

September 5, 2024

# Regions Should Play a Greater Role in Natural Hazard Mitigation Planning and Climate Adaption

## In a Nutshell

- Due to a changing climate, regions across the state may face more frequent and severe weather potentially causing hazardous events such as floods, tornadoes, or other natural disasters. Communities should actively monitor and update their hazard mitigation plans to retain eligibility for federal emergency management programs.
- Michigan’s 14 Planning and Development Regions continue to be an important and essential facilitator for member counties. Regional coordination will improve the effectiveness of hazard mitigation planning and bring greater access to federal funding for Michigan communities.
- State policymakers should consider funding for planning, help in navigating federal emergency management grant opportunities, and access to technical assistance.

## Introduction

The science community has highlighted how the Earth’s increasing atmospheric temperature is affecting our natural systems and the climate. Much of the effort to address a changing climate has focused on reducing heat-trapping greenhouse gas emissions, such as carbon dioxide and methane. While many climate mitigation strategies have been launched – for example, a greater reliance on renewable energy and the electrification of automobiles – less emphasis has been placed on preparing and shoring up communities and infrastructure in anticipation of the impacts from more frequent and extreme weather patterns.

Communities of all sizes should be preparing for the greater probability that natural hazards<sup>[1]</sup> will occur. Not doing so leaves communities more vulnerable to property damage and loss from severe floods, tornadoes, hail, and highly intense storms as well as the societal challenges inherent in disaster recovery.

The federal and state government encourage local and tribal governments to establish plans for emergency response and consider the impacts of natural hazards to both prepare for disaster response, and to remain eligible for federal support. Establishing and updating these plans requires expertise, resources, and time. To improve the effectiveness of the state’s emergency management program, Michigan’s Planning and Development Regions should play a leadership role in identifying climate adaption strategies, offering technical expertise, and in facilitating local hazard mitigation planning.

[1] The 2024 Michigan Hazard Analysis correlates natural hazards with “short term extreme weather events or prolonged abnormal weather patterns.”

## Michigan’s Climate: Increasing Frequency and Intensity of Natural Hazards

In the 2024 Michigan Hazard Mitigation Plan (MHMP), climate experts said that they expect Michigan to face an increase in frequency and severity of natural hazards state-wide (MHMP, p. 79). From 1996 to 2023, the

most severe natural hazards in Michigan – those with a \$1 million threshold in damages – were floods, high winds, tornadoes, hail, freezing rain/sleet, and drought (MHMP, pp. 24-25). As recently as June and July of 2024, several Michigan communities were subject to damaging floods and tornadoes.

An analysis of data from the National Atmospheric Administration’s National Center for Environmental Information shows that Michigan temperatures have become warmer (MHMP, p. 73), reducing the probability for cold-related hazards but increasing the risk for drought, wildfires, and heat islands in urban areas. This increase in temperatures also reinforces the threat that high winds and tornadoes will remain significant natural hazard risks in Michigan.

Given the anticipation of increased intensity and frequency of natural hazards it is imperative for local and tribal governments to prioritize planning for these events and the emergency response.

## Hazard Mitigation Planning in Michigan

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (1988) established a process for delivering federal natural disaster assistance to state and local governments. After evaluating this disaster relief program, Congress determined that proactive planning and preparation for future disasters, natural or man-made, was a key component in dealing with potential disasters. In 2000, Congress adopted the Disaster Mitigation Act requiring state, local, and tribal governments to assess their risks and comply with the Federal Emergency Management Agency’s (FEMA) hazard mitigation planning regulations to be eligible for FEMA grant funding.

In Michigan, pursuant to the Emergency Management Act, the state’s emergency manager oversees the state-wide hazard mitigation plan and facilitates hazard mitigation planning at the county level. Through these planning efforts, communities assess their vulnerability to natural hazards, identify actions and activities to reduce or prevent the impacts of those hazards, and pursue a continuous process to mitigate future natural hazards.

Hazard mitigation plans have been beneficial to the local governments that have implemented them. Local plans (HMP) provide policymakers with a guide for planning and development decisions while also giving the state a basis for strategic assistance and prioritized funding. State and local policymakers can find the current status of an HMP by accessing FEMA’s national status map.

