

## **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 tribes 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.

Funding for the PDM program has been unstable in recent years. Because of a decrease in available funds, in 2013 each state was allowed to submit only five subapplications. In 2014 and 2015, each state could submit ten, and in 2016, it was increased to 18. This presents challenges in funding all countywide plan updates in the state. Tribes can apply directly to FEMA for PDM planning funds without the applications counting toward the state limit. WEM encourages tribes to do this, remaining committed to offering the same level of technical assistance to direct applicants as to subapplicants who apply to the program through the state.

With PDM planning grants were awarded in 2011-2016 as follows:

- 2011 PDM cycle funded seven planning grants
- 2012 PDM cycle was not used because there was a large disaster declaration, so the HMGP was used to fund all planning grants with impending expiration dates
- 2013 PDM cycle funded five planning grants
- 2014 PDM cycle funded ten planning grants
- 2015 PDM cycle funded nine planning grants (and one project to round out the ten allowable subapplications)
- 2016 PDM cycle had 11 planning grants applied for; to date all 11 have been selected for further review and requests for information completed (two projects were also submitted and selected for further review)

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 will be fully utilized when available. Based on the amount of funding available, since the previous State Plan update in 2011, WEM has utilized 7% HMGP planning funds under federal declarations 1933-DR, 1944-DR, 1966-DR, 4076-DR, and 4141-DR to fund another 29 local and tribal plans. WEM has also received eight planning subapplications for 4276-DR, declared in August 2016 and will be soliciting for additional planning subapplications under 4288-DR, declared in October 2016.

All 72 counties in Wisconsin have completed or are developing all-hazards mitigation plans as of November 2016. 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 November 2016. Tribal, municipal, and university plans are listed at the bottom.

## **4.2 Hazard Mitigation Planning Program Process**

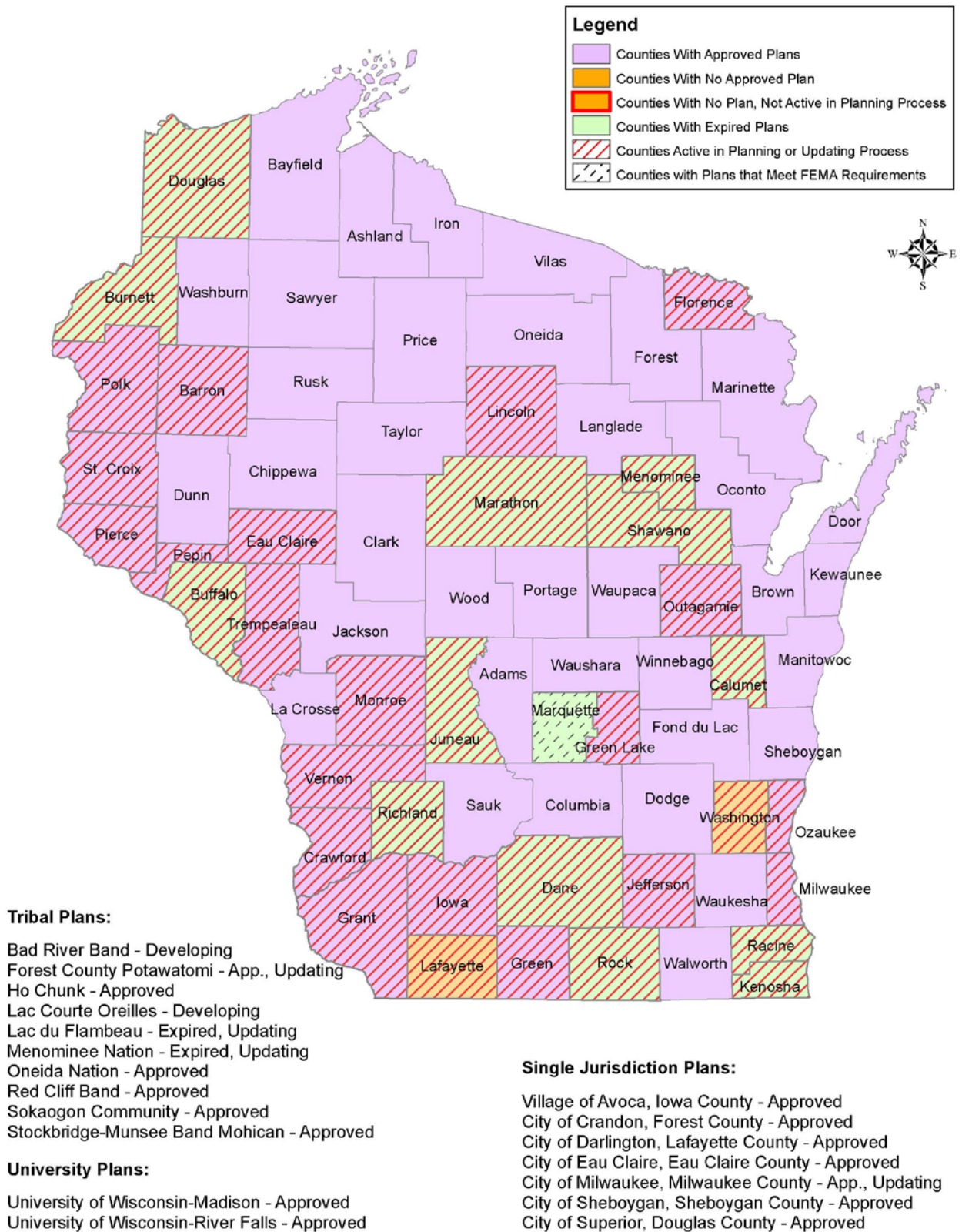
In 2016, almost all counties and tribes in the State of Wisconsin have completed initial plan development. In addition, all counties and tribes with expired plans and many with approved plans are in the five-year plan update process.

