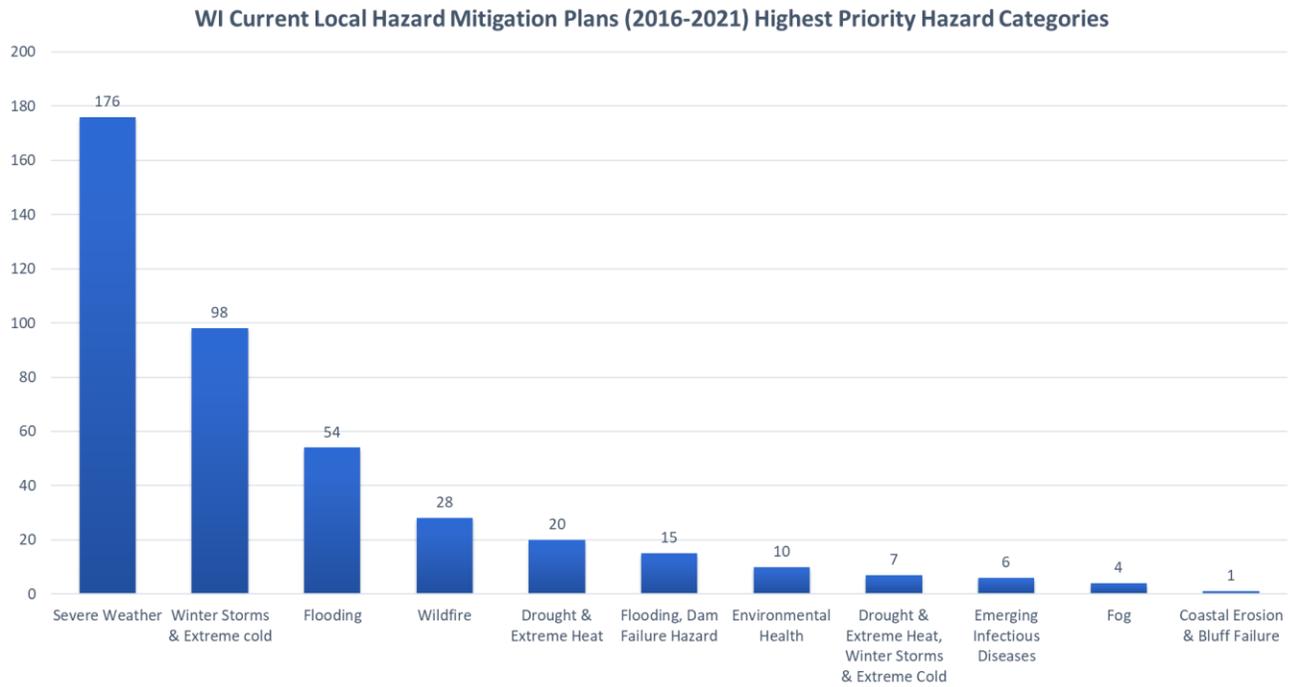
- According to the Environmental Collaboration Office (ECO) in the City of Milwaukee, the Milwaukee Health Department (MHD) was awarded a grant from the Public Health Institute, with funding from the Kresge Foundation, to enhance regional awareness of climate change mitigation, adaptation, and resilience activities. MHD and ECO partnered with Reflo – Sustainable Water Solutions to implement projects that simultaneously address climate change adaptation and promotes community health and health equity through sustainably improving food security and decreasing storm-water runoff.
- The City of Eau Claire adopted a Renewable Energy Action Plan (REAP) in February 2020 to help meet the City’s goals of carbon neutrality and 100% renewable energy by 2050. Strategies in the plan include direct action on programs, policies, and land use decisions; community-led campaigns to change individual behavior; and engagement with partners such as energy utilities to work across jurisdictions and solve shared challenges.
- In 2020, the Dane County Office of Energy and Climate Change published their own Climate Action Plan (CAP) titled “Today’s Opportunity for a Better Tomorrow: 2020 Dane County Climate Action Plan.” The CAP highlights climate goals for Dane County, as well as the programs, policies, and projects that enable the county to meet those goals.

The trend toward including climate change in local plans parallels the direction of the state plan. WEM Mitigation staff will continue to look for ways to inform and support local communities in their planning efforts and will work with communities to understand their concerns and challenges in planning for and implementing long-term, cost-effective mitigation measures.

4.4.4 Local Plan Hazard Rankings

In early 2021, with the goal of seeing commonalities or patterns among local plans, WEM mitigation staff analyzed approved county and tribal hazard mitigation plans for trends in Risk Assessment hazard priority rankings. Staff recorded the top five natural hazards in each plan’s hazard priority ranking in the most current plans from 2016-2021. While this data documents the top five hazards for county and tribal plans, most plans list about 10 or more hazards in their hazard matrices. Natural hazards were grouped into categories based on the State of Wisconsin THIRA for easier analysis. WEM staff queried the data in a Microsoft Access database to summarize the hazard rankings. The bar graph in figure 4.4.4-1 shows the number of times each hazard category was listed among the top 5 priorities in all current plans from 2016-2021. The most common hazard was Severe Weather, followed by Winter Storms & Extreme Cold, and Flooding.