Weather patterns or natural disasters, of course, do not follow jurisdictional boundaries. In addition, counties – the most common entity overseeing hazard mitigation plans – may be at various stages in developing or amending their plans or have different effective dates for approved plans. For those counties sharing borders, this variation may not be critical; however, coordination in areas where counties might experience similar vulnerability to a hazard at any one time could be advantageous and reduce the fiscal and social impacts of these hazards.

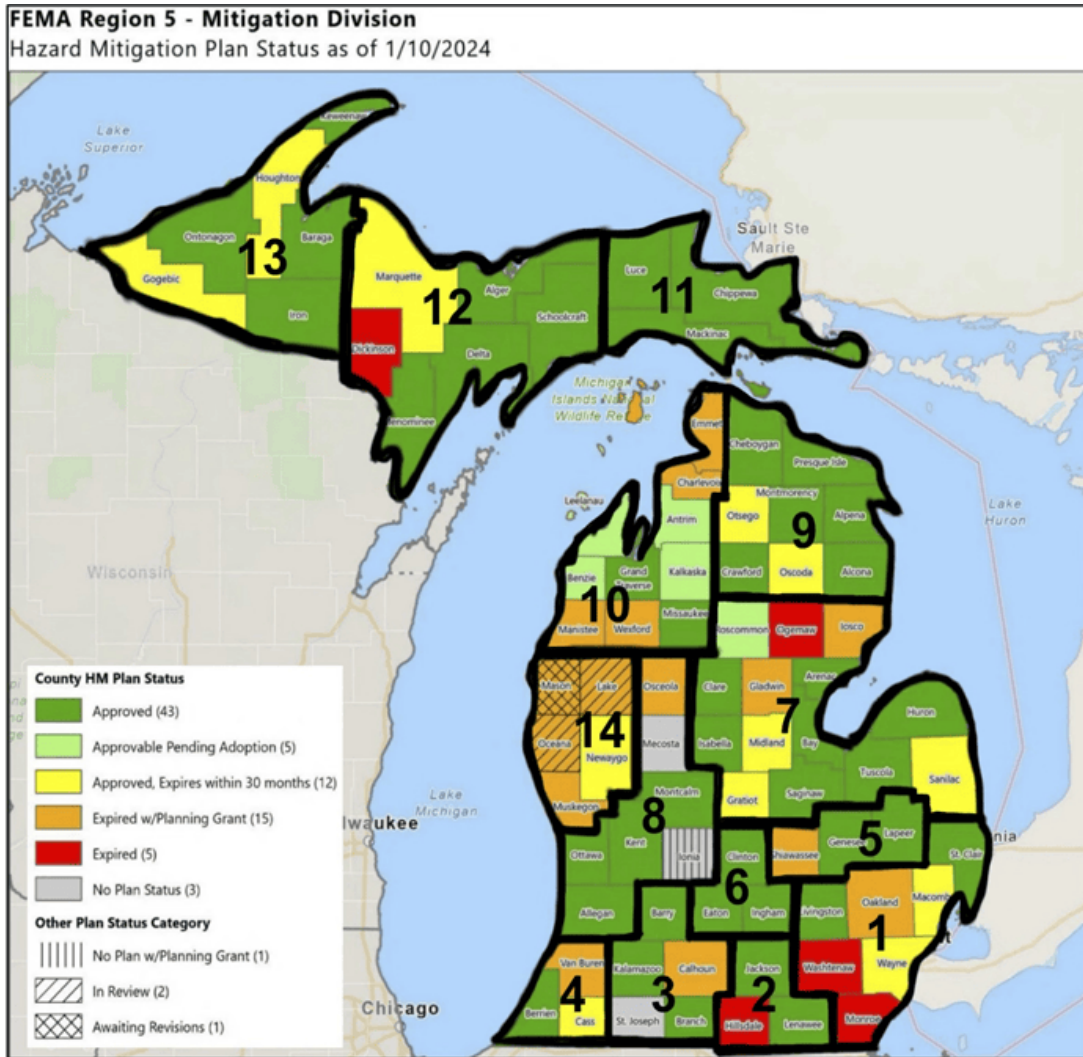
## Regional Natural Hazard Mitigation Planning

A regional perspective in hazard mitigation planning will not only support counties, tribes, and other municipal governments with technical expertise, it will match the geographical impact of natural hazards more closely and help Michigan communities gain better access to FEMA assistance.