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:

- Budget and local share secured
- Reasonable work schedule
- Description of the planning process
- Geographic and political areas to be covered in the plan
- Reference maps attached
- Population to be covered by the planning area
- Is the community small and impoverished?
- Description of the hazards to be included
- Description of the problems
- Other community planning initiatives
- Expected benefits of the planning process
- Is the county in a disaster declared area?
- Does not have a plan
- Plan expiration date

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

**Figure 4.1-1: Local Mitigation Plan Status, November 2016**



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. Once the plan meets all of the required planning criteria, Mitigation staff notifies the community that the plan will be sent to FEMA for review. State Mitigation staff completes a final Plan Review Tool and submits that with the final plan in electronic format. FEMA then reviews the plan and either requests additional revisions or issues a conditional approval letter. Once FEMA issues the conditional approval letter, the county and participating jurisdictions can formally adopt the plan.

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 19 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 newly-created 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 PDM 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**

While there remains some debate about the cause of climate change, there has been a documented change in weather patterns over time in Wisconsin. In the past 50 years, average statewide temperatures have increased by about 1.1°F. It is also likely that the state will see more extreme weather events.<sup>1</sup> Section 3 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 bricks-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 has included several new action items in the Mitigation Strategy in Section 3 of the Plan. They encompass a variety of approaches including, but not limited to, the following:

- 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

#### **4.4.3 Climate Change in Local Plans**

WEM Mitigation staff looked at all approved local and tribal plans from 2011 through 2016 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

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<sup>1</sup> Wisconsin Initiative on Climate Change Impacts report, [http://www.wicci.wisc.edu/report/2011\\_WICCI-Report.pdf](http://www.wicci.wisc.edu/report/2011_WICCI-Report.pdf), 2011.



and the previous plan was not. Of the 86 total plans evaluated, 70 were countywide plans, seven were tribal plans, seven were municipal plans, and two were university plans.

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, when perhaps the political will is leaning more in favor of it or better localized research is available.

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

	2011	2012	2013	2014	2015	2016	In Process
No Climate Change	3	12	7	7	12	5	7
Mentions Climate Change	0	1	2	1	0	1	0
Fully Addresses Climate Change	0	2	7	3	3	4	9
TOTAL	3	15	16	11	15	10	16
Percent Including Climate Change	0.0%	20.0%	56.3%	36.4%	20.0%	50.0%	56.3%

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

	Counties	Tribes	Municipalities	Universities	TOTAL
No Climate Change	45	4	4	0	53
Mentions Climate Change	4	1	0	0	5
Fully Addresses Climate Change	21	2	3	2	28
TOTAL	70	7	7	2	86
Percent Including Climate Change	35.7%	42.9%	42.9%	100.0%	38.4%

Because of the relatively small sample size, it's difficult to draw meaningful conclusions, but overall it seems that generally over time more plans are starting to include climate change. Additionally, it appears as though countywide plans are the least likely type to include climate change even though quite a few of them do. As more plans in the state are developed and updated, more data will be available to use to paint a more accurate picture.

Further analysis was performed on the plans that included climate change. Of the plans that just mentioned it, three countywide plans stated climate change could impact lake levels in the future and therefore the rates of coastal erosion. One countywide plan stated generally that climate change will impact future conditions in unknown ways, and one tribal plan mentioned that climate change can have impacts on rainfall patterns, which in turn affect tree growth, forest composition, and wildfire risk.

Common themes among the plans that fully addressed climate change were discussions of

probability, impacts to the community, and impacts to other hazards. Three counties and one tribe suggested climate change adaptations that focus on areas of potential impacts, like water resources and the built environment. Five counties and one tribe included mitigation actions that address climate change and the University of Wisconsin-River Falls included climate change in one of their three mitigation goals.