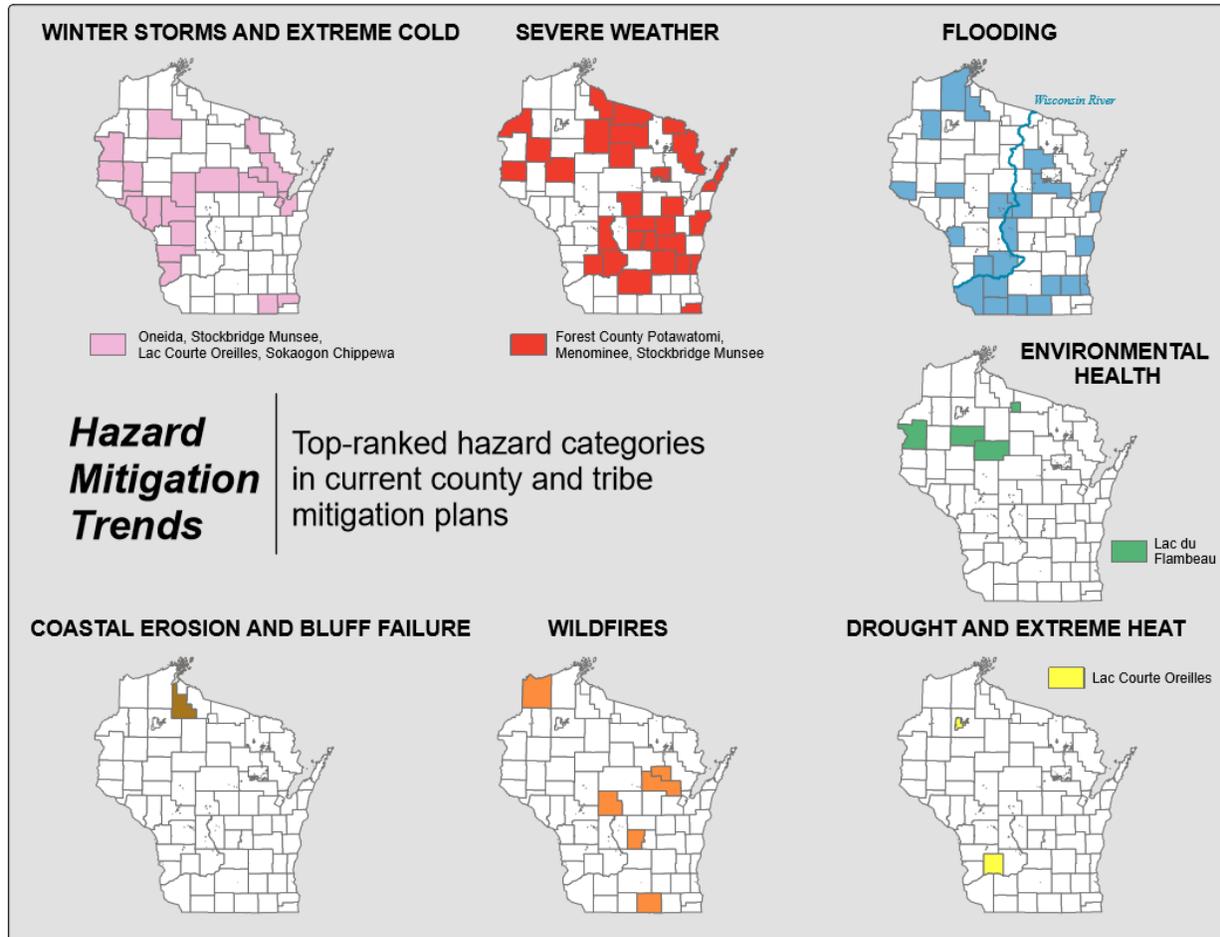
Figure 4.4.4-1 Occurrence of hazard categories top 5 hazard rankings in local plans



Source: WEM

Figure 4.4.4-2 shows the top-ranked hazard categories among local hazard mitigation plans. Some county and tribal plans had ties for the number one ranked hazard and are represented multiple times in figure 4.4.4-2.

Figure 4.4.4-2 Top-ranked hazard categories in local plans 2016-2021



Source: WEM

These hazard ranking findings show that the top concerns included in risk assessments in Wisconsin include severe weather, flooding, and winter storms and extreme cold. However, wildfires, drought and extreme heat, coastal erosion, and bluff failure, and environmental health (hazards such as invasive species, water quality) are also top hazards in parts of the state. While the figures in this section highlight the top ranked hazards in local mitigation plans, this data does not tell the full story of risk assessments in local plans. Communities may have small margins between hazard rankings including those ranked just below the top five rankings. Additionally, the numeric rankings only describe one aspect of hazards included in local plan risk assessments.