Michigan has 14 Planning and Development Regions (Region). These organizations assist on planning issues from a broader geographical perspective than individual counties or local units of government. While each of the state’s Planning and Development Regions may not share the same capabilities to support local hazard mitigation planning, their participation, technical assistance, and cooperative mission plays a significant role in bringing planning and funding resources to a region.

The map below shows the status (as of January 2024) of each county’s HMP and its assigned Planning and Development Region.

## Status of County Hazard Mitigation Planning by Planning and Development Region



Several counties across Michigan have expired, at-risk, or no plans for hazard mitigation. Some regions have more coverage than others in hazard mitigation planning. Of the 14 regions, only two have all counties with approved and operational county HMPs. These are the Tri-County Regional Planning Commission (Region 6) and the Eastern Upper Peninsula Regional Planning and Development Commission (Region 11) (MHMP, p. 40). Every other region has one or more counties not yet approved for HMP requirements by FEMA.

The counties in the Southeast Michigan Council of Governments (SEMCOG, Region 1) show significant variation in plan status. Of the seven counties in Region 1, two have expired plans, one is ex-

pired with a planning grant, two have approved plans but they each expire in mid-2026, and only two have approved operating HMPs (MHMP, p. 40). The complexity of planning for the number of entities involved creates a challenging range of issues for one regional organization to coordinate in southeast Michigan. By providing advice, expertise, and acknowledging the limitations of authority for any one of the participating authorities in the region, SEMCOG nonetheless provides a useful role.

In another region, such as the Eastern Michigan Council of Governments (EMCOG), the EMCOG staff can offer more straightforward collaboration with their member county and tribal governments to develop HMPs.

In addition to the differences in status of a county's HMP within a Planning and Development Region, the costs of natural hazards differ as well. Data from the National Centers for Environmental Information (NCEI) and the MHA ranks Region 1 (SEMCOG) first in annualized cost for damages from flood, high wind, tornado, freezing rain/sleet, and drought impacts (MHMP, pp. 24-25). Several factors such as geography, population, and urbanization may explain why Region 1 is prone to more costly natural hazard impacts.

### Successful Regional Collaboration

There can be challenges to collaborating on HMPs at the regional level. However, considering FEMA's requirement for integral planning between the local, regional, and state levels, Michigan should look for ways to facili-

tate more regional coordination.

An example of intentional integrated planning between local and regional levels can be found in California's hazard mitigation plan (CSHMP, 2023). One of the goals of California's HMP is to "Explore, create, and implement regional-scale and long-term multi-benefit programs for planning, implementation, and long-term management that include single purpose projects as needed consistent with, and supportive of, broader regional actions to leverage funding sources and align program priorities" (CSHMP, p. 889). A goal like this would align with the purpose of the Planning and Development Regions in Michigan as these regions are eligible for special grants and one-time payments.

California's Regional Forest and Fire Capacity Program is just one of many regional-based initiatives. The program requires "regional leadership to build local and regional capacity and develop, prioritize, and implement strategies and projects that create fire adapted communities and landscapes by improving watershed health, forest health, community wildfire preparedness, and fire resilience" (CSHMP p. 878). Such initiatives could be effective through Planning and Development Regions in Michigan. With participation from all counties, a region can gather full support for programs to mitigate natural hazards experiences affecting the Region rather than just one county.

## Resources for Planning

Many Michigan counties with HMPs have dedicated planning departments, mitigation specialists, or the external assistance needed to meet FEMA requirements. They have funding and staffing resources for these activities. Less populated areas, or those with lower tax revenues, may have part-time management planners or may need to share resources with other counties to prepare FEMA-eligible HMPs (MHMP, p. 37). Furthermore, because all HMPs are held to the same FEMA standards, smaller and rural communities may have a more challenging time securing grants to implement HMPs. These communities also may struggle to secure the non-federal matching funds or meet the administrative requirements to apply for HMP grants (MHMP, p. 37).