**Figure 4.4.3-3: Local Plans and Climate Change, November 2016**

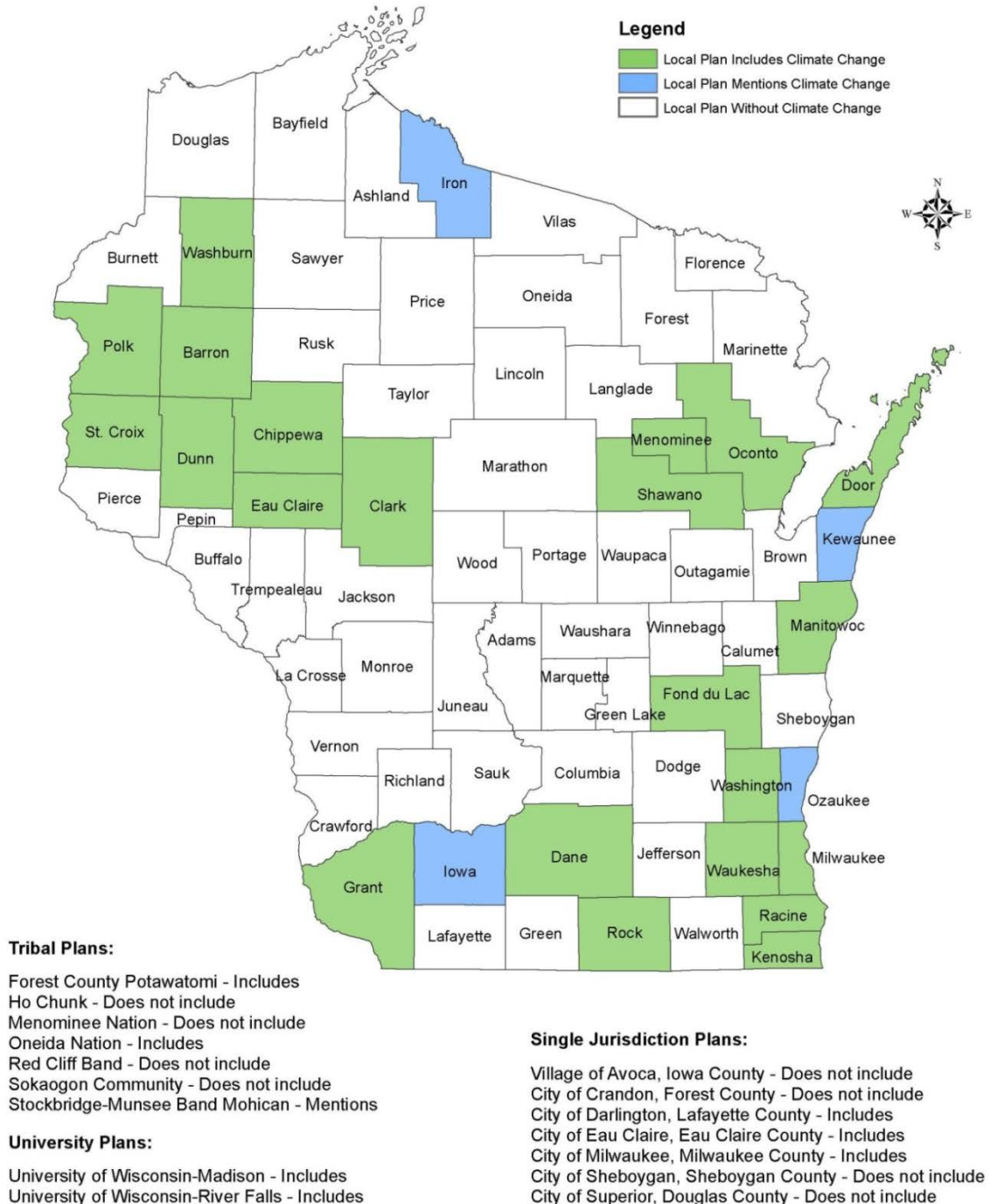


Figure 4.4.3-3 shows which communities have fully included, mentioned, and not included climate change in their local mitigation plans. Many communities along the Lake Michigan coast have included it. Notably, three counties that did not include a discussion of climate change mentioned it in relation to the impact to lake levels and coastal erosion. The state mitigation plan also describes the impacts climate change could have on coastal hazards.

With the exception of the Fox River Valley in Brown County and the surrounding area, the major population centers and areas of the state experiencing the most growth (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:

- The Milwaukee Metropolitan Sewerage District, the leader in mitigation in the Milwaukee area, commissioned a Climate Change Vulnerability Analysis in 2014. The study looked at likely climate-related impacts through 2050.
- The Wisconsin Department of Natural Resources, Bureau of Science Services compiled the La Crosse Area Climate Adaptation Study in 2013. The Study involved community engagement and suggested future steps. One of the suggestions was to incorporate adaptation into local mitigation planning.
- The City of Madison and Dane County are both engaged in climate change planning. Madison developed a Climate Protection Plan that describes climate change and looks at current and potential future impacts the City's practices have on the environment. The Dane County Climate Change and Emergency Preparedness report, prepared by the Climate Change Action Council, discusses climate risks and identifies adaptation opportunities and strategies to increase resilience. The Action Council is led by Dane County Emergency Management.

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.