In some specific grant programs, FEMA has offered additional assistance to areas with fewer resources to support hazard mitigation planning. Certain communities can get extra time to access their planning grant. While this funding can help areas with fewer financial resources, it does not offer the technical support needed to establish a plan within the given time limit. Such counties may be more likely to succeed with this extension if nearby counties share their expertise and data, especially given nearby counties experience the same or similar natural hazards.

## Limitations for Planning Regions

There are limitations to how successful Planning and Development Regions will be in improving hazard mitigation given that coordinated hazard mitigation planning (either at the regional level or in support of the MHMP) entails that each participating jurisdiction has an HMP approved by its governing body. Each of these regions has a mix of county and municipal governments, as well as private and public stakeholders who participate in the planning process. These participants may or may not work well together. They also range in technical expertise, capacity, and budget for hazard mitigation planning. Moreover, some regions are more vulnerable to or subject to more hazards than others, creating capacity constraints.

Some counties within a region may be secure with the status of their hazard mitigation plan and be unwilling to share resources or participate in a region-wide collaborative. Others may be facing more pressing priorities that intercept attention to hazard mitigation.

With challenges like these in mind regional collaboration may be difficult to achieve given the fact that individual counties cannot make policy decisions on behalf of other counties (MHMP, p. 37). Since these Planning and Development Regions have representatives from each county within them, incentives may pave the way for full participation in mitigation efforts.

## Requirements and Incentives for Regional Collaboration

The Michigan Hazard Mitigation Plan offers a general overview of the state's natural hazard concerns. The state HMP cannot qualify as a multi-jurisdictional plan to protect all the local communities within it because every jurisdiction covered in an HMP must have participated in the process and officially adopted the plan. Michigan would see greater coverage for natural hazard mitigation across the state if more local governments had an eligible HMP in place.

FEMA requirements for local HMPs add additional requirements to local governments that participate in multi-jurisdictional plans. First, in addition to accounting for shared natural hazards across county lines, regional plans must individually assess each jurisdiction's risks that differ from the general planning area. Second, the multi-jurisdictional plan's mitigation strategy must include how actions specific to each county will be prioritized, implemented, and administered. This requirement ensures adequate accountability for each county and the entire region in the mitigation process. Similarly, each participating jurisdiction must document that the plan has been formally adopted.

Limitations such as resource availability and willingness to cooperate make it difficult for Planning and Development Regions to gain unanimous participation for multi-jurisdictional hazard mitigation plans. Encouragement for counties to voluntarily opt into these plans with their regional neighbors is necessary. Moreover, such regional collaboration will better match how severe weather is experienced and could take advantage of regional expertise. Planning and Development Regions may be able to secure additional state, federal, public, and private sector funding for the process. With such financial incentives, and promotion of Planning and Development Regions by the state, counties may be persuaded to establish either their own HMP or partake in a region-wide multi-jurisdictional plan. State level incentives could include help in navigating FEMA grant opportunities, technical assistance, or state-funded grants.

## Conclusion

Given that Michigan's climate experts foresee higher temperatures and greater precipitation across the state bringing more frequent and intense weather patterns, the state and its local and tribal governments should prioritize collaborating across regions and updating hazard mitigation plans. Natural hazards do not follow county lines. Regional coordination and collaboration will improve the effectiveness of hazard mitigation planning and bring greater access to federal funding for Michigan communities. Policymakers should consider offering funding for regional hazard mitigation planning, help in navigating FEMA's grant opportunities, and access to technical assistance.



**This article was written in collaboration with Leah Zeman. As a senior at the University of Wisconsin-Madison, Leah is pursuing a bachelor's degree in political science with minors in public policy, health policy, and educational policy studies.**



#### ABOUT THE AUTHOR

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Madhu held several leadership positions in state government and the non-profit sector prior to joining the Citizens Research Council in 2024. Her expertise is in local and state taxation, government finance, and regulatory policy. In addition to working on landmark tax, school finance, and pension reforms, she helped Michigan earn a AAA bond rating as Chief Deputy State Treasurer. Under her directorship of CEPI, Michigan became one of the first states to offer web-based performance metrics for school districts. Madhu also served as a Deputy Director at the Department of Environmental Quality and at the Michigan Agency for Energy. Her non-profit experience includes Director of Government Relations for the Michigan chapter of The Nature Conservancy, and Treasurer for a local ceramics cooperative.